THE POLYPHARMACY DILEMMA IN PSYCHIATRY: A PATIENT-CENTERED MIXED-METHODS EXPLORATION

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ABSTRACT

Polypharmacy is a prevalent yet intricate practice in psychiatric treatment, gaining insight into patients' perspectives on polypharmacy is crucial for enhancing treatment adherence.

Objective: This mixed-methods study investigated psychiatric patients' experiences and views on polypharmacy, combining quantitative data on its prevalence and attitudes with qualitative insights into personal experiences.

Methods: Fifteen psychiatric patients were recruited from a single psychiatric facility. Quantitative data were gathered from 100 patients selected conveniently using the Drug Attitude Inventory (DAI-10) to evaluate their attitudes toward medication. Semi-structured interviews were conducted to delve into patients' personal experiences with polypharmacy. Thematic analysis was employed for qualitative data, while descriptive and inferential statistics were used for the quantitative aspect.

Results: Quantitatively, 84% of participants were on polypharmacy regimens, with a moderately positive average DAI-10 score (M = 3.21, SD = 0.52). Patients on multiple medications exhibited more favorable attitudes than those on monotherapy. However, individuals with schizophrenia displayed significantly lower attitudes, possibly due to treatment fatigue. Qualitatively, themes emerged regarding understanding and involvement in medication planning, mixed attitudes toward polypharmacy, impact on daily life, side effects, adherence strategies, and patient-provider communication. Many participants expressed a wish for fewer medications, greater involvement in decision-making, and more structured support for adherence.

Conclusion: The study underscores the complex and often conflicting attitudes psychiatric patients have toward polypharmacy. Incorporating patient perspectives into medication planning and improving communication can enhance adherence, trust, and therapeutic outcomes. These findings highlight the importance of personalized, collaborative care approaches in psychiatric medication management.

BACKGROUND

Polypharmacy, which is often described as the simultaneous use of two or more psychotropic drugs, has become more common in psychiatric treatment, especially for managing complex treatment-resistant conditions and comorbid psychiatric disorders. Although polypharmacy can provide therapeutic benefits in certain clinical situations, such as enhancing treatment for resistant schizophrenia or mood disorders, there are ongoing concerns regarding its safety, effectiveness, and long-term effects on patient health (1, 2). Worldwide, the prevalence of psychiatric polypharmacy varies significantly, with studies showing rates ranging from 20% to over 60% in inpatient settings, where the severity and urgency of illness often influence prescription practices (3). For example, in the U.S., one-third of psychiatric consultations involve at least two psychotropic medications (3). Despite its growing use, evidence

supporting the use of polypharmacy over monotherapy is inconsistent. Clinical guidelines from respected organizations such as the American Psychiatric Association and NICE generally advise careful and individualized consideration, favoring monotherapy, providing a clear rationale for drug combinations, and regularly reviewing treatment plans (4, 5). Clinically, polypharmacy increases the risk of adverse drug reactions, pharmacokinetic and pharmacodynamic interactions, cognitive impairment, and poor medication adherence, all of which jeopardize patient safety and treatment outcomes (2). However, an important yet underexplored aspect of this issue is the patient's perspective: how individuals taking multiple psychiatric medications perceive, interpret, and emotionally react to their treatment plans. Emerging research suggests that psychiatric patients often have concerns regarding polypharmacy. De las Cuevas and Sanz found that patients frequently experience confusion and mistrust when polypharmacy is used without sufficient explanation (6). Similarly, Liu et al. discovered that patients with schizophrenia express concerns about side effects, long-term dependency, and reduced autonomy (7). Hugtenburg et al. emphasized a strong need for improved communication and involvement in decision-making (8), while Björkman et al. observed that patients' views ranged from seeing polypharmacy as a therapeutic uncertainty to viewing it as a path to recovery, especially when supported by trusted clinical relationships (9). Nevertheless, most existing studies have concentrated on Western populations and clinician perspectives, with a limited exploration of the lived experiences of patients in non-Western or Middle Eastern contexts. Cultural beliefs, family involvement in health decisions, the stigma surrounding psychiatric diagnoses, and different healthcare structures can significantly influence the perception and tolerance of polypharmacy. For instance, a study in Saudi Arabia revealed that patients often associate the use of multiple psychiatric drugs with severe illness or loss of independence (10), highlighting the impact of cultural framing. Despite increasing awareness, few studies have adopted a patient-centered, mixed-methods approach that captures both the quantifiable patterns of medication use and the qualitative nuances of patient experience. Such an approach is crucial to align research with modern mental health care values, particularly those focused on shared decision-making, informed consent, and therapeutic alliances. Therefore, this study aimed to address a critical gap by examining both the statistical prevalence and subjective experiences of psychiatric patients undergoing polypharmacy in a Middle Eastern context. Through a mixed-methods design, the study aims to generate actionable insights to inform culturally sensitive, evidence-based prescribing practices, minimize unnecessary medication burden, and foster collaborative care rooted in trust, transparency, and patient empowerment.

