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EFFICACY OF ANTIDEPRESSANTS VS. COGNITIVE BEHAVIORAL THERAPY. A QUALITATIVE STUDY FROM QUETTA PAKISTAN

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Abstract

Background: Depression is a growing public health concern in Pakistan, including Quetta, where access, stigma, and resource constraints shape treatment choices. Although antidepressant medication and cognitive behavioral therapy (CBT) are both evidence-based treatments, little is known about how their perceived efficacy compares within this cultural context.

Methods: This qualitative, phenomenological study explored lived experiences of individuals receiving either antidepressants or CBT for depression in Quetta. Using purposive sampling, we conducted semi-structured interviews with eight patients (four on antidepressants, four in CBT), two psychiatrists, and two clinical psychologists. Interviews were conducted in Urdu and Pashto, recorded with consent, translated into English, and analyzed using thematic analysis (Braun & Clarke, 2006) with NVivo support.

Results: Four themes emerged. (1) **Speed of relief:** Antidepressants were associated with faster symptom reduction (typically within weeks), but several patients reported emotional "numbness." CBT participants described slower but deeper, more enduring improvements. (2) **Understanding and empowerment:** CBT fostered insight, self-efficacy, and practical coping skills; medications were sometimes viewed as suppressing rather than resolving problems. (3) **Side effects and dependency**

concerns: Antidepressant users frequently cited drowsiness, weight gain, and fears of long-term reliance; CBT participants reported minimal adverse effects. (4) **Cultural acceptance and stigma:** Psychiatric medication was often stigmatized; framing CBT as "counseling" reduced resistance, particularly among younger patients. Clinicians endorsed integrated care combining pharmacotherapy with CBT especially for moderate to severe depression, but noted the scarcity of trained therapists and systemic barriers.
Conclusion: In Quetta, perceived treatment efficacy reflects not only symptom change but also cultural fit, autonomy, and side-effect burden. Antidepressants offer rapid relief, whereas CBT equips patients with durable skills and a sense of control**.** Scaling culturally sensitive, integrated models, expanding CBT training, and strengthening public mental health literacy are critical to improving depression care in Pakistan. This study provides context-specific insights to guide clinicians, policymakers, and researchers toward more patient-centered, holistic mental health services.

Keywords: Depression, Stigma, Resource, Antidepressant, Cognitive behavioral therapy, Cultural context

Introduction

Depression is a leading cause of disability worldwide, affecting more than 280 million people according to the World Health Organization (WHO, 2021). Characterized by persistent sadness, loss of interest, low self-esteem, and impaired daily functioning, depression imposes a significant burden on individuals, families, and healthcare systems. In low- and middle-income countries (LMICs) like Pakistan, the situation is even more critical due to limited access to mental health services, cultural stigma, and a lack of trained professionals.

In Pakistan, mental health care has historically been under-prioritized. Only 0.4% of the total health budget is allocated to mental health, and most services are concentrated in urban centers. The city of Quetta, capital of Balochistan province, faces unique challenges due to its geographical isolation, sociopolitical instability, and a culturally conservative population. As a result, patients often suffer in silence or turn to informal or traditional healers, while formal treatment options remain underutilized.

Among the available treatments for depression, antidepressant medications and cognitive behavioral therapy (CBT) are the most widely studied and implemented worldwide. Antidepressants, particularly selective serotonin reuptake inhibitors (SSRIs), are often prescribed in public healthcare settings due to their accessibility and ease of administration. These medications work by altering neurotransmitter levels in the brain and are known to reduce symptoms relatively quickly. However, they can cause side effects such as weight gain, sexual dysfunction, and emotional blunting. Additionally, some patients report a sense of dependency or dissatisfaction with long-term pharmacological treatment.

On the other hand, CBT is a structured, time-limited psychotherapy that focuses on identifying and restructuring negative thought patterns and maladaptive behaviors. CBT has shown strong evidence of efficacy in treating depression, especially in mild to moderate cases, and is associated with lower relapse rates compared to medication alone. It empowers patients with skills to manage their symptoms beyond the duration of therapy. However, access to CBT in Pakistan is limited due to a shortage of trained therapists, high costs in private clinics, and low public awareness about its benefits.

Most existing literature comparing antidepressants and CBT has emerged from Western settings, where mental health infrastructure is more robust and cultural attitudes differ significantly. While international meta-analyses generally support the effectiveness of both treatments, the contextual factors such as social stigma, literacy levels, gender roles, and religious or traditional beliefs—may influence treatment outcomes in a country like Pakistan. For example, taking psychiatric medication may be interpreted as a sign of "madness" or moral weakness, while engaging in therapy may be misunderstood as unnecessary or shameful.

Although a few quantitative studies in Pakistan have evaluated treatment outcomes of antidepressants and CBT, qualitative insights into how patients perceive these modalities and how these perceptions influence their treatment experiences and preferences are lacking, especially in under-researched

regions like Quetta. Understanding the subjective experiences of patients is crucial to developing mental health interventions that are not only clinically effective but also culturally acceptable and accessible.

This study addresses this gap by using a qualitative, phenomenological approach to explore how patients in Quetta experience and perceive the efficacy of antidepressant medications compared to cognitive behavioral therapy. It also includes perspectives from psychiatrists and psychologists working in the region to provide a more comprehensive view. The study aims to examine the advantages and limitations of each treatment from the standpoint of those who receive and deliver care, with the broader goal of informing more patient-centered, context-sensitive mental health strategies in Pakistan.

In summary, this research seeks to answer the following questions:

1. How do patients in Quetta perceive the efficacy of antidepressants versus CBT in treating depression?
2. What are the perceived benefits, limitations, and challenges associated with each treatment?
3. How do cultural, social, and systemic factors shape treatment experiences and preferences?

By exploring these questions, the study hopes to contribute valuable knowledge that can guide clinical practice, mental health policy, and public education efforts in Pakistan and similar low-resource settings.

Literature Review

Depression is one of the most prevalent mental disorders globally, significantly affecting the quality of life and productivity of individuals. While various treatment approaches exist, antidepressant medications and cognitive behavioral therapy (CBT) are the most commonly recommended for clinical management of depression. Numerous international studies have evaluated their efficacy, both individually and comparatively. However, research in South Asian and particularly Pakistani contexts remains limited, and even fewer studies explore patient experiences qualitatively—highlighting the need for culturally grounded investigations.

Antidepressants: Efficacy and Limitations

Pharmacological treatment for depression, particularly with selective serotonin reuptake inhibitors (SSRIs), is widely recognized for its biological effectiveness. According to Cipriani et al. (2018), most antidepressants are more effective than placebo in reducing acute depressive symptoms. These medications are particularly favored in resource-limited settings for their accessibility and ability to deliver quick symptomatic relief. In Pakistan, government hospitals often rely on antidepressants as the primary mode of intervention, especially given the shortage of trained psychotherapists (Khan et al., 2015).

However, antidepressants are not without their drawbacks. Side effects such as weight gain, sexual dysfunction, sleep disturbances, and emotional blunting are commonly reported (Fava et al., 2006). Furthermore, long-term reliance on medication may foster dependency and reduce intrinsic motivation for behavioral change. Several patients also discontinue treatment prematurely due to perceived ineffectiveness or fear of stigma, particularly when psychiatric medications are viewed as indicative of “insanity” or personal weakness (Khalily, 2011). These concerns are especially pronounced in conservative regions like Balochistan, where mental illness is still largely misunderstood.

Cognitive Behavioral Therapy: A Psychological Alternative

CBT is a structured, goal-oriented form of psychotherapy that helps individuals identify and change dysfunctional thought patterns. Numerous randomized controlled trials and meta-analyses have demonstrated that CBT is as effective as, or in some cases more effective than, antidepressants—particularly for mild to moderate depression (Cuijpers et al., 2013; Hollon et al., 2005). CBT is also

associated with lower relapse rates and longer-lasting effects, as it equips patients with tools to manage future depressive episodes independently.

In developing countries like Pakistan, awareness and utilization of CBT remain relatively low. A study by Bashir et al. (2017) found that urban Pakistani youth who engaged in CBT valued the therapeutic alliance, privacy, and skill-based coping strategies. However, barriers such as high treatment costs in private settings, limited public sector availability, and social stigma against "talking to a therapist" reduce its reach and impact. Furthermore, the limited number of trained clinical psychologists in regions like Quetta exacerbates accessibility issues.

Comparative Research on CBT vs. Antidepressants

In Western literature, there has been a growing interest in comparing the short-term and long-term outcomes of pharmacological versus psychological treatments. Hollon et al. (2005) found that while antidepressants reduced symptoms more quickly in the short term, CBT had more sustainable outcomes after treatment cessation. Another meta-analysis by Cuijpers et al. (2013) concluded that both CBT and antidepressants are effective for adult depression, but that CBT may be more appropriate when patients prefer non-medical treatments.

In the South Asian context, however, few studies have offered a direct comparison. One Pakistani study by Rehman and Ahmad (2019) indicated that patients receiving CBT reported better quality of life outcomes than those on antidepressants, despite slower symptom reduction. This suggests that patient preferences, understanding, and social context may be critical determinants of treatment satisfaction and efficacy.

Cultural Context and Mental Health Perceptions in Pakistan

Cultural beliefs in Pakistan play a significant role in shaping help-seeking behavior and treatment compliance. Depression is frequently misunderstood, often attributed to supernatural forces or personal weakness, leading many individuals to seek help from spiritual healers rather than medical professionals (Minhas & Nizami, 2006). Stigma remains a pervasive barrier, particularly in less urbanized areas like Quetta. Women, in particular, face added social pressures and may experience restricted autonomy in making health decisions. Given these socio-cultural dynamics, it is crucial to assess not just the clinical effectiveness of treatment modalities, but also their perceived efficacy, acceptability, and alignment with local values. Qualitative research is especially well-suited for exploring these dimensions, as it allows patients and professionals to share their lived experiences and contextual realities in their own words.

Gap in Existing Literature

Despite the global attention to depression treatment, there is a glaring gap in qualitative, context-specific research comparing antidepressants and CBT in Pakistan. No prior study, to our knowledge, has focused on patient and clinician experiences with these treatments in Quetta, a region marked by limited mental health resources and distinct cultural factors. By exploring how individuals perceive and experience treatment, this study aims to generate insights that can inform more culturally relevant and patient-centered care.

Methodology

This study employed a qualitative, phenomenological approach to explore how individuals in Quetta, Pakistan, perceive and experience the effectiveness of antidepressants versus cognitive behavioral therapy (CBT) in the treatment of depression. The phenomenological method is particularly suitable for this research because it focuses on understanding the lived experiences and subjective meanings that individuals attach to their treatment journeys.

Research Design

A phenomenological design was chosen to delve deeply into how patients and mental health professionals understand and interpret the effects, challenges, and social perceptions of antidepressant

medication and CBT. This approach emphasizes personal narratives and seeks to uncover the essence of participants' experiences within their cultural and social contexts.

Study Setting

The study was conducted in Quetta, the capital of Balochistan, which presents a unique sociocultural landscape characterized by limited access to mental health services, a conservative social structure, and widespread mental health stigma. Participants were recruited from both government hospitals and private clinics, enabling the inclusion of diverse perspectives across socioeconomic and institutional backgrounds.

Sampling Strategy

A purposive sampling technique was used to ensure that participants had direct, relevant experience with the treatments being studied. The sample included:

- 8 patients diagnosed with moderate to severe depression:
  - 4 patients undergoing pharmacological treatment (antidepressants)
  - 4 patients receiving CBT sessions from licensed therapists
- 2 psychiatrists (working in both public and private sectors)
- 2 clinical psychologists with formal CBT training

Participants were selected to represent variations in age, gender, and treatment settings.

The inclusion criteria for patients were:

- Diagnosed with major depressive disorder (MDD)
- Aged 18–60 years
- Informed consent was taken
- Undergoing treatment for at least six weeks
- Willing and able to provide informed consent

Data Collection

Data were collected through semi-structured, in-depth interviews lasting approximately 30–60 minutes each. Interview guides were developed in English, then translated into Urdu and Pashto to ensure clarity and cultural relevance. Interviews with patients focused on:

- Experiences with their respective treatment
- Perceived benefits and drawbacks
- Emotional and psychological outcomes
- Stigma and social support
- Preferences for future treatment

Interviews with mental health professionals explored:

- Observed patient responses to both treatments
- Challenges in delivering care
- Cultural barriers to treatment adherence
- Recommendations for integrated approaches

All interviews were conducted in private spaces within clinics or hospitals to ensure confidentiality and participant comfort. With consent, conversations were audio-recorded and later transcribed verbatim. Transcripts were translated into English for analysis.

Data Analysis

The data were analyzed using thematic analysis, as outlined by Braun and Clarke (2006). This method involved the following steps:

1. Familiarization with data through repeated reading
2. Generating initial codes related to treatment efficacy, stigma, accessibility, and emotional impact
3. Identifying patterns and emerging themes

4. Reviewing and refining themes for coherence
5. Producing a narrative account supported by participant quotes

NVivo 12 software was used to manage and organize the coded data. The use of a qualitative software tool ensured consistency in coding and facilitated cross-case comparison among participants.

Trustworthiness and Rigor

To ensure the credibility and reliability of the findings, the following strategies were employed:

- Triangulation: Data were gathered from multiple sources (patients, psychiatrists, psychologists)
- Member checking: Selected participants reviewed summarized transcripts for accuracy
- Peer debriefing: Coding and themes were reviewed by an independent qualitative researcher
- Thick description: Detailed contextual information was provided to enhance transferability

Ethical Considerations

Ethical approval was obtained from the local Institutional Review Board (IRB) Bolan Medical Collage Quetta. All participants were informed about the study's purpose, confidentiality procedures, and their right to withdraw at any time. Written and verbal informed consent was obtained. Anonymity was maintained using pseudonyms, and sensitive information was carefully handled to protect participant privacy.

Limitations of Methodology

While this qualitative approach allows for deep exploration of subjective experience, the small sample size and regional focus limit generalizability. Moreover, language translation may affect nuance, although efforts were made to preserve original meaning.

Results

The analysis of interviews revealed four central themes regarding the perceived efficacy of antidepressants and cognitive behavioral therapy (CBT) among participants in Quetta:

1. Symptom Relief and Treatment Onset
2. Understanding, Control, and Coping
3. Side Effects and Dependency
4. Cultural Perceptions and Stigma

These themes were constructed from patient narratives as well as insights from mental health professionals. The themes are supported by quotes and organized into summary tables for clarity.

Theme 1: Symptom Relief and Treatment Onset

Participants receiving **antidepressant medication** reported faster symptom relief—typically within 2 to 4 weeks of starting treatment. However, the relief was often described as superficial or limited to physical symptoms (e.g., improved sleep, reduced crying). Conversely, those undergoing CBT described slower improvements but greater emotional and cognitive clarity over time.

Table 1: Perceptions of Treatment Onset and Symptom Relief

Participant Type	Treatment Type	Time to Notice Improvement	Nature of Relief	Example Quote
Patient 1	Antidepressant	2–3 weeks	Physical energy, sleep improved	"I could sleep better after 2 weeks."
Patient 3	CBT	5–6 sessions	Emotional awareness, mood stability	"It took time, but I started seeing patterns in my thinking."
Psychologist A	CBT	4–6 sessions	Gradual internal change	"CBT builds slowly but deeply."
Psychiatrist B	Medication	2 weeks	Symptom suppression	"Medications work quickly, especially for acute distress."

Theme 2: Understanding, Control, and Coping

CBT participants reported gaining a clearer understanding of their depressive thoughts, triggers, and behavioral responses. They also felt empowered to manage future episodes without external help. In contrast, antidepressant users described less understanding of the root cause of their condition and often attributed recovery solely to medication.

Table 2: Perceptions of Insight and Control

Participant	Treatment Type	Reported Self-Understanding	Coping Skill Development	Example Quote
Patient 5	CBT	High	Yes	"I learned how to handle my panic and overthinking."
Patient 2	Antidepressant	Low	No	"I just took the pills. I didn't really know why I was sad."
Psychologist B	CBT	High	Yes	"CBT gives people a toolkit for life."
Psychiatrist A	Medication	Low	No	"Medication is often a temporary fix; we don't always reach the root."

Theme 3: Side Effects and Dependency Concerns

Many antidepressant users reported side effects such as weight gain, fatigue, and a sense of emotional numbness. Some expressed concern about becoming dependent on medication or feared needing it long-term. CBT users reported no physical side effects, though a few noted emotional difficulty during early sessions as they explored painful memories.

Table 3: Side Effects and Dependency

Participant	Treatment Type	Side Effects Reported	Dependency Concerns	Example Quote
Patient 6	Antidepressant	Fatigue, weight gain	Yes	"I feel dull and tired all the time. I'm scared to stop taking them."
Patient 7	CBT	None	No	"It was hard at first to talk, but I feel stronger now."
Psychiatrist B	Medication	Common physical side effects	Yes (long-term)	"Some patients worry they'll be on meds forever."
Psychologist A	CBT	None	No	"CBT is effort-based, not chemically dependent."

Theme 4: Cultural Perceptions and Stigma

Cultural attitudes significantly influenced treatment preferences. Several participants on medication reported being judged or labeled as "crazy" by family members. In contrast, CBT was more socially accepted when framed as "counseling" or "guidance," especially among younger and female patients. Professionals also noted gender-based stigma in seeking psychiatric help.

Table 4: Cultural and Social Influences

Participant	Treatment Type	Cultural Barriers Faced	Social Acceptance	Example Quote
Patient 4	Antidepressant	Family disapproval	Low	"They said I must be mentally ill if I need pills."
Patient 8	CBT	Mild stigma, mostly accepted	High	"I told my family I was getting career advice."
Psychologist A	CBT	High stigma for men	Moderate	"Men are reluctant unless it's framed as coaching."
Psychiatrist A	Medication	High, especially in rural areas	Low	"Stigma around pills is deeply rooted in Baloch families."

Summary of Key Findings

- Antidepressants provided faster symptom relief but were associated with side effects and concerns over dependency.

- CBT offered slower but deeper improvements, with strong emphasis on self-awareness, emotional resilience, and long-term skill development.
- Patients preferred CBT when they had access and understanding of it, but medications were more readily available, especially in government facilities.
- Social stigma remained a major barrier for both treatments, though CBT was more culturally acceptable when framed non-clinically.

Discussion

This study aimed to explore how individuals in Quetta, Pakistan, perceive the efficacy of antidepressant medication compared to cognitive behavioral therapy (CBT) for the treatment of depression. The results offer a rich, contextual understanding of patient and professional experiences with these two modalities. Four major themes emerged: symptom relief and onset, emotional insight and control, side effects and dependency concerns, and cultural perceptions of treatment. These findings not only align with global research but also offer culturally specific insights relevant to South Asian and low-resource settings. In contrast, CBT users noted a slower onset of improvement, but reported a deeper, more transformative impact over time. These patients described gaining insight into the patterns of their thoughts and behaviors, which allowed them to manage symptoms independently. This supports existing findings by Hollon et al. (2005), who argue that CBT not only treats current depressive episodes but also reduces the risk of future relapse through skill development. In this sense, CBT can be understood as providing psychological immunity that medication alone does not. A key distinction between the two treatment paths was the degree of personal agency and self-understanding that patients felt they gained. CBT participants described themselves as "doing the work" of getting better, which fostered a sense of ownership and empowerment.

The findings confirmed that side effects are a significant concern for patients on antidepressants. Reports of fatigue, weight gain, and emotional numbness were common. These side effects can interfere with treatment adherence and reduce overall satisfaction. While such risks are well-documented in the literature (Fava et al., 2006), their impact in a conservative and medically underserved city like Quetta is magnified, where alternative options are limited.

Cultural perceptions heavily influenced how treatments were received. Antidepressants were often associated with psychiatric illness or "madness" by patients and their families. This stigma was particularly strong among older adults and rural-origin participants, reflecting broader societal attitudes in Pakistan where mental illness is still taboo (Khalily, 2011). Many participants feared being judged or rejected for taking psychiatric medication. CBT, however, was more socially acceptable when framed as "counseling" or "guidance" rather than therapy. Younger patients and women especially found it easier to disclose participation in therapy than in psychiatric care. This suggests that language and framing play a critical role in improving treatment uptake. These findings echo earlier work (Minhas & Nizami, 2006) suggesting that tailoring mental health interventions to cultural norms and communication styles is essential for acceptance. Both clinicians and patients indicated that a combined treatment model using antidepressants for symptom stabilization and CBT for long-term recovery could be more effective, especially in moderate to severe depression.\

This integrative approach is supported by international guidelines and research (Cuijpers et al., 2013), yet its implementation in Quetta is limited by structural challenges, including: Lack of trained therapists, Minimal psychological services in public hospitals, Low mental health literacy This study's strengths lie in its rich, qualitative exploration of real-world experiences from both patients and professionals in a culturally specific setting. By focusing on a marginalized and under-researched city like Quetta, it provides insights that are often overlooked in national mental health strategies.

However, several limitations must be acknowledged. The sample size was small and purposively selected, which may limit generalizability. Additionally, language translation may have affected the

nuance of participants' expressions, though care was taken to maintain integrity during transcription and analysis.

Conclusion

This qualitative study explored the lived experiences and perceptions of patients and mental health professionals regarding the efficacy of antidepressants versus cognitive behavioral therapy (CBT) in the treatment of depression in Quetta, Pakistan. The findings offer valuable insights into how these treatment modalities are experienced in real-world, culturally grounded settings—beyond clinical trials and quantitative outcomes. The study identified key differences in how each treatment was perceived. Antidepressants were generally seen as providing faster relief, particularly in alleviating physical symptoms such as sleep disturbances and low energy. However, many patients expressed concern about side effects (e.g., drowsiness, weight gain, and emotional blunting) and the risk of becoming dependent on medication. While effective in the short term, antidepressants were often viewed as a temporary fix that did not necessarily address the underlying causes of depression.

In contrast, CBT was associated with slower but more meaningful improvements, particularly in terms of emotional awareness, self-understanding, and the development of long-term coping skills. Patients who underwent CBT described a greater sense of personal agency in their recovery and appreciated learning tools that helped them manage future challenges. Importantly, CBT was also perceived as less stigmatizing, especially when presented as "counseling" or "guidance" rather than therapy. This framing made it more culturally acceptable, particularly for younger individuals and women.

The study also highlighted the critical role of culture and stigma in shaping treatment choices. In Quetta's socially conservative context, psychiatric medication is often equated with severe mental illness or "madness," deterring some patients from pursuing or adhering to treatment. Meanwhile, the scarcity of trained CBT practitioners and public misconceptions about therapy limit access to non-pharmacological care.

From a clinical and policy standpoint, these findings support the adoption of integrated treatment models that combine the rapid symptom relief of medication with the lasting behavioral and cognitive changes enabled by CBT. Mental health care in Pakistan—particularly in underserved regions like Quetta—would benefit from:

- Expanding CBT training and availability, particularly in public hospitals.
- Public education campaigns to reduce stigma and promote therapy as a normal, healthy option.
- Culturally sensitive framing of psychological services to improve community acceptance.
- Policy reform to fund and prioritize mental health as an essential component of primary care.

In conclusion, this study underscores the need for patient-centered, culturally aware, and holistically integrated mental health interventions in Pakistan. Both antidepressants and CBT have their strengths and limitations, but when used complementarily and delivered within an empathetic, culturally respectful framework, they can provide more effective and sustainable treatment outcomes for individuals struggling with depression.

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