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Emotional and Cognitive Effects of Long-Term Antipsychotic Medication Use: A Qualitative Study

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A B S T R A C T

This study aimed to explore the emotional and cognitive effects of long-term antipsychotic medication use. By understanding these impacts, the study seeks to provide a comprehensive view of the lived experiences of individuals who have been on antipsychotic medications for extended periods, highlighting both the benefits and the potential challenges. A qualitative research design was employed using a phenomenological approach to capture in-depth personal experiences. A purposive sampling method recruited 26 participants who had been on antipsychotic medications for at least five years. Data were collected through semi-structured interviews, which were transcribed verbatim and analyzed using thematic analysis to identify common themes and patterns in the participants' experiences. The study achieved theoretical saturation, ensuring that no new themes emerged from the data. The analysis revealed four main themes: emotional impact, cognitive effects, daily functioning, and social interaction. Participants reported significant emotional blunting, including reduced pleasure and emotional responsiveness, alongside cognitive impairments such as memory deficits and diminished attention span. Challenges in daily functioning, such as difficulties in managing routine activities and occupational tasks, were prominent. Social interactions were also affected, with participants experiencing reduced social engagement, dependency on support networks, and stigma related to medication use. These findings are consistent with previous studies, underscoring the profound impact of long-term antipsychotic use on various aspects of life. Long-term use of antipsychotic medications, while essential for managing severe psychiatric conditions, is associated with significant emotional and cognitive side effects that impact patients' quality of life. Healthcare providers should be aware of these effects and engage in regular assessments and open communication with patients to address and mitigate these challenges. Personalized treatment approaches, psychoeducation, and support groups can enhance patients' well-being and treatment adherence.

Keywords: *Antipsychotic medication, long-term use, emotional effects, cognitive effects, schizophrenia, mental health, patient experiences.*

1. Introduction

Antipsychotic medications are primarily categorized into typical (first-generation) and atypical (second-generation) antipsychotics. Atypical antipsychotics are often preferred due to their relatively favorable side effect profiles, including a lower propensity for extrapyramidal symptoms (EPS) compared to their first-generation counterparts (Hartung et al., 2008). Despite these advantages, long-term use of atypical antipsychotics is associated with a range of emotional and cognitive side effects that can significantly affect patients' quality of life (Desmarais & Margolese, 2012; Murray et al., 2016; Price et al., 2014; Sohler et al., 2016).

Emotional blunting, also referred to as affective flattening or emotional numbing, is one of the most frequently reported side effects of long-term antipsychotic use. Patients often describe a diminished capacity to experience pleasure (anhedonia), reduced emotional responsiveness, and a general sense of apathy. These experiences can lead to significant impairments in interpersonal relationships and overall life satisfaction (Crellin et al., 2022). The emotional blunting effect can be particularly distressing, as it may hinder patients' ability to connect with others and enjoy previously pleasurable activities, further exacerbating feelings of isolation and depression.

Cognitive impairments associated with long-term antipsychotic use encompass a broad spectrum of issues, including memory deficits, reduced attention span, and diminished executive function. These cognitive side effects are particularly concerning as they can interfere with daily functioning, occupational performance, and overall cognitive health (Jaworska et al., 2022). Memory issues, such as difficulties with short-term recall and forgetfulness, are common complaints among patients on long-term antipsychotic therapy. These cognitive challenges can lead to significant frustrations and impairments in both personal and professional domains (Mittal et al., 2017; Revel et al., 2012; Sohler et al., 2016).

The decision to initiate or continue long-term antipsychotic treatment involves careful consideration of the potential benefits and risks. For many patients, the reduction in psychotic symptoms and the prevention of relapse provided by antipsychotic medications outweigh the adverse effects. However, for others, the emotional and cognitive side effects can be so debilitating that they consider reducing or discontinuing their medication (Crellin et al., 2022). This delicate balance highlights the importance of personalized treatment plans and ongoing dialogue between patients and healthcare providers to address concerns and adjust treatment as necessary.

Stigma associated with antipsychotic medication use further complicates the experience of patients. Negative societal perceptions and self-stigma can significantly impact patients' willingness to adhere to their prescribed treatment regimens and seek support (Townsend et al., 2022). The fear of being judged or labeled can lead to reluctance in discussing medication-related side effects with healthcare providers, potentially resulting in unaddressed issues and diminished quality of life.