SIGNIFICANCY OF THE STUDY

Understanding psychiatric patient attitudes towards Poly pharmaceuticals is essential to improve the adherence to treatment, patient satisfaction and overall health outcomes of psychiatric care. Although there are clinical reasons for prescribing multiple psychotropic drugs, Poly pharmaceuticals often raise concerns about adverse reactions, low quality of life, and increased burden, especially when patients feel excluded from the decision-making process. This is due to its links with heightened risks of adverse effects, drug interactions, and medication non-adherence, all of which can detrimentally impact patient safety and outcomes (11, 12). Although there are instances where polypharmacy may be clinically warranted, current clinical guidelines from organizations like the American Psychiatric Association and NICE recommend its careful use, stressing the importance of personalized care and regular treatment evaluations (13, 14). Despite its widespread occurrence, especially in inpatient settings where severe or treatment-resistant psychiatric conditions are prevalent (15), there is a notable lack of research on how patients themselves perceive and experience polypharmacy. Most existing research tends to focus on prescriber practices or administrative data, often neglecting the patient's perspective. However, emerging qualitative evidence suggests that many patients feel confused, skeptical, or distressed about multiple prescriptions, particularly when there is a lack of clear explanations or shared decision-making (16, 17). In culturally unique environments like Saudi Arabia, these issues may be exacerbated by stigma, gaps in health literacy, and differing expectations regarding mental health treatment (18). This study is crucial as it addresses this significant gap by employing a patient-centered mixed-methods approach that not only measures the extent of psychiatric polypharmacy but also reveals the lived experiences, beliefs, and preferences of those

affected. The results will guide culturally sensitive prescribing practices, encourage shared decision-making, and strengthen therapeutic relationships, thereby contributing to safer, more effective, and compassionate psychiatric care.

THEORETICAL FRAMEWORK

For this study, an appropriate theoretical framework combines the Health Belief Model (HBM) with the Shared Decision-Making (SDM) framework, offering a thorough method to comprehend patients' perspectives and actions regarding polypharmacy. The HBM elucidates and forecasts patient behavior through elements like perceived susceptibility (e.g., concern about relapse if medication is stopped), perceived severity (e.g., the belief in the necessity of strict medication control for psychiatric conditions), perceived bene ts (e.g., improvement with medication), perceived barriers (e.g., side effects, cost, stigma), cues to action (e.g., clinician advice), and self-efficacy (confidence in managing medication) [19,20]. These elements act as independent variables affecting outcomes such as medication adherence, satisfaction, and reported side effects. In addition, the SDM framework highlights the collaborative process between patients and clinicians in treatment planning, promoting patient engagement, trust, and better adherence [21,22]. This framework enhances the qualitative investigation by examining patients' lived experiences and emotional reactions to polypharmacy, shedding light on reasons for acceptance or resistance. Together, these frameworks enable an integrated analysis where HBM components in influence beliefs and attitudes, while SDM captures the interactive decision-making process affecting trust, satisfaction, and compliance, thus connecting the quantitative and qualitative dimensions of the study [23,24].

AIM OF THE STUDY

The aim of this study is to explore and understand the attitudes, beliefs and experiences of psychiatric patients in the prescription of Poly pharmaceuticals in the psychiatric environment by a mixed method.

More specifically this study had looked at:

1. Assessing the level of acceptance, satisfaction and concern of patients with schizophrenia towards Poly pharmaceuticals using a validated quantitative survey.

2. Examining the experience and perception of individuals receiving several psychiatric medications through qualitative interviews.

3. Identifying the factors (e.g. population, clinical and social factors) that influence patients' attitudes to Poly pharmaceuticals.

4. Developing informed patient recommendations to improve communication, shared decision-making and clinical practice related to psychiatric Poly pharmacology.

RESEARCH QUESTIONS

Quantitative Component:

- What is the acceptance, concern or satisfaction of psychiatric patients with their multipharmaceutical treatment?
- Is there a significant relationship between patient demographics or clinical characteristics and patient attitudes to Poly pharmaceuticals?

Qualitative component:

- How do psychiatric patients describe the experience of multiple psychiatric medications?
- What emotional, cognitive or cultural meanings do patients attach to Poly pharmaceuticals?
- What is the perception of patients about the role of clinicians in explaining or justifying Poly pharmaceuticals?

Patients believe that the experience of Poly pharmaceuticals can be improved.

METHODOLOGY

Study Design: This study utilized a convergent mixed-

methods approach, combining quantitative survey results with qualitative interview insights to thoroughly explore psychiatric patients' perspectives and experiences concerning polypharmacy. Mixed-methods designs are particularly valuable in healthcare research because they allow for the integration of numerical trends with rich narrative data, offering a more comprehensive understanding of complex phenomena such as medication adherence and patient attitudes (25).

Study Setting: The study was conducted in psychiatric outpatient clinics and inpatient units at the Erada Complex for Mental Health Services and Addiction in Jeddah, Saudi Arabia, where patients were prescribed two or more psychotropic drugs.

Study Population and Sample: A convenience purposive sample of 100 psychiatric patients was selected from both inpatient and outpatient departments, meeting the following inclusion criteria: adult psychiatric patients (18 years or older), diagnosed with any psychiatric disorder, currently on two or more psychotropic medications for a minimum of three months, and capable of providing informed consent and communicating effectively.

Exclusion criteria included patients with cognitive impairments or acute psychosis that hindered communication and those receiving polypharmacy solely for non-psychiatric comorbidities.

Quantitative sampling: A convenience sample of approximately 100 patients was used to ensure a sufficient statistical power.

Qualitative: Fifteen to twenty participants were purposively chosen to achieve maximum variation (in terms of sex, diagnosis, duration of polypharmacy, etc.) until data saturation was achieved.

Sample Size Calculation: An online sample size calculator provided by Rao soft, Inc. (http://www.raosoft.com/samplesize.html) was utilized to determine the minimum required number of participants for the study. Based on an estimated total patient in the hospital of approximately 150, with a 95% confidence level and a 5% margin of error, the calculated minimum sample size is 109 to participants to ensure sufficient statistical power and generalizability of the findings.

In terms of the numbers, you selected above, the sample size n and margin of error E are given by

$$x = Z(c/100)2r(100-r)\, n = Nx/((N-1)E2+x)$$
$$E = Sqrt[(N-n)x/n(N-1)]$$

Where N is the population size, r is the fraction of responses that you are interested in, and Z(c/100) is the critical value for the confidence level c.

Quantitative Component

DATA COLLECTION TOOL

- **Structured Questionnaire:** A structured questionnaire was created or adapted from established scales, organized into the following sections:

- **Demographic and Clinical Characteristics**: This section of the tool inquired about participants' age, gender, educational background, marital status, diagnosis, illness duration, number and types of medications, and duration of polypharmacy.

The Drug Attitude Inventory (DAI), developed by Dr. Donald Hogan and his team in 1975, is used to assess patients' views on their medications, especially in psychiatric settings. This inventory is commonly employed to measure medication adherence and the subjective experiences of individuals taking psychotropic drugs. The DAI is available in two versions: the DAI-30, which includes 30 items, and the DAI-10, a shorter version with 10 items, both using a True/False response format. This study will concentrate on the DAI-10, which consists of ten statements aimed at evaluating attitudes toward medication, with a scoring system that distinguishes between positive and negative perceptions. Each statement is scored +1 for a positive response and -1 for a negative response.

The scoring system for the DAI-10 allows for a total score ranging from -10 to +10, where a score of +10 indicates a strongly positive attitude toward medication, a score of 0 represents neutrality, and a score of -10 reflects a strongly negative attitude. The DAI has shown strong internal

consistency, as indicated by Cronbach's alpha, with the DAI-10 demonstrating a reliability coefficient between 0.80 and 0.90, conforming its psychometric strength in assessing attitudes toward medication.

DATA COLLECTION PROCEDURE

After obtaining the approval from KAIMRC, IRB approval from the Ministry of Health, and the manager of the Erada complex for addiction and mental health in Jeddah, Saudi Arabia- Attitude scales were converted into a Google Form and distributed to patients hospitalized at the Erada complex for addiction and mental health. This Google Form included 10 open-ended questions (qualitative part). A Focus Group Study mock was conducted by the researchers with 4 participants, one from each category, at the Erada complex for addiction and mental health to test the applicability and wording of the Focus Group DISCUSSION GUIDE.

Four focus groups were organized to collect qualitative data from participants, using a discussion guide specifically crafted for this purpose.

- Researchers continued gathering data during these sessions until the recurring themes indicated data saturation. Patients were recruited from designated settings, informed about the study's purpose, and engaged in accordance with the established ethical guidelines. Individual interviews were conducted with psychiatric patients considering their condition, availability, and willingness to participate.

- Each interview was conducted in a quiet, private, and comfortable room within the healthcare facility to ensure that the patient felt at ease. The environment was designed to foster open communication and minimize distractions. Before each interview, the researchers introduced themselves and explained the study's purpose, emphasizing confidentiality and voluntary participation. Written informed consent, including permission to audio-record sessions, was obtained in advance. The interviews began with brief, friendly, icebreaker questions to build rapport.

- Using a semi-structured guide, the researcher asked open-ended questions to explore the patients' beliefs, attitudes, and experiences with polypharmacy. Active listening techniques and nonverbal cues such as nodding and maintaining eye contact were employed to encourage expression while being sensitive to the patient's emotional state. Probing and follow-up questions were used to clarify the responses and explore new insights. Each interview lasted between 30 and 60 min, depending on the patient's comfort level and willingness to share. At the end of the session, the researcher summarized the key points and asked if the participant had anything to add.

- We thank the participants for their time and contributions. All audio recordings were securely stored, and the researcher made additional notes after each interview to capture context and nonverbal observations. This individualized approach ensured that each patient's perspective was fully heard and accurately reflected in the study's findings.

Interview Guide Development (patient participants)

A semi-structured interview guide was developed specifically for psychiatric patients to explore their perceptions, experiences, and attitudes regarding the use of multiple psychiatric medications (polypharmacy). The purpose of the interviews was to gain in-depth insight into patients' lived experiences with polypharmacy and to identify areas for improving medication management from the patient perspective.

The guide was organized into distinct phases:

Part I -Warming-up Phase

At the beginning of each interview, the purpose of the study was clearly explained to the participant. They were assured that their responses would remain confidential and used solely for research purposes. Patients were informed that the discussion would focus on their personal experiences with taking multiple psychiatric medications. Verbal consent was obtained to proceed with the interview and to audio-record the session for accurate documentation.

Part II – Engagement Phase *(Ice-Breaking Questions)*

To help patients feel at ease and encourage open communication, the interview began with general questions about their understanding of their psychiatric diagnosis and the medications they were prescribed.

Patients were asked how they felt about their medications, their experiences with the healthcare system, and the support or resources they had received.

Part III – Exploration Phase *(Key Questions)*
The core of the interview focused on exploring the patients' experiences with polypharmacy. Key areas included:

- Their experience of taking multiple psychiatric medications and how these medications have impacted their mental and physical health.
- Perceived bene ts and drawbacks of polypharmacy.
- Emotional responses and concerns about taking several medications simultaneously.
- Challenges they may have faced, such as managing dosages, experiencing side effects, or dealing with medication interactions.
- Their views on how these medications help manage their mental health conditions.
- Whether they felt comfortable questioning or discussing treatment plans with their physicians.
- Reflections on any memorable interactions with healthcare providers regarding their medication regimen.
- Suggestions or recommendations they would offer to doctors prescribing multiple medications.

Each interview lasted approximately 30 to 45 minutes and was conducted either in person or via a secure virtual platform, based on the participant's preference and convenience. All interviews were audio-recorded with patient consent. Interviews continued until thematic saturation was achieved, which was expected with 10 to 15 patient interviews.

Part IV – Wrapping-Up Phase:
To conclude the interview, patients were asked if there was anything else they wished to share about their experience or if they had any final thoughts. They were sincerely thanked for their time, openness, and valuable contributions to the study.

Rigor and Trustworthiness

To uphold the rigor of this qualitative research, the trustworthiness criteria set by Lincoln and Guba were utilized. Credibility was attained through extended engagement, triangulation, and member validation. Transferability was facilitated by offering detailed descriptions of the study's context and the characteristics of the participants. Dependability was guaranteed by keeping an audit trail and participating in peer debriefing. Conformability was achieved through reflexive journaling and anchoring interpretations with direct quotes from participants.

DATA MANAGEMENT AND ANALYSIS PLAN

The analysis of data was encompassed both quantitative and qualitative methodologies. For the quantitative aspect, descriptive statistics, including measures such as mean, standard deviation, and frequency was employed to encapsulate the demographic pro les of participants alongside their responses on the Drug Attitude Inventory (DAI). inferential statistical techniques, including ANOVA tests and correlation analyses were performed to investigate the relationships between patient attitudes and specific factors including patient satisfaction, and adherence to treatment protocols.

On the qualitative front, thematic analysis was applied to the data gathered from patients. The coding of interview transcripts followed an inductive approach, allowing themes and patterns to emerge organically from the data rather than being predetermined. To enhance the reliability of the findings, two independent researchers were engaged in the coding process. This analysis focused on identifying themes related to attitudes, experiences, and challenges associated with polypharmacy The insights gained from the qualitative analysis served to complement the quantitative findings, offering a more nuanced understanding of the underlying reasons for specific attitudes and behaviors.

Integration of Quantitative and Qualitative Data

The integration of quantitative and qualitative data took place during the interpretation stage.

Quantitative findings related to patients' attitudes and medication adherence scores were compared with the themes that emerged from the qualitative interviews. This approach provided a more comprehensive understanding of how patients' attitudes influenced their behavior and

decision-making regarding polypharmacy in psychiatric care. Any discrepancies between the quantitative results and qualitative insights were carefully examined to explore the complex and nuanced experiences patients had in managing multiple psychiatric medications (26).

RESULTS

DEMOGRAPHIC CHARACTERISTICS OF PATIENTS

Table 1 presents the demographic pro le of the 100 patients who participated in the study. The majority of the sample were male (90%), while females made up only 10%, which may indicate gender-related trends in psychiatric admissions or participation rates in research studies. The average age of the participants was 35.8 years (SD = 10.4), suggesting that most were middle-aged adults. A significant portion of the participants were single (75%), which may highlight the social and relational challenges often associated with chronic psychiatric illnesses. In terms of educational attainment, more than half of the patients had completed secondary education (56%), while 28% had achieved higher education. This suggests a moderate level of educational background, raising concerns about potential gaps in health literacy related to medication management.

Diagnostically, schizophrenia was the most prevalent condition among participants (57%), followed by other psychiatric disorders (29%) and a smaller proportion with additional diagnoses (14%). The duration of the psychiatric conditions varied: 29% were diagnosed within the past year, while 26% had been living with their condition for over a decade, indicating a mix of newly diagnosed and chronically ill individuals. Polypharmacy was notably prevalent, with 84% of participants reporting the use of multiple psychiatric medications. Approximately 48% had been prescribed multiple medications for less than a year, suggesting recent treatment adjustments or medication escalations. Changes in prescriptions were common, as only 38% had not experienced any changes in the past year, while 62% had undergone one or more modifications, which may contribute to increased complexity in medication adherence.

Most patients (91%) reported receiving assistance with managing their medications, primarily from healthcare providers (58%) and family members (40%). This highlights the critical role that support systems play in facilitating adherence. Lastly, a substantial majority of patients (89%) were living with family, emphasizing the importance of familial involvement in the daily lives and care routines of individuals with psychiatric conditions.

TABLE 1: DEMOGRAPHIC DATA OF PATIENTS (N=100)

Variable	N = 100
Age	35.8 ± 10.4
Gender	
Female	10 (10.0)
Male	90 (90.0)
Marital Status	
Single	75 (75.0)
Married	9 (9.0)
Divorced	16 (16.0)
Education	
No formal education	4 (4.0)
Primary	12 (12.0)
Secondary	56 (56.0)
Higer	28 (28.0)
Psychiatric Condition	
Schizophrenia	57 (57.0)
Disorders	29 (29.0)
Others	14 (14.0)
Duration of the condition	
Less one year	29 (29.0)
1-5 years	28 (28.0)
6-10 years	17 (17.0)
More than 10 years	26 (26.0)
Prescribed multiple medications	
Yes	84 (84.0)
No	16 (16.0)

Table 2 reveals that psychiatric patients generally have a favorable view of polypharmacy, with an average score of 3.21 (SD = 0.52) and 64.18% agreement, suggesting moderate endorsement of the advantages of using multiple medications. Patients exhibit high trust in healthcare providers (M = 4.16, 83.20%) and believe that polypharmacy helps prevent relapses (M = 3.95, 79.00%) and improves daily functioning (M = 3.82, 76.40%), indicating a broad acknowledgment of the clinical bene ts of these prescribing practices. Nonetheless, there are some reservations, particularly concerning feelings of sedation (M = 3.15, 63.00%) and unnatural effects (M = 2.76, 55.20%), which reflect ambivalence among some individuals. The lowest mean scores pertain to the belief that polypharmacy is only necessary in complex cases (M = 2.38, 47.60%) and the notion that a single medication might often be sufficient (M =2.56, 51.20%), suggesting that patients may not fully understand the clinical indications for polypharmacy. Overall, the findings indicate a mix of cautious acceptance and persistent concerns, highlighting the need for shared decision-making and clear patient education.

TABLE 2

Statement	Mean	SD	%
1) I believe that taking multiple psychiatric medications has more benefits than risks fot my mental health	4.0	1.16	80.00
2) I am concerned that taking multiple medications makes me feel "doped up" or overly sedated	3.15	1.45	63.00
3) I feel that I only need to take more than one medication when a single medication is not enough to manage my symptoms	2.56	1.37	51.20
4) I believe that taking several psychiatric medications may affect my mind and body in unnatural or uncomfortable ways	2.76	1.27	55.20
5) I believe that taking multiple psychiatric medications helps me think more clearly	3.52	1.37	70.40
6) I believe that taking more than one medication helps prevent psychiatric relapses or breakdowns	3.95	1.23	79.00
7) I believe that taking multiple medications helps me stay alert and function better in daily life	3.82	1.19	76.40
8) I trust my healthcare provider's decision to prescribe multiple medications when needed	4.16	1.14	83.20
9) I am concerned that taking multiple medications makes me feel tired or sluggish	1.79	0.62	35.80
10) I feel that taking several psychiatric medications is only necessary when my symptoms are complex and can't be managed with one drug alone	2.38	1.21	47.60
Overall Scale	3.21	0.52	64.18

Table 3 illustrates the comparison of patients' perspectives on psychiatric polypharmacy across different demographic and clinical variables. Generally, there were no notable differences in most categories, suggesting a uniform attitude toward polypharmacy regardless of factors such as age, gender, education, or living conditions. However, two variables exhibited statistically significant correlations: Psychiatric Condition ($p = 0.022$): Patients with general psychiatric disorders ($M = 3.4$, $SD = 0.5$) and other conditions ($M = 3.3$, $SD = 0.4$) displayed significantly more positive views on polypharmacy compared to those with schizophrenia ($M = 3.1$, $SD = 0.5$). This may indicate greater skepticism or medication fatigue among schizophrenia patients, who often face long-term, complex treatment plans. Prescribed Multiple Medications ($p = 0.018$): Patients on multiple medications had a notably more favorable attitude ($M = 3.3$, $SD = 0.5$) than those not on polypharmacy ($M = 2.9$, $SD = 0.5$). This could imply greater familiarity, acceptance, or perceived benefits of polypharmacy among those with direct experience. Other demographic factors, such as age, gender, marital status, education level, illness duration, polypharmacy duration, and frequency of medication changes, did not significantly influence patients' attitudes ($p > 0.05$). Interestingly, those receiving assistance in managing their medications had a slightly more positive attitude ($M = 3.3$ vs. 2.9), though this was not statistically significant ($p = 0.071$), indicating a potential trend worth further investigation. In conclusion, patients' attitudes were largely consistent across most groups, with significant differences noted among those diagnosed with schizophrenia and those not currently undergoing polypharmacy, highlighting the influence of personal experience and illness type on perceptions.

TABLE 3: DIFFERENCES IN OVERALL POLYPHARMACY IN PSYCHIATRIC ATTITUDES BY DEMOGRAPHIC DATA OF PATIENTS

Variable	Mean ± SD	P-value
Age		0.783
Less than 35	3.2 ± 0.1	
35 and above	3.1 ± 0.1	
Gender		0.486
Female	3.1 ± 0.3	
Male	3.2 ± 0.5	
Marital Status		0.333
Single	3.3 ± 0.5	
Married	3.0 ± 0.4	
Divorced	3.1 ± 0.5	
Education		0.216
No formal education	3.3 ± 0.3	
Primary	3.5 ± 0.6	
Secondary	3.2 ± 0.5	
Higher	3.1 ± 0.5	
Psychiatric Condition		**0.022**
Schizophrenia	3.1 ± 0.5	
Disorders	3.4 ± 0.5	
Others	3.3 ± 0.4	
Duration of condition		0.644
Less than one year	3.3 ± 0.5	
1-5 years	3.1 ± 0.5	
6-10 years	3.2 ± 0.4	

QUALITATIVE ANALYSIS

This qualitative research examined psychiatric patients' experiences with medication regimens, focusing on perspectives about polypharmacy. The study involved interviews with 15 patients and employed thematic analysis to identify key themes.

Adherence and Memory Aids

Patients generally relied on routine (e.g., meals or religious practices) to remember taking their medications. External reminders or structured support were rarely mentioned, indicating a potential area for intervention.

"I take them during fasting and suhoor." (Participant 11)

"I don't have anything that helps me remember." (Participant 1)

Communication and Relationship with Doctors

Experiences in communicating with doctors were mixed. While some patients felt reassured and informed, others expressed dissatisfaction or discomfort, suggesting that the quality of patient-provider communication plays a

crucial role in treatment satisfaction.

"It's really good when you talk to the doctor." (Participant 1)

"No, I don't feel comfortable. I feel tired." (Participant 15)

"He didn't explain to me." (Participant 13)

DISCUSSION

This mixed-methods study offers a nuanced, patient-centered perspective on psychiatric patients' experiences and attitudes toward polypharmacy. By combining statistical data with detailed personal narratives, the findings illuminate the complex interplay between therapeutic benefits, medication burden, patient agency, and communication in psychiatric care.

PREVALENCE, UNDERSTANDING, AND ATTITUDES TOWARD PLYPHARMACY

Quantitatively, polypharmacy was highly prevalent, with 84% of participants using multiple medications. The mean Drug Attitude Inventory (DAI-10) score of 3.21 (SD = 0.52) indicates a moderately positive attitude toward polypharmacy, aligning with recent reports highlighting its widespread use in severe mental illness [27]. Qualitatively, patients expressed ambivalence. Some acknowledged benefits such as relapse prevention and symptom stability, while others voiced dissatisfaction with regimen complexity and side effects. Participant 1's statement, "I prefer to take less," and Participant 14's comment, "I feel that I have a lot of them," reflect emotional and cognitive tensions. These findings support global concerns over medication overload and highlight the challenge of balancing symptom control with quality of life [28]. These mixed attitudes parallel findings by Vázquez et al. (29) and Franchi et al. (30), who noted that patients often tolerate polypharmacy when they experience symptom relief but become distressed when medications interfere with their identity or daily comfort. A contrasting study by Zang et al. (29) showed that some patients were unaware of how many medications they were taking, reflecting disengagement or normalization of polypharmacy—a pattern also implied in your findings.

FIGURE 1: VISUAL REPRESENTATION OF QUALITATIVE THEMES RELATED TO PSYCHIATRIC PATIENTS' INSIGHTS ON THE BENETS AND RISKS OF POLYPHARMACY

PATIENT UNDERSTANDING AND INVOLVEMENT IN MEDICATION PLANNING

A recurring theme was limited patient understanding of medication regimens. For instance, Participant 7 noted, "No, he didn't tell me what to do or what not to do," indicating passive receipt of care. In contrast, Participant 2's experience "We are working on it [the medication plan] with the doctor"—illustrates collaborative engagement. These perspectives echo broader literature indicating communication gaps in psychiatric care, where patients often desire greater involvement than they are afforded [31]. Shared decision-making and strong therapeutic alliances are known to increase adherence by aligning treatment plans with patient values and expectations [32]. These findings are consistent with Aoki et al. (33), who found that patients with schizophrenia often desire shared decision-making but feel excluded. Similarly, Ghosh et al. (34) reported that psychiatric patients often lack opportunities to participate in treatment decisions, leading to reduced adherence and trust. In contrast, Doumat et al. (35) documented improved adherence when shared decision-making was consistently applied, especially when clinicians used simple language and visual aids to explain medication plans.

Diagnosis-Specific Attitudes

Patients with schizophrenia displayed significantly less favorable attitudes toward polypharmacy than those with other psychiatric diagnoses. This may stem from long-term medication exposure, treatment fatigue, and side-effect accumulation, which diminish perceived bene t. These findings underscore the importance of tailoring treatment plans to diagnosis and patient history [36]. Simpson et al, (37) emphasized that psychiatric patients often tolerate substantial side effects due to fear of relapse or lack of alternatives. However, they may not report these issues unless prompted, highlighting the need for proactive clinical inquiry.

IMPACT OF POLYPHARMACY ON DAILY LIFE AND SIDE EFFECTS

Quantitative data suggested limited concern regarding fatigue (M = 1.79); however, qualitative responses revealed a more complex picture. Participant 3 reported functional impairment: "They affect me when I feel tired or sleepy," while Participant 9 stated, "It doesn't affect my daily life." This divergence suggests that structured questionnaires may underrepresent nuanced lived experiences [38].

Some participants reported experiencing headaches, numbness, and mental sluggishness, while others did not acknowledge any side effects—possibly due to normalization, limited health literacy, or fear of having their treatment stopped. Previous research indicates that many psychiatric patients endure significant discomfort to prevent relapse [39]. This underscores the importance of proactive, regular monitoring of side effects and open communication. Findings are consistent with Carmona-Huerta et al. (40), who reported variability in how patients perceive medication effects on daily roles and relationships. Some find medications stabilizing, while others feel impaired by cognitive or physical side effects. Liu et al. (41) noted similar contradictions, emphasizing the importance of matching regimens to individual life circumstances.

Medication Adherence and Support Strategies

Participants described using informal methods to manage adherence, such as personal routines and religious practices. For instance, Participant 11 mentioned, "I take them during fasting and suhoor," whereas Participant 1 confessed, "I don't have anything that helps me remember." This indicates a lack of structured tools like pillboxes, alarms, or digital reminders. Although new technologies (e.g., MEMS caps, smartphone apps) show potential, they are not widely used, especially among patients with low insight or high stigma [42]. Interventions based on behavioral reinforcement and cueing techniques have proven effective and should be incorporated into psychiatric care [43]. These findings align with Fond et al. (44), who found that patients with bipolar disorder frequently relied on daily routines, while structured tools (like pillboxes or reminders) were underused. In contrast, studies by Al Hindi et al. (45) show improved adherence when interventions like cueing, behavioral reinforcement, or digital reminders were introduced.

Communication and the Therapeutic Alliance

The quality of communication and the relationship between patient and provider were found to be crucial to attitudes toward polypharmacy. Quantitatively, patients

who felt supported by healthcare providers had more positive views. Qualitatively, patients expressed mixed feelings about their interactions with healthcare providers. Positive experiences, such as “It's really good when you talk to the doctor” (Participant 1), contrasted with statements like “He didn't explain to me” (Participant 13) and “No, I don't feel comfortable. I feel tired” (Participant 15). These sentiments underscore the critical role of effective communication and therapeutic alliance in psychiatric care.

Recent studies have reinforced the importance of a strong therapeutic relationship in promoting medication adherence. For instance, a systematic review conformed that therapeutic alliance significantly influences treatment outcomes in psychiatric care, especially among individuals with psychosis (46). Similarly, Kim et al. (47) found that shared decision-making between mental health nurses and patients with alcohol use disorders enhanced medication adherence through improved communication and trust. Moreover, patient-provider communication has been positively associated with adherence even in chronic illness contexts; a recent study in Ethiopia highlighted how better communication resulted in improved adherence across various chronic conditions (48). Finally, a 2024 meta-analysis reaffirmed that quality communication significantly impacts patients' willingness to follow treatment plans, especially in mental health settings (49). Additionally, research has shown that such communication breakdowns can result in clinical misjudgment—up to 72% of non-adherent patients were wrongly assessed as adherent by their clinicians [50]. Building trust, fostering cultural humility, and scheduling regular reviews are crucial for effective polypharmacy management.

LIMITATIONS

This mixed-methods study presents several limitations that warrant consideration when interpreting the findings. Firstly, the qualitative interviews were conducted with a limited sample of 15 psychiatric patients from a single psychiatric facility, which constrains the transferability of the findings to broader populations and diverse care settings. The sample may not adequately represent the diversity of psychiatric diagnoses or treatment contexts across various hospitals or regions.

Secondly, both components of the study relied on self-reported data, which may be subject to recall bias, social desirability, or patients' comprehension of their medication regimens. These factors could potentially affect the accuracy of reported attitudes and experiences, particularly in the survey responses and open-ended interview data.

Thirdly, the cross-sectional nature of data collection provides only a snapshot in time and does not capture potential changes in attitudes or experiences with polypharmacy over time. A longitudinal approach could offer deeper insights into how perceptions and adherence behaviors evolve. Lastly, cultural and language factors specific to the study context may have influenced how participants articulated their responses, which can impact the interpretation and applicability of results in other cultural settings.

Future studies should consider larger, more diverse samples across multiple sites and explore patients' perspectives over time to enhance the generalizability and depth of understanding.

CONCLUSION

This mixed-methods investigation offered an in-depth examination of the lived experiences, attitudes, and behavioral patterns of psychiatric patients engaged in polypharmacy. The quantitative results indicated a moderately favorable disposition towards the administration of multiple pharmacological agents, particularly among individuals already undergoing polypharmacy treatment protocols. Concurrently, the qualitative findings unveiled intricate dynamics, encompassing de sciencies in communication, experiences with adverse effects, and the psychosocial rami cations of medication load. Collectively, these findings underscore the necessity of transcending mere symptom management to effectively address patient-centered issues in psychiatric pharmacotherapy. Future interventions should incorporate structured adherence tools, diagnosis-specific medication strategies, and shared decision-making models. By doing so, psychiatric practice can move toward a more effective, empathetic, and person-centered paradigm.

RECOMENDATIONS

- Implement collaborative decision-making methodologies by integrating patients into the medication management process to enhance their comprehension and adherence to prescribed therapies.

- Systematically evaluate and monitor adverse effects, ensuring that the therapeutic advantages surpass the potential risks for each individual patient.

- Introduce systematic cognitive aids and advanced technological solutions (e.g., mobile applications, automated reminders) to facilitate adherence to medication regimens.

- Cultivate robust therapeutic relationships through continual and empathetic dialogue between patients and healthcare providers.

- Promote regular medication evaluations to reduce unnecessary polypharmacy and optimize individualized therapeutic protocols.

- Offer psychoeducational initiatives designed to enhance patient health literacy, thereby empowering individuals to take a more active role in managing their treatment.

Implications for Psychiatric Nursing

This study offers several important implications for psychiatric nursing practice:

- Psychiatric nurses should prioritize clear, patient-centered education regarding the purpose, bene ts, and potential side effects of multiple medications. Simplifying complex medication regimens and using visual aids can improve patients' understanding and engagement.

- Nurses are uniquely positioned to facilitate collaborative treatment planning by encouraging patients to express their preferences and concerns about polypharmacy. Supporting shared decision-making helps empower patients, fosters trust, and can improve adherence.

- Nurses should routinely assess patients' experiences with medication burden, side effects, and daily functioning. Recognizing the impact of polypharmacy on patients' quality of life enables nurses to advocate for medication reviews and adjustments in collaboration with prescribers.

- Given that many patients rely on routines or informal strategies for medication adherence, psychiatric nurses can introduce structured memory aids, reminders, or mobile health technologies customized to patients' cultural and lifestyle contexts.

- The findings underscore the importance of empathetic communication and trust-building. Psychiatric nurses should ensure patients feel heard, supported, and comfortable discussing medication-related concerns, which may prevent disengagement and nonadherence.

- Nurses should be aware of cultural and religious factors that influence medication-taking behaviors and incorporate this understanding into care plans, thus enhancing relevance and effectiveness.

By integrating these practices, psychiatric nurses can play a pivotal role in optimizing polypharmacy management, enhancing patient satisfaction, and improving overall mental health outcomes.

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