Feasibility, Acceptability, and Preliminary Effects of Culturally Adapted Brief Cognitive Behavioral Therapy for Depression Among Adults: A Pilot Study

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Abstract

The present pilot study evaluated the feasibility, acceptability, and preliminary effectiveness of culturally adapted Brief Cognitive Behavioral Therapy (BCBT) for depression among young adults. A quasi-experimental pretest–posttest design was used. Six young adults, N=6 with moderate depressive symptoms, were recruited from university settings. Participants received culturally adapted BCBT, and outcomes were assessed before and after the intervention using Beck Depression Inventory, Patient Health Questionnaire-9, Generalized Anxiety Disorder Scale-7, Stress subscale of DASS, and Flourishing Scale, all were in Urdu version. Descriptive statistics, internal consistency estimates, and paired-samples t tests, feasibility, and acceptability were analyzed. Findings showed successful recruitment and retention of the targeted pilot sample, complete session adherence, no missing assessment data, and positive participant engagement. Paired-samples t tests indicated significant reductions in depression, anxiety, and stress, along with a significant increase in psychological well-being from pretest to posttest. The findings support further evaluation of the intervention in a larger controlled study.

Keywords: Brief Cognitive Behavioral Therapy, Depression, Anxiety, Stress, Young Adults, Students, Cultural Adaptation, Pilot Study.

Introduction

Depression is a major clinical and mental health concern among young adults because it frequently arises at a developmental stage marked by academic pressures, exploration of identity, emotional autonomy, job uncertainties, interpersonal transitions, and growing societal responsibilities. Academic performance, social interactions, decision-making, productivity, and general quality of life can all be negatively impacted by psychological discomfort during the delicate stage of young adulthood. According to the American Psychiatric Association (2022), depression encompasses more than just transient sadness. It also includes persistent poor mood, lost interest or pleasure, cognitive and physical problems, exhaustion, impaired concentration, feelings of worthlessness, and functional impairment.

There are efficient treatments for all levels of depression including mild, moderate, and severe, yet depressive disorders continue to be among the most life-threatening mental health problems worldwide (World Health Organization [WHO], 2025). Young adults still face significant

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obstacles accessing timely and culturally acceptable mental health care, especially in low- and middle-income nations. Due to Depression high prevalence and its correlation with academic stress, family expectations, financial problems, stigma, and restricted access to professional psychiatric care, depression among young adults and university students in Pakistan has drawn more and more empirical attention. A systematic review and meta-analysis revealed a high prevalence rate of depression among Pakistani university. Studies also highlighted the need for evidence-based, accessible, and culturally sensitive interventions within university and community settings (Khan et al., 2021).

Psychological interventions for the treatment of depression are also highly recommended in current clinical guidelines because they directly target maladaptive thoughts, avoidance patterns, impaired coping, and behavioral withdrawal that sustain depressive symptoms, even though pharmacotherapy is still a common treatment option for depression (National Institute for Health and Care Excellence [NICE], 2022).

One of the psychological treatments for depression that has the strongest scientific backing is cognitive behavioral therapy, or CBT. According to the Aron Beck cognitive model, negative automatic thoughts, dysfunctional beliefs, cognitive distortions, inactivity, avoidance, and maladaptive coping mechanisms all contribute to the maintenance of depressive symptoms (Beck & Haigh, 2014). By assisting clients in recognizing harmful beliefs, assessing the evidence, producing more balanced interpretations, increasing adaptive behavior, and developing relapse-prevention techniques, cognitive behavioral therapy (CBT) seeks to lessen distress. CBT is still a proven treatment for depression in a variety of demographics and delivery methods, according to recent meta-analytic data (Cuijpers et al., 2023).

Brief Cognitive Behavioral Therapy (BCBT) is a time limited, condenses basic cognitive and behavioral techniques into fewer sessions. It typically focuses on particular symptoms, goal setting, cognitive restructuring, behavioral activation, problem-solving, relaxation, homework, and maintenance of gains (Cully et al., 2020). BCBT may be especially helpful in situations when mental health resources are scarce and young adults require workable, accessible, and affordable intervention models since it is shorter, structured, and skill oriented. However, the direct application of Western-developed CBT manuals in Pakistan may be limited if language, religion, family structure, cultural beliefs, idioms of distress, gender norms, stigma, and help-seeking patterns are not adequately considered. Cultural adaptation is therefore essential to improve relevance, acceptability, engagement, and therapeutic responsiveness. Evidence from Pakistan and South Asian Muslim populations supports the value of culturally adapted CBT, showing that culturally responsive modifications can improve the suitability and effectiveness of psychological interventions (Naeem et al., 2015; Naeem et al., 2019). In the first phase of the present research program, the BCBT manual was translated and culturally adapted into Urdu to ensure linguistic clarity, conceptual equivalence, and cultural relevance for young adults in Pakistan. This cultural adaptation work provided the foundation for the pilot evaluation by refining examples, therapeutic language, session content, and culturally meaningful ways of explaining cognitive-behavioral concepts while preserving the core principles of BCBT The culturally adapted BCBT manual used in the present pilot study was developed in an earlier phase of the research, in which BCBT was adapted for depression, associated psychiatric symptoms, and well-being among young adults in Pakistan (Bano et al., 2024).

Before implementing a full-scale intervention study, a pilot study is methodologically important because it allows the researcher to evaluate whether the intervention procedures, recruitment strategy, assessment tools, session structure, participant engagement, and data collection process

are workable in the target context. Pilot studies are especially useful when an intervention has been newly adapted for a specific population or culture because they help identify procedural weaknesses before the main study is conducted (Hertzog, 2008; Leon et al., 2011).

Objective

To evaluate the feasibility, acceptability, and preliminary effectiveness of culturally adapted Brief Cognitive Behavioral Therapy (BCBT) in reducing depression, anxiety, and stress and enhancing psychological well-being among young adults.

Literature Review

Depression in adolescence has increasingly been recognized as a global mental health issue. In teenagers, depression is associated with recidivism, psychiatric co-morbidities, school problems, community problems, and poor job outcomes, stated Thapar et al. (2022). Young adults have numerous developmental issues such as academic competitiveness, identity formation, emotional independence, relationship issues, and fear of future employment. Stress can lead to reductions in psychological functioning and increase the risk of depression symptoms. The importance of depression in university environments is their impact on academic performance, motivation, focus, attendance, peer relationships and general functioning. There are additional problems due to the Pakistani environment. There is still a lack of attention to mental health care. The stigma, fear of criticism, lack of knowledge, financial limitations, and reliance on unofficial or family support networks are all factors that can prevent people from seeking psychological treatment. The study by Khan et al. (2021) revealed that depression symptoms are highly prevalent among the university students in Pakistan, highlighting the need for organized mental health treatments in academic and community settings. This data validates the rationale for the development and assessment of culturally relevant, short-term, and locally available interventions.

There is strong scientific evidence that CBT is efficient in treating depression. According to the cognitive-behavioral theory, negative thoughts, maladaptive beliefs, emotional distress, physiological symptoms, and behavioral withdrawal interact to cause depression (Beck & Haigh, 2014). Negative interpretations of oneself, the world, and the future might result in hopelessness, passivity, diminished reinforcement, and more mood disruption in depressed people. Through systematic methods like psychoeducation, mood monitoring, cognitive restructuring, behavioral activation, problem solving, relaxation, homework assignments, and relapse prevention, CBT tackles these sustaining variables. According to Cuijpers et al. (2023), CBT is still one of the psychological treatments for depression that has been studied the most and is advised by important treatment standards. The same theoretical underpinnings of normal CBT are applied in Brief Cognitive Behavioral Therapy, but the intervention is condensed into a more concentrated and briefer format. Cully et al. (2020) stated that Brief cognitive behavioral therapy is a systematic, skill-based treatment developed to help clients implement helpful coping strategies in a brief number of sessions and identify the connections between the more specific and shorter activities. BCBT is especially relevant for young adults since it is goal-oriented, practical, collaborative, and compatible with short-term therapy strategies and academic schedules. Its emphasis on homework and skill practice may assist sustain treatment outcomes in addition to encouraging clients to continue practicing therapeutic approaches outside of the therapy session.

Furthermore, research studies demonstrated that brief, low-intensity CBT-based treatments may

enhance functioning and reduce symptoms of depression. Evidence for low-intensity CBT interventions for depression was published by Richardson et al. (2022), indicating that structured and easily accessible psychological treatments can be clinically beneficial when given in a practical manner. The adaptability of CBT for various service settings is further supported by research from digital and internet-based CBT, which shows that organized CBT principles can be beneficial across various delivery modes (Karyotaki et al., 2021). These results are significant for nations like Pakistan, where scalable and quick therapies are especially helpful due to a lack of qualified mental health specialists.

Even though CBT has a strong base of research, cultural adaptation is crucial when using therapies in groups whose language, belief systems, family structures, religious beliefs, and help-seeking behaviors are different from those in which the treatment was first established. In order to keep the intervention both evidence-based and culturally relevant, cultural adaptation entails altering examples, metaphors, communication style, assessment methodology, engagement tactics, and therapeutic explanations rather than altering CBT's theoretical underpinnings. Naeem et al. (2015) demonstrated that brief culturally adapted CBT for depression was effective in Pakistan when compared with treatment as usual. Naeem et al. (2019) stressed that therapy modifications, evaluation and participation, and cultural awareness should all be included in culturally adapted CBT. These results confirm the necessity of BCBT that is culturally appropriate for young adults in Pakistan.

Cultural adaptation serves as the foundation for the current study. The BCBT manual was translated and culturally modified into Urdu for Pakistani young adults during the previous stage. Language clarity, conceptual equivalency, religious and spiritual sensitivity, family and community context, examples that are culturally understandable, and stigma-related issues were all taken into consideration in the adaption. Pakistani young adults may employ culturally influenced emotional, physical, interpersonal, and spiritual language to communicate depressive discomfort, which is why this approach was required. Thus, the use of Urdu therapeutic materials and culturally relevant examples may enhance understanding, engagement, and acceptability (Bano et al., 2026).

In intervention research, acceptability and feasibility are crucial metrics, particularly prior to carrying out a more extensive comparison study. The term "feasibility" describes how feasible it is to carry out the study's recruitment, retention, session completion, assessment, and intervention processes. Acceptability is the degree to which participants believe the intervention is clear, pertinent, helpful, and appropriate for their needs. According to Hertzog (2008) and Leon et al. (2011), pilot studies are intended to help refine the intervention protocol, uncover implementation hurdles, and provide preliminary outcome patterns rather than to give conclusive evidence of treatment efficacy. Pilot testing is especially crucial in culturally adapted intervention research since even theoretically good programs may have problems if participants are unfamiliar with the language, examples, structure, or processes.

Consequently, the present pilot study was developed as a preliminary study prior to the main investigation. It aimed to find out if culturally adapted BCBT is of benefit to young people experiencing depressive symptoms, if participants would attend and complete the sessions, if they would engage with therapeutic techniques and if the assessment tools were clear and easy to use. Preliminary effectiveness was determined by comparing changes in depression and related psychiatric symptoms between baseline and post intervention. This pilot study aimed to connect the cultural adaptation stage with the subsequent stage

According to the available literature, CBT is a proven therapy for depression; Pakistani

university students demonstrate a high burden of depressive symptoms; depression among young adults is a serious and functionality impairing condition; and brief and culturally appropriate CBT approaches are particularly pertinent for low-resource settings. However, prior to widespread adoption, there is little data on culturally modified Urdu BCBT for young adults. In order to close this gap, the current pilot study assesses the viability, acceptability, and potential of the modified BCBT intervention for lowering depression symptoms in young people in Pakistan.

Methodology

Prior to the main investigation, a pilot study was carried out to assess the acceptability, feasibility and initial efficacy of Brief Cognitive Behavioral Therapy (BCBT) for the treatment of depression among young adults. Pilot studies are essential for detecting methodological flaws, improving intervention techniques, and guaranteeing that therapy content is culturally suitable. Cultural adaptation was included to increase relevance within the local community because cognitive behavioral therapies are frequently produced in Western environments. Before conducting extensive research, pilot studies are crucial for identifying methodological problems (Hertzog, 2008).

Hypotheses

1. There will be a significant reduction in depression, anxiety and stress from pretest to post-intervention among young adults.
2. There will be a significant increase in wellbeing from pretest to post-intervention among young adults.

Research Design

A Quasi experimental pretest-posttest design was used to examine preliminary changes following the intervention and to assess the stability of treatment effects over time.

Sample

In order to assess the feasibility, acceptability, clarity of the intervention protocol, session structure, and initial responsiveness of outcome measures, young adults (N=6) who met the eligibility criteria which included moderate levels of depressive symptoms were chosen after the initial screening at the university.

Inclusion Criteria

- Educated young adults with moderate levels of depression based on BDI scoring.

Exclusion Criteria

- Young adults with any physical disability were excluded.

Instruments

The demographic sheet, Beck Depression Inventory-21, The Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder Scale-7, subscale of stress from Depression Anxiety Stress Scales (DASS), and Flourishing Scale (FS), Urdu versions were used for data collection

Data Analysis

Descriptive statistics, Cronbach alpha and paired-sample t-test were used for data analysis.

Procedure

After receiving official approval from the appropriate authorities, participants were contacted from university settings. Young adults from university were used for the screening process. Students who fit the eligibility requirements (moderate depression symptoms) were invited to participate after receiving a brief explanation of the study. Written informed consent was obtained before participation, and those who were willing to participate were told about the goals and methods of study. Standardized Urdu versions of the tools were used for the baseline (pretest) assessment. Participants underwent eight weekly sessions of culturally appropriate Brief Cognitive Behavioral Therapy (BCBT), with one session per week, after the baseline assessment. The duration of each session was roughly 45 to 60 minutes. As soon as the intervention was over, a post-intervention assessment was carried out.

Results

Table 1

Sociodemographic Characteristics of Study Variable (N = 6)

Variable	Category	*N*	*%*
Age	18–24	5	83.3
	25–30	1	16.7
Gender	Male	3	50
	Female	3	50
Friendship Breakup	Yes	4	66.7
	No	2	33.3
Screen Time	1–5 hours	2	33.3
	>5 hours	4	66.7

Note. N = 6.

Table 1 presents the sociodemographic characteristics of the pilot sample. Most participants were aged 18–24 years (83.3%), and gender was equally distributed across males and females. Most participants reported a friendship breakup (66.7%) and daily screen time of more than five hours (66.7%).

Table 2

Descriptive Statistics and Psychometric Properties of Study Variables at Baseline (N= 6)

Scale	*k*	*M*	*SD*	α
BDI	21	25.17	2.71	.81
GAD-7	7	13.00	1.67	.77
PHQ-9	9	13.50	1.38	.89
SS	14	24.00	3.10	.75
WB	8	16.67	2.88	.80

Note. k = items; α = Cronbach's alpha; M = mean; SD = standard deviation, sample (N = 6). GAD-7 = Generalized Anxiety Disorder Scale; PHQ-9 = Patient Health Questionnaire; WB = Well-being; BDI = Beck Depression Inventory; SS = Stress.

Table 2 presents baseline descriptive statistics and internal consistency estimates. At baseline, participants reported moderate levels of depression, anxiety, and stress, along with low

psychological well-being. Cronbach's alpha values ranged from .75 to .89, indicating acceptable to good internal consistency; however, these estimates should be interpreted cautiously due to the small pilot sample.

Table 3

Descriptive Statistics and Psychometric Properties of Study Variables at Posttest (N = 6)

Scale	*k*	*M*	*SD*	α
BDI	21	12.67	1.21	.84
GAD-7	7	5.50	2.07	.85
PHQ-9	9	6.67	1.37	.83
SS	14	6.67	4.50	.78
WB	8	44.00	2.76	.83

Note. *k* = items; α = Cronbach's alpha; *M* = mean; *SD* = standard deviation, sample (*N* = 6). GAD-7 = Generalized Anxiety Disorder Scale; PHQ-9 = Patient Health Questionnaire; WB = Well-being; BDI = Beck Depression Inventory; SS = Stress.

Table 3 presents posttest descriptive statistics and internal consistency estimates. Compared with baseline, posttest scores showed marked reductions in depression, anxiety, and stress, while well-being scores increased. Cronbach's alpha values ranged from .78 to .85, indicating acceptable to good internal consistency in the pilot sample.

Table 4

Paired Samples t Test With Effect Sizes and Confidence Intervals (N=6)

Variable	*MD*	*SD*	*t*	*df*	*p*	*d*	95 % CI
BDI	12.50	1.87	16.37	5	< .001	6.68	[10.54, 14.46]
GAD-7	7.50	1.64	11.20	5	< .001	4.57	[5.78, 9.22]
PHQ-9	6.83	2.04	8.20	5	< .001	3.35	[4.69, 8.98]
Stress	17.33	6.28	6.76	5	.001	2.76	[10.74, 23.93]
WB	-27.33	5.13	-13.06	5	< .001	5.33	[-32.71, -21.95]

Note. d = Cohen's d; CI = confidence interval.

Table 4 presents paired-samples t test results. Findings showed significant pretest-to-posttest improvements across all study variables, including reductions in BDI, stress, PHQ-9, and GAD-7 scores, and an increase in well-being scores. All confidence intervals excluded zero. Given the small pilot sample, effect sizes should be interpreted cautiously as preliminary indicators of improvement rather than definitive evidence of treatment efficacy.

Feasibility and Acceptability of BCBT

The feasibility and acceptability of Brief Cognitive Behavioral Therapy (BCBT) was assessed. According to the results obtained, some changes have been implemented, namely improving session guidance, simplifying instructions when necessary, and modifying the scheduling procedure of participants as much as possible.

Discussion

The current study investigated efficacy of culturally adapted Brief Cognitive Behavioral Therapy

(BCBT) in decreasing depression, anxiety, stress and enhancing well-being in young adults. Overall, the results provided support for all four hypotheses, which were that participants would be significantly different on the major outcome variables from pretest to post-intervention. These findings suggest that BCBT may be a useful, systematic and efficient psychological intervention for young people experiencing emotional distress.

Conclusion

Overall, the results are preliminary evidence that culturally adapted BCBT is an effective, acceptable, and promising intervention for decreasing depression, anxiety, and stress, and increasing psychological well-being among young adults.

Implications

The study indicates the need for larger controlled trials in order to further assess the effectiveness of culturally adapted BCBT and the feasibility of incorporating culturally adapted BCBT into the University-based mental health services.

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