The emotional and cognitive effects of antipsychotic medications are not limited to a single demographic or condition. For instance, in patients with Parkinson's disease experiencing mild hallucinations, antipsychotic treatment has shown a positive impact on long-term worsening of symptoms, yet these patients also report similar emotional and cognitive side effects as those with primary psychiatric diagnoses (Goetz et al., 2008). This cross-condition applicability underscores the importance of understanding the broad impact of these medications.

In addition to exploring the direct effects of antipsychotic medications, the study also considers the broader context of medication use, including the role of healthcare professionals, patient education, and support systems. Effective communication between patients and healthcare providers is essential for managing side effects and ensuring that treatment decisions align with patients' preferences and needs (Citrome et al., 2022). Enhancing clinicians' understanding of the emotional and cognitive impacts of long-term antipsychotic use can improve patient care and support better outcomes.

In conclusion, while antipsychotic medications are indispensable in the management of severe psychiatric disorders, their long-term use can lead to substantial emotional and cognitive side effects that impact patients' quality of life. Previous research has primarily concentrated on the clinical efficacy and side effect profiles of antipsychotic medications, with limited attention given to the subjective experiences of patients over extended periods. This study seeks to fill this gap by providing a platform for patients to voice their experiences and challenges. Understanding these experiences is crucial for developing strategies to mitigate adverse effects and enhance treatment adherence and overall quality of life.

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2. Methods and Materials

2.1. Study Design and Participants

This qualitative study utilized a phenomenological approach to explore the emotional and cognitive effects of long-term antipsychotic medication use. Phenomenology was chosen to deeply understand the lived experiences of individuals who have been on antipsychotic medication for extended periods. The study involved a purposive sampling method to recruit participants who have been using antipsychotic medications for at least five years. Participants were selected based on their ability to provide rich, detailed descriptions of their experiences.

Inclusion criteria for the study were as follows:

- Adults aged 18 and older.
- Diagnosed with a psychiatric disorder requiring long-term antipsychotic medication.
- Continuous use of antipsychotic medication for a minimum of five years.
- Ability to provide informed consent and participate in an interview.

Participants were recruited through mental health clinics, support groups, and online forums. A total of 26 participants were interviewed, achieving theoretical saturation where no new themes emerged from the data.

2.2. Measure

2.2.1. Semi-Structured Interview

Data were collected using semi-structured interviews conducted either in person or via video conferencing, depending on the participants' preferences and availability. The semi-structured interview format allowed for flexibility in exploring topics in depth while ensuring consistency across interviews.

The interview guide included open-ended questions designed to elicit detailed narratives about participants' emotional and cognitive experiences related to long-term antipsychotic medication use. Sample questions included:

- "Can you describe how you feel emotionally since starting your antipsychotic medication?"
- "Have you noticed any changes in your thinking or memory over time?"
- "How do you feel your medication affects your daily life and relationships?"

Interviews lasted between 45 to 90 minutes and were audio-recorded with participants' consent. All recordings were transcribed verbatim to ensure accuracy in data analysis.

2.3. Data Analysis

Thematic analysis was employed to analyze the interview data. This method was chosen for its flexibility and suitability for identifying, analyzing, and reporting patterns within qualitative data. The analysis followed Braun and Clarke's six-step process:

Familiarization with the Data: Transcripts were read and re-read to become immersed in the data. Initial notes and observations were documented.

Generating Initial Codes: Key phrases and sentences were coded systematically across the entire dataset. NVivo software was used to manage and organize the data.

Searching for Themes: Codes were collated into potential themes based on patterns and relationships identified in the data.

Reviewing Themes: Themes were reviewed and refined to ensure they accurately reflected the data and captured the essence of participants' experiences. Some themes were merged or discarded during this process.

Defining and Naming Themes: Each theme was clearly defined and named, with detailed descriptions provided to encapsulate the core essence of each theme.

Producing the Report: A comprehensive narrative was developed, integrating vivid quotes from participants to illustrate each theme.

The credibility of the findings was ensured through member checking, where participants reviewed and confirmed the accuracy of the interpreted data. Additionally, peer debriefing with colleagues in the field of mental health research was conducted to enhance the trustworthiness and reliability of the analysis.

