The International Journal of Indian Psychology
ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print)
Volume 14, Issue 2, April- June, 2026
DIP: 18.01.171.20261402, DOI: 10.25215/1402.171
https://www.ijip.in

Research Paper

Mental Health Support in the Digital Era: Examining the Effectiveness of E-Therapies Among Young Adults

Khushi Devi[1]*

ABSTRACT

The rapid movement of mental health care online means the digitally delivered therapies (e-therapies) will be one of the main responses to the increasing prevalence of psychological distress amongst young adults. The use of internet-delivered cognitive behavioural therapy, smartphone applications, and blended care models now encompasses populations disregarded by traditional services, but the evidence base underlying their use is still restricted to high-income Western contexts. This proposal describes a convergent parallel mixed-methods study that will examine the effectiveness, mechanisms and lived experience of e-therapies among young adults (age 18 to 25 years). The study will particularly attend to the Indian context, where a wide mental-health treatment gap, pervasive stigma and uneven digital access shape help-seeking in ways that differ substantially from the settings in which most interventions were developed and validated. This study has four main objectives: to estimate the impact of guided versus self-guided e-therapy engagement on depression, anxiety and general distress, to test whether therapeutic alliance and self-efficacy mediate this impact, to examine whether engagement and outcomes are moderated by digital literacy, perceived stigma and cultural fit, and to understand how young adults experience digital care through their own accounts. The quantitative strand features a quasi-experimental two-arm longitudinal design with about 320 participants assessed at baseline 6 weeks and 12 weeks analysed using linear mixed-effects models bootstrapped mediation moderation analysis. The qualitative component consists of semi-structured interviews that were held with a purposively selected subsample of 24. This qualitative component was analysed using reflexive thematic analysis. The integration of the two strands occurs at the interpretation stage as a joint display triangulation logic. Theoretically, the study utilize Unified Theory of Acceptance and use of Technology and supporting Accountability Model. The proposal highlights three gaps in the relevant literature: geo-concentrated evidence, a lack of proper theorisation of engagement as a mechanism, and detached effectiveness and experiential research. The anticipated contribution of this work is an integrated, context-sensitive account of when, how, and for whom e-therapies work, which is intended to inform the culturally responsive design and implementation of digital mental-health services in India and similar settings. The study will be conducted according to established ethics pertaining to research involving human subjects.

[1]Master's Student in Clinical Psychology, Department of Psychology, Fergusson College, Pune, Maharashtra, India
*Corresponding Author

Received: May 28, 2026; Revision Received: May 31, 2026; Accepted: June 04, 2026

Mental Health Support in the Digital Era: Examining the Effectiveness of E-Therapies Among Young Adults

Keywords: *e-therapy, digital mental health, young adults, therapeutic alliance, mixed methods, cultural adaptation*

The mental illness in young adults is one of the most important public health issues of our decade. Psychological distress between the ages of 12 years and 25 years is on the rise. This trend further intensified during, and after, COVID-19. A large number of young adults reported a decline in their mental health (Radomski et al., 2023). Most health systems still fail to provide timely in-person care and only a minority of young people with a diagnosable condition receive an adequate service (McGorry et al., 2022). In this context, e-therapies - therapies delivered electronically offer a scalable solution, reaching young people in places they spend most of their lives: online.

E-therapies include a large family of interventions that can involve internet-delivered cognitive behavioural therapy (i-CBT), a smartphone application or 'app', and blended models of care that use digital content and remote clinician contact. For young people in particular, these type of interventions may provide more flexible access in terms of time, location, and availability, along with enhanced privacy and anonymity than face-to-face care (Garrido et al., 2019). As young people's lives become more and more internet based, deliver therapy on the computer offers an accessible and doable alternative for this age group against traditional services. According to (Andersson, 2024), Many randomised controlled trials and meta-analyses have shown that cognitive behavioural therapy can be successfully delivered using digital devices, with effects that are broadly comparable to face-to-face treatment in the adult population.

These promise is different due to continuous engagement problem. Digital interventions are typically associated with high rates of attrition. Most recently, a synthesis reported that app-based interventions had the highest attrition of all delivery formats, followed by web-based and telehealth (Lipschitz et al., 2023). Self-guided programmes have the steepest engagement drop-off compared to guided and blended models, as users get no contact or only automated contact. The patterns suggest that the core question is less about whether they can work in principle but rather under what circumstances and through what mechanisms they work, and for whom they work.

There's an even more fundamental limitation which concerns the concentrated cultural and geographic nature of the evidence base. The most e-therapy trials have taken place in WEIRD (Tandon et al., 2026). WEIRD stands for Western, educated, industrialised, rich, and democratic. Countries such as India, the site of our study, differ significantly in digital access, mental-health stigma, language, and help-seeking compared to the populations in which most interventions were developed and tested. This proposal meets the gap by analysing the effectiveness and experience of e-therapies among young adult users while explicitly attending to the contextual factors that shape their use.

Before going into the details of the proposal, it is useful to clarify what is meant by e-therapy. Indeed, the literature cites numerous definitions of the term and its application, so we need to make sure we're on the same page with regards to our understanding of e-therapy. E-therapy, in this context, refers to structured psychological treatments that can be based on an established psychological theory, with cognitive behavioural therapy being the most common but also behavioural activation, acceptance and commitment therapy and mindfulness being other examples of therapies, delivered wholly or in major part via digital

media (for example, website, mobile app or video consult). It deliberately differentiates e-therapies from the larger category of wellness or self-care apps which are not based on any therapeutic evidence, and from websites that solely provide information, which are not considered interventions. Inside e-therapies, a key design distinction separates self-guided programmes (in which the user works through digital content with little or no human contact) from guided programmes (in which a coach, paraprofessional or clinician offers structured support alongside the digital content). The researches discussed in this page shows that this distinction is not trivial. It is one of the strongest predictors of whether a digital intervention is completed and works.

What happens in India gives huge importance to this. India has a very big youth population in the world and also a very big gap in the treatment of mental health. A large majority of people who can benefit from the care never get it (Mehrotra, 2020). Based on data obtained from a significant national survey, it has been suggested that only a small number of young people with mental-health problems report or seek formal help in this regard. This is attributed to a largely low level of mental-health literacy, attribution of distress to non-medical causes and stigma (Gaiha et al., 2020). Simultaneously, India has witnessed one of the fastest growths of affordable mobile internet access of any large economy, placing smartphones in the hands of the very young adults least likely to set foot in a clinic. This combination high need, low formal help-seeking and rapidly rising digital access – makes e-therapies an especially attractive avenue to reach young Indians but also raises the question of whether interventions designed elsewhere will be acceptable and effective here.

The importance of the proposed study thus transcends the academic Based on the results of the study explore how effective and acceptable e-therapies prove among young adults in India. Further, if the mechanisms and conditions can be showed by the study which makes e-therapies effective, the design of scalable and low-cost services can be significantly informed. In other words, the target population of interest does not have existing access to mental-health care. In case the research instead finds that engagement wanes, or US-exported intervention sits poorly with the local expectation, that too would be an important finding that will allow us to re-focus effort on cultural adaptation rather than translation. Whether the funding goes to a government or private player, the study aims to produce knowledge directly useful to those who design, fund, and deliver digital mental-health services. In the sections that follow, the background literature review will be elaborated, gap identification will be made, objectives and hypothesis will be stated, theoretical framework will be documented, and proposed methodology will be detailed.

Overview and Evaluation of Literature

The analysis of e-therapies for youth can be organized around five themes that point to the need for the present study. These themes include the effectiveness of e-therapies, the significance of engagement and human support, barriers-facilitators perceived by young people, the issue of cultural adaptation, and the specific realities of Indian youth mental-health. The established findings will be augmented through the gap being addressed in this study. The scoping search which underpins this review is summarised in Figure 3.

Theme 1: The E-Therapies are Effective for Young Adults

The most trustworthy assertion we may make on the basis of current evidence is that internet- and computer-delivered CBT causes a clinically meaningful reduction of anxiety and depression symptoms in adolescents and young adults. According to a 2019 systematic

review and meta-analysis, computerized CBT programs for anxiety and depression in youth were effective in reducing anxiety and depression. They are also a practical alternative to face-to-face treatment. However, the authors note that challenges with engagement weaken the strength of this conclusion. According to a 2025 study by Liang et al, multiple established psychiatric approaches such as CBT, BA, and Mindfulness-based therapy were found to be effective for depression in 10-25-year-olds when compared to the absence of any treatment situation.

Crucially, effectiveness seems to transcend beyond mood disorders. Rasmussen et al. (2025) have shown clinical improvements for adolescents and young adults with body dysmorphic disorder using internet-based CBT compared to active control conditions. Furthermore, a meta-analysis of digital CBT for insomnia in young people reported medium-to-large improvements in self-reported sleep quality, although less consistent improvements were observed in objective sleep indices (Chan et al., 2022). The extent of the evidence supports the broad proposition about the effectiveness of e-therapies for young people with a wide range of problems. What the evidence does not yet establish, however, is the long-term quality of these effects and the mechanisms behind them the questions that the following themes turn to.

This literature is also subject to important qualifications, as shown. A major issue with the evidence for clinical effectiveness is that effect sizes vary considerably across trials. For example, the most favourable estimates usually come from studies with active and motivated volunteers recruited via advertising rather than via the routine clinical population. Thus, these trials are not done under the same conditions of places where the results are supposed to be applied. So, the external validity can be questioned here. Also, it matters what you are comparing against. For example, when e-therapies are compared against waitlist controls, they tend to demonstrate larger effects than when they are compared against active controls, like treatment as usual. The waitlist comparison is known to inflate apparent benefit. The third question is whether the benefits last. A big investigation into the long-term results of internet-delivered cbt revealed that for some disorders the benefits can last for over a year. Long-term follow-up data remain scarce, and drop-out at long-term assessment is high, so is durability remains an open question. The nuanced qualifications indicate that confident claims concerning e-therapy effectiveness must be conditioned on who is treated, what the comparison is and how long outcomes are tracked. A mechanism-focused, context-sensitive study can help to supply this nuance.

Theme 2: Human Support - The Interplay of Engagement with Attrition.

Although effectiveness is one of the major findings consistent engagement has serious caveats. Although attrition is prevalent in face-to-face therapy, where roughly one in five clients drops out, it is more pronounced in digital interventions (Buelens et al., 2024). The pattern emerging from the delivery formats provides useful lessons. The app format has the highest level of attrition while the pure self-help programmes show the fastest decline in engagement in relation to blended and guided pathways. As a result, multiple authors have suggested that human assistance is not an extra; it is essential for digital interventions to reach their potential.

The supportive accountability model which was provided by Mohr and colleagues is a compelling theoretical account of this pattern. According to this model, human support enhances adherence to the extent that users feel accountable to a supporter that they trust and

believe and that they perceive as able to help. Findings from empirical syntheses support this idea. Guided i-CBT, where a coach or clinician provides structured contact, outperforms unguided formats consistently. It seems that how much guidance plus what the structure of the guidance is matters (Andersson, 2024). This body of work shifts the design question from mere content to the relational scaffolding around the content. This emphasis directly informs the conceptual framework of the current study.

We must distinguish several different senses in which the field has used the term engagement, for lack of conceptual clarity has limited cumulative progress. The term "engagement" can describe behavioural indicators (for example, logins, module completion and time on task), subjective involvement (interest, attention, affective engagement), and therapeutic engagement (using skills outside the platform). These are related but not identical, and an intervention can score well on one and poorly on another a user may complete every module mechanically without ever applying a single technique. The phenomenon known as the law of attrition suggests that a certain percentage of users are lost over time regardless of action taken. Loss of engagement in this manner is structural rather than a failure. When a user makes significant progress and no longer needs the platform, discontinuation may even indicate success. As behaviour usage and subjective involvement together engender a construct termed engagement in the present study, the author wouldn't regard attrition as a uniform signal to the quality of a given intervention.

Theme 3: Perceived barriers and facilitators theme among young persons

According to young people themselves, engagement is influenced by psychological, technological, contextual and relational factors. A scoping review focusing on the perceived barriers and facilitators for adolescents and youths indicates that concerns related to privacy, anonymity and trust are widespread. Further, poor usability and limited digital literacy reduce engagement especially in low-resource settings. One more issue is that a significant human connection may diminish the motivation to persist. Among college students, similar barriers were identified, including: fear of privacy, lack of money, stigma, dissatisfaction with communication; thus, the conclusion was made regarding personalized, cultural sensitive interventions.

The importance of these accounts lies in the fact that they take the focus away from the inadequacies of individual users in explaining the problem of engagement. Instead, they posit that the mismatch between the intervention and the user is the underlying issue. The features which make e-therapies attractive to users (autonomy, anonymity, asynchronous access) may at the same time diminish the relational accountability which sustains engagement – a tension which this study takes seriously. An understanding of how young adults are negotiating this tension will require qualitative inquiry in concert with quantitative measurement; thus, a mixed-methods design is proposed.

Another type of evidence relates to what facilitates change. Interventions with video content, a little text, an option to connect with others, a link to personal goals, and gentle reminders are preferred by young people, who also value social connection to peers and any staff providing support. The recruitment and retention strategies that improve recruitment and retention includes flexible, user-friendly data collection, recruitment via social media, and financial incentives. Successful interventions have to be based on young people's terms, fitting into their existing routines and identities instead of forcing them to reorganise their lives around treatment. This shows that they really want the interventions to be usable yet

effective. This thinking is what motivates the current investigation's focus on perceived cultural fit as a moderator of engagement and outcome.

Theme 4: The Cultural Adaptation and the Non-WEIRD Evidence Gap

The most direct reveal of the gap comes in the fourth theme. A 2026 systematic review of culturally adapted digital interventions in non-WEIRD settings synthesised evidence from randomised trials and found that retention varied widely with the depth of cultural adaptation: interventions that combined translation with locally meaningful content, stakeholder involvement, and iterative refinement achieved the highest adherence and lowest dropout, whereas surface-level adaptations such as translation alone were associated with substantially higher dropout (Tandon et al., 2026). This discovery is crucial. The efficacy demonstrated in Theme 1 cannot be regarded transferable to such settings as India without consideration of deep cultural adaptation.

In the literature cultural adaptation is best understood as a continuum rather than as a binary. At the shallow end are surface adaptations translating text, swapping images, changing names that do not change the logic of the intervention. At the deep end lie adaptations that engage with the target culture's explanatory models of distress, idioms of expression, family and community structures, and beliefs about who should help and how. The findings imply that depth matters. Specifically, interventions that engage members of the target community in the design and that resonate with local values tend to retain users far better than those that do not. Given the Indian context, where distress may find expression in somatic symptoms, where family turns are fundamental to decisions on seeking help, and where stigma may give a place to anonymity, there is a suggestion that an imported, lightly translated programme may underperform unless reworked meaningfully.

The current investigation aims to illuminate the alignment of cultural fit with the effects of the NCT.

The mental health context of Indian youth

The fifth theme relates the study's context to its setting. India's mental-health treatment gap is among the largest in the world, and this gap is especially pronounced among youth (Mehrotra, 2020). Evidence from a national survey points out that only a small percentage of young Indians suffering from mental-health problems report them, and an even smaller percentage seeks formal care. This shortfall arises due to limited mental-health literacy, attribution of symptoms to non-medical or supernatural causes, and a shortage of trained professionals that are concentrated in urban centres (Gaiha et al., 2020). Public stigma functions as a strong barrier for this age, a systematic review of stigma amongst young people in India found it to be strong across knowledge, attitude and behaviour domains and concluded that stigma reduction would be the first step towards better help-seeking (Gaiha et al., 2020).

Despite all this, scholars writing about Indian higher education have argued that campus-based and digital strategies are under-used but scalable strategies for youth mental-health promotion that can help de-stigmatize mental illness and shift peer norms around help-seeking (Mehrotra, 2020). The reasoning is simple: the anonymity and privacy of digital platforms could lower the threshold of a young individual who wouldn't visit a counselling centre out of fear of being seen, and the ubiquity of smartphones makes such platforms realistically available. However, the same literature warns that low-resource contexts face

real constraints, such as uneven connectivity, variable digital literacy, and linguistic diversity, which can undermine higher-cost interventions. As a result, in India this tension is most acutely embodied by the e-therapies which are equally well suited to overcoming the barriers of stigma and access as they are vulnerable to the barriers of fit and infrastructure.

The author is not aware of any existing study that combines mixed methods design to analyse these competing forces among young adults in India, and it is the gap this proposal fills.

When viewed together, the four main themes highlight a field that demonstrates efficacy convincingly in the West, identifies human support as the key mechanism, and observes the barriers young people perceive but only begins to address issues of cultural fit. A context-sensitive account examining how engagement, alliance, and cultural fit jointly shape e-therapy outcomes among young adults in a non-WEIRD setting is missing. The current study is specifically designed to provide that account.

Recognized Gap in the Literature

Three intertwining gaps emerge from the four themes. First, the evidence base is geographically skewed towards WEIRD populations. As a result, the effectiveness and acceptability of e-therapies among young adults in India and similar settings remain poorly characterised. Most effectiveness studies treat engagement as a nuisance variable rather than as a theoretically meaningful mechanism. Consequently, the links between digital engagement, therapeutic alliance, and outcomes remain underspecified. For the most part, effectiveness and experiential research on e-therapies has proceeded in parallel. Very few studies have integrated these strands allowing for an explanation as to whether these interventions work and, critically, why and for whom they work. The major contribution of this study to knowledge is embracing the three gaps simultaneously with an integrated, context-sensitive account.

Goals

The study has one primary and three secondary objectives.

1. The objective of this study is to estimated the effect guided versus self-guided e-therapy engagement on symptoms of depression, anxiety and general psychological distress among young adults aged 18 to 25 years over a 12-week period.
2. To explore if the therapeutic alliance and self-efficacy mediate the relationship between e-therapy engagement and symptom change.
3. To determine whether digital literacy, stigma and cultural fit can affect engagements and outcomes.
4. To understand how young adults perceive engagement, alliance, and cultural fit in e-therapy through participants' accounts.

Assumptions

The following specific directional hypotheses, derived from the theoretical framework, would be tested with the quantitative strand.

Participants who engaged with a guided e-therapy platform will show significantly greater reductions in depression and anxiety symptoms at 12 weeks than those using a self-guided platform.

- **H2:** The impact of guidance condition on symptom change will be partially mediated by therapeutic alliance.
- **H3:** Self-confidence and skill acquisition will partly mediate the effect of engaging in e-therapy on wellbeing.
- **H4:** Perceived cultural fit will moderate the engagement–outcome relationship, such that greater (perceived) cultural fit strengthens the relationship.
- **H5:** Greater stigma at baseline predicts less engagement and more attrition in both conditions.

THEORETICAL FRAMEWORK

The theories upon which the study is built According to Venkatesh et al. (2003) UTAUT (Unified Theory of Acceptance and Use of Technology), four constructs, performance expectancy, effort expectancy, social influence and facilitating conditions help to explain the use and continuous use of technology. The UTAUT model is involved with e-therapy acceptance; digital literacy and access are seen as facilitating conditions. The supportive accountability model (Mohr et al., 2011) provides a relational dimension that complements UTAUT, through which human support transforms initial uptake into continued and beneficial engagement. The two theories form the conceptual framework in Figure 1: e-therapy engagement influences mental-health outcomes both directly and indirectly. Therapeutic alliance, self-efficacy, and behavioural activation act as mediators, while digital literacy, stigma, and fit moderate these relations.

A single parsimonious account of competing models of technology acceptance was developed by UTAUT which subsequently gained wide applications to health technologies. The four main parts naturally map very well to e-therapy. Performance expectancy corresponds to the young person's expectation that an e-therapy will actually relieve their distress. It refers to the belief that using the technology will help one attain valued outcomes. Effort expectancy – the perceived ease of use – refers to whether the platform feels navigable and low-demand. The approval or disapproval of family and peers can determine whether a young person uses substances. In a high-stigma setting, social influence the degree to which important others endorse use is particularly relevant. Perceived resource availability and support include access to devices, internet connectivity, and digital literacy. As such, UTAUT gives a structured explanation of why a young person initiates and continues to use an e-therapy. It also explicitly accommodates the contextual moderators that this research foregrounds.

The supportive accountability model deals with what UTAUT is unclear about: the relational process that supports engendering effortful engagement once initiated. Mohr and colleagues said that fully robotic digital interventions fail to keep people engaged because they lack the responsibility a person brings to a relationship. According to their account, a human supporter boosts adherence to the extent that the user sees him or her as legitimate, benevolent, and competent, and to the extent that the user feels accountable to that person. Importantly, the model predicts that accountability operates through relationship quality rather than surveillance or pressure, which connects it directly to the construct of therapeutic alliance. Hence, