

CULTURAL ADAPTATION OF AN INTERVENTION MANUAL FOR INDIVIDUALS AT RISK OF FIRST EPISODE PSYCHOSIS: STUDY FROM PAKISTAN

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ABSTRACT

Background: Cognitive behavioural therapy (CBT) is an evidence-based intervention for individuals at at-risk of developing First Episode Psychosis (FEP). However, most CBT protocols have been developed in high-income countries and may not be directly transferable to low- and middle-income country (LMIC) contexts such as Pakistan, where cultural explanatory models, family systems, and health service structures differ substantially.

Aim: This study culturally adapted an existing CBT manual for individuals at risk of FEP in Pakistan using structured existing evidence based multi-stage adaptation framework including.

Methods: A qualitative, multi-stage study design was employed, guided by a structured four-stage cultural adaptation framework and prior CBT adaptation work in Pakistan. Stage 1 involved literature review and qualitative exploration through focus groups with individuals at risk, caregivers, mental health professionals, and community/religious stakeholders. Stage 2 focused on developing structured adaptation guidance. Stage 3 involved translation and iterative cultural adaptation of the manual across domains of language, concepts, communication, content, and cultural norms. Stage 4 evaluated the adapted intervention through a feasibility randomised controlled trial (n = 36).

Results: The adaptation process resulted in systematic modifications across five domains: language, conceptual framework, communication style, intervention content, and cultural norms. Key adaptations included simplification of terminology, use of culturally acceptable and non-stigmatising language, integration of psychosocial and spiritual explanatory models, incorporation of family systems into intervention delivery, and development of culturally relevant case vignettes. The intervention structure was streamlined from to 12 core sessions with a booster session to enhance feasibility. Findings from the feasibility trial indicated that the adapted intervention was acceptable and feasible, with good engagement, retention, and positive feedback from participants and therapists. **Conclusion:** This study demonstrates that CBT for individuals at risk of psychosis can be systematically and meaningfully adapted for the Pakistani context without compromising core therapeutic principles. The adapted CBT-ARMS manual is culturally relevant, feasible, and acceptable, providing a strong foundation for future fully powered trials and potential implementation in similar LMIC settings.

Keywords: Cognitive Behavior Therapy, Cultural adaptation, At risk mental state, first episode psychosis, Pakistan

Introduction

Psychotic disorders are often preceded by a prodromal phase characterised by attenuated psychotic symptoms and functional decline, referred to as the at-risk mental state (ARMS) or ultra-high risk (UHR) state for psychosis. Early identification and intervention during this phase may reduce or delay transition to psychosis and improve symptomatic and functional outcomes (McGorry et al., 2002; Stafford et al., 2013). Young people comprise almost 50% of Pakistan's population and are particularly vulnerable to multiple risk factors for mental illnesses including social and economic inequalities, abuse, and violence (Najam & Bari, 2017). Estimates of the prevalence of emotional and behavioural disorders among children and adolescents range from 12-34% depending on disorder and setting and explicitly highlights wide variation and likely underestimation due to underdiagnosis in LMICs (Sarfraz et al., 2025). Research has recently focused on young people at imminent risk of developing serious mental illnesses including first episode psychosis. Since the development of criteria characterising the ARMS, there is increasing recognition that effective treatment approaches are urgently needed to manage presenting symptoms and reduce the risk of lasting impairment, and transition to first episode psychosis (Fusar-Poli et al., 2013; Fusar-Poli et al., 2020).

Cognitive behavioural therapy (CBT) is a recommended psychological intervention for individuals at risk of FEP in several high-income country guidelines (Davies et al., 2018; NICE., 2014). However, CBT was developed within Western cultural contexts and is embedded in assumptions about individualism, cognition, and self-reflection that may not fully align with collectivist and family-oriented cultures (Rathod et al., 2019). Cultural differences in explanatory models of illness, help-seeking behaviour, and

family involvement significantly influence engagement with psychological interventions in low- and middle-income countries (LMICs) (Patel et al., 2018; Rathod et al., 2019). In Pakistan, mental health is frequently understood through a bio-psycho-social-spiritual framework, with strong reliance on family systems and religious or traditional healers in pathways to care (Bhikha et al., 2012; Khan et al., 2023; R. Kumar et al., 2024; Mubeen et al., 2024).

The need for cultural adaptation of CBT has been widely recognised in the literature. Early work by Rathod et al. demonstrated that CBT requires modification when delivered in non-Western contexts to improve acceptability and engagement (Rathod et al., 2019). Subsequently, Naeem et al. developed a structured approach to CBT adaptation through qualitative exploration of patient, caregiver, and clinician perspectives in Pakistan (Naeem et al., 2016). There has been considerable work on adaptation of CBT for a range of mental health conditions (Gerada et al.). Naeem et al. 2015 produced brief culturally adapted CBT for depression (Naeem, Gul, et al., 2015) including carer supervised CBT (Naeem et al., 2014) for depression, an online CBT for depression and anxiety (Latif et al., 2021) and CBT for Psychosis in Pakistan (Husain et al., 2017; Naeem et al., 2016; Naeem, Saeed, et al., 2015).

Effective, evidence-based interventions such as CBT are available for treating clinical symptoms in ARMS; however, research is mainly derived primarily from high income countries for this population. The present study aims to culturally adapt the existing manualised intervention called "Cognitive Behavior Therapy for those at risk of first episode psychosis- "Evidence-based therapy for people with an At-Risk Mental State (Van der Gaag et al., 2013). To our knowledge, this is the first study in a low-income country to culturally adapt the existing CBT intervention for those at risk of

developing first episode psychosis. This paper describes process of cultural adaptation to adapt existing CBT manual for those at risk of first episode psychosis.

Methodology

A qualitative, multistage design was used to adapt the existing manual using existing structured adaptation models in Pakistan developed by Naeem et al and previous work on cultural adaptation in Pakistan (Husain et al., 2017; Naeem et al., 2016; Naeem et al., 2019; Rathod et al., 2019). The adaptation followed four iterative stages (Figure 1).

Stage 1: This stage involved information gathering, understanding the cultural context and identifying areas requiring adaptation through literature review, stakeholder consultation, and qualitative inquiry.

Literature Review: A structured literature search was conducted to identify empirical studies and conceptual papers on culturally adapted cognitive behavioural therapy (CBT) in Pakistan with a focus on first episode psychosis, depression, anxiety and early intervention models relevant to At-risk of first episode psychosis. A sequential table was prepared with guidelines on aspects to be looked at during the adaptation process.

Qualitative Exploration: Two discussion groups were conducted one with participants and families (n=16), and another with mental health professionals (n=15), community/religious leaders, and service managers from three public-sector hospitals, one NGO, and one private hospital (n=5). Discussions explored views regarding at-risk mental state for psychosis, comorbidities, explanatory

models of illness, help-seeking pathways, early intervention, stigma, family and social roles, support systems, communication styles, spirituality, and perceived acceptability of intervention components.

Stage-2: This stage involved development of structured guidance for adapting the original CBT manual using findings from stage-1. A preliminary adapted manual and implementation guidance were produced and refined through iterative feedback from stakeholders and experts. This stage focused on preserving core therapeutic principles while enhancing cultural acceptability and feasibility.

Stage-3: The intervention manual was translated by two bilingual experts and culturally adapted through iterative one-to-one interviews and focus group discussions. Adaptations focused on five key domains: 1) language, including Urdu translation, local idioms and less stigmatizing terminology; 2) concepts, incorporating local explanatory models, literacy considerations and mental health stigma; 3) communication, adapting approaches to problem-solving, confidentiality and family dynamics; 4) content, integrating culturally relevant material from previous adaptation work in Pakistan on psychosis (Husain et al., 2017; Naeem et al., 2016) and depression (Naeem, Gul, et al., 2015); and 5) culture-specific norms, including modification of case vignettes and examples to reflect locally relevant narratives and experiences.

Stage 4: The final adapted CBT manual was evaluated through a feasibility randomised controlled trial (RCT) with 36 participants.

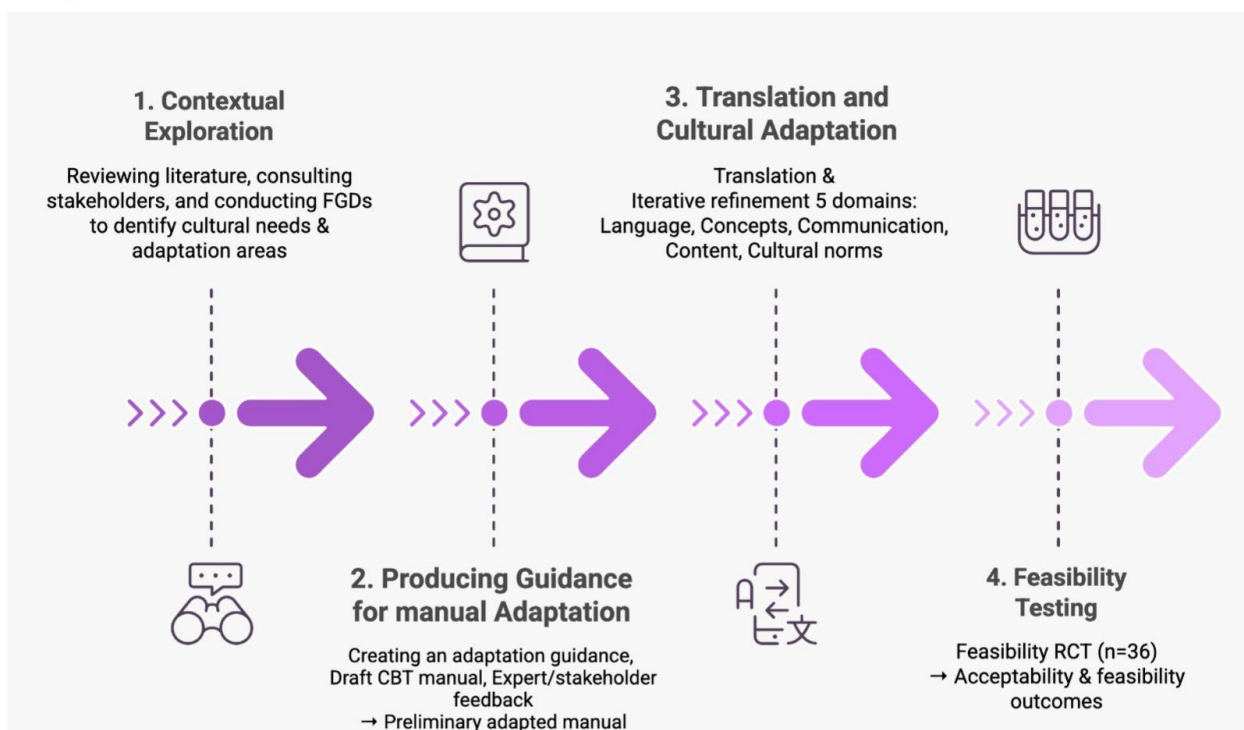


Fig. 1 Process of cultural adaptation

Results:

Stage-1: The Literature Search: A total of 16 published studies from Pakistan focusing on culturally adaptation of cognitive behavioural therapy (CBT) for different conditions including psychosis, depression, anxiety were reviewed in full by the lead author (AB) and an independent expert (MA). These studies collectively represent a coherent evidence base of culturally adapted psychological interventions developed within

Pakistani settings. A narrative synthesis of all included studies was prepared to inform the adaptation of a culturally adapted CBT for individuals at risk of developing FEP (Table-1). In addition, the lead author contacted authors of key published studies to obtain further methodological clarification and expert guidance on cultural adaptation processes and intervention development.

Table-1: *Studies reviewed around culturally adapted CBT interventions in Pakistan.*

S#	Authors (Year)	Design, Intervention	Condition / Population
1	(Naeem et al., 2010) ^(Naeem et al., 2010)	Qualitative, Psychologists experiences of CBT	Psychologists
2	Naeem et al., (2011) ^(Naeem et al., 2011)	RCT, CBT for Depression	Depression
3	Naeem et al., (2014) ^(Naeem et al., 2014)	RCT, CaCBT self-help manual	Depression
4	(Habib et al., 2015) ^(Habib et al., 2015)	RCT, CaCBTp	Schizophrenia
	Naeem et al., (2015) ^(Naeem, Saeed, et al., 2015)	RCT, Brief CaCBTp	Schizophrenia

S#	Authors (Year)	Design, Intervention	Condition / Population
	(Naeem et al., 2015) (Naeem, Gul, et al., 2015)	RCT, Brief CaCBT	Depression
5	(Naeem et al., 2016) (Naeem et al., 2016)	Qualitative, guidelines for CBTp adaptation	Psychosis: patients, carers, professionals`
8	(Husain et al., 2017) (Husain et al., 2017)	RCT, CaCBTp,	First Episode Psychosis
9	(Irfan et al., 2017) (Irfan et al., 2017)	Conceptual paper on adaptation & Sufism	Various disorders
10	(Amin et al., 2020) (Amin et al., 2020)	CRCT, ACBT-GSH	Social anxiety, self esteem
11	(Latif et al., 2021) (Latif et al., 2021)	RCT, Online CaCBT	Depression & anxiety,
12	(Rathod et al., 2023) (Rathod et al., 2023)	Qualitative, CBT or family intervention	Psychosis, patients & carers
13	(Khan et al., 2024) (Khan et al., 2025)	Book, CBT and other therapies	Common mental disorders
14	(Nadeem et al., 2024) (Nadeem et al., 2024)	RCT, CBT	Pakistani youth, depression/anxiety/headache
15	(Kumar et al., 2024) (A. Kumar et al., 2024)	RCT, CA-CBT	Moderate depression & NSSI
16	(Khan et al., 2025) (Khan et al., 2025)	Commentary to implement culturally adapted CBT	Implementation of CBT in Pakistan

Across the studies, cultural adaptation of cognitive behavioural therapy in Pakistan has consistently focused on making the intervention more meaningful, acceptable, and feasible within the local sociocultural context. These included the adaptation of language and communication style to local idioms of distress and low-literacy contexts, modification of intervention content to improve cultural relevance and acceptability, incorporation of local explanatory models of mental illness (including social, religious, and spiritual frameworks), and strong emphasis on family involvement as a central mechanism of engagement and intervention delivery. Additional cross-cutting themes included the need for structured and more directive therapeutic styles, simplification of cognitive techniques, and embedding interventions within existing social and family systems. Overall,

this synthesis indicated that despite variation in clinical populations (psychosis, depression, and anxiety), the Pakistani CBT literature demonstrates a consistent set of culturally embedded adaptation requirements that directly informed the adaptation of the existing CBT at risk manual and its core intervention framework. The studies highlighted the systematic attention to language, spiritual models, family roles, and simplified, structured delivery as key to making CBT workable in Pakistan and similar LMIC settings.

Qualitative Exploration: Across the two qualitative consultation groups (participants and families, and mental health professionals, community/religious leaders, and service managers), a total of six overarching themes were identified. These themes captured perspectives on early psychosis-like experiences, explanatory models, help-seeking

pathways, stigma, communication styles, and intervention delivery preferences. Together, they reflect shared and divergent views on how psychological interventions should be culturally adapted for early psychosis risk contexts in Pakistan. The findings directly informed the development of structured adaptation guidance for the CBT-ARMS manual.

Theme 1: Cultural and explanatory models of early psychosis-like experiences:

Participants and family members commonly described early psychosis-like experiences through psychosocial and spiritual frameworks. Symptoms such as suspiciousness, perceptual disturbances, and unusual thinking were often linked to stress, life difficulties, or spiritual causes.

As one participant explained, “Sometimes these thoughts come because of tension... too much stress in life can make a person think like this” (P1). Similarly, spiritual interpretations were common: “In our community, people often think it could be nazar or something spiritual affecting the person” (F2).

Mental health professionals highlighted that these explanatory models often create barriers to engagement: “If we directly label these experiences as symptoms of illness, patients and families often reject that explanation” (MHP1).

Adaptation implications: Adaptation should begin with patients’ and families’ existing explanatory models and gradually integrate psychological formulation. Direct diagnostic labelling should be avoided in early sessions, and culturally congruent metaphors and collaborative meaning-making should be prioritised.

Theme 2: Centrality of family systems in help-seeking and care

Family members were consistently identified as key decision-makers in recognition of symptoms and treatment pathways. One noted, “We are the ones who

decide where to take him... he would not go on his own” (F1).

However, family dynamics were also shaped by concerns about reputation and stigma: “We cannot discuss everything openly, especially if it affects family reputation” (F3).

Clinicians emphasised both the importance and complexity of family involvement: “Family engagement is essential, but we also need to protect the patient’s privacy” (MHP2).

Adaptation implications: Adaptations should include structured but flexible family involvement in some sessions, with clear guidance on balancing confidentiality and family engagement. Families should be positioned as collaborators in early detection and support, not only informants.

Theme 3: Help-seeking pathways and role of traditional and religious systems

Help-seeking pathways frequently began outside formal mental health services. Participants described initial reliance on spiritual or traditional healers: “Before coming to the hospital, we went to a spiritual healer to see if it was something supernatural” (P11, F11).

Religious stakeholders indicated willingness to collaborate with health systems: “If doctors explain things in a respectful way, we can guide people together where to go” (R4). Clinicians confirmed delayed presentation patterns: “Many reach us only after trying other options first” (MHP7).

Adaptation implications: Adaptation should acknowledge and integrate non-medical help-seeking pathways. Engagement strategies should include respectful framing of religious/spiritual beliefs and potential collaboration with community gatekeepers.

Theme 4: Stigma, terminology, and acceptability of psychological interventions

Stigma was a major barrier to early disclosure and intervention. Participants avoided psychiatric

labelling due to social consequences: “People will say ‘he is mentally ill’ that is something families want to avoid” (P5).

Non-clinical terminology was preferred: “If you call it therapy, people hesitate... but if you say it is training or guidance, they are more comfortable” (P7, F12, F9, MPH7).

Clinicians also noted low mental health literacy: “Most people don’t understand what CBT is, so they feel unsure about it” (MHP4).

Adaptation implications: Adaptations should be framed using non-stigmatising language (e.g., “support sessions”, “skills training”). Psychoeducation should explicitly address stigma and normalize early psychological experiences.

Theme 5: Communication style and engagement preferences:

Participants reported indirect communication styles and discomfort with direct psychological questioning: “We don’t usually talk directly about these things... it takes time to open up” (P3).

Clinicians reinforced this challenge: “Direct questioning does not always work here; we need to approach things more gently” (MHP5).

There was strong preference for narrative-based approaches: “Using examples and stories helps people understand better” (MHP6).

Adaptation implications: Adaptation should minimise direct Socratic questioning in early sessions and instead use storytelling, examples, and gradual disclosure techniques to facilitate engagement.

Theme 6: Need for simplification and contextual relevance

Participants strongly emphasised simplicity and relevance to daily life: “If it is too technical, people will not understand or follow” (P1, P3, P5, P3, P7, P9, P11).

They preferred contextually grounded examples: “Examples should be about family, work, and daily life, things people can connect with” (F3, F6, F7, F9, F11).

Clinicians also stressed feasibility constraints: “We need brief and practical approaches that can work within our limited resources” (MPH4, MPH5, MHP7, MPH10).

Adaptation implications: Adaptations should be brief, structured, and highly practical, with minimal written workload. All examples and exercises should be embedded in everyday family, work, and social contexts.

Stage-2: Producing guidance on manual adaptation:

Findings from the reviewed Pakistani literature and patient, carers and expert consultations were used to develop a structured set of guidance principles for adapting the original CBT for at risk of psychosis manual. The final guidance emphasised adaptation of language and terminology to local idioms of distress and low-literacy populations, integration of local explanatory models of distress and psychosis (including cultural, religious, and spiritual frameworks), strengthening of family involvement as a core component of engagement and delivery, and modification of intervention structure to ensure greater simplicity, directiveness, and cultural acceptability. Additional guidance included embedding content within existing social and family systems and ensuring examples and metaphors are contextually meaningful (Table-2).

Table 2: *Key cultural adaptation guidelines and strategies informed from literature and discussion groups*

Strategy category	Key cultural adaptations
Language idioms	& Simplified CBT language; Urdu / South-Asian CBT jargon; local idioms of distress (“tension”, “ghabrahat”, somatic shikayat); translation of manuals and workbooks; matching content to low literacy with simple wording, large fonts, visuals, local case stories.
Religio-spiritual integration	Integration of Islamic teachings, Qur’anic stories, Sufi/Islamic mindfulness; respectful inclusion of spiritual explanatory models (jinn, black magic, God will) without direct confrontation; using religious practices as coping (dua, recitation, zikr, mindfulness-type exercises)
Cultural relevance of content	Adapt examples and material, case illustrations, and behavioural tasks to reflect daily life, family structures, schooling/work patterns, and local stressors.
Family collectivism	& High family involvement in assessment and sessions; framing problems and goals within family roles and routines; involving carers in homework / self-help; partner involvement in perinatal/suicidality work; family-focused psychoeducation about neurobiological and psychosocial causes
Explanatory models & meaning	Use of bio-psycho-spiritual-social model; translation of symptoms into culturally meaningful explanations; acknowledging beliefs about evil eye (nazar), sin (gunaah), collaborative re-framing towards stress, illness, and treatability; addressing stigma and pathways to early interventions.
Cognitive restructuring approach	Simplify cognitive techniques and reduce abstraction. Use guided questioning, behavioural experiments, and narrative approaches rather than formal thought records. Use stepwise, concrete questioning and real-life examples.
Session structure & techniques	Brief, structured protocols (10–12 sessions) to suit low-resource settings, time travel and cost; therapist-led guided questioning instead of abstract Socratic dialogue; behavioural activation and experiments embedded in domestic/work routines; physical exercise including relaxation i.e. muscle relaxation and breathing and problem-solving for real-life stressors (loss, stressful life experiences, marital conflict, finances, migration).
Materials, visuals & narratives	Use of folk stories, local examples, case vignettes (e.g., stress, tension); include graphical illustrations and pictorial presentation for low literacy; Urdu modules; narrative examples from daily life.

Stigma and help-seeking barriers	Incorporate psychoeducation addressing stigma, delayed help-seeking, benefits of early intervention and misconceptions about mental illness/early psychotic symptoms.
Engagement & trust-building	Pre-engagement work on expectations and myths; addressing mistrust of therapy and preference for treatment/pray; explicit trust-building, nonverbal cues to address engagement, examples of similar cases,
System & delivery adaptations	Low-intensity formats (self-help reading material. In person as well online/on call sessions, 45-60-minute duration, transdiagnostic approach addressing comorbidities); using technology and paperless systems

Stage-3: Translation and Cultural Adaptation of the intervention Manual:

The adaptation process involved several key modifications and was guided by previous work conducted in Pakistan on culturally adapting CBT for depression and psychosis, following a rigorous cultural adaptation framework as described previously (Husain et al., 2017; Naeem, Gul, et al., 2015; Naeem et al., 2016; Naeem et al., 2019). The overall framework was informed by the four-stage cultural adaptation model proposed by Naeem et al. (2016), ensuring systematic modification of the intervention manual across language, concepts, communication, and content domains.

First, following the adaptation guidance developed in stage-2, linguistic adaptation involved translating the original manual into Urdu and incorporating culturally relevant idioms, colloquial expressions, and everyday language to enhance acceptability and comprehension. The linguistic adaptation process was conducted by two bilingual translators: one with expertise in mental health (AB) and another professional with expertise in English and Urdu (MA). A third reviewer (AAM) provided overall guidance as and when needed. We also involved two independent Assistant Professors one from English (AL) and another from Urdu department (BA) to resolve any disagreements arising during the translation process. An advisory group was also

formed consisting of six key members (two service users, two carers, one mental health professional having experience of delivering therapy particularly to individuals with first episode psychosis, established psychosis or at-risk help seeking individuals and one researcher with expertise in cultural adaptation in Pakistan). Throughout the translation process the advisory group were consulted to assess clarity, cultural resonance, and comprehensibility of translated content, as well as to identify appropriate local terminology and expressions. This iterative feedback helped ensure that the language was not only accurate but also meaningful, culturally relevant, accessible for the target population.

Attention was given to reducing stigma by replacing clinical or potentially stigmatising terms such as “therapy” or “treatment” with more culturally acceptable alternatives such as “training programme,” “support sessions,” or “wellbeing sessions.” For example, instead of using technical terms like “cognitive distortions,” simpler expressions such as “unhelpful thinking patterns” or locally understood phrases such as unhelpful thinking (Ghair madadgaar soch) or negative thoughts (“*Manfi soch*”) were used where appropriate to improve understanding and engagement while maintaining conceptual fidelity to CBT principles.

Second, conceptual adaptation involved integrating culturally grounded explanatory models of distress, including psychosocial, spiritual, and relational understandings of mental health problems. This included acknowledging beliefs related to stress, social adversity, supernatural explanations, and religious/spiritual interpretations, and incorporating these within psychoeducation in a non-confrontational manner. For example, unusual perceptual experiences (e.g., hearing one's name being called or sensing a presence) were not immediately framed as symptoms of psychosis, but were first explored through culturally meaningful explanations such as stress, sleep disturbance, spiritual sensitivity, or heightened awareness due to emotional burden. Similarly, paranoid or suspicious thoughts (e.g., "people are talking about me" or "others intend harm") were initially validated in terms of social threat perception, family conflict, or past interpersonal experiences before gently introducing CBT-based alternative explanations such as "threat-focused thinking under stress."

In some cases, distress was framed as resulting from a combination of "life stressors, emotional burden, sleep disruption, and social pressures," alongside participants' own explanatory models, rather than relying solely on a biomedical framing of "attenuated psychotic symptoms." Religious or spiritual interpretations (e.g., influence of jinn, evil eye, or spiritual testing) were acknowledged respectfully and integrated into a broader stress-vulnerability understanding without direct confrontation. This approach was particularly important in individuals at clinical high risk of psychosis, where engagement, trust-building, and retention are strongly influenced by culturally congruent explanations, especially in settings characterised by low literacy, stigma, and delayed help-seeking.

Third, communication adaptations were made to align with culturally preferred interaction styles,

including indirect communication, respect for hierarchy, and relationship-oriented engagement. Consideration was given to confidentiality concerns in tightly knit communities and the influence of joint family systems on disclosure and decision-making. For example, problem-solving exercises were adapted to include family discussions where appropriate, recognising that key decisions are often made collectively rather than individually, and that open discussion of family issues may require sensitive facilitation.

Fourth, content adaptation involved integrating culturally relevant examples, case vignettes, and scenarios reflecting everyday experiences in the Pakistani context. This included modifying standard CBT examples to reflect local stressors such as financial insecurity, marital conflict within joint families, academic pressure, and caregiving burden. In addition, previously adapted CBT manuals for first-episode psychosis in Pakistan (Habib et al., 2015; Husain et al., 2017), psychopathology terminologies and case examples were taken from the Urdu version of Comprehensive Assessment of At Risk Mental State (CAARMS) manual (Qurashi et al., 2024) and relevant case material and narrative examples were extracted and further modified in consultation with advisory group to ensure continuity, cultural relevance, and contextual grounding. This iterative process ensured that clinical examples were not only culturally meaningful but also developmentally appropriate for individuals at clinical high risk of psychosis.

Finally, cultural norm adaptation ensured that broader sociocultural values, including stigma, gender roles, and social expectations, were embedded throughout the manual. For example, gender-sensitive adaptations were incorporated to reflect contextual realities such as restrictions on mobility for women and the influence of family honour (*izzat*) on help-seeking behaviour. Case

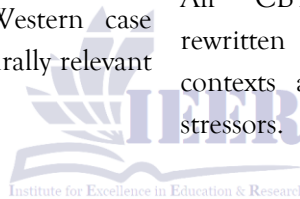
vignettes were also revised to reflect culturally familiar narratives, including family-based decision-making processes and socially realistic pathways to

care, where key decisions are often negotiated within extended family systems rather than at an individual level (Table-3).

Table-3: Summary of the key adaptation

Adaptation Domain	Detailed Adaptation Strategy	Operationalisation in CBT-At Risk Manual	Illustrative Example / Modification
Linguistic adaptation	Full translation into Urdu with iterative refinement using bilingual mental health and language experts. Emphasis on semantic equivalence and cultural intelligibility rather than literal translation.	Manual rewritten in accessible Urdu with simplified sentence structure; continuous refinement via advisory group feedback.	“Cognitive distortions” replaced with “ <i>manfi soch</i> / unhelpful thinking patterns”; “formulation” replaced with “ <i>samajh aur wazahat</i> (understanding)”
Stigma-sensitive terminology	Systematic removal of potentially stigmatising clinical labels in early engagement phases.	Early sessions avoid diagnostic labels; focus on “stress and wellbeing support programme.”	“CBT treatment for psychosis risk” reframed as “psychological support and skills training sessions”
Conceptual adaptation (illness models)	Integration of psychosocial, spiritual, and relational explanatory models into CBT formulation. Non-confrontational bridging to biomedical understanding.	Stepwise model: start with patient/family beliefs → validate → gradually introduce stress-vulnerability CBT model.	Experiences like hearing voices initially explored as stress, sleep disturbance, emotional burden, or spiritual sensitivity before linking to CBT concepts.
Symptom meaning reconstruction	Early psychosis-like experiences reframed in culturally meaningful terms before introducing clinical interpretation.	Structured exploration of experiences using culturally acceptable language in early sessions.	Suspiciousness framed as “social stress, past experiences, or fear under pressure” rather than immediate “paranoia”
Communication style adaptation	Shift from Socratic questioning to indirect, narrative, and relational communication style aligned with cultural norms.	Use of storytelling, examples, and guided reflection rather than abstract questioning.	Therapist uses real-life family stories to illustrate thinking patterns instead of direct cognitive challenging
Family system integration	Strong embedding of family as co-participant in formulation,	Structured family-inclusive sessions	Joint sessions for problem-solving; family

	monitoring, and intervention delivery.	included and optional to involve in other sessions with participants preference.	engaged in identifying early warning signs and supporting behavioural tasks including relapse prevention
Confidentiality and hierarchy sensitivity	Adaptation to joint family systems and hierarchical decision-making structures.	Therapist negotiates what is shared, with sensitivity to family authority and privacy concerns.	Gradual disclosure approach used when discussing sensitive interpersonal or emotional issues including risk of harm to self or others Financial insecurity, academic pressure, family and relationship conflicts (including marital and joint family stress), caregiving burden, loss and trauma, migration and displacement, physical illness, accidents or injuries, abuse and violence, and social pressures such as stigma and expectations i.e. family honour
Content localisation (case vignettes)	Replacement of Western case examples with culturally relevant Pakistani scenarios.	All CBT examples rewritten using local contexts and everyday stressors.	Women's mobility constraints reflected in behavioural activation planning; i.e. safety, family permission, family honour are related stigma considered in help-seeking scenarios. Collective decision making, somatic emotional expression
Cultural norm integration	Embedding of broader sociocultural values including gender roles, family honour (izzat), and social expectations.	Gender-sensitive delivery pathways and culturally appropriate behavioural examples included.	



Religious and spiritual beliefs	Respectful integration of spiritual explanatory models alongside psychological understanding.	Psychoeducation and formulation incorporate existing spiritual beliefs (e.g., jinn, evil eye, (Nazar), stress as test) acknowledged and incorporated into formulation without direct challenge.	Unusual perceptual experiences (e.g., hearing one's name) initially explored through stress, sleep, and spiritual interpretations gradually introducing CBT explanations
Help-seeking pathway alignment	Recognition of traditional, spiritual, and informal care systems as part of pathway to care.	Early sessions explicitly acknowledge prior help-seeking experiences without invalidation.	Spiritual healer consultations reframed as part of coping journey rather than "delays in treatment" and encouraging to seek psychological help along.
Therapy structure adaptation	Modification of CBT structure to suit low-literacy, low-resource, and high-family-involvement settings.	Brief, modular sessions with reduced homework burden and more in-session practice.	Worksheets replaced with verbal exercises and guided discussion within session
Therapist stance adaptation	Shift toward more directive, supportive, and culturally congruent therapist authority style.	Therapist takes more guiding role in early sessions, reducing open-ended exploration.	Therapist provides clearer summaries and structured guidance instead of purely collaborative discovery
Feasibility and service integration	Adaptation to public-sector constraints and resource-limited mental health systems.	Manual designed for delivery within routine outpatient or community services.	10-12 structured sessions designed for scalability in LMIC mental health services

Finalisation of Manual Adaptation and Session Structure: After completion of translation and cultural adaptation. Based on a series of consultation meetings with stakeholders, each session of the original manual was reviewed in detail in a group setting with participants (n=8), carers/family (n=7), researchers with expertise of

cultural adaptation (n=4) and health professionals including psychologists and Psychiatrist (7). The advisory group also participated in this stage. Participants were selected through purposive sampling to ensure representation across gender, literacy, low socioeconomic backgrounds, and linguistic diversity, thereby enhancing the cultural

validity and inclusiveness of the adaptation process. Participants, families, researchers and clinicians were presented with each session content and structure, and their feedback informed decisions regarding content, relevance, feasibility, and acceptability. The original manual, Cognitive Behavioural Therapy for Individuals at Risk of First Episode Psychosis, comprised 16 structured sessions with extensions/booster work up to 18–20, covering engagement and assessment, psychoeducation, normalisation and risk framing, cognitive work, emotional regulation and comorbidity, coping with subthreshold symptoms, stress management, social

and functional recovery, family work and relapse/transition prevention planning (Van der Gaag et al., 2013).

After the detailed discussion meetings on each session, as a result, the intervention was streamlined to 12 core sessions and a booster session if needed (Table 4), with removal or merging of sessions that were considered repetitive, overly complex, or less culturally relevant. This decision was guided by the need to enhance feasibility, reduce participant burden, and improve scalability within low-resource settings.

Table-4: Session structure of culturally adapted CBT for individuals at risk of developing first episode psychosis (Pak version)

Session	Session Focus	Core Components	Therapeutic	Key Adaptations	Cultural	Adaptation Rationale
-1	Reading material- Boklet-1*	What is incidence, risk in ethical identification of extraordinary experiences	is ARMS: prevalence, help-seeking, issues; ARMS; extraordinary experiences	Provided as self-reading Urdu material with language, examples, culturally case reduced jargon	as self-simplified visual and relevant vignettes; technical	Participants preferred independent learning; reduces session burden and improves comprehension in low literacy groups
-2	Reading material- Boklet-2*	Cognitive biases; link with extraordinary experiences; prevention evidence (e.g., EDIE-NL)	biases; nature of link with extraordinary experiences; prevention evidence (e.g., EDIE-NL)	Simplified explanation of using everyday examples (family, social situations); use of Urdu terminology and storytelling format	Enhances understanding of abstract cognitive concepts through relatable, culturally grounded examples	
-3	Pre-assessment β	Rapport building, pre-assessment and discussion		Flexible, conversational assessment style; emphasis on trust-building and existing assessment tools used	Supports engagement and addresses confusion due to unfamiliar concepts	

				in Pakistan i.e. Urdu CAARMS, The Prodromal Questionnaire etc.	
Session-1	Introduction, Psychoeducation and Normalisation	Agenda setting, discussion on assessment, psychoeducation on extraordinary experiences, CBT practice, normal vs abnormal experiences	Use of non-stigmatising language (“training programme”); normalisation using culturally familiar examples (e.g., stress-related experiences, spiritual interpretations)	Reduces stigma and aligns with local explanatory models	
Session-2	CBT Assessment and Formulation of Extraordinary Experiences	CBT assessment, ABC model, formulation of alternative explanations	ABC model explained using existing Urdu manual (terms and real-life examples; indirect explanation of experiences (stress/social context)	Improves comprehension and reduces resistance to psychological models	
Session-3	Introduction to Cognitive Biases (Metacognitive Training I)	Introduction to biases (perception, memory), attention exercises, interpretation styles. Case vignette and in session examples/writing and practice	Use of culturally relevant examples (family misunderstandings, social situations); interactive exercises rather than abstract teaching	Matches learning preferences and improves engagement	
Session-4	Advanced Cognitive Biases and Reasoning (Metacognitive Training II)	Bias reinforcement, Reading and discussing psychoeducation about the bias, confirmation bias, reasoning errors. Case vignette and in session examples/writing and practice	Use of storytelling and simplified psychoeducation material	Enhances retention and understanding of complex concepts	

Session-5	Case Formulation and Goal Setting	Case formulation, influence of life experiences, SMART goals	Incorporation of family context, social stressors, and cultural roles in formulation; collaborative goal setting with family input where appropriate	Reflects collectivist context and real-life stressors
Session-6	Cognitive Intervention: Challenging Negative Interpretations	Treatment planning, cognitive challenging, Socratic questioning (through indirect, narrative), psychoeducation. Case vignette and in session examples/writing and practice	Indirect and gradual questioning style; reduced confrontation; use of case vignettes from local context	Aligns with indirect communication norms and improves therapeutic alliance
Session-7	Behavioural Experiments, Activity Scheduling and Exercise	Behavioural experiments, exposure, alternative assumptions, activity scheduling, exercise and physical activities, home activities list.	Activities tailored to culturally relevant roles (family, work, religion); flexible homework	Improves feasibility and relevance in daily life
Session-8	Distancing from Extraordinary Experiences	Distancing techniques, intrusive experiences, imagery exercises, cognitive restructuring. Case vignette and in session examples/writing and practice	Use of culturally acceptable metaphors (e.g., thoughts as passing events); simplified imagery exercises	Improves acceptability of abstract CBT techniques
Session-09	Emotional Regulation and Self-Esteem	Self-esteem, trauma-focused techniques, relaxation, coping skills and stress management, Case vignette and in session examples/writing and practice	Integration of culturally familiar coping (faith-based practices, routine structuring); sensitive discussion of trauma	Builds on existing coping systems and reduces stigma

Session-10	Managing Comorbidities (Depression, Anxiety, Suicidality)	Addressing depression, anxiety, suicidal ideation, stressful life experiences, Case vignette in session examples/writing and practice	Use of non-stigmatising language; indirect discussion of sensitive issues; family awareness where appropriate	Addresses stigma and improves disclosure of mental health concerns
Session-11	Family Psychoeducation and Support ±	Family psychoeducation, decision-making, communication	Structured family involvement; addressing stigma, and confidentiality concerns	Reflects central role of family in help-seeking and care
Session-12	Problem Solving and Relapse/Transition Prevention	Structured problem solving and coping planning, Recognising warning signs, evaluation, relapse prevention/maintenance, coping responses and support planning	Adapted for collective decision-making; involvement of family in monitoring warning signs, long-term family support; realistic care pathways	Enhances early detection and shared responsibility, Supports sustainability in low-resource settings.
Booster	Review and Reinforcement (Flexible)ω	Progress review, check, CBT skills, barriers. Max 2 sessions	Flexible delivery based on need; option for family involvement	Improves retention and ongoing engagement

Footnotes

*Participants, families, and stakeholders expressed a preference for theoretical content (Part-1: theory and evidence) to be provided as self-reading material, with key concepts revisited and discussed in subsequent sessions where appropriate. This approach was considered helpful in reducing the overall burden of sessions

†Participants also preferred that the assessment be conducted as a separate visit rather than integrated within therapy sessions, as structured assessments (e.g., CAARMS) were perceived to be time intensive.

‡ Family involvement was viewed positively, with suggestions to include family members not only in the dedicated family session but also, where appropriate and with participant consent, in other sessions (e.g., Session 5) and during assessments to support monitoring of progress. This reflects the central role of families in treatment decision-making within the Pakistani context.

§Participants preferred the first 4-5 sessions to be delivered face-to-face to support understanding and engagement, followed by flexible delivery (face-to-face or via phone call/video conferencing i.e. WhatsApp/Zoom etc.) to reduce visit burden.

ωFinally, participants preferred that booster sessions be limited to one session or a maximum of two and offered on an optional basis, depending on individual need, to minimise burden while maintaining flexibility for continued support.

Stage-4: Feasibility RCT/Field Testing: The adapted CBT-ARMS manual was subsequently evaluated in a feasibility randomised controlled trial involving 36 participants meeting criteria for at-risk of first episode psychosis. This phase assessed feasibility and acceptability of recruitment, retention, session attendance, intervention adherence, and delivery within routine service settings, while also exploring preliminary signals of potential benefit.

Initial findings indicated that the intervention was feasible to deliver and acceptable to participants, with encouraging engagement, retention, and

positive feedback regarding the relevance of the intervention content and symptoms management (manuscript in preparation). Therapists also reported that the manualised intervention was sufficiently structured while allowing flexibility to respond to individual needs.

Although the trial was not powered to evaluate efficacy, exploratory findings suggested potential benefits for distress related to subthreshold psychotic experiences and functioning. Detailed findings from the feasibility RCT, including all implementation, process, and clinical outcome data are being prepared to be reported elsewhere to

provide a fuller evaluation of feasibility and inform the design of a future definitive trial.

Discussion

This study describes the systematic process of cultural adaptation of a cognitive behavioural therapy (CBT) manual for individuals at risk of first episode psychosis in Pakistan using a structured, mixed-methods approach based on previous work of cultural adaptation in Pakistan (Habib et al., 2015; Husain et al., 2017). The findings demonstrate that CBT can be meaningfully adapted to align with local cultural, social, and service contexts without compromising its core therapeutic principles for individuals at risk of developing first episode psychosis (Naeem et al., 2016; Naeem et al., 2024).

Consistent with previous research in Pakistan, key adaptations were required across language, explanatory models, communication styles, and intervention content (Husain et al., 2017; Husain et al., 2021). Simplification of terminology and the use of culturally relevant idioms improved acceptability, while integrating psychosocial and spiritual explanations of distress supported engagement and therapeutic alliance. Rather than challenging existing beliefs, the adapted intervention incorporated them within a broader stress-vulnerability framework, which is particularly important in individuals at risk of psychosis, where non-pathologising, engagement-focused approaches are recommended (Morrison et al., 2012; Naeem et al., 2019; Van der Gaag et al., 2013).

Family systems and community pathways to care play a central role in shaping help-seeking and engagement (R. Kumar et al., 2024). The inclusion of family within the intervention reflects the collectivist context, although careful consideration of confidentiality and autonomy remains important (Husain et al., 2021). The reduction of the intervention to 12 core plus allowing for booster sessions reflect a pragmatic approach to improving feasibility and scalability within routine services,

consistent with evidence suggesting that briefer, structured psychological interventions may enhance implementation potential while maintaining therapeutic value (Hayward et al., 2020; Naeem, Gul, et al., 2015; Pike et al., 2025).

Conclusion

This study describes the full process of cultural adaptation of CBT for individuals at risk of first episode psychosis in Pakistan, from evidence synthesis and stakeholder consultation through manual adaptation and feasibility testing. The findings highlight the importance of culturally grounded adaptation in enhancing relevance, acceptability, and feasibility while maintaining core therapeutic principles. The adapted manual provides a foundation for evaluation in a fully powered clinical and cost-effectiveness trial and may also serve as a useful resource for implementation in similar low-resource settings, particularly in South Asia, with minor context-specific cultural modifications.

Ethical Consideration

This study received approval from the Advanced Studies & Research Board of University of Karachi (Ref# ASRB/No07651/Ar) and the Institutional Review Board approval from the Pakistan Institute of Living and Learning (Ref# IRB-GELH/04-25). Participation in the study was entirely voluntary, and written informed consent was obtained from all participants prior to data collection. Participants were informed of their right to withdraw from the study at any stage without any consequences.

Author Contributions

Ameer Bux (AB) conceived the idea and led the study, including the cultural adaptation of the intervention manual, conducted data curation and analysis, interpreted the findings, and drafted the manuscript. Prof. Anila Amber Malik (AAM) provided guidance and supervision across all stages of the project and critically reviewed the manuscript.

Both authors reviewed and approved the final version of the manuscript.

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