3. Findings and Results

The study included 26 participants who had been on long-term antipsychotic medication for at least five years. The sample consisted of 14 females (53.8%) and 12 males (46.2%), with an age range of 25 to 65 years (mean age = 43.7 years). The participants' ethnic backgrounds were diverse, including 15 Caucasians (57.7%), 6 African Americans (23.1%), 3 Asians (11.5%), and 2 Hispanics (7.7%). In terms of educational attainment, 8 participants (30.8%) had completed high school, 10 (38.5%) held an undergraduate degree, and 8 (30.8%) had a postgraduate degree. Regarding employment status, 11 participants

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(42.3%) were employed, 7 (26.9%) were unemployed, 5 (19.2%) were retired, and 3 (11.5%) were students. The duration of antipsychotic medication use among participants ranged from 5 to 20 years, with an average duration of 10.2 years.

Table 1

The Results of Qualitative Analysis

Category (Main Themes)	Subcategory (Subthemes)	Concepts (Open Codes)
Emotional Impact	Emotional Stability	Mood fluctuations, Anxiety reduction, Depression alleviation
	Emotional Blunting	Numbness, Lack of joy, Emotional detachment
	Self-Perception	Self-esteem, Identity changes, Self-worth
	Interpersonal Relationships	Connection with others, Social withdrawal, Communication changes
	Emotional Expression	Ability to express emotions, Emotional suppression, Crying less
Cognitive Effects	Memory Issues	Short-term memory loss, Forgetfulness, Difficulty recalling information
	Concentration and Attention	Focus difficulties, Easily distracted, Task completion issues
	Cognitive Speed	Slowed thinking, Response time delay, Cognitive dulling
	Decision-Making	Indecisiveness, Risk aversion, Planning challenges
	Problem-Solving	Logical thinking, Creativity reduction, Problem-solving speed
	Cognitive Intrusion	Intrusive thoughts, Rumination, Unwanted memories
Daily Functioning	Routine Activities	Task management, Household chores, Time management
	Occupational Impact	Job performance, Work attendance, Professional relationships
	Academic Performance	Study habits, Exam performance, Classroom engagement
	Physical Health	Exercise routines, Sleep patterns, Eating habits
	Leisure and Hobbies	Engagement in activities, Enjoyment of hobbies, New interests
Social Interaction	Social Engagement	Participation in social events, Willingness to meet people, Social enthusiasm
	Social Support	Dependence on others, Seeking help, Support networks
	Stigma and Discrimination	Public perception, Self-stigma, Social labeling
	Communication Skills	Conversation ability, Expressiveness, Active listening
	Social Anxiety	Fear of judgment, Avoidance of social settings, Nervousness in groups

3.1. Emotional Impact

Emotional Stability: Participants frequently mentioned mood fluctuations, with one stating, "Some days I feel alright, but other days, the sadness just hits out of nowhere." Many noted a reduction in anxiety, but also highlighted how the medication helped alleviate depression. For instance, a participant shared, "I don't feel as anxious as I used to, but the lows are still there, just less frequent."

Emotional Blunting: A recurring theme was emotional blunting, where individuals described feeling numb or detached. One participant explained, "I feel like I'm just going through the motions, like nothing really excites me anymore." Another mentioned a lack of joy, saying, "I don't get that burst of happiness, it's like I'm watching my life from a distance."

Self-Perception: Changes in self-esteem and identity were significant, with some expressing altered self-worth. A participant noted, "I used to be so confident, but now I question everything about myself." The shift in identity was also prominent, as one shared, "I don't recognize myself sometimes; the medication has changed who I am."

Interpersonal Relationships: Relationships were impacted, with many experiencing social withdrawal and changes in communication. A participant remarked, "I've pulled away from friends; it's hard to keep up with conversations." Another mentioned, "I don't connect with people like I used to, it's like there's a barrier."

Emotional Expression: The ability to express emotions was hindered for many. "I find it hard to cry even when I'm really sad," one participant explained. Others spoke about emotional suppression, with a participant noting, "I bottle up my feelings because it's too hard to let them out."

3.2. Cognitive Effects

Memory Issues: Memory problems were a common concern, with participants reporting short-term memory loss and forgetfulness. "I forget things all the time, like what I was doing or supposed to do next," one participant said. Difficulty recalling information was also noted, as another shared, "Sometimes I can't remember simple things, like names or dates."

Concentration and Attention: Many struggled with focus and were easily distracted. "I can't concentrate on tasks; my

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mind wanders," a participant mentioned. Completing tasks became challenging, with one noting, "It takes me so much longer to finish anything because I keep getting sidetracked."

Cognitive Speed: Slowed thinking and delayed response times were significant issues. A participant explained, "My brain feels sluggish, like everything is in slow motion." Cognitive dulling was also mentioned, with another saying, "I feel like my mind isn't as sharp as it used to be."

Decision-Making: Indecisiveness and risk aversion were prevalent, affecting participants' ability to make choices. "I second-guess everything, even simple decisions," one participant shared. Planning challenges were also highlighted, with another stating, "I struggle to plan ahead; it feels overwhelming."

Problem-Solving: Logical thinking and creativity were impacted, with reduced problem-solving speed. A participant noted, "It takes me longer to figure things out, and I don't come up with creative solutions like I used to." Another shared, "I feel like my problem-solving skills have diminished."

Cognitive Intrusion: Participants described intrusive thoughts and rumination. "I have unwanted thoughts that just won't go away," one participant explained. Rumination was common, with another saying, "I get stuck in negative thinking loops, and it's hard to break free."

3.3. Daily Functioning

Routine Activities: Managing daily tasks and household chores was challenging for many. "Simple things like doing the dishes feel overwhelming," a participant remarked. Time management issues were also noted, with another stating, "I can't keep track of time; I always feel like I'm running late."

Occupational Impact: Job performance and attendance were affected, as participants struggled with work-related tasks. "I've had to take more sick days because I just can't handle it," one participant shared. Professional relationships also suffered, with another noting, "I don't interact with my colleagues as much; it's hard to engage."

Academic Performance: Study habits and exam performance were hindered, with participants finding it difficult to engage in classroom activities. "Studying takes so much more effort now," a participant explained. Another shared, "I used to do well in exams, but now I struggle to concentrate."

Physical Health: Changes in exercise routines, sleep patterns, and eating habits were reported. "I don't have the energy to exercise like I used to," one participant mentioned. Sleep disturbances were common, with another saying, "I can't sleep well; I'm always tired." Eating habits also changed, as one noted, "I either eat too much or not enough; there's no balance."

Leisure and Hobbies: Engagement in hobbies and enjoyment of activities decreased. "I don't find joy in my hobbies anymore," a participant explained. Others mentioned losing interest in activities they once loved, with one saying, "I used to paint all the time, but now I don't feel inspired."

3.4. Social Interaction

Social Engagement: Participation in social events and willingness to meet new people declined. "I don't go out as much; socializing feels exhausting," a participant shared. Another mentioned, "Meeting new people makes me anxious; I avoid it."

Social Support: Dependence on others and seeking help were common. "I rely on my family more now," one participant explained. Support networks played a crucial role, with another saying, "Without my friends' support, I don't know how I'd cope."

Stigma and Discrimination: Experiences of public perception and self-stigma were significant. "People judge me for taking medication," a participant noted. Social labeling also affected self-esteem, with another saying, "I feel labeled and misunderstood."

Communication Skills: Participants reported changes in their ability to converse and express themselves. "I can't articulate my thoughts well," one participant shared. Active listening also became challenging, with another stating, "I struggle to follow conversations."

Social Anxiety: Fear of judgment and avoidance of social settings were prevalent. "I'm always nervous around people; I feel judged," a participant explained. Avoidance behaviors were common, as another noted, "I avoid social gatherings because they make me anxious."

4. Discussion and Conclusion

The present study aimed to explore the emotional and cognitive effects of long-term antipsychotic medication use through a qualitative approach. The findings highlighted significant emotional blunting, cognitive impairments, and challenges in daily functioning and social interactions among individuals on long-term antipsychotic therapy.

Participants reported considerable emotional blunting, characterized by a diminished capacity to experience

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pleasure, reduced emotional responsiveness, and a general sense of apathy. These findings align with previous studies indicating that emotional blunting is a common side effect of antipsychotic medications (Citrome et al., 2022; Crellin et al., 2022). One participant stated, "I feel like I'm just going through the motions, like nothing really excites me anymore," encapsulating the profound impact on emotional well-being. The reduction in anxiety and depression was noted, but the emotional detachment often overshadowed these benefits, impacting overall life satisfaction.

The study also revealed significant cognitive impairments, including memory deficits, reduced attention span, and diminished executive function. These findings are consistent with the literature, which has documented similar cognitive challenges associated with long-term antipsychotic use (Goetz et al., 2008; Jaworska et al., 2022). Participants reported difficulties with short-term recall and focus, with one noting, "I can't concentrate on tasks; my mind wanders." These cognitive issues can interfere with daily activities, occupational performance, and overall cognitive health, highlighting the need for strategies to mitigate these effects.

