Addis Ababa University

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Patient Satisfaction with Outpatient Pharmacy Services in Public Health Facilities in Metekel Zone, Benishangul-Gumuz Regional State, Ethiopia: A Mixed Method Study

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Addis Ababa, Ethiopia

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A Thesis Submitted to the Department of Social and Administrative Pharmacy, School of Pharmacy, College of Health Sciences, Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Pharmacoepidemiology and Social Pharmacy.

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This is to certify that the thesis prepared by Teshome Wakjira Duresa entitled: **"*Patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, Benishangul-Gumuz Regional State, Ethiopia: A mixed method study*"**, submitted in partial fulfillment of the requirements for the degree of Master of Science (Pharmacoepidemiology and Social Pharmacy) complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Abstract

Patient Satisfaction with Outpatient Pharmacy Services in Public Health Facilities in Metekel Zone, Benishangul-Gumuz Regional State, Ethiopia: A Mixed Method Study

Teshome Wakjira Duresa
Addis Ababa University, 2025

Background: Patient satisfaction with pharmacy services is a healthcare quality indicator impacting treatment adherence and health outcome. Given the paucity of research on patient satisfaction in the study area, this study assesses satisfaction, improvement areas and provide actionable evidence for policy makers and facility managers.

Objective: To assess patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, Benishangul-Gumuz Regional State, Ethiopia.

Methods: A mixed-methods sequential explanatory study was done in public health facilities from August 1, 2023 to November 20, 2024. Quantitative data analysis included descriptive statistics and non-parametric tests. Multivariable Tobit regression analysis was used to identify factors associated with satisfaction score. For the qualitative component, 28 key informants (12 patients and 16 pharmacy professionals) were selected by purposive sampling. The in-depth interviews continued until data saturation was reached. The audio-taped data was analyzed using inductive thematic analysis.

Results: Four hundred sixteen patients participated with the majority being female (60.3%) and urban residents (56.3%). The median patient satisfaction score was 47.0. While most patients were satisfied with the approach and communication of the professionals, satisfaction was low regarding medication instruction (18.0% strongly satisfied) and medicine availability (53.4% dissatisfied/strongly dissatisfied). Multivariable Tobit regression analysis showed that location of the pharmacy setting, private counseling area and waiting area were significantly associated with satisfaction score ($p < 0.05$). In the qualitative component, perceptions of the key informants were categorized into three main themes: structural aspects of the pharmacy setting, pharmacy service process and pharmacy service outcomes.

Conclusion: The study demonstrated that patients experienced low overall satisfaction. Key dissatisfaction areas included availability of medicine, medication instruction and structural aspects of the pharmacy premises. Factors such as pharmacy location, private counseling area and waiting area significantly influenced satisfaction. Therefore, interventions to improve structural aspects of the pharmacy, availability of medicines and medication instructions are recommended to enhance service quality and patient experience.

Keywords: Patient satisfaction, health facilities, pharmacy services, Ethiopia

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Abbreviations/Acronyms

ART	Antiretroviral Therapy
BGRS	Benishangul-Gumuz Regional State
BPH	Bullen Primary Hospital
CBHI	Community based health insurance
DHC	Dibate Health Center
EHSTG	Ethiopian Hospital Services Transformation Guideline
EPSS	Ethiopian Pharmaceutical Supply Service
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
FSHC	Felegeselam Health Center
GBHC	Gilgel Beles Health Center
HF	Health facility
IQR	Interquartile range
KI	Key informant
MHC	Manbuk Health Center
MoH	Ministry of Health
OPD	Outpatient department
PGH	Pawi General Hospital

1. Introduction

1.1 Background

Assessing healthcare quality involves various indicators, one of which is patient satisfaction with pharmacy services (Eshetie *et al*., 2020). It is therefore, used as a tool to measure the quality of healthcare services (Asamrew *et al*., 2020). Satisfaction of patients with healthcare services determine their level of willingness to pay; a method used to study the inclination of the satisfaction of patients with the services they received (AlShayban *et al*., 2020). It also provides valuable insights into how well healthcare providers meet patient expectations and influence their behavioral intentions (Manzoor *et al*., 2019). In addition, patient satisfaction with the pharmacy services received at health facilities has an impact on treatment adherence, health outcomes and likelihood to continue seeking care (Afolabi *et al*., 2012; Ayalew *et al*., 2017). Therefore, it is recommended to be routinely and continually studied to identify the areas of improvement to provide quality healthcare services (AlShayban *et al*., 2020; Amorha *et al*., 2021).

As per indicated in the Ethiopian Hospital Service Transformation Guideline (EHSTG), the ultimate goal of a pharmacy service is to enhance overall patient satisfaction by improving medicine availability, optimizing the pharmacy premises and the workflow, implementing the service improvement initiatives and then delivering high-quality pharmaceutical services. A crucial aspect of achieving this initiative is streamlining patient journeys between dispensing and finance units through a convenient one-stop shopping approach, which reduces waiting times (FMOH Ethiopia, 2017). Being the final department visited by the patients in hospitals and health centers, pharmacy department plays a significant role in patient satisfaction, directly linked to the efficiency of the pharmacy services (Alodan *et al*., 2020; Ayalew *et al*., 2017).

In developing countries like Ethiopia, the government is the main healthcare services provider and usually the services suffer from quality issues (Ayele *et al*., 2020). Several health facilities in the country lack adequate infrastructure for delivering optimum service as per the EHSTG resulting in below standard services (FMOH Ethiopia, 2017).

Efficient communication with patients is one of the factors affecting adherence of patients to treatment plans (Garjani *et al*., 2009). It is an important factor in improving health outcomes by enhancing patient compliance, creating long-lasting relationship with health professionals and continuity of care especially in cases of chronic illnesses (Karunamoorthi *et al*., 2009;

Teshome K. *et al*., 2016; Woldeyohanes *et al*., 2015). A perceived inadequate knowledge among pharmacy professionals and a lower perceived quality of the healthcare system led to patients being unsatisfied with the services they receive. Studies showed that socioeconomic status of the patients, their perceived status and level of involvement in community based health insurance (CBHI) also affect the satisfaction of patients with the pharmacy services (Nigussie and Edessa, 2018). Continuously conducting relevant and thorough assessment is important for evaluating patient satisfaction status of the pharmacy services in a healthcare system (FMOH Ethiopia, 2017). When assessing the status of patient satisfaction with pharmaceutical services, identifying areas to be improved is also required (Surur *et al*., 2015).

Many of the healthcare facilities in the Metekel Zone face serious challenges because of poor infrastructure, especially in their pharmacy departments as per annual report of the zonal health department. Most of the health facilities didn't start pharmacy service improvement initiatives aimed at improving the service quality. There is also paucity of research on patient satisfaction with outpatient pharmacy services in the study area. This study aimed to assess the extent and the factors affecting patient satisfaction with outpatient pharmacy services in the public health facilities in Metekel Zone, BGRS, Ethiopia. Therefore, the findings of this study will help close the information gap of patient satisfaction with pharmacy services. In addition, policymakers and health facility managers may use the results to enhance the pharmacy services in the zone and the region.

1.2 Statement of the problem

Patient satisfaction is a fundamental measure of healthcare quality reflecting the judgment of patient care and influencing compliance with advice (Wakjira *et al*., 2022). As a final point of care, monitoring this satisfaction is important for outpatient pharmacy services where product availability, cost and service directly shape the overall quality (Alotaibi *et al*., 2021).

In Ethiopia, the degree of patient satisfaction with outpatient pharmacy services is frequently reported as low (Ayele *et al*., 2020; Abebe *et al*., 2016). Key drivers of this dissatisfaction include medicine stockouts causing significant frustration and treatment disruption alongside issues related to socioeconomic status, professional attitude and the physical pharmacy setting (Nigussie and Edessa, 2018; Worku and Loha, 2017; Eshetie *et al*., 2020).

This challenge is likely compounded in Metekel Zone, BGRS, where most public health facilities suffer from poor infrastructure and have failed to implement pharmacy service improvement initiatives. Given the research gap regarding patient satisfaction, this study aimed to determine the extent of and the associated factors of patient satisfaction with outpatient pharmacy services in Metekel Zone, BGRS, Ethiopia.

1.3 Significance of the study

The study findings would provide insight into the factors that affect patient satisfaction and thus the status of their treatment outcomes. It would also reveal the existing challenges related to infrastructure, availability medicines and the approach and communication of patients with professionals including the degree of satisfaction with medication instructions. Identifying the basic challenges could lead to improvements in pharmacy services. There is also a paucity of information on patient satisfaction with outpatient pharmacy services in this study area. This finding could be used as a baseline for more studies. It could also help health facility managers, policymakers and leaders to understand the current issues in pharmacy services and improve the overall pharmacy services.

2. Literature review

Health facilities serving the community are important part of a healthcare system providing curative care services, transfer healthcare related knowledge and work as referral for visiting patients and also serve as a hub for delivering healthcare services to patients, their families and the local community (Donabedian, 2005). The active involvement of patients, families and various community groups is important for creating effective accountability and governance in healthcare quality. They help in developing, evaluating and implementing quality healthcare which promote transparency and sustainability (WHO, 2020). In this regard, using patient satisfaction with healthcare services as a quality measurement tool aligns with the Ethiopian hospitals reform implementation guideline (EHRIG) (FMOH Ethiopia, 2017). There is a strong connection between how satisfied patients are with healthcare facilities, particularly outpatient pharmacy services and their willingness to stick to their treatment plans. This affects their overall treatment outcomes. Several elements within the pharmacy setting contribute to patient satisfaction: the overall environment of the pharmacy setting, whether the prescribed medicines are available and affordable, patient views on the attitudes of pharmacy professionals and the depth of medication-related counseling provided (Kabba *et al*., 2021; Amorha *et al*., 2021).

One of the studies previously conducted in the Ethiopian government hospitals revealed that the pharmaceutical care quality is low despite the involvement of pharmacy professionals in the pharmaceutical healthcare, satisfaction of patients and availability of materials and space (Eshetu and Gedif, 2011). Similar recent studies conducted in different regions of Ethiopia with a concern of the satisfaction status of patients with outpatient pharmacy service still reported low satisfaction (Gidey *et al*., 2021). To achieve excellence with their performance, health facilities require uninterrupted efforts that the quality of their service provision get improved. The type of services offered by healthcare facilities are often alike, yet the quality delivered can differ considerably (Birhanu *et al*., 2010). Patient satisfaction level surveys are a widely used method for assessing the non-medical quality of healthcare system. This is because patient satisfaction directly influences how effective healthcare services are to be perceived (Abdosh, 2006). Patient satisfaction is not only a sign of quality; it is also an important measure of patient care that goes along with factors like mortality and morbidity. It can also predict how frequently patients access healthcare services and how well they follow their treatment plans. Therefore, measuring satisfaction helps to understand patient experiences, identify areas of improvement and evaluate the status of healthcare facilities (Mezemir *et al*., 2014).

The satisfaction of patients with pharmacy services is 56% with respect to medicine counseling, advices such as instruction given on the storage conditions and pharmacy professional-patient contact time. Among the 30% of reports of medicine related problems, non-adherence due to dissatisfaction of the patients was the most common (11.4%) (Hasen and Negeso, 2021). A number of patients (40.5% to 63.6%) report low level of satisfaction with outpatient pharmacy services, particularly in health facilities struggling with poor infrastructure, inadequate staffs and a lack of crucial medicines (Gidey *et al*., 2021, Fekadu *et al*., 2020). The overall satisfaction of patients according to a study done in the Eastern Ethiopian Hospitals was 54.1% of which lack of adequate medicines, cleanliness, providers approach and waiting time were the main factors contributing to the low satisfaction (Abdosh, 2006).

Healthcare facilities that have enhanced pharmacy premises infrastructure, sufficient pharmacy personnel, minimal waiting time and improved availability of essential medicines have achieved a satisfaction level of up to 90% (Adinew *et al*., 2021) and 92.3% (Beyene *et al*., 2020). Patients reported high level of satisfaction in service quality related to communication with pharmacy professionals. They also expressed satisfaction with the respects of pharmacy professionals and quality of responses to patient inquiries (Mohamud *et al*., 2021). However, patients reported dissatisfaction due to uncomfortable waiting areas, inconvenient counseling rooms and insufficient information about their prescribed medicines which negatively impact treatment outcomes in facilities lacing improved setup (Abebe *et al*., 2016).

Patient feedback after receiving healthcare services is important for identifying areas of service problems and requiring improvements (Eshetie *et al*., 2020; Nigussie and Edessa, 2018). Inadequate delivery of information regarding dispensed medicines resulted in lack of adherence to treatment plans which then resulted in poor treatment outcomes affecting the level of trust of patients (Alotaibi *et al*., 2021, Al-Jumah *et al*., 2014). To this end, patient satisfaction is greatly impacted by counseling being an integral element especially in cases of comorbidities such as diabetes. Inadequate counseling by pharmacists resulted in low satisfaction to the services provided for such kind and other related patients (Emeka *et al*., 2020).

There are several factors affecting satisfaction with the services of outpatient pharmacies in the Ethiopian public health facilities. These include socio-demographic profiles, socio-economic status and healthcare setting related. Factors like age, level of education, occupation, financial standing and marital status showed a positive relationship with patient satisfaction (Asamrew *et al*., 2020; Ayele *et al*., 2020). Patients with higher level of education expressed lower

satisfaction compared to the illiterates. Married patients reported higher satisfaction than their unmarried or divorced counterparts. Similarly, the older population, 60 and above years of age, exhibited higher satisfaction levels compared to younger adults aged 18 to 30 years (Kassa *et al*., 2021; Kebede *et al*., 2021; Semegn and Alemkere, 2019; Surur *et al*., 2015).

On the other hand, direct payment out-of-pocket for healthcare services is negatively related to satisfaction. However, members of the CBHI and patients with expenses covered by employing companies exhibit a positive association with satisfaction (Gidey *et al*., 2021; Kebede *et al*., 2021). Long waiting time, lack of cleanliness of the pharmacy area, lack of adequate medicines and providers approach and communication dissatisfied patients seeking services at Eastern Ethiopian Hospitals (Abdosh, 2006). The absence of thorough side effect explanations, failure to promote patient inquiries, lack of printed medication labels and subpar quality in pharmacy consultation services have left patients dissatisfied with their healthcare facility experiences (Mohamud *et al*., 2021). A relatively shorter time to see a service provider and clean waiting area significantly enhanced satisfaction. Patients aware of cause of their illness also reported higher levels of satisfaction (Mesfin and Gintamo, 2019).

When patients are satisfied, it reflects the high quality of services they receive. Specifically, providing excellent pharmaceutical care significantly contribute to meeting the needs of the patients and improving their overall satisfaction within healthcare settings (WHO, 2020). Understanding and addressing what patients expect from their health facility visit and positive interaction and clean explanation from healthcare providers can greatly enhance satisfaction. Similarly, allowing patients to express their concerns and participate in decision-making and making visits feel more substantial can lead to higher satisfaction. The attire and presentation of healthcare providers also can influence patient satisfaction (Mohamud *et al*., 2021).

The Metekel Zone of Ethiopia's BGRS is a remote, semi-pastoralist area that has been largely overlooked by scientific research. A research gap exists in the area of patient satisfaction with outpatient pharmacy services in its health facilities. This calls for assessment and exploration of the quality of outpatient pharmacy services to assess the status of patient satisfaction and identify areas for service improvement. Such an investigation would benefit from incorporating the viewpoints of both patients utilizing facilities and pharmacy professionals working within the health facilities, addressing the factors affecting the degrees of satisfaction.

2.1 Conceptual framework

This framework illustrates that patient satisfaction with outpatient pharmacy services is a multifaceted outcome determined by independent variables. These variables can be categorized as patient-level factors (socio-demographic and socio-economic), service delivery factors (pharmacy setting), the status of medicines and interpersonal factors (pharmacy professionals' approach and communication) and medication instruction. The model showed that positive attributes within the variables contribute to a higher overall level of patient satisfaction.

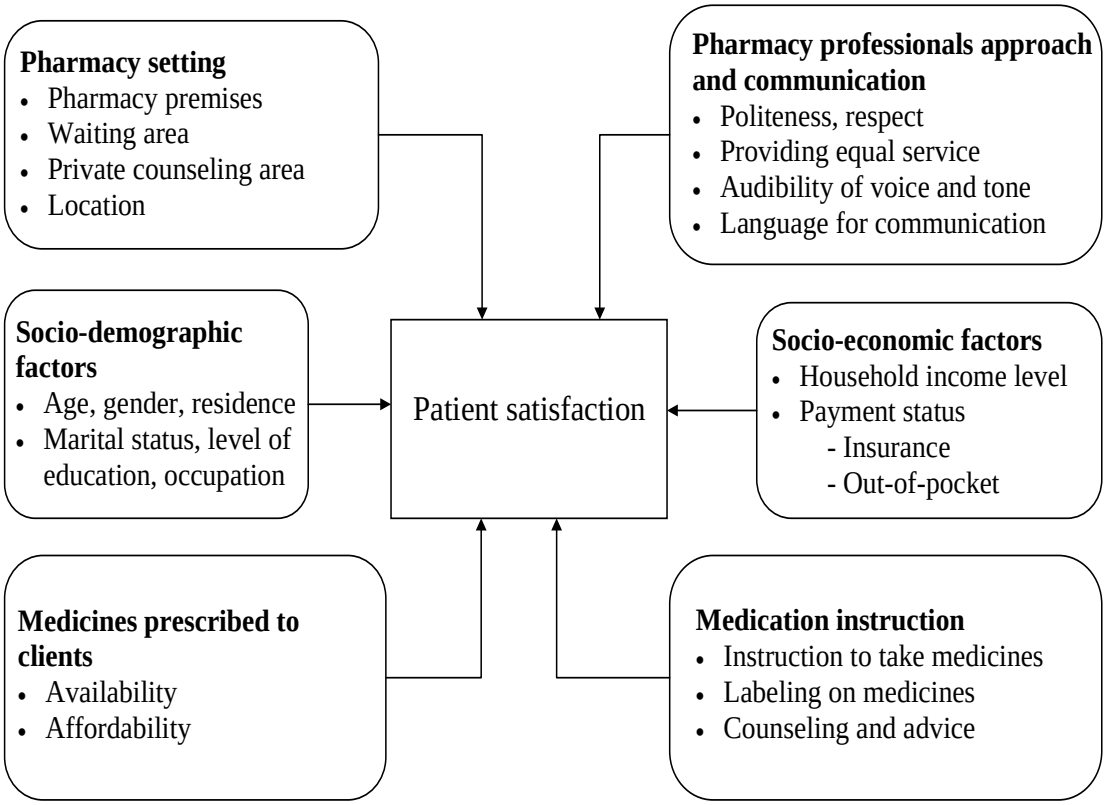

Figure 1: Conceptual framework of the factors affecting satisfaction (Donabedian, 2005)

3. Objectives

3.1 General objective

- To assess patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, BGRS, Ethiopia.

3.2 Specific objectives

- To evaluate current level of patient satisfaction with outpatient pharmacy services.
- To identify factors associated with patient satisfaction with outpatient pharmacy services.
- To explore the perceptions of patients and pharmacy professionals regarding patient satisfaction with outpatient pharmacy services.

4. Methods

4.1 Study settings

This study was conducted on patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, BGRS, northwestern Ethiopia. The region shares boarder with Amhara, Oromia and Gambella Regions as well as Sudan. It consists of three administrative zones: Assosa, Kamashi and Metekel. Metekel Zone is comprised of seven woredas, one town administration and 190 kebeles (smallest administrative units). The healthcare infrastructure in Metekel Zone include one general hospital, two primary hospitals and 22 health centers. However, only 15 of the 22 health centers were functional due to prolonged security challenges in the area based on the Benishangul-Gumuz Regional Health Bureau annual report.

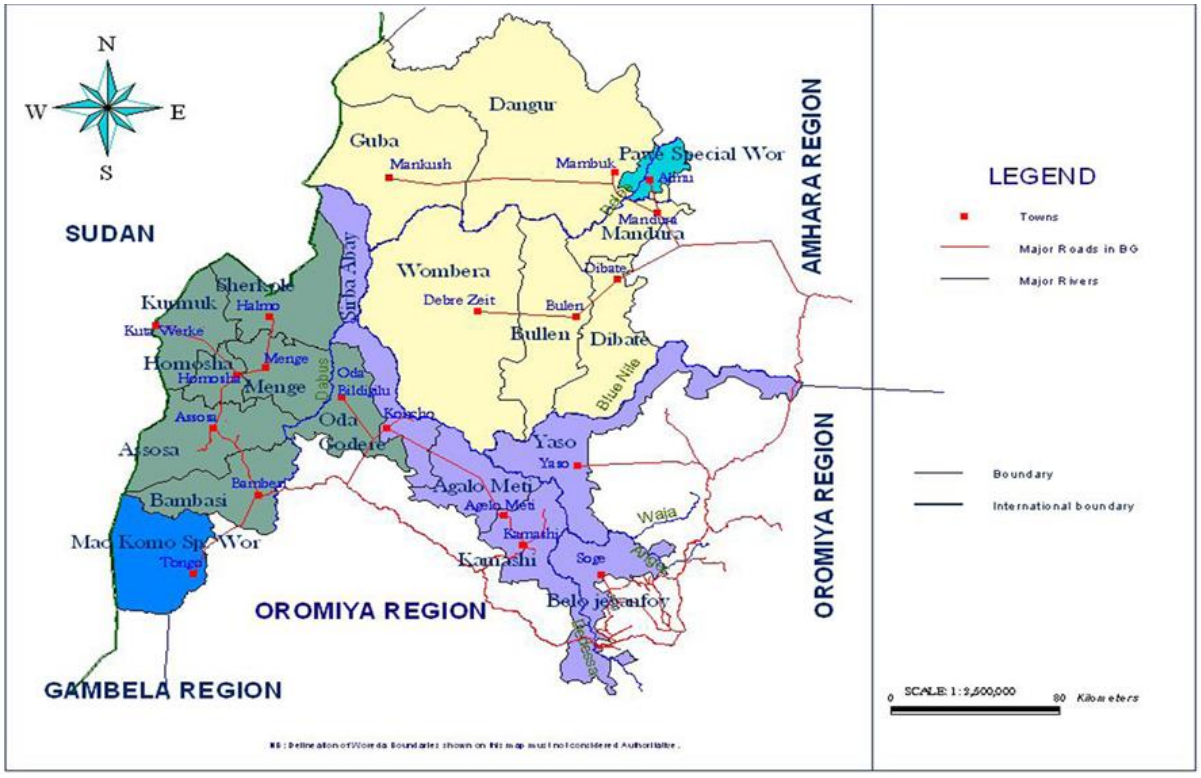

Figure 2: Administrative map of BGRS, Ethiopia (Gedefaw *et al*., 2014)

Due to the prevailing security challenges in the area during the study period, a non-randomized convenience selection was employed to choose six health facilities. The selection was done based on the relative safety of the health facilities. The six health facilities were Pawi General Hospital (PGH), Bullen Primary Hospital (BPH), Gilgel Beles Health Center (GBHC), Dibate Health Center (DHC), Manbuk Health Center (MHC), and Felegeselam Health Center (FSHC). PGH, established in 1991 in Pawi Town, Pawi Woreda, features outpatient pharmacy services, antiretroviral therapy and inpatient pharmacy departments. It serves an estimated population of over 500,000 within its catchment area and neighboring districts of Amhara region. BPH, located in Bullen Town, Bullen Woreda, and provides health services to its catchment population and nearby districts. GBHC is located in Gilgel Beles Town, within the zone's capital. DHC, MHC, and FSHC are located in Dibate Town (Dibate Woreda), Manbuk town (Dangur Woreda) and Almu Town (Pawi Woreda), respectively.

4.2 Study design and period

A mixed-methods sequential explanatory study design was conducted from August 1, 2023 to November 20, 2024. This involved first gathering and analyzing the quantitative data followed by the qualitative in-depth interviews to triangulate and deepen the understanding of the initial quantitative findings. By combining the methods, the study aimed to explore the research problem. It captured both the main trends and the specific details (Creswell and Clark, 2017).

4.3 Source and study population

4.3.1 Source population

All patients that visited the health facilities and all pharmacy professionals working in the health facilities throughout the study period.

4.3.2 Study population

Patients who visited the outpatient pharmacy services and pharmacy professionals employed at the facilities during the study period and meeting the inclusion criteria.

4.4 Sampling

4.4.1 Sample size determination

The sample size (n) was determined using a prevalence (p) of 0.5, as no prior studies were available in the area; however, local published articles were reviewed to support this estimate. A 5% sampling error (d) and a 95% confidence interval ($Z_{\alpha/2}$) was also used in the calculation.

$$n = \frac{z_{\alpha/2}^2 \times p \times (1 - p)}{d^2}$$

$$= \frac{(1.96)^2 \times 0.5 \times (1 - 0.5)}{(0.05)^2}$$

$$= 384$$

Hence, the sample size was calculated to be 384. To account for a 10% non-response rate, the final sample size for the quantitative study was increased to 422.

The qualitative part was conducted with 28 KIs (12 patients and 16 pharmacy professionals). Patients were selected for the interviews based on their socio-demographic characteristics and pharmacy professionals were selected based on their positions, experience and expertise. Interviews were held in a private setting using a semi-structured interview guide and continued until data saturation was reached. Thematic consistency of the last four interviews (two patients and two professionals) confirmed that no new information was emerging, indicating theme convergence and the conclusion of the data collection.

4.4.2 Sampling techniques

It was anticipated that around 4,324 patients would visit the health facilities during the study month, based on patient registers from the previous month. To ensure representative data, participants were proportional allocated to each of the six health facilities with a proportion of 9.8% (Figure 2). Then, the total allocated number of patients were divided into the number of data collection days. Subsequently, consecutive sampling was done on a daily basis to complete the face-to-face exit interviews until the total sample size of 422 was reached.

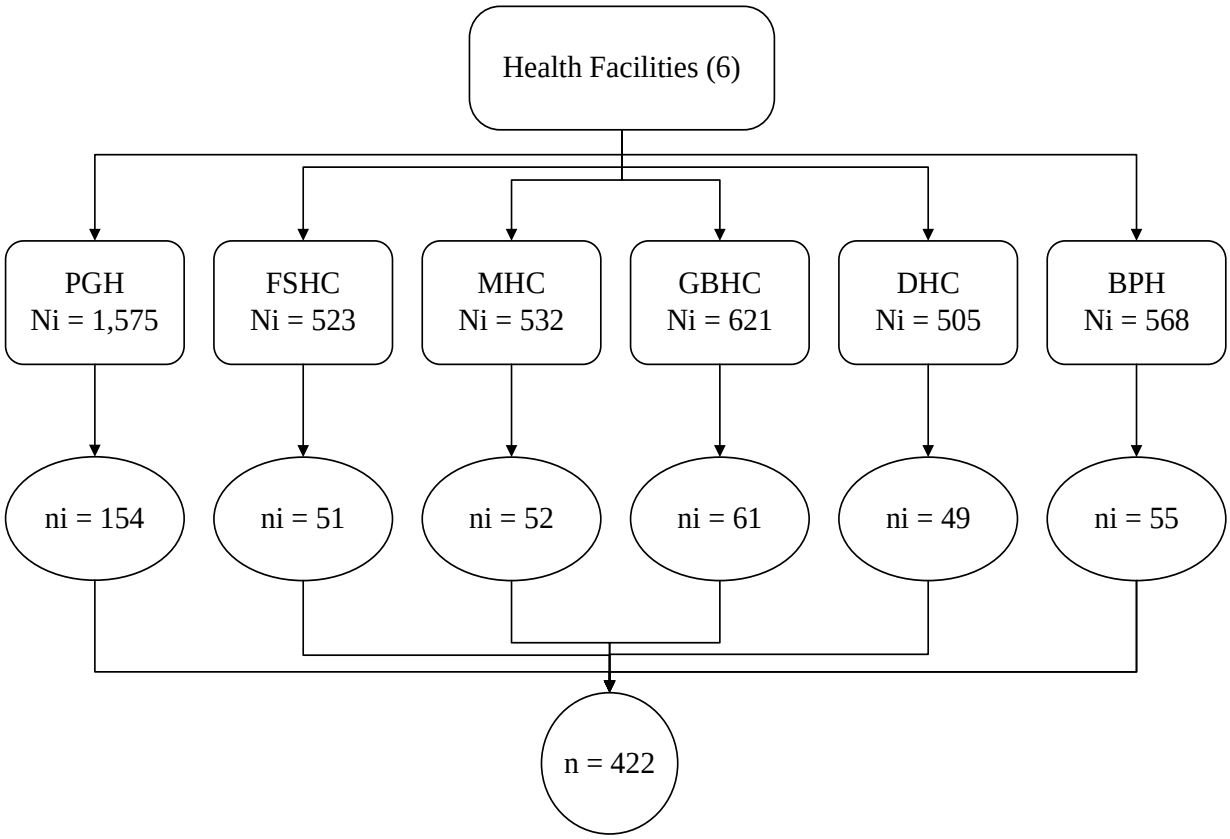

Figure 3: Proportional allocation of patients to the facilities in Metekel Zone, BGRS, Ethiopia

For the qualitative study, purposive sampling was used to select key informants for in-depth interviews. The goal was to understand their perceptions on patient satisfaction with outpatient pharmacy services. Patients with different socio-demographic background such as age and gender were included in the interview. Pharmacy professionals with diverse experience level, positions and expertise were included in in-depth interview ensuring that they had relevant information.

4.4.3 Inclusion and exclusion criteria

4.4.3.1 Inclusion criteria

- Patients who visited the health facilities during the study period
- Patients with age of 18 years and above
- Pharmacy professionals willing to give consent and take part in the study

4.4.3.2 Exclusion criteria

- Patients who couldn't give information due to illness
- Patients who were not willing to take part in the study

4.5 Study variables

4.5.1 Dependent variable

- Patient satisfaction

4.5.2 Independent variables

- Sociodemographic characteristics
    - Age, gender, educational level, marital status, occupation
- Pharmacy setting of the health facilities
    - Location, private counseling area, waiting area, cleanliness

4.6 Data collection instruments

A structured questionnaire adapted from previous research was used for the study to conduct patient face-to-face exit interview in a private setting away from the pharmacy (Molla *et al*., 2022; Semegn and Alemkere, 2019). The questionnaire was translated from English to Amharic and back-translated to ensure semantic consistency. It covered four sections: socio-demographic characteristics; seven-item assessment of perception regarding structural aspects; six-item evaluation of the professional approach and communication; and seven-item measure of satisfaction with medication instruction. The last three sections used a five-point Likert scale (1=strongly dissatisfied to 5=strongly satisfied), yielding a total composite satisfaction score ranging from 18 to 65.

The qualitative data was gathered through in-depth interviews with selected patients of diverse socio-demographic backgrounds and pharmacy professionals with various roles and expertise. A semi-structured interview guide was adapted and customized from existing literature with its credibility checked against other sources (Eshetu and Gedif, 2011). The guide consisted of open-ended questions with probes covering three main areas: patient satisfaction with the structural aspects of the pharmacy setting, the approach and communication of the pharmacy professionals and the quality of instruction on prescribed medicines.

4.7 Data collectors

Four trained pharmacy professionals (two pharmacists and two final year pharmacy students) conducted the quantitative patient exit interviews after receiving a half-day training focused on ensuring data collection consistency and minimizing inter-observer variation. The principal investigator collected the qualitative in-depth interviews with the patients and pharmacy professionals in a private setting away from the outpatient pharmacy unit by using a semi-structured interviews guide.

4.8 Data collection procedure

The study was conducted in two-phase data collection procedure starting with a quantitative phase to gather comprehensive patient satisfaction followed by a qualitative phase to explore patient and professional perceptions. For the quantitative component, data was collected using a structured questionnaire through a face-to-face exit interview. The interview was conducted in a private setting separate from the outpatient pharmacy to guarantee confidentiality and

minimize bias. Prior to each interview, patients were informed about the objectives of the study. Informed consent was obtained to ensure voluntary participation and their questions was addressed by data collectors. The interview collected basic socio-demographic and economic data (including age, gender, residence, income and payment methods), alongside the perception of patients on three key areas: pharmacy setting (structural aspects), the professional approach and communication and patient satisfaction with medication instruction. This process, data collector training and private interviews, was structured to maximize the reliability and validity of the collected data.

Written consent was obtained from the KIs before conducting the in-depth interviews which include patients of varied socio-demographic backgrounds and pharmacy professionals with diverse experiences, roles and experience. Interviews were conducted in Amharic to optimize communication and were audio-taped with prior consent and supplementary field notes were taken. Before the detailed interview, socio-demographic information was collected from the key informants. The interview process continued until data saturation was reached with each session lasting between 21 and 38 minutes. To ensure the accuracy and consistency of the data, the verbatim transcripts were subjected to investigator triangulation, comparing them against the original audio recordings and field notes, with all personal identifiers removed to maintain anonymity during subsequent analysis.

4.9 Data quality assurance

The quantitative tool initially developed in English was translated into Amharic and then back-translated into English to maintain the integrity of content across languages. Before the data collection, the instrument was tested. The tool underwent a pre-test on 5% of the sample and the qualitative guide was tested in pilot study. Both tests were conducted at Genetemariam health center. Based on the findings from the tests necessary adjustments was made to enhance effectiveness of the tools. Data collected during this pre-test phase was excluded from the final analysis. Reliability of the quantitative tool was checked by using Cronbach's alpha (0.85). Throughout the data collection period, the principal investigator actively monitored progress in the field. This involved verifying the completeness of the collected responses and proactively addressing any emergent issues to consistently maintain data quality.

4.10 Data analysis

4.10.1 Quantitative data analysis

The collected quantitative data was coded and entered into EpiData version 4.6. Then, the data was exported to and analyzed by using Statistical Package for Social Sciences (SPSS) version 27.0. Descriptive statistics (mean, median, percentage, frequency, standard deviation and interquartile range (IQR)) was presented for socio-demographic characteristics, the pharmacy setting, approach and communication of pharmacy professionals and satisfaction of patients with medication instruction to summarize the variables. All major assumptions were checked and the dependent variable was non-normally distributed (Shapiro-Wilk, $p < 0.05$). Due to the non-normal distribution of dependent variable, the study reported median and IQR. To compare patient satisfaction across subgroups, non-parametric tests such as Kruskal-Wallis and Mann-Whitney U tests were done. Kruskal-Wallis test was used for variables with three or more categories and Mann-Whitney U test was used for variables with two categories. Tobit regression analysis was used for multivariable analysis since the dependent variable was continuous, non-normally distributed and censored. First, bivariable Tobit regression analysis was performed to evaluate the association of factors with satisfaction. Then, factors with p-value of 0.25 or less in a dummy variable were reintroduced in multivariable Tobit regression analysis to explore their association with satisfaction. To perform a multivariable Tobit regression analysis, STATA software version 17.0 was used. Statistical significance was considered at a p-value of < 0.05 at 95% CI.

4.10.2 Qualitative data Analysis

The qualitative component of the study used thematic analysis to structure and organize the collected data. The analysis began immediately following data collection. Audio-recordings from all in-depth interviews were transcribed verbatim. An inductive approach was employed to analyze the transcripts. This involved a process where codes were generated from the data within thematic content areas. Then, the codes were categorized and classified into emerging themes and sub-themes. The themes and sub-themes were reviewed, defined and named to articulate their meaning within the context of the study. The defined themes and sub-themes along with original quotes were translated into English and included in the final report.

4.11 Ethical consideration

Ethical clearance from the Ethical Review Committee (ERC) of the School of Pharmacy, Addis Ababa University, was obtained on April 8, 2023 (Protocol Number: ERB/SOP/512/15/2023). To facilitate the fieldwork access, the Department of Pharmaceutics and Social Pharmacy wrote supporting letters to BGRHB. Subsequently, formal permission letter to conduct the study was obtained from BGRHB and Metekel ZHD. Then, Metekel ZHD wrote a supporting letter to the health facilities. Prior to data collection, the supporting letters were presented and permission was obtained from management of each facility. Informed verbal consent was obtained from all participants in the quantitative study, while written consent was secured from KIs for the in-depth interviews. Participants were informed that their involvement was voluntary and can withdraw at any time. To guarantee anonymity and confidentiality, personal identifiers were excluded and all data including interview recordings and field notes were stored securely.

4.12 Operational definition

- **Patient satisfaction:** The degree of satisfaction of patients with outpatient pharmacy services.
- **Satisfied patients**: Patients or clients with the median score of equal to or above 47.
- **Dissatisfied patients**: Patients or clients with the median score of below of 47.

5. Results

5.1 Results for quantitative study

5.1.1 Socio-demographic characteristics of patients

Of the total anticipated 422 patients, a complete response of 416 patients was included in the study. Six incomplete responses were excluded making a response rate of 98.6%. The majority of patients (60.3%) were female and average age was 34.25 ± 10.95 years. Farmers constituted the largest occupation (46.9%), while 24.5% of the patients had a college education or higher. Regarding marital status, 22.1% were single and 26.7% reported a household income under 2,000 Ethiopian Birr per month. Most of the patients (56.3%) lived in urban areas. Most of the patients (69.9%) visited the public healthcare facilities for their own healthcare needs, and 77.9% had visited the health facilities more than once. About 66.4% of patients paid out-of-pocket for their healthcare services (Table 1).

Table 1: Patients' socio-demographic characteristics at the facilities in the Metekel Zone, BGRS, Ethiopia, 2024

Variables (n = 416)	Frequency (n)	Percentage (%)
Gender		
Male	165	39.7
Female	251	60.3
Age (in years)		
18 – 30	197	47.4
31 – 40	102	24.5
41 – 50	73	17.5
≥ 51	44	10.6
Residence		
Urban	234	56.3
Rural	182	43.7
Marital status		
Single	92	22.1
Married	274	65.9
Divorced	33	7.9

Widowed	17	4.1
Level of education		
Cannot read and write	113	27.2
Can read and write	28	6.7
Primary education (1 – 8)	105	25.2
Secondary education (9 – 12)	68	16.4
College/University	102	24.5
Occupational status		
Farmer	195	46.9
Government employee	71	17.1
Merchant	51	12.2
Private institution employee	50	12.0
Others (student, housewife)	49	11.8
Household monthly income (ETB)[1]		
≤ 2,000	111	26.7
2,001 – 4,325	97	23.3
4,326 – 6,950	104	25.0
≥ 6,951	104	25.0
Visited the health facility for:		
Self	291	69.9
Others (family/social)	125	30.1
Payment method		
CBHI	140	33.6
Out-of-pocket	276	66.4
Frequency of visits		
Once	92	22.1
More than 1	324	77.9

[1] Quartile method was used to categorize the estimated monthly household income

5.1.2 Patient satisfaction with pharmacy setting

Table 2 depicts satisfaction of patients with various aspects of the pharmacy setting. The finding showed that 43.5% of the patients were strongly satisfied with the pharmacy location. Subsequently, (42.1%) of the patients were strongly satisfied with the waiting area. Similarly, (46.1%) of the patients were strongly satisfied with neatness of dispensing area and availability of adequate staffs (47.8%) serving the patients respectively. About 20.7% of the patients who visited the facilities were strongly dissatisfied with lack medicines. On the other hand, the affordability of the medicines strongly satisfied only 22.4% of patients while 12.7% were indifferent (Table 2).

Table 2: Opinion of patients towards the pharmacy setting in health facilities in Metekel Zone, BGRS, Ethiopia, 2024

Variables	SD (n, %)	D (n, %)	N (n, %)	S (n, %)	SS (n, %)
Pharmacy location is convenient for service	22 (5.3)	81 (19.4)	14 (3.4)	118 (28.4)	181 (43.5)
Private counseling area is convenient to patients	76 (18.3)	98 (23.6)	10 (2.4)	68 (16.3)	164 (39.4)
Waiting area is adequate and equipped with seats	82 (19.7)	119 (28.6)	4 (1.0)	36 (8.6)	175 (42.1)
Outpatient pharmacy is clean	3 (0.7)	44 (10.6)	14 (3.4)	163 (39.2)	192 (46.1)
Prescribed medicines are available to the patients	86 (20.7)	136 (32.7)	1 (0.2)	145 (34.9)	48 (11.5)
Prescribed medicines are affordable to the patients	16 (3.9)	13 (3.1)	53 (12.7)	241 (57.9)	93 (22.4)
Pharmacy staffs serving are adequate	4 (1.0)	18 (4.3)	80 (19.2)	115 (27.6)	199 (47.8)

Key: SD – Strongly Dissatisfied, D – Dissatisfied, N – Neutral, S – Satisfied, SS – Strongly Satisfied

5.1.3 Opinion of patients towards professionals' approach and communication

About (49.0%) of the patients were strongly satisfied with the politeness and interest displayed by professionals during service provision. In addition, (49.8%) of the patients were strongly satisfied with the treatment and respect they received. Furthermore, (51.2%) of the patients reported a strong satisfaction with the equal service delivery. Most of the patients (58.8%) were strongly satisfied with the availability of professionals during their visits and (58.7%) of them strongly perceived the voice and tone of the professionals was clear and easily audible, while (46.6%) were satisfied with the fairness of the time taken to fill prescriptions (Table 3).

Table 3: Opinion of patients towards approach and communication of pharmacy professionals in health facilities in Metekel Zone, BGRS, Ethiopia 2024

Variables	SD (n, %)	D (n, %)	N (n, %)	S (n, %)	SS (n, %)
Politeness and interest of pharmacy staffs is good	8 (1.9)	22 (5.3)	4 (1.0)	178 (42.8)	204 (49.0)
Pharmacy professionals treat me with respect	7 (1.7)	22 (5.3)	4 (1.0)	176 (42.2)	207 (49.8)
Pharmacy professionals serve patients equally	7 (1.7)	25 (6.0)	71 (17.1)	100 (24.0)	213 (51.2)
Pharmacy professionals are available during visit	5 (1.2)	4 (1.0)	1 (0.2)	162 (38.9)	244 (58.8)
The voice and tone of pharmacy professionals was clear and audible	0 (0.0)	22 (5.3)	0 (0.0)	150 (36.0)	244 (58.7)
The time taken to fill my prescription was fair	4 (1.0)	17 (4.1)	29 (7.0)	194 (46.6)	172 (41.3)

Key: SD – Strongly Dissatisfied, D – Dissatisfied, N – Neutral, S – Satisfied, SS – Strongly Satisfied

5.1.4 Patient satisfaction with medication instruction

The result demonstrated that (43.5%) of patients were satisfied with time spent for medication counseling. However, only (18%) of patients expressed strong satisfaction with the emphasis given by professionals on instructing the importance of taking medicines as prescribed. On the other hand, the advice on proper storage of prescribed medicines satisfied about (29.3%) of the patients while the counselling on precautions and side effects satisfied only (15.9%). Slightly more than half (51.7%) of the patients were dissatisfied with lack of written instruction label on medicines while (68.3%) were strongly satisfied with the languages of the professionals for counseling and advices (Table 4).

Table 4: Satisfaction of patients with pharmacy professionals' medication instruction in health facilities in Metekel Zone, BGRS, Ethiopia 2024

Variables	SD (n, %)	D (n, %)	N (n, %)	S (n, %)	SS (n, %)
Counseling (advising) time for the dispensed medicine is sufficient	44 (10.6)	45 (10.8)	44 (10.6)	181 (43.5)	102 (24.5)
Professionals give emphasis on use of taking medicines as prescribed	30 (7.2)	84 (20.2)	22 (5.3)	205 (49.3)	75 (18.0)
Pharmacy professionals inform patients about proper storage of medicines	87 (20.9)	164 (39.4)	9 (2.2)	122 (29.3)	34 (8.2)
Professionals provide adequate information on medicine side effects and precautions	134 (32.2)	223 (53.6)	10 (2.4)	35 (8.4)	14 (3.4)

Adequate information on drug interactions is provided	96 (23.1)	205 (49.2)	10 (2.4)	66 (15.9)	39 (9.4)
Pharmacy professionals label instruction on dispensed medicines	112 (26.9)	215 (51.7)	7 (1.7)	49 (11.8)	33 (7.9)
Pharmacy professionals give medicine instruction in local language	10 (2.4)	17 (4.1)	5 (1.2)	100 (24.0)	284 (68.3)

Key: SD – Strongly Dissatisfied, D – Dissatisfied, N – Neutral, S – Satisfied, SS – Strongly Satisfied

The median score of the total satisfaction of patients with outpatient pharmacy services was 47.0 (Table 5). The dependent variable (patient satisfaction) comprised 13 items from two domains (6 items from opinion of patients towards the attitudes of pharmacy professionals and 7 items from the extent of satisfaction of patients with medication guidance).

Table 5: Patient satisfaction with pharmacy services in health facilities in Metekel Zone, BGRS, Ethiopia 2024

Patient satisfaction domains	**Number of items**	**Mean (SD)**	**Median (IQR)**
Opinion of patients towards the approach and communication of pharmacy professionals	6	26.1 [3.9]	27.0 [24.0 – 30.0]
The opinion of patients with medication instruction provided by pharmacy professionals	7	20.8 [4.5]	21.0 [19.0 – 23.0]
Total satisfaction score	13	46.8 [8.40]	**47.0** [43.0 – 51.5]

5.1.5 Patient satisfaction subgroup analysis

The median satisfaction score of patients based on Kruskal Wallis and Mann-Whitney U test revealed that gender (p = 0.324) and dissatisfied patients with the waiting area (p = 0.001) were significantly higher than the other groups. The median satisfaction score of patients dissatisfied and satisfied with the comfortability and suitability of private counseling area is lower than that of patients who were neutral (43 versus 50; p-value < 0.05). Patient satisfaction did not significantly differ based on gender, marriage, occupation or frequency of health facility visits (Table 6).

To simplify calculation for Kruskal-Wallis and Mann-Whitney U tests, "strongly dissatisfied" and "dissatisfied" responses were combined into "dissatisfied" category and "strongly satisfied" and "satisfied" were combined into a "satisfied" category.

Table 6: Median [IQR] of socio-demographic characteristics and pharmacy setting, Metekel Zone, BGRS, Ethiopia, 2024

Variables	Median (IQR) score	Mean Rank	*p*-value
Gender			
Male	47.0 [43.0 – 51.0]	201.3	0.324
Female	48.0 [43.0 – 52.0]	213.2	
Age (years)			
18 – 30	47.0 [43.0 – 51.5]	204.5	**0.022**
31 – 40	47.0 [43.0 – 50.0]	190.6	
41 – 50	48.0 [44.0 – 51.0]	215.8	
≥ 51	51.0 [45.5 – 52.0]	255.9	
Residence			
Urban	46.0 [42.0 – 51.0]	193.9	**0.005**
Rural	48.0 [44.0 – 52.0]	227.2	
Marital status			
Single	46.5 [42.0 – 50.0]	184.3	0.150
Married	48.0 [44.0 – 52.0]	214.8	
Divorced	48.0 [43.0 – 51.5]	209.7	
Widowed	49.0 [45.5 – 52.0]	235.1	

Level of education			
Cannot read and write	49.0 [45.0 – 52.0]	234.4	
Can read and write	48.0 [43.5 – 51.5]	219.6	
Primary education	48.0 [44.0 – 52.5]	223.1	**0.001**
Secondary education	46.5 [42.0 – 51.0]	199.9	
College or university	45.0 [41.0 – 49.0]	167.5	
Occupation status			
Farmer	48.0 [44.0 – 52.0]	218.0	
Government employee	45.0 [40.0 – 50.0]	177.7	
Merchant	48.0 [43.0 – 52.0]	211.5	0.057
Private organization employee	46.0 [41.5 – 50.0]	188.9	
Others (student, housewife)	49.0 [44.5 – 52.0]	232.2	
Household monthly income (ETB)			
≤ 2,000	49.0 [44.0 – 52.0]	228.3	
2,001 – 4,325	50.0 [43.0 – 52.5]	228.0	**0.006**
4,326 – 6,950	47.0 [44.0 – 50.0]	198.6	
≥ 6,951	45.0 [41.0 – 50.0]	179.0	
Visited the health facility for:			
Self	47.0 [43.0 – 51.0]	199.7	**0.023**
Others (family/relatives)	49.0 [45.0 – 52.0]	228.9	
Payment method			
CBHI	49.0 [45.0 – 52.0]	236.1	**0.001**
Out-of-pocket	46.0 [43.0 – 50.5]	194.5	
Frequency of visits			
Once	48.5 [44.0 – 52.5]	224.9	0.136
More than 1	47.0 [43.0 – 51.0]	203.8	
Location of the pharmacy setting			
Dissatisfied	42.0 [39.0 – 45.0]	111.3	
Neutral	43.5 [33.0 – 49.0]	139.8	**0.001**
Satisfied	49.0 [46.0 – 52.0]	245.2	
Private counseling area			
Dissatisfied	43.0 [40.0 – 47.0]	129.1	**0.001**
Neutral	51.0 [48.0 – 53.0]	275.8	

Satisfied	50.0 [47.0 – 53.0]	265.1	
Waiting area			
Dissatisfied	38.0 [34.5 – 41.0]	67.4	
Neutral	43.0 [38.0 – 47.0]	122.8	**0.001**
Satisfied	49.0 [45.5 – 52.0]	242.4	
Cleanliness of the outpatient pharmacy			
Dissatisfied	43.0 [38.0 – 47.0]	114.3	
Neutral	42.5 [39.5 – 50.5]	144.0	**0.001**
Satisfied	48.0 [44.0 – 52.0]	223.5	
Availability of prescribed medicines			
Dissatisfied	46.0 [41.0 – 50.0]	179.4	
Neutral	-	327.5	**0.001**
Satisfied	49.0 [45.0 – 52.5]	241.4	
Affordability of prescribed medicines			
Dissatisfied	43.0 [38.0 – 49.5]	157.2	
Neutral	45.0 [39.0 – 49.0]	155.3	**0.001**
Satisfied	48.0 [44.0 – 52.0]	221.4	
Adequacy of pharmacy staffs serving during my visit			
Dissatisfied	42.0 [37.0 – 46.0]	123.1	
Neutral	44.0 [41.0 – 48.5]	156.8	**0.001**
Satisfied	49.0 [44.0 – 52.0]	227.6	
Overall median score	**47.0 [43.0 – 51.5]**		

5.1.6 Factors associated with satisfaction with outpatient pharmacies

Multivariable analysis revealed statistically significant associations ($p < 0.05$). Specifically, patient satisfaction with the location of the pharmacy was significantly associated with the satisfaction score, with a satisfied response group having lower score ($\beta = -5.036$, $p = 0.001$). Conversely, dissatisfied patients with the private counseling area reported a significantly higher satisfaction score ($\beta = 5.184$, $p = 0.004$). Furthermore, responses regarding waiting area showed a dual significant effect: those dissatisfied reported a significantly higher score ($\beta = 2.252$, $p = 0.043$), while those satisfied reported a significantly lower score ($\beta = -5.068$, $p = 0.001$). All other variables did not show a statistically significant relationship ($p > 0.05$) (Table 7).

Table 7: Factors affecting patient satisfaction with pharmacy services, 2024

Variables	Patient satisfaction score	
	β-Coeff. (95% CI)	***p-value***
Age (years)	0.199 [-0.383 – 0.782]	0.501
Residence (ref=rural)		
Urban	0.477 [-0.707 – 1.661]	0.429
Marital status (ref=widowed)		
Single	1.369 [-1.403 – 4.139]	0.332
Married	0.087 [-2.425 – 2.598]	0.946
Divorced	-0.089 [-3.011 – 2.834]	0.952
Level of education (ref=college or university)		
Cannot read and write)	-0.998 [-3.108 – 1.113]	0.353
Can read and write	-0.346 [-2.421 – 1.729]	0.744
Primary education (1 – 8)	-1.635 [-3.558 – 0.288]	0.095
Secondary education (9 – 12)	-0.905 [-2.742 – 0.932]	0.333
Occupation (ref=others – students, house wives)		
Farmer	1.313 [-0.482 – 3.108]	0.151
Government employee	-0.706 [-2.883 – 1.472]	0.524
Merchant	0.023 [-1.981 – 2.027]	0.982
Private organization employee	-0.905 [-1.586 – 2.441]	0.677
Monthly income (ref= ≥ 6,951 ETB)		
≤ 2,000	-0.657 [-2.150 – 0.836]	0.387

2,001 – 4,325	-1.399 [-2.862 – 0.065]	0.061
4,326 – 6,950	-0.725 [-2.142 – 0.692]	0.315
Service sought for (ref=others)		
Self	0.729 [-0.378 – 1.838]	0.196
Payment method (ref=CBHI)		
Out-of-pocket	-0.104 [-1.239 – 1.030]	0.857
Frequency of visits (ref=more than 1)		
Once	0.006 [-1.180 – 1.193]	0.991
Location of the OPD pharmacy (ref=neutral)		
Dissatisfied	-2.919 [-5.955 – 0.117]	0.059
Satisfied	-5.036 [-8.078 – -1.994]	**0.001**
Private counseling area (ref=neutral)		
Dissatisfied	5.184 [1.702 – 8.667]	**0.004**
Satisfied	1.879 [-1.631 – 5.390]	0.293
Waiting area (ref=neutral)		
Dissatisfied	2.252 [0.074 – 4.430]	**0.043**
Satisfied	-5.068 [-6.446 – -3.689]	**0.001**
Cleanliness of the pharmacy (ref=neutral)		
Dissatisfied	1.308 [-1.883 – 4.498]	0.421
Satisfied	-0.527 [-3.435 – 2.380]	0.722
Availability of the medicines (ref=neutral)		
Dissatisfied	-4.886 [-6.178 – 15.950]	0.383
Satisfied	-7.237 [-7.303 – 15.018]	0.492
Affordability of the medicines (ref=neutral)		
Dissatisfied	1.774 [-0.560 – 4.108]	0.136
Satisfied	-1.318 [-2.903 – 0.268]	0.103
Adequacy of pharmacy staffs (ref=neutral)		
Dissatisfied	-0.443 [-2.838 – 1.952]	0.716
Satisfied	0.134 [-1.210 – 1.479]	0.844

5.2 Results of the qualitative findings

5.2.1 Socio-demographic characteristics of the KIs

A total of 28 study participants (12 patients and 16 pharmacy professionals) participated in the in-depth interviews. Majority of the interviewed patients (66.7%) were female and 50% were in the age range from 20 to 34 years (Table 8).

Table 8: Socio-demographic characteristics of the KIs (patients) for qualitative study of patient satisfaction with outpatient pharmacy services, 2024.

Patient characteristics (n = 12)	Frequency (n, %)
Age (in years)	
20 – 34	6 (50.0)
35 – 50	5 (41.7)
≥ 51	1 (8.3)
Gender	
Male	4 (33.3)
Female	8 (66.7)
Payment status	
Out-of-pocket	4 (33.3)
Community based health insurance	8 (66.7)
Occupational status	
Farmer	4 (33.3)
Government employee	4 (33.3)
Merchant	2 (16.7)
Private employee	2 (16.7)

Sixteen pharmacy professionals participated in the in-depth interviews where majority were below 30 years of age. Furthermore, most (75.0%) of the pharmacy professionals included in the interview were professionally pharmacy technicians (druggists) (Table 9).

Table 9: Socio-demographic characteristics of KIs (pharmacy professionals) of patient satisfaction with outpatient pharmacy services, 2024.

Patient characteristics (n = 16)	Frequency (%)
Age (in years)	
< 30	10 (62.5)
≥ 30	6 (37.5)
Gender	
Male	9 (56.3)
Female	7 (43.7)
Level of education	
Pharmacists	4 (25.0)
Pharmacy technicians	12 (75.0)
Years of experience	
< 5	6 (37.5)
≥ 5	10 (62.5)

5.2.2 Results of the thematic analysis

The perceptions and experiences of patients and pharmacy professionals was explored by using semi-structured KI interviews. The qualitative data underwent an inductive thematic analysis resulting in identification of three major themes: structural aspects of the pharmacy, pharmacy service process and pharmacy service outcome. Within the structural theme, two subthemes emerged: facilities of outpatient pharmacy unit and availability and affordability of medicines. Outcome theme was defined by the subtheme patient satisfaction with medication instruction. A detailed summary these themes, including direct supporting quotes from the KIs, is presented in the analysis as follows.

5.2.2.1 Structural aspects of the pharmacy settings

Exploration of the structural aspects of the pharmacy setting, a recurring theme in qualitative data, uncovered notable disparity between the external convenience and internal constraints. While the location of outpatient pharmacy perceived as convenient and easily accessible, the internal infrastructure presented several limitations. KIs reported that the dispensing areas suffered from inadequate space and shortage of basic furnishings including medicine shelves

and patient seats in the waiting area. Notably, the lack of dedicated private counseling area was a uniform finding that forced professionals to rely on adjacent ART dispensing pharmacy for confidential counseling services. This signals structural gap that potentially undermines quality of pharmaceutical care.

> *"… the location of the pharmacy is good and it is visible to patients but there is no dedicated private counseling room and the adjacent ART dispensary is used instead"*, (35 years old druggist).

> *"… the pharmacy is easily accessible but it is not adequate to address lots of patients at the same time since it is not large enough",* (48 years old patient).

i. The facilities of the outpatient pharmacy units

An exploration of the interview data revealed a distinct divergence in patient perception based on the pharmacy infrastructure utilized across the facilities. A critical finding was the existence of two contrasting structural models: facilities with renovated outpatient pharmacy units and those with non-renovated units. KIs served in the renovated units, which featured enhanced facilities like adequate shelving, dispensing counters and dedicated patient seats with in the waiting area, described a perceived higher patient satisfaction. Conversely, KIs associated with the majority of non-renovated pharmacy units, characterized by lack of essential amenities and a reliance on single-window dispensing in a restricted waiting space, reported significantly lower patient satisfaction with structural elements. This contrast suggests that infrastructural quality might be a strong precursor to patient satisfaction, a relationship warranting further examination.

> *"… the space for waiting area is not sufficient. There is lack of seats and patients stand in crowds. The dispensing room is insufficiently spaced,"* (31 years old patient).

A 40-years-old pharmacist replied:

> *"… there are counters, … and the room is classified to dispensing area, mini store and duty room. There are adequate shelves for medicines."*

The analysis of KI reports identified the inconvenience of the outpatient pharmacy services as a pervasive determinant of patient dissatisfaction, revealing that structural issue is a barrier to quality care. A key finding was the direct relationship between limited physical space and a

compromised patient experience: constrained dispensing areas created a congested and uncomfortable environment which resulted in both inadequate waiting space and reduced privacy for counseling undermining patient satisfaction. Furthermore, the KIs reported high-risk deficiencies in many facilities including the presence of insects, rodents, and water leakage which posed serious hygiene and medicine safety risks while demonstrating poor operational standards. This landscape of structural failure stood in contrast to the few well-maintained dispensaries described as spacious, secure and clean which fostered satisfactory and conducive environment revealing that the quality of the physical infrastructure is an important determinant of patient perception and overall satisfaction.

While assigned personnel maintain overall hygiene, a finding from the interviews showed that the professional contribution of pharmacy staff themselves to the cleanliness and organization of the pharmacy environment. Pharmacy professionals routinely go beyond their basic duty by cleaning medicine shelves to ensure they were free from dust and contaminants, thereby directly mitigating risks and upholding a hygienic environment essential for patient safety. Furthermore, their diligent efforts to return all medications to their designated locations create an orderly and efficient system for storage and retrieval, which not only streamlines the service process but also reinforces the image of a well-managed, high-quality care unit for the patients.

> *"… the outpatient pharmacy is clean. The cleaners mop the floor and we clean and polish the shelves then return the medicines back to position",* (30 years old druggist).

ii. Availability and affordability of prescribed medicines

The KI interviews revealed that unavailability of medicine was among the challenges of the service arising from several interconnected issues. As the data obtained from the professional interviews, the prolonged security challenges in the region had severely interrupted the logistics and supply chain making it difficult to maintain a reliable stock of essential medicines. This challenge was worsened by the insufficient budget allocation from the facilities themselves; operating with limited funds preventing them from purchasing adequate stock. These facility-level constraints were compounded by inadequate supply of required medicines coming from the government body, Ethiopian Pharmaceuticals Supply Service (EPSS). These problems resulted in shortages that deny access to affordable treatment dissatisfying the patients.

One KI, a 40-year-old pharmacist, reported these issues, stating,

"… this (shortage of medicines) is the main issue in the facility. Patients do not get most of the prescribed medicines. There is a financial shortage… due to this, there is a shortage of medicine. The security issue in the area also affected us a lot."

The KIs unanimously agreed that patients got satisfied when all prescribed medicines were dispensed from the facilities but the fact was that most of the medicines were not available at the outpatient pharmacy of the health facilities. In addition, they observed that affordability of medicines also affects the satisfaction of patients when compared to expensive drugs served from private owned pharmacies. In line with this, consistent feedback from all the KIs indicated that medicines sourced from government agencies were affordable, whereas those procured from private suppliers posed a financial challenge due to their expensive prices.

"… patients are satisfied when they collect all the prescribed medicines. Medicine price is decided by the government with a 25% profit. But when purchased from private suppliers, the cost is expensive. Adding a 25% profit to it, the price gets more expensive, making it unaffordable to most patients" (27 years old druggist).

"When I ask why some medicines are expensive in the facility, the professionals tell us that medicines procured from private wholesalers are expensive but those obtained from government are affordable", (34 years old patient).

5.2.2.2 The pharmacy service process

The pharmacy service process encompasses several steps for the safe and effective dispensing of medicines. It begins with the receipt of prescription which is then reviewed for accuracy and appropriateness. Once verified, medicines are accurately dispensed and labeled with clear instructions. The pharmacy professionals provide counseling explaining how to take the medicines, their side effects and necessary precautions. This process also includes maintaining accurate records and ensuring compliance with regulatory standards (FMHACA, 2012).

According to the responses from majority of the KIs, patients expressed satisfaction with the counseling and communication skills of the pharmacy professionals.

"… professionals have the knowledge instructing how medicines are to be taken; their side effects and adequately advise patients. The professional's communication with patients is good. They are good at counseling patients", (24 years old pharmacist).

In complement to the above finding, a 25 years old patient replied:

> *"They (pharmacy professionals) tell us the names of the medicines we are prescribed with, they also advise us how, when and for how long to take the medicines".*

The interviews revealed that patient satisfaction was associated with interpersonal conduct of the pharmacy staff, specifically when patients perceived politeness and genuine interest from the service providers. The majority of pharmacy professionals exhibited a caring attitude toward patients which served as a base for positive interactions. However, KIs acknowledged that this behavior was not uniformly demonstrated across all staff, noting that a small number of professionals occasionally exhibiting aggressive or impolite behavior which was perceived to negatively affect patient experiences. The KIs stressed that regardless of a patient's conduct professionals must maintain tolerance and patience. Furthermore, the findings highlighted an emphasis on equitable and needs-based service delivery. While most professionals served patients with respect, some provided special care to the neediest. This included prioritizing service for the seriously ill, the elderly, pregnant women and breastfeeding mothers ensuring not only fairness but also responsiveness to heightened patient vulnerability.

> *"Some of the professionals display good character and serve politely but a few others argue with the patients. It generally depends on personal behavior of the individuals",* (27 years old patient).

Another KI added:

> *"We serve all patients equally with few exceptions like pregnant and breast-feeding mothers and the elderly, where we give priority",* (32 years old druggist).

According to the responses of the majority of the KIs, patients have been adequately informed about their prescribed medicines. The KIs also noted that while most patients actively seek information about their prescriptions, a few were reluctant to receive advice. However, the responses of majority of the KIs complemented with each other that the quality of counseling varies across staffs; some professionals offer comprehensive drug information, whereas others overwhelmed by high patient volumes, restrict their counseling to basic medicine instruction.

> *"[…] patients are advised on their prescriptions. But when there is high patient flow, the advice is limited",* (25 years old druggist).

"… majority of the staffs counsel about medicines with details but a few professionals are not good. Sometimes we miss instructions and take medicines by guessing", (31 years old patient).

The findings showed that the continuous availability of pharmacy services was a significant contributor to patient satisfaction and was perceived as a critical strength of the service delivery. All the KIs reported that the pharmacy units maintain operations 24 hours a day, seven days a week (24/7), including weekends and public holidays. This high level of accessibility ensured that patients could receive professional pharmaceutical services whenever necessary, a factor explicitly linked to positive patient perception. The only exception noted to this constant availability was the occurrence of intense and active security issues in the area, a challenge that temporarily overrides service provision.

"No issue with routine working hours. The pharmacy is open all the time. But it might be closed during intense and active security issues", (27 years old druggist).

"… the pharmacy is open all the time. They also work on weekends and public holydays. They also serve at night even though I have no experience", (29 years old patient).

5.2.2.3 The outcome of pharmacy services

The ultimate measure of healthcare delivery is its success in providing effective treatment and improving patient health, objectives which hinge upon the availability of medicines and the provision of quality pharmaceutical services (WHO, 2020). This section explores the service outcome by focusing on two interdependent factors: the quality of medication instruction and the resulting patient satisfaction. The findings from the KI interviews reveal the specific practices and inconsistencies in patient counseling that shape the adherence, safety and overall experience of patients accessing the pharmacy. This analysis particularly delves into the themes of satisfaction with medication instruction, patient education on safe medicine handling practices, advice on side effects and interactions and the role of communication in achieving therapeutic understanding.

Satisfaction of patients with medication instruction

The majority of the patients attending the healthcare facilities received dedicated medication instruction, suggesting strong baseline for professional care. This is evidenced by KIs reporting

that some of the patients could accurately recall a prescribed drug name, frequency and duration after months of dispensing, indicating that the counseling achieved meaningful memorization and comprehension. Conversely, this success was not uniform, as KIs also noted that a few patients displayed reluctance to professional advice. As one pharmacist observed:

> *"... it depends on the pharmacist and the patients. Some patients are satisfied. A few patients are reluctant when counseled"* (26 years old pharmacist).

All the KI responses confirmed a consensus among staff that instructing patients on proper storage and handling of medicines at home is essential for ensuring both drug effectiveness and safety. Patients were routinely informed and advised to read the attached labels, store their medicines securely away from children and keep them in a cool, dry area, shielded from direct sunlight. This practice is encapsulated by the druggist quote:

> *"Patients are advised to keep drugs in a cool dry place. Drugs should also be kept away from direct sunlight"* (35 years old druggist).

One of the interviewed patients added:

> *"... the pharmacy professionals aware us to safely keep medicines at home. They also remind us not to share with other members of the family"* (25 years old patient).

The medicine instruction provided by professionals on side effects and necessary precautions was consistently reported, indicating a standardized approach to risk communication. Most professionals advised patients to report unforeseen drug effects to clinicians or pharmacists, yet simultaneously advised patients to tolerate common side effects as they subside. Patients were also informed about the potential for interactions between administered drugs and foods, drinks or other concurrent medicines. This warning included instruction that drug interactions could lead to severe complications requiring hospitalization.

> "*Patients are counseled to report to clinicians if they see rashes after taking medicines. Patients are informed to tolerate common side effects since they subside through the course of therapy"*, (24 years old pharmacist).

Medication labels offer clear and concise instructions to the patients and help them to use their medicine effectively and reduce potential errors (Hellier *et al*., 2006, Wolf and Bailey, 2007). Therefore, attaching labels on medicines was used for the identification of medicines, dosage

frequency and duration of therapy. Despite the clear benefits of medication labels for identification, dosage and duration of therapy, the KIs revealed that the attachment of these labels was inconsistent. This inconsistency is a major operational failure. A pharmacist explained the structural barrier:

> *"Labels are written sometimes but when there is no marker, we do not label the drugs. We had started labeling with leaflets some time ago but now it has been stopped due to workload and lack of labeling materials"* (40 years old pharmacist).

A patient corroborated this deficiency, noting:

> *"[…] medicines dispensed to patients are rarely labelled where professionals write on the medicine boxes and strips. What they write is how many times to take in a day and how many pills to take at once"* (31 years old patient).

The interviews universally revealed that communicating with patients using local languages was a significant facilitator of mutual understanding resulting in patient satisfaction. All the KIs unanimously replied that the professionals were often bi- or multilingual, proficient in a local language spoken by residents. A staff member confirmed this asset:

> *"... pharmacy professionals here can speak more than one language including the natively spoken 'Gumzegna' and 'Shinashigna'. Most of us are either bi or multilingual and thus, there is no issue with counseling"* (32 years old druggist).

This was validated by the patient perspective:

> *"[…] no problem with languages. Some pharmacy professionals speak local languages such as 'Sa Gumza' and 'Boroni', so we can communicate with them easily"* (53 years old patient).

6. Discussion

This study assessed the level of patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, BGRS, Ethiopia. The finding reported a median satisfaction score of 47.0 which established a baseline of low patient satisfaction level suggesting that a significant portion of the patient population perceived the quality of pharmaceutical care as inadequate or merely satisfactory. While the use of a median score limits a direct numerical comparison to studies employing means or overall satisfaction percentages, the figure is highly suggestive of systemic challenges within service delivery system. This finding is comparable to a study conducted at Yekatit 12 Hospital Medical College in Addis Ababa, which reported an overall client satisfaction level of 47.0% (Berehe *et al*., 2018), reinforcing that low satisfaction levels is a persistent issue in Ethiopian public health settings. This prevalent issue signals a disconnect between the expected standards of service delivery and the actual patient experience. This is a concerning issue given that patient satisfaction is among a critical determinant of medication adherence and ultimately treatment outcomes.

The assessment of the structural factors, the physical environment of the outpatient pharmacy, yielded findings that is both encouraging and contradictory, underscoring the complexity of the patient perception. High patient satisfaction was recorded for both the cleanliness of the outpatient pharmacy (85.3%) and the location of the outpatient pharmacy unit (71.9%). The high score for cleanliness was a notable strength of the facilities in the Metekel Zone, surpassing the 51.9% satisfaction level reported for primary hospitals in Guraghe Zone (Mesfin and Gintamo, 2019). Similarly, satisfaction with location significantly exceeded the 38.6% reported in Addis Ababa (Berehe *et al*., 2018). These high results received strong support from KI interviews. However, a critical contradiction emerged when examining the factors influencing satisfaction. Although 71.9% of patients were satisfied with the location, factor analysis revealed that a unit increase in the number of patients visiting the public healthcare facilities significantly decreased the level of satisfaction by a factor of 5.036. This result resolves the apparent paradox: the physical convenience of the location of the pharmacy was appreciated but its capacity was insufficient to handle the high patient volume. This negative correlation is attributable to overcrowding, extended waiting times and congestion which negated the benefit of a well-placed pharmacy unit. This result highlighted a common issue in public health systems of developing countries where infrastructural planning often fails to

account for high demand, turning a positional asset into a functional liability due to inadequate capacity.

The lack of a dedicated private counseling area was identified as a major structural deficiency. The practice of using adjacent areas such as the ART dispensing pharmacy which is often located alongside the main dispensing area was consistent with the reports from government hospitals in Addis Ababa (Eshetu and Gedif, 2011). While this might be a pragmatic solution for resource constraints, its negative impact on patient care is profound. Lack of a quiet, private space compromises confidentiality required for effective patient-pharmacist consultation particularly for sensitive conditions. This lack of a dedicated space negatively affects patient adherence and treatment outcomes by inhibiting open communication.

The elements of service process, the time spent and the resources provided, were key areas where patient dissatisfaction was concentrated, reinforcing the impact of the structural deficits. Low satisfaction was reported for the convenience of the patient waiting area (50.7%), a finding corroborated by KI interviews. This result is higher than the 31.7% satisfaction level reported at Debre Tabor Comprehensive Specialized Hospital (Molla *et al*., 2022). The low satisfaction rate is directly linked to the issue of overcrowding. The factor analysis again underscored this problem by finding that a unit increase in patient volume decreased the level of satisfaction by a factor of 5.068. The near-similar regression coefficients (5.036 for location, 5.068 for waiting area) suggest that patient volume was the negative predictor of patient experience creating an environment of discomfort and extended waiting times that overshadows other positive elements.

In a positive contrast to resource availability issues often seen in public facilities, the study found that about75% of the patients were satisfied with the number of pharmacy professionals serving them. This figure exceeds the 58.9% previously reported at Debre Tabor Comprehensive Specialized Hospital (Molla *et al*., 2022). Possible reasons for this result include the improved capacity of facilities, updated staffing requirements and a recent availability of trained manpower in the market. This finding suggested that the professionals were present in sufficient numbers, shifting the focus of necessary improvement from simple staffing recruitment to the efficiency and quality of the services.

The availability of prescribed medicines remains a significant challenge with a satisfaction rate of 46.4%. While this figure is better than the 33.1% reported in Addis Ababa (Kabba *et al*.,

2021) it trails significantly behind the 62.4% satisfaction rate reported in a study in Sierra Leone (Kabba *et al*., 2021), indicating that medicine stock-outs are a chronic issue in Metekel Zone. This scarcity, attributed to the security issues, insufficient budget allocation and inadequate supply, directly jeopardizes patient health and trust in the system. The qualitative data, however, provided a mitigating factor: patients were highly satisfied (80.3%) with the cost-effectiveness of medicines when they were sourced through government channels, underscoring the critical role of public facilities in providing affordable care when stock is maintained. The challenge therefore was one of logistics and sustained supply, not pricing structure.

Patients expressed an overwhelming satisfaction with personal attributes of professionals. The combined satisfaction and strong satisfaction with the approach and communication reached 91.8%, slightly exceeding the 85.8% rate reported in Dar es Salaam, Tanzania, where politeness was a key positive influencer (Jande *et al*., 2013). This high regard for attitude with professionals was attributed in KI interviews to the professionals' compassionate approach, fundamental medicine knowledge and communication skills. Furthermore, the ability of professionals to communicate effectively in local languages achieved a high satisfaction rate of 92.3%, slightly higher than the 90.6% observed at Gondar University Hospital (Ayalew *et al*., 2017). This emphasizes the power of linguistic proficiency in fostering trust, suggesting that the professionals are well-trained in basic patient engagement.

Despite general satisfaction with medication instruction (68%), a high percentage of patients were dissatisfied (85.8%) with the information provided on drug side effects and necessary precautions. The KI responses and patient feedback confirmed that patients were not adequately counseled on these crucial safety elements. This lapse is critical; a failure to inform patients about common side effects can lead to unnecessary discontinuation of medication (non-adherence) or, worse, delayed reporting of serious adverse effects, directly impacting treatment outcomes and patient safety. The study identified a fundamental operational lapse in medication labeling. A significant majority of patients (78.6%) expressed dissatisfaction with labeling practices, with a striking minority of only 19.7% reporting that their dispensed medications were labeled. This finding is inconsistent across facilities, pointing to a severe lack of standardized practice across the outpatient pharmacy units. Given that medication labels provide clear instructions for use, storage, and error prevention, this deficiency constitutes a major public health risk, contradicting the basic tenets of good dispensing practice. This issue

suggests that while professionals might be courteous and well-staffed, administrative oversight and standardized procedural implementation were lacking.

The importance of proper medicine storage and handling at home was emphasized by both patients and professionals. However, only 37.5% of patients in the survey expressed alignment with this sentiment, suggesting a gap between professional emphasis and patient retention. Similarly, while professionals stressed importance of reporting unforeseen drug effects, high rate of dissatisfaction with side effect counseling (85.8%) indicates that the mechanisms for effective communication about potential complications are limited. This indicated that the problem was not a deficit in professional empathy or communication skills, but rather a failure in the standardized execution of essential pharmaceutical care duties, likely exacerbated by the pressure of overcrowding and the lack of private counseling space. The low satisfaction score was therefore a composite outcome of chronic structural weaknesses (crowding, no privacy) and critical lapses in the standardized execution of safety-related counseling.

7. Strengths and limitations of the study

The strength of this study was its mixed-method approach, which triangulated qualitative data from the in-depth interviews with KIs to broaden understanding that went beyond quantitative findings. The study also ensured representativeness through diverse patient demographics and including major health facilities in the area. Furthermore, it explored patient and professional perceptions of outpatient pharmacy services, an area with limited prior research.

The limitations of the study include using cross-sectional study design in which assessing changes in patient satisfaction over time was not feasible. The relatively short duration of the study period also might not have captured the seasonal variations or long-term changes in patient satisfaction. the number of facilities included in the study was limited due to the security issues during the study period.

8. Conclusion

The result from quantitative study showed that patient satisfaction with outpatient pharmacy services was low with a median satisfaction score of 47.0. The location of the pharmacy setting, private counseling area and waiting area were among the factors that significantly affected satisfaction. There was no significant difference in satisfaction of patients with respect to socio-demographic characteristics. In healthcare facilities with poor infrastructure and inadequate professionals, inadequate drug information and medicines were scarce, patient satisfaction was notably low. Addressing the identified gaps in dedicated private counseling area, waiting area and the pharmacy environment could lead to enhanced patient adherence to treatment plans, improved health outcomes and a greater level of trust in the healthcare system.

9. Recommendation

- Health facility managers, woreda health offices, the zonal health department and regional health bureau should prioritize the improvement of the pharmacy settings as per the models designed by FDRE MOH.
- Health facility managers along with EPSS officials should improve the supply of essential and affordable medicines to promote patient satisfaction.
- Researchers should routinely conduct studies continuously to evaluate and enhance patient satisfaction and optimize treatment outcomes.

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Annexes

Annex 1: Verbal consent form

Hello, my name is _____. I'm here to undertake a study entitled *"Patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, Ethiopia: A mixed method study"*.

I will request you to listen carefully for the ideas that I am going to read for you and give me your genuine feedback. The aim of this study is to assess your extent of satisfaction with the outpatient pharmacy service at the health facility. You may not get direct benefit for participating in this study but your responses have importance for the identification and correction of major gaps in the outpatient pharmacy services.

It will take only 10 – 20 minutes to participate in this study. Be confident that your name and address will not be recorded. You have also the right to not to answer any question which might be uncomfortable to you. Again, I will like to tell you that all your responses are confidential and used for research purpose only.

Are you willing to participate in this study?

Yes, I am ☐

No, I am not ☐

Date: _____

Signature: _____

Teshome Wakjira Duresa

Mobile: +251 91 007 5292

E-mail: tewadu@gmail.com

Annex 2: Patient exit interview questionnaire

General information

Serial number _____ Facility code: _____

Data collection date: _____ Signature: _____

I. Socio-demographic characteristics of the respondent

S.N	Questions	Response
1	Gender	1. Male 2. Female
2	How old are you?	_____ years
3	Where is your current residence?	1. Urban 2. Rural
4	What is your marital status?	1. Single 2. Married 3. Divorced 4. Widowed
5	What is your level of education?	1. Cannot read and write 2. Can read and write 3. Primary school (1-8) 4. Secondary school (9-12) 5. College/University
6	What is your occupation?	1. Farmer 2. Government employee 3. Merchant 4. Private institution employee 5. Others _____
7	What is your household monthly income?	_____ birr
8	Visited the health facility	1. For self 2. For others (family/social)
9	Payment method	1. Community based health insurance 2. Out-of-pocket

10	How many times you visited the pharmacy so far?	_____

II. Opinion towards outpatient pharmacy setting

1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied

S.N	Questions	1	2	3	4	5
1	The pharmacy location is convenient for service					
2	Private counseling area of the outpatient pharmacy unit is convenient					
3	The waiting area is convenient and equipped with adequate seats					
4	The outpatient pharmacy area is clean					
5	Medications I need are available					
6	The cost of the medications is fair					
7	Staff numbers are adequate to the service					

III. Opinion of patients towards pharmacy professionals' approach and communication

1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied

S.N	Questions	1	2	3	4	5
1	The politeness and interest of pharmacy professionals was good during service provision					
2	The pharmacy professionals provide services equally to all patients					
3	The pharmacy professionals treat patients with dignity and respect					
4	The pharmacy professionals were available during the time of my visit					
5	The voice and tone of the pharmacy professionals were clear and easily heard					

6	The amount of time the pharmacy professionals take to fill my prescription was fair					

IV. Satisfaction towards pharmacy professionals' medication instruction

1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied

S.N	**Question**	**1**	**2**	**3**	**4**	**5**
1	The counseling or advising time is sufficient					
2	The pharmacy professionals constantly emphasize on the importance of taking medications as prescribed					
3	The pharmacy professionals told me information about proper storage of medications					
4	The pharmacy professionals provide adequate information on medication precaution & side effects					
5	The pharmacy professionals provide adequate information on medication drug–drug and drug–food interactions					
6	The pharmacy professionals label my medicines in readable and understandable instruction					
7	The pharmacy professionals give medication administration instruction in local language					

Annex 3: Guide for key informant (KI) interviews (for patients)

Addis Ababa University

School of Pharmacy | Department of Pharmaceutics and Social Pharmacy

Introduction: I want to thank you for taking the time to meet with me today. My name is **Teshome Wakjira Duresa**. I am the principal investigator for the study entitled *"Patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, Ethiopia: A mixed method study"*. I would like to talk with you about your experiences, attitudes and feelings regarding the services provided by the outpatient pharmacy unit of this health facility.

Purpose of the interview: It is known that patient satisfaction with pharmacy services is the indicator of quality pharmacy practice. Assessing the extent of satisfaction of patients served in the pharmacy unit is important to identify problems in the department and to monitor improvements in quality. I am interested in knowing your views about the provision of outpatient pharmacy service and its quality in this health facility. The interview will take from 21 to 38 minutes. I will be audio-taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we are on tape, please be sure to speak up so that I don't miss your comments. All responses will be kept secure and confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time. Are you willing to participate in this interview?

Yes ☐ No ☐

Date: _____

Signature: _____

Teshome Wakjira Duresa
Mobile: +251 91 007 5292
E-mail: tewadu@gmail.com

I. Socio-demographic characteristics of KI interview (patients)

Variables	Category
How old are you?	_____ (in years)
Gender	1. Male 2. Female
What is your payment status?	1. Out-of-pocket 2. Community Based Health Insurance
What is your occupation?	1. Farmer 2. Government employee 3. Merchant 4. Private employee

II. Interview guide for KIs

1. What is your personal opinion on the structural aspects of outpatient pharmacy setting in this health facility?

   Probes:

   a) The convenience of the location of the outpatient pharmacy
   b) Comfort and convenience of the private counseling area
   c) Cleanliness of the medication dispensing area
   d) Adequacy, availability of adequate seats and comfort of the patient waiting area
   e) Availability of prescribed medicines in the health facility
   f) Fairness of the cost of medicines in the health facility
   g) Adequacy of the staff numbers during patient visits

2. How do you describe attitudes of pharmacy professionals towards patients during customer service?

   Probes:

   a) Politeness and interests of the pharmacy professionals during service provision
   b) The caring attitudes of the pharmacy professionals towards patients
   c) Adequacy of information provision on prescribed medications
   d) Respect of pharmacy professionals towards patients and equal service provision

e) Availability of pharmacy professionals during patient visits
f) The voice of pharmacy professionals during service delivery is easily heard

3. How do you evaluate the satisfaction level of patients with the medication related guidance of pharmacy professionals to patients at this health facility?

   Probes:

   a) Sufficient counseling or advising on prescribed medicines to patients
   b) Emphasis on importance of taking medications as prescribed
   c) Delivery of information on proper storage of prescribed medications
   d) Provision of adequate information on medication precautions and side effects
   e) Information on drug – drug and drug – food interactions
   f) Proper labeling of prescribed medications
   g) Utilization of local language during patient counseling

I will analyze the information you and others shared with myself. I will submit a draft report to the school of pharmacy, Addis Ababa University. I will be happy to send you a copy to review later, if you are interested.

Thank you for your time and cooperation!

Annex 4: Guide for key informant (KI) interviews (for pharmacy professionals)

Addis Ababa University

School of Pharmacy | Department of Pharmaceutics and Social Pharmacy

Introduction: I want to thank you for taking the time to meet with me today. My name is **Teshome Wakjira Duresa.** I am the principal investigator for the study entitled *"Patient satisfaction with outpatient pharmacy services in public health facilities in Metekel Zone, Ethiopia: A mixed method study"*. I would like to talk with you about your experiences, attitudes and feelings regarding the services provided by the outpatient pharmacy unit of this health facility.

Purpose of the interview: It is known that patient satisfaction with pharmacy services is the indicator of quality pharmacy practice. Assessing the extent of satisfaction of patients served in the pharmacy unit is important to identify problems in the department and to monitor improvements in quality. I am interested in knowing your views about the provision of outpatient pharmacy service and its quality in this health facility. The interview will take from 21 to 38 minutes. I will be audio-taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we are on tape, please be sure to speak up so that I don't miss your comments. All responses will be kept secure and confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time. Are you willing to participate in this interview?

Yes ☐ No ☐

Date: _____

Signature: _____

Teshome Wakjira Duresa

Mobile: +251 91 007 5292

E-mail: tewadu@gmail.com

I. Socio-demographic characteristics of KI interview (pharmacy professionals)

S.N.	Questions	Response
1	Gender	1. Male 2. Female
2	How old are you?	_____ (in years)
4	What is your educational level?	1. Pharmacy technician 2. Pharmacist
5	What is your year of experience?	_____ (in years)

II. Interview guide for KIs

4. What is your personal opinion on the structural aspects of outpatient pharmacy setting in this health facility?

   Probes:

   a. The convenience of the location of the outpatient pharmacy
   b. Comfort and convenience of the private counseling area
   c. Cleanliness of the medication dispensing area
   d. Adequacy, availability of adequate seats and comfort of the patient waiting area
   e. Availability of prescribed medicines in the health facility
   f. Fairness of the cost of medicines in the health facility
   g. Adequacy of the staff numbers during patient visits

5. How do you describe attitudes of pharmacy professionals towards patients during customer service?

   Probes:

   a. Politeness and interests of the pharmacy professionals during service provision
   b. The caring attitudes of the pharmacy professionals towards patients
   c. Adequacy of information provision on prescribed medications
   d. Respect of pharmacy professionals towards patients and equal service provision
   e. Availability of pharmacy professionals during patient visits
   f. The voice of pharmacy professionals during service delivery is easily heard

6. How do you evaluate the satisfaction level of patients with the medication related guidance of pharmacy professionals to patients at this health facility?

   Probes:

a. Sufficient counseling or advising on prescribed medicines to patients
b. Emphasis on importance of taking medications as prescribed
c. Delivery of information on proper storage of prescribed medications
d. Provision of adequate information on medication precautions and side effects
e. Information on drug – drug and drug – food interactions
f. Proper labeling of prescribed medications
g. Utilization of local language during patient counseling

I will analyze the information you and others shared with myself. I will submit a draft report to the school of pharmacy, Addis Ababa University. I will be happy to send you a copy to review later, if you are interested.

Thank you for your time and cooperation!

Annex 5: Amharic version of questionnaire and consent

የቃል ስምምነት መጠየቂያ ቅጽ

ሰላም! _____ እባላለሁ። በመተከል ዞን ስር በሚገኙ የመንግስት ጤና ተቋማት ውስጥ ባሉ የተመላላሽ ህክምና የፋርማሲ አገልግሎት ያለውን የተገልጋይ እርካታ ምን እንደሚመስል የሚያሳይ ጥናት ለማካሄድ ነው እዚህ የመጣሁት። የማነብልዎትን ጥያቄዎች በጥሞና አዳምጠዉ እንዲመልሱ በአክብሮት እጠይቃለው።

የዚህ መጠይቅ ዓላማ በተመረጡ የመተከል ዞን የመንግስት ጤና ተቋማት ውስጥ በሚገኙ የመድኃኒት ማደያ ከፍሎች የሚስተናገዱ ተገልጋዮች እርካታ መጠን ልኬትና ተግዳሮቶችን ማጥናት ነው። በዚህ ጥናት ውስጥ በመሳተፍዎ ቀጥተኛ ጥቅም ላያገኙ ይችላሉ። ነገር ግን በነዚህ ተቋማት ውስጥ ያሉ ዋና ዋና ክፍተቶችን ለመለየት የእርስዎ ተሳትፎ ትልቅ ሚና አለው። በዚህ ጥናት ለመሳተፍ ከ10 – 20 ደቂቃ ብቻ ይወስዳል። ሚስጥርዎትን ለመጠበቅ የእርስዎ ስም እና አድራሻ አይመዘገብም። በተጨማሪም የእርስዎ መልስ ምስጢራዊነቱ የተጠበቀ ይሆናል። እርስዎም የማነብልዎትን ጥያቄ መመለስ ወይም አለመመለስ ይችላሉ። በድጋሚ ሁሉንም መልሶችዎ ምስጢራዊነታቸዉ እንደሚጠበቅ እና ለጥናት አላማ ብቻ እንደሚውል ልነግርዎት እፈልጋለሁ።

በዚህ ጥናት ለመሳተፍ ፈቃደኛ ነዎት?

አዎ፣ እስማማለሁ ☐

አይ፣ አልስማማም ☐

ቀን: _____

ፊርማ: _____

ተሾመ ዋቅጅራ ዱሬሳ

ሞባይል: +251 91 007 5292

ኢሜል: tewadu@gmail.com

አጠቃላይ መረጃ

መለያ ቁጥር _____ የተቋሙ ኮድ _____

መረጃው የተሰበሰበበት ቀን _____ ፊርማ _____

1. የምላሽ ሰጪው ማሕበረ-ሕዝብ መገለጫ

ተ.ቁ	ጥያቄዎች	መልሶች
1	ፆታ	1. ወንድ 2. ሴት
2	ዕድሜዎት ስንት ነው?	_____ ዓመት
3	አሁን መኖሪያዎት የት ነው?	1. ከተማ 2. ገጠር
4	የጋብቻ ሁኔታዎት ምንድነው?	1. ያላገባ/ች 2. ያገባ/ች 3. የተፋታ/ች (የሞተበት/ባት)
5	የትምህርት ደረጃዎት ምንድን ነው?	1. ማንበብና መጻፍ የማይችል 2. ማንበብና መጻፍ የሚችል 3. የመጀመሪያ ደረጃ ትምህርት (1-8) 4. ሁለተኛ ደረጃ ትምህርት (9-12) 5. ኮሌጅ/ዩኒቨርሲቲ
6	ሥራዎት ምንድነው?	1. ገበሬ 2. የመንግስት ሠራተኛ 3. ነጋዴ 4. የግል ዘርፍ ሠራተኛ 5. ሌላ ካለ ይጥቀሱ _____
7	አማካይ ወርሃዊ ገቢዎ በግምት ምን ያህል ነው?	_____ ብር
8	መድኃኒቱን እየገዙ ያሉት ለማን ነው?	1. ለራሴ 2. ለሌላ ሰው (ለቤተሰብ/ለማሕበራዊ)
9	የክፍያ ሁኔታ	1. ጤና መድህን 2. በክፍያ (በግል)
10	መድኃኒት ቤቱን ወይም የፋርማሲ ባለሙያውን/ዋን ለመድኃኒት ጉዳይ ለምን ያህል ጊዜ ጎብኝተዋል?	_____

2. ምላሽ ሰጪዎች ስለመድኃኒት ቤቱ አቀማመጥ፣ ስለመድኃቶች በፋርማሲው ውስጥ መኖርና ስለዋጋቸው ተመጣጣኝነት ያላቸው አስተያየት

1. በጣም አልረካሁም 2. አልረካሁም 3. አላውቅም 4. ረክቻለሁ 5. በጣም ረክቻለሁ

ተ.ቁ	ጥያቄዎች	1	2	3	4	5
1	የመድኃኒት ቤቱ አቀማመጥ ለአገልግሎት አሰጣጥ አመቺ ነው					
2	የመድኃኒት ቤቱ የግል ማማከሪያ ቦታ ተስማሚና ምቹ ነው					
3	የመድኃኒት ቤቱ መጠበቂያ ቦታ ተስማሚ፣ ምቹና በቂ መቀመጫ ወንበር አለው					
4	የመድኃኒት ማደያ ቦታ ንፅህና የተጠበቀ ነው					
5	የምፈልጋቸው መድኃኒቶች በመድኃኒት ክፍሉ ውስጥ አሉ					
6	የመድኃቶች ዋጋ ተመጣጣኝ ነው					
7	የፋርማሲ ባለሙያዎች ቁጥር ለሚሰጠው አገልግሎት በቂ ነው					

3. ተገልጋዮች በፋርማሲ ባለሙያዎች አቀራረብ ወይም የተግባቦት ክህሎት ላይ ያላቸው እርካታ

1. በጣም አልረካሁም 2. አልረካሁም 3. አላውቅም 4. ረክቻለሁ 5. በጣም ረክቻለሁ

ተ.ቁ	ጥያቄዎች	1	2	3	4	5
1	የፋርማሲ ባለሙያው/ዋ ትህትናና የማገልገል ፍላጎት ጥሩ ነበር					
2	የፋርማሲ ባለሙያው/ዋ ታካሚዎቹን በአክብሮት ያስተናግዳል /ታስተናግዳለች					
3	የፋርማሲ ባለሙያው/ዋ ለሁሉም ታካሚዎች አገልግሎት በእኩል ይሰጣል/ትሰጠኛለች					
4	የፋርማሲ ባለሙያው/ዋ በሄድኩበት ሰዓት በስራ ላይ አለ/አለች					
5	የፋርማሲ ባለሙያው/ዋ ድምፅና ድምፀ ቅላፄ ግልጽና በቀላሉ ይሰማ ነበር					
6	ባለሙያው/ዋ የታዘዘልኝን መድኃኒት አዘጋጅቶ/ታ ለመስጠት የሚፈጅብኝ ጊዜ ተመጣጣኝ ነው					

4. ታካሚዎች የፋርማሲ ባለሙያው በሚሰጣቸው የመድኃኒት መረጃ ላይ ያላቸው እርካታ

1. በጣም አልረካሁም 2. አልረካሁም 3. አላውቅም 4. ረክቻለሁ 5. በጣም ረክቻለሁ

ተ.ቁ	**ጥያቄዎች**	**1**	**2**	**3**	**4**	**5**
1	ስለ መድኃኒት ለማማከር የሚሰጠው ጊዜ በቂ ነው					
2	የፋርማሲ ባለሙያው/ዋ መድኃኒቴን በታዘዘልኝ መሰረት መውሰዴ አስፈላጊነት እና ጥቅሙን ደጋግሞ/ማ ያሳስበኛል/ታሳስበኛለች					
3	የፋርማሲ ባለሙያው/ዋ ስለ መድኃኒቴ ተስማሚ የአቀማመጥ ሁኔታ ነግሮኛል/ነግራኛለች					
4	የፋርማሲ ባለሙያዉ/ዋ የመድኃኒቴን ቅድመ ጥንቃቄ እና ስለ ጎንዮሽ ጉዳቶቹ በቂ መረጃ ይሰጠኛል/ትሰጠኛለች					
5	የፋርማሲ ባለሙያው/ዋ መድኃኒቴ ከሌላ መድኃኒት ጋርና ከምግብ ጋር ስላለው ትስስር በበቂ ሁኔታ ያስረዳኛል/ታስረዳኛለች					
6	የፋርማሲ ባለሙያው/ዋ መድኃኒቶቼን በቀላሉ ሊነበብ በሚችል እና በቀላሉ ለመረዳት በሚያስችል ጽሁፍ ይጽፋል/ትጽፋለች					
7	የፋርማሲ ባለሙያው/ዋ ስለመድኃኒቴ አወሳሰድ በአካባቢያዊ ቋንቋ ነግሮኛል/ነግራኛለች					

Annex 6: Amharic version of key-informant interview guide (for patients)

አዲስ አበባ ዩኒቨርሲቲ

ፋርማሲ ትምህርት ቤት | ፋርማሲዩቲክስ ትምህርት ክፍል

በመተከል ዞን ስር በሚገኙ የመንግስት ጤና ተቋማት ውስጥ ባሉ የተመላላሽ ህክምና የፋርማሲ አገልግሎት ያለውን የተገልጋይ እርካታ በተመለከተ ከሚመለከታቸው ባለድርሻ አካላት ጋር ለሚደረግ ቃለ መጠይቅ የተዘጋጀ መመሪያ

መግቢያ፣

ውድ ጊዜዎትን ሰውተው ይሄንን ቃለ መጠይቅ ለማድረግ ፍቃደኛ ስለሆኑልኝ ከልቤ አመሰግናለሁ። ጤና ይስጥልኝ! ስሜ ተሾመ ዋቅጅራ ዱሬሳ ይባላል። በመተከል ዞን ስር በሚገኙ የተመረጡ የመንግስት ጤና ተቋማት ውስጥ ባሉ የተመላላሽ ህክምና የመድኃኒት ክፍል *(outpatient pharmacy services)* ያለውን የተገልጋይ እርካታ ሁኔታ እና ተግዳሮቶችን ለሚገመግመው ጥናት ዋና ተመራማሪ ነኝ። በዚህ ተቋም በተመላላሽ ህክምና የመድኃኒት ክፍል በሚሰጠው አገልግሎት ዙሪያ ስላለዎ ልምድ፣ አመለካከት እና ስሜት እንዲያጋሩኝ ፅኑ ፍላጎት አለኝ።

የቃለ መጠይቁ ዓላማ፣

የተመላላሽ ህክምና ፋርማሲ አገልግሎት የተገልጋዮች እርካታ አንዱ የመድኃኒት አገልግሎት ትግበራ የጥራት መለኪያ እንደሆነ ይታወቃል። በመድኃኒት ክፍሎች ያለውን የተገልጋይ እርካታ መጠን መገምገም በክፍሉ ውስጥ ያሉትን ችግሮች ለመለየትና የጥራት መሻሻሎችን ለመከታተል ይረዳል። በዚህ ተቋም የተመላላሽ መድኃኒት ክፍሉ በሚሰጠው አገልግሎትና ጥራት ያለዎትን እይታ ለማወቅ ፍላጎት አለኝ። ይህ ቃለ መጠይቅ ከአንድ ሰዓት በታች ይወስዳል። የሚሰጡኝ አንድም አስተያየት እንዲያመልጠኝ ስለማልፈልግ ቃለ መጠይቁን በመቅረፀ ድምፅ የምቀዳው ይሆናል። በቃለ መጠይቁ ወቅት ማስታወሻ የምይዝ ቢሆንም የሚሰጡኝን አስተያየት መሉ ለሙሉ በፍጥነት መፃፍና ማስቀረት አይቻለኝም። ስለሆነም የሚሰጡኝ ሃሳብና አስተያየት የሚቀዳ ስለሆነና ሙሉ አስተያየትዎ ስለሚያስፈልገኝ ድምፅዎትን ከፍ ያድርጉልኝ። ሁሉም ምላሾችዎ ሚስጢራዊነታቸውና ደኅንነታቸው ተጠብቆ በጥንቃቄ ይያዛሉ። ይህም ማለት የቃለ መጠይቁ ምላሾችዎ ከዚህ ጥናት ቡድን አባላት ጋር ብቻ የሚጋሩና ከሪፖርታችን ውስጥ በሚካተት ማንኛውም መረጃ ማንነትዎ አይገለፅም። ያስታውሱ፣ መናገር ስለማይፈልጉት ማንኛውም ጉዳይ አለመናገር ይችላሉ እናም በማንኛውም ሰዓት ቃለ መጠይቁን ሊያቋርጡ ይችላሉ። በዚህ ቃለ መጠይቅ ለመሳተፍ ፍቃደኛ ነዎት?

አዎ ☐ አይደለሁም ☐

ቀን፡ _____

ፊርማ፡ _____

ተሾመ ዋቅጅራ ዱሬሳ

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ሀ/ የምላሽ ሰጪው ማሕበረ-ሕዝብ መገለጫ (ለታካሚዎች)

Variables	**Category**
ዕድሜዎት ስንት ነው?	_____ (ዓመት)
ፆታ	1. ወንድ 2. ሴት
የከፍያ ሁኔታዎት ምንድነው?	1. በከፍያ (በግል) 2. ጤና መድህን
የስራ ሁኔታዎት ምንድነው?	1. ግብርና 2. የመንግስት ሰራተኛ 3. ነጋዴ 4. የግል ተቀጣሪ

ለ/ ቃለ መጠይቆች

1. በዚህ ተቋም ውስጥ ያለውን የተመላላሽ ህክምና የመድኃኒት ክፍል ሁኔታ እንዴት ይገልፁታል?

   1.1. የተመላላሽ ህክምና የመድኃኒት ክፍል አቀማመጥ ምቾት
   1.2. የግል ማማከሪያ ክፍል *(private counseling)* ምቾትና ተስማሚነት
   1.3. የመድኃኒት መስጫ አካባቢ *(dispensing area)* ንፅህናን በተመለከተ
   1.4. ለተገልጋዮች መጠበቂያ ቦታ *(waiting area)* ተስማሚነት፣ ምቾትና በቂ መቀመጫ ወንበር መኖር
   1.5. ተገልጋዩ የሚፈልጋቸውን መድኃኒቶች በተቋሙ ያገኛል?
   1.6. በተቋሙ የሚገኙ መድኃኒቶች ዋጋ ተመጣጣኝነት
   1.7. በቂ ባለሙያዎች በተቋሙ ይገኛሉ ብለው ያስባሉ?

2. የመድኃኒት ክፍሉ ተገልጋዮች በፋርማሲ ባለሙያዎች አቀራረብ ወይም የተግባቦት ክህሎት ላይ ያላቸው እርካታ እንዴት ይገልፃሉ?

   2.1. የፋርማሲ ባለሙያዎች ለተገልጋዮች የሚያሳዩት ትህትናና የማገልግል ፍላጎት
   2.2. የፋርማሲ ባለሙያዎች ለተገልጋዮች የሚያደርጉት እንብካቤና አከብሮት
   2.3. ባለሙያዎቹ በታዘዙት መድኃኒቶች ዙሪያ በቂ መረጃ ለተገልጋዮች መስጠትን በተመለከተ
   2.4. የመድኃኒት ክፍሉ ባለሙያዎች ሁሉንም ተገልጋይ በእኩል የማስተናገድ ሁኔታ
   2.5. ተገልጋዮች መድኃኒት ክፍሉን በሚጎበኙበት ሰዓት ባለሙያዎች በስራ ላይ የመገኘት ሁኔታ
   2.6. የፋርማሲ ባለሙያዎች ድምፅና ድምፀ ቅላፄ ለተገልጋዩ ግልጽ መሆንና በቀላሉ መሰማት

3. የመድኃኒት ክፍሉ ተገልጋዮች የፋርማሲ ባለሙያዎች በሚሰጧቸው የመድኃኒት ነክ መረጃ ላይ ያላቸው እርካታ እንዴት ይገመግማሉ?

    2.1. ተገልጋዮች ለታዘዙላቸው መድኃኒቶች በቂ የምክር አገልግሎት ማግኘት
    2.2. የታዘዙ መድኃኒቶች በአግባቡ እንዲወሰዱና ጥቅማቸውን ደጋግሞ መንገር
    2.3. የመድኃኒቶችን ማስቀመጫ ቦታ ለተገልጋዮች መረጃ መስጠት
    2.4. ስለመድኃኒቶች ቅድመ ጥንቃቄና የጎንዮሽ ጉዳቶች በቂ መረጃ መስጠት
    2.5. የመድኃኒቶች እርስ በርስና ከምግብ ጋር ያላቸው መስተጋብር *(interactions)* መረጃ መስጠት
    2.6. ለተገልጋዮች በታዘዙ መድኃኒቶች ላይ ተገቢ መለያ *(label)* መለጠፍ ወይም መፃፍ
    2.7. ስለ መድኃኒት አወሳሰድ በአካባቢያዊ ቋንቋ ለተገልጋዩ መንገር

እርስዎና ሌሎች ባለድርሻ አካላት ያጋሩኝን መረጃዎች የምተነትን ይሆናል። ረቂቁንም ለድኅረ ምረቃ ትምህርት ቤት አስገባለሁ። ለመገምገም ፍላጎቱ ካለዎት ቅጂውን ሌላ ጊዜ ልልክልዎ እችላለሁ።

ስለትብብርዎና ስለሰጡኝ ጊዜ አመሰግናለሁ!

Annexes 7: Amharic version of key-informant interview guide (for professionals)

አዲስ አበባ ዩኒቨርሲቲ

ፋርማሲ ትምህርት ቤት | ፋርማሲዩቲክስ ትምህርት ክፍል

በመተከል ዞን ስር በሚገኙ የመንግስት ጤና ተቋማት ውስጥ ባሉ የተመላላሽ ህክምና የፋርማሲ አገልግሎት ያለውን የተገልጋይ እርካታ በተመለከተ ከሚመለከታቸው ባለድርሻ አካላት ጋር ለሚደረግ ቃለ መጠይቅ የተዘጋጀ መመሪያ

<u>መግቢያ፣</u>

ውድ ጊዜዎትን ሰውተው ይሄንን ቃለ መጠይቅ ለማድረግ ፍቃደኛ ስለሆኑልኝ ከልቤ አመሰግናለሁ። ጤና ይስጥልኝ! ስሜ <u>ተሾመ ዋቅጅራ ዱሬሳ</u> ይባላል። በመተከል ዞን ስር በሚገኙ የተመረጡ የመንግስት ጤና ተቋማት ውስጥ ባሉ የተመላላሽ ህክምና የፋርማሲ አገልግሎት *(outpatient pharmacy services)* ያለውን የተገልጋይ እርካታ ሁኔታ እና ተግዳሮቶችን ለሚገመግመው ጥናት ዋና ተመራማሪ ነኝ። በዚህ ተቋም በተመላላሽ ህክምና የመድኃኒት ክፍል በሚሰጠው አገልግሎት ዙሪያ ስላለዎ ልምድ፣ አመለካከት እና ስሜት እንዲያጋሩኝ ፅኑ ፍላጎት አለኝ።

<u>የቃለ መጠይቁ ዓላማ፣</u>

የተመላላሽ ህክምና መድኃኒት ክፍል የተገልጋዮች እርካታ አንዱ የመድኃኒት አገልግሎት ትግበራ የጥራት መለኪያ እንደሆነ ይታወቃል። በመድኃኒት ክፍሎች ያለውን የተገልጋይ እርካታ መጠን መገምገም በክፍሉ ውስጥ ያሉትን ችግሮች ለመለየትና የጥራት መሻሻሎችን ለመከታተል ይረዳል። በዚህ ተቋም የተመላላሽ መድኃኒት ክፍሉ በሚሰጠው አገልግሎትና ጥራት ያለዎትን እይታ ለማወቅ ፍላጎት አለኝ። ይህ ቃለ መጠይቅ ከአንድ ሰዓት በታች ይወስዳል። የሚሰጡኝ አንድም አስተያየት እንዲያመልጠኝ ስለማልፈልግ ቃለ መጠይቁን በመቅረፀ ድምፅ የምቀዳው ይሆናል። በቃለ መጠይቁ ወቅት ማስታወሻ የምይዝ ቢሆንም የሚሰጡኝን አስተያየት መሉ ለሙሉ በፍጥነት መፃፍና ማስቀረት አይቻለኝም። ስለሆነም የሚሰጡኝ ሃሳብና አስተያየት የሚቀዳ ስለሆነና ሙሉ አስተያየትዎ ስለሚያስፈልገኝ ድምፅዎትን ከፍ ያድርጉልኝ። ሁሉም ምላሾችዎ ሚስጢራዊነታቸውና ደኅንነታቸው ተጠብቆ በጥንቃቄ ይያዛሉ። ይህም ማለት የቃለ መጠይቁ ምላሾችዎ ከዚህ ጥናት ቡድን አባላት ጋር ብቻ የሚጋሩና ከሪፖርታችን ውስጥ በሚካተት ማንኛውም መረጃ ማንነትዎ አይገለፅም። ያስታውሱ፣ መናገር ስለማይፈልጉት ማንኛውም ጉዳይ አለመናገር ይችላሉ እናም በማንኛውም ሰዓት ቃለ መጠይቁን ሊያቋርጡ ይችላሉ። በዚህ ቃለ መጠይቅ ለመሳተፍ ፍቃደኛ ነዎት?

አዎ ☐ አይደለሁም ☐

ቀን፡ _____

ፊርማ፡ _____

ተሾመ ዋቅጅራ ዱሬሳ

ስልክ: +251 91 007 5292

ኢሜል: tewadu@gmail.com

ሀ/ የምላሽ ሰጪው ማሕበረ-ሕዝብ መገለጫ (ለፋርማሲ ባለሙያዎች)

ተ.ቁ	ጥያቄዎች	መልሶች
1	ፆታ	1. ወንድ 2. ሴት
2	ዕድሜዎ ስንት ነው?	_____ ዓመት
3	የትምህርት ደረጃዎት ምንድን ነው?	1. ዲፕሎማ 2. ዲግሪ
4	ስንት ዓመት አገልግለዋል?	_____ ዓመት

ለ/ ቃለ መጠይቆች

1. በዚህ ተቋም ውስጥ ያለውን የተመላላሽ ህክምና የመድኃኒት ክፍል ሁኔታ እንዴት ይገልፁታል?

    1.1.የተመላላሽ ህክምና የመድኃኒት ክፍል አቀማመጥ ምቾት

    1.2.የግል ማማከሪያ ክፍል *(private counseling)* ምቾትና ተስማሚነት

    1.3.የመድኃኒት መስጫ አካባቢ *(dispensing area)* ንፅህናን በተመለከተ

    1.4.ለተገልጋዮች መጠበቂያ ቦታ *(waiting area)* ተስማሚነት፣ ምቾትና በቂ መቀመጫ ወንበር መኖር

    1.5.ተገልጋዩ የሚፈልጋቸውን መድኃኒቶች በተቋሙ ያገኛል?

    1.6.በተቋሙ የሚገኙ መድኃኒቶች ዋጋ ተመጣጣኝነት

    1.7.በቂ ባለሙያዎች በተቋሙ ይገኛሉ ብለው ያስባሉ?

2. የመድኃኒት ክፍሉ ተገልጋዮች በፋርማሲ ባለሙያዎች አቀራረብ ወይም የተግባቦት ክህሎት ላይ ያላቸው እርካታ እንዴት ይገልፃሉ?

    2.2.የፋርማሲ ባለሙያዎች ለተገልጋዮች የሚያሳዩት ትህትናና የማገልግል ፍላጎት

    2.3.የፋርማሲ ባለሙያዎች ለተገልጋዮች የሚያደርጉት እንብካቤና አከብሮት

    2.4.ባለሙያዎቹ በታዘዙት መድኃኒቶች ዙሪያ በቂ መረጃ ለተገልጋዮች መስጠትን በተመለከተ

    2.5.የመድኃኒት ክፍሉ ባለሙያዎች ሁሉንም ተገልጋይ በእኩል የማስተናገድ ሁኔታ

    2.6.ተገልጋዮች መድኃኒት ክፍሉን በሚጎበኙበት ሰዓት ባለሙያዎች በስራ ላይ የመገኘት ሁኔታ

    2.7.የፋርማሲ ባለሙያዎች ድምፅና ድምፀ ቅላፄ ለተገልጋዩ ግልጽ መሆንና በቀላሉ መሰማት

3. የመድኃኒት ክፍሉ ተገልጋዮች የፋርማሲ ባለሙያዎች በሚሰጧቸው የመድኃኒት ነክ መረጃ ላይ ያላቸው እርካታ እንዴት ይገመግማሉ?

    3.1.ተገልጋዮች ለታዘዙላቸው መድኃኒቶች በቂ የምክር አገልግሎት ማግኘት

3.2.የታዘዙ መድኃኒቶች በአግባቡ እንዲወሰዱና ጥቅማቸውን ደጋግሞ መንገር

3.3.የመድኃኒቶችን ማስቀመጫ ቦታ ለተገልጋዮች መረጃ መስጠት

3.4.ስለመድኃኒቶች ቅድመ ጥንቃቄና የጎንዮሽ ጉዳቶች በቂ መረጃ መስጠት

3.5.የመድኃኒቶች እርስ በርስና ከምግብ ጋር ያላቸው መስተጋብር *(interactions)* መረጃ መስጠት

3.6.ለተገልጋዮች በታዘዙ መድኃኒቶች ላይ ተገቢ መለያ *(label)* መለጠፍ ወይም መፃፍ

3.7.ስለ መድኃኒት አወሳሰድ በአካባቢያዊ ቋንቋ ለተገልጋዩ መንገር

እርስዎና ሌሎች ባለድርሻ አካላት ያጋሩኝን መረጃዎች የምተነትን ይሆናል። ረቂቁንም ለአዲስ አበባ ዩኒቨርስቲ የፋርማሲ ትምህርት ቤት አስገባለሁ። ለመገምገም ፍላጎቱ ካለዎት ቅጂውን ሌላ ጊዜ ልልክልዎ እችላለሁ።

ስለትብብርዎና ስለሰጡኝ ጊዜ አመሰግናለሁ!

በ ፋርማሲ ት/ቤት
የኢቲካል ሪቪው ኮሚቴ

አዲስ አበባ ዩኒቨርሲቲ
Addis Ababa University

School of Pharmacy
Ethical Review Committee

ቀን Date: April 18, 2023

ቁጥር Ref. No.: ERB/SOP/512/15/2023

To: Teshome Wakjira
School of Pharmacy

Re: Ethical Clearance

It is to be recalled that you submitted a research project proposal entiled **"The extent and determinants of client satisfaction with oulpatient pharmacy services in selected public health facilities of Metekel zone, Ethiopia".** The commiitee thoroughly reviewed the proposal based on iis operational guideline and found that, it fulfills all the ethical requirements stipulated in the guideline. This is, therefore, to infom you that the proposal is ethically approved for implementation.

With best regard,

Shemsu Umer (PhD)
Chairpeoon, Ethical Review Committee
School of Pharmacy
College of Health Sciences
Addis Ababa University

☎ 00251156 00 12 ✉ 1178 ቴሌክስ Telex: 21205 ፋክስ Fax: 0025[11]1558566 ቴሌግራም Cable: AAUNIV

Addis Ababa University
አዲስ አበባ ዩኒቨርሲቲ

በፋርማሲ ት/ቤት
የፋርማሲዩቲክስና ሶሻል ፋርማሲ
ትምህርት ክፍል

School of Pharmacy
Department of Pharmaceutics
and Social Pharmacy

ቀን : ሚያዝያ 24 ቀን 2015 ዓ.ም
Date
ቁጥር: ፋር/ሲዩቲክስ/305/15/2023
Ref.No

ለቤኒሻንጉል ጉምዝ ክልል ጤና ቢሮ

ጉዳዩ፡ ትብብርን ይመለከታል

በአዲስ አበባ ዩኒቨርሲቲ፡ ጤና ሳይንስ ኮሌጅ የፋርማሲ ት/ቤት በፋርማሲዩቲክስ እና ሶሻል ፋርማሲ ትምህርት ክፍል የፋርማኮኢፒዲሞሎጂ እና ሶሻል ፋርማሲ ድህረምረቃ ተማሪ የሆነው ተሾመ ዋቅጅራ የመመረቂያ ጹሁፉን የሚሰራው "The exten and determinnats of client satisfaction with outpatient pharmacy services in selected public health facilities of Metekel Zone, Ethiopia" በሚል ርዕስ ሲሆን በእናንተ በኩል አስፈላጊው ትብብር ይደረግለት ዘንድ በማክበር እንጠይቃለን ። ለመማር ማስተማር ስራችን ለምታደርጉት በጎ አስተዋጽኦ ከልብ እናመሰግናለን።

ከሰላምታ ጋር

Addis Ababa University
የፋርማሲዩቲክስና ሶሻል ፋርማሲ ት ክፍል
ፋርማሲ ት/ቤት
Dept. of Pharmaceutics & Social Pharmacy
School of Pharmacy

መስፍን ጎይቴ (ዶ/ር)
የፋርማሲዩቲክስ እና ሶሻል ፋርማሲ
ትምህርት ክፍል ኃላፊ

የቤኒሻንጉል ጉሙዝ ክልል መንግስት ጤና ጥበቃ ቢሮ
Benishangul Gumuz Regional State Health Bureau

ቁጥር(Ref.No) 372/ሀ/ጤ/ቁ-14

ቀን(Date) 23/09/2015

ለመተከል ዞን ጤና ጽ/ቤት

ግ/በለስ

ጉዳዩ፡- ትብብር እንዲደረግላቸው ስለመጠየቅ

በአዲስ አበባ ዩኒቨርስቲ የጤና ሳይንስ ኮሌጅ የፋርማሲ ት/ቤት በፋርማሲዩቲክስ እና ሶሻል ፋርማሲ ትምህርት ክፍል የፋርማኮኢፒዲሞሎጂ እና ሶሻል ፋርማሲ ድህረምረቃ የመመረቂያ ጹሁፉን የሚሰራው "the exten and determinnats of client satisfaction with outpatient oharmacy serviees in seleeted pubtic health faeilities of metekel zone, Ethiopia በሚል ርዕስ የሚሰሩ መሆኑን በቁጥር ፋር/ሲዩቲክስ/305/15/2023 በቀን ሚያዚያ 24/ቀን2015 ዓ.ም አሳውቀውናል ፡፡

ስለሆነም ለመረጃ ሰብሳቢው **አቶ ተሾመ ዋቅጅራ** አስፈላጊውን ትብብር እንዲደረግላቸው በትህትና እንጠይቃለን ፡፡

ከሠላምታ ጋር

ጨምረው እጅጉ አባይ
Chemirew Ejigu Abay
የህ/ጤ/አደ/ቁጥጥር ዳይረክቶሬት ዳይሬክተር
PHEM Directorate Director

ግልባጭ

- አቶ ተሾመ ዋቅጅራ

ባሉበት

- ለአዲስ አበባ ዩኒቨርስቲ የጤና ሳይንስ ኮሌጅ

አዲስ አበባ

057-775-0341/2147 057-775-00 62   61 Assosa - Ethiopia
In reply please refer to our Ref. No.   Stop AIDS Keep The Promise!

በቤኒሻንጉል ጉሙዝ ክልል መንግስት ጤና ቢሮ
የመተከል ዞን ጤና መምሪያ
Benishangul-Gumuz Regional State Health Bureau
Metekel Zone Health Department

ቁጥር፡ 1085/ትብ-21 /አ1

ቀን፡ 18/10/2015 ዓ/ም

- ለፓዊ አጠቃላይ ሆስፒታል
- ለቡለን የመጀመሪያ ደረጃ ሆስፒታል
- ለግልገል በለስ ጤና አጠባበቅ ጣቢያ
- ለድባጢ ጤና አጠባበቅ ጣቢያ
- ለፈለገሰላም ጤና አጠባበቅ ጣቢያ
- ለማንቡክ ጤና አጠባበቅ ጣቢያ

ባሉበት፤

ጉዳዩ፡- **ትብብር እንዲደረግላቸው ስለመጠየቅ።**

በአዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ ፋርማሲ ትምህርት ቤት የፋርማሲዩቲክስ እና ሶሻል ፋርማሲ ትምህርት ክፍል የድኅረ ምረቃ ተማሪ የሆኑት አቶ ተሾመ ዋቅጅራ የመመረቂያ ጽሁፋቸውን ***"The extent and determinants of client satisfaction with outpatient pharmacy services in selected health facilities of Metekel Zone, Ethiopia"*** በሚል ርዕስ የሚሰሩ መሆኑን በመጥቀስ የአዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ ፋርማሲ ትምህርት ቤት ፋርማሲዩቲክስ እና ሶሻል ፋርማሲ ትምህርት ክፍል በቁጥር ፋር/ሲዩቲክስ/305/15/2023 በቀን ሚያዚያ 24/2015 ዓ/ም በተጻፈ ደብዳቤ ቢሮው ትብብር እንዲያደርግላቸው መጠየቁን በመጥቀስ የቤ/ጉ/ክ/መ/ጤና ቢሮ በቁጥር 372/ህ/ጤ/አ/ቁ-14 በቀን 23/09/2015 ዓ/ም በተጻፈ ደብዳቤ በተዋረድ ጠይቆናል።

ስለዚህ አቶ **ተሾመ ዋቅጅራ** ለመመረቂያ ጽሁፋቸው የሚፈልጓቸውን መረጃዎች ከላይ በስም ከተጠቀሱት ተቋማት ተገልጋዮች መሰብሰብ እንዲችሉ አስፈላጊው ሁሉ ትብብር እንዲደረግላቸው በትህትና እንጠይቃለን።

"ከሠላምታ ጋር"
ደበሎ ሸኩሮ አኪ
Debelo Shikuro Aki
የመተከል ዞን ጤና ጥበቃ መምሪያ ኃላፊ
Metekel Zone
Health Department Head

ግልባጭ፣

- ለፓዊ ወረዳ ጤና ጽ/ቤት
  አልሙ፣
- ለዳንጉር ወረዳ ጤና ጽ/ቤት
  ማንቡክ፤
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  ግልገል በለስ፤
- ለድባጢ ወረዳ ጤና ጽ/ቤት
  ድባጢ፤
- ለአቶ ተሾመ ዋቅጅራ
  ባሉበት፤

ስ.ቁ፡ 251 (0) 581190366
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ለጤናችን በጋራ እንስራ!
Let Us Work Together for Our Health!

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