Participants experienced substantial challenges in daily functioning, including managing routine activities, occupational impact, and physical health changes. These difficulties are supported by previous research that has shown long-term antipsychotic use can impair various aspects of daily life (Hartung et al., 2008; Wink et al., 2017). Managing household chores, maintaining employment, and adhering to healthy lifestyle habits were notably difficult for many participants. For instance, a participant remarked, "Simple things like doing the dishes feel overwhelming," underscoring the broad impact of these medications on daily functioning.

Social interaction was significantly affected, with participants reporting reduced social engagement, dependency on support networks, and experiences of stigma. These findings align with the work of Townsend et al. (2022), who discussed the impact of antipsychotic-related stigma on treatment choices and social interactions. Participants often avoided social settings due to fear of judgment and self-stigma, which further isolated them from their communities (Townsend et al., 2022). One participant shared, "I'm always nervous around people; I feel judged," highlighting the social anxiety experienced by many.

The findings of this study are consistent with several key studies in the field. For example, Citrome et al. (2022) emphasized the importance of understanding the educational needs of clinicians in managing schizophrenia with long-acting injectable antipsychotic medications (Citrome et al., 2022). This aligns with our finding that emotional and cognitive side effects are significant and need to be addressed by healthcare providers. Similarly, Crellin et al. (2022) explored views about the supported reduction or discontinuation of antipsychotic treatment, echoing our participants' struggles with emotional blunting and cognitive impairments, which often led to considerations of reducing or stopping their medication (Crellin et al., 2022).

Goetz et al. (2008) found that antipsychotic treatment for mild hallucinations in Parkinson's disease patients had a positive impact on long-term worsening, but also highlighted the emotional and cognitive side effects, similar to our findings (Goetz et al., 2008). Hartung et al. (2008) discussed patterns of atypical antipsychotic subtherapeutic dosing, which can lead to significant functional impairments, resonating with the daily functioning challenges reported by our participants (Hartung et al., 2008).

Jaworska et al. (2022) and Wink et al. (2017) provided insights into the cognitive and behavioral effects of antipsychotic medications, supporting our findings of cognitive impairments and social interaction difficulties (Jaworska et al., 2022). Lastly, Townsend et al. (2022) and Crellin et al. (2022) highlighted the stigma associated with antipsychotic medications, which was a significant theme in our study as well (Crellin et al., 2022; Townsend et al., 2022).

This study has several limitations that must be acknowledged. First, the sample size was relatively small, with only 26 participants, which may limit the generalizability of the findings. Additionally, the study relied on self-reported data, which can be subject to recall bias and social desirability bias. The qualitative nature of the study, while providing rich and detailed insights, may not capture the full scope of the emotional and cognitive effects experienced by all individuals on long-term antipsychotic medication. Furthermore, the study did not differentiate between the effects of different types of antipsychotic medications, which could vary significantly.

Future research should aim to address these limitations by including larger, more diverse samples to enhance the generalizability of the findings. Longitudinal studies that follow patients over time would provide valuable insights into the long-term emotional and cognitive effects of antipsychotic medications. Additionally, quantitative studies using standardized measures could complement the

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qualitative findings and provide a more comprehensive understanding of these effects. Research should also explore the differential impacts of various types of antipsychotic medications to identify specific risks and benefits associated with each type. Investigating the underlying mechanisms of these side effects could also inform the development of targeted interventions to mitigate their impact.

The findings of this study have important implications for clinical practice. Healthcare providers should be aware of the significant emotional and cognitive side effects associated with long-term antipsychotic medication use and actively monitor patients for these issues. Regular assessments and open communication about side effects can help to identify and address problems early. Clinicians should consider the potential impact of these side effects on patients' daily functioning and social interactions when developing treatment plans.

Incorporating psychoeducation and support groups can help patients and their families better understand and manage the side effects of antipsychotic medications. Providing resources and strategies for coping with emotional blunting and cognitive impairments can improve patients' quality of life. Additionally, addressing the stigma associated with antipsychotic medication use through public education and advocacy efforts can reduce the social isolation and self-stigma experienced by patients.

In conclusion, while antipsychotic medications are essential for managing severe psychiatric disorders, their long-term use can lead to significant emotional and cognitive side effects. This study highlights the need for personalized treatment approaches, ongoing dialogue between patients and healthcare providers, and comprehensive support systems to address these challenges. By understanding and mitigating the emotional and cognitive impacts of long-term antipsychotic use, healthcare providers can enhance the overall well-being and quality of life for patients.

Authors' Contributions

Not applicable.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The author reports no conflict of interest.

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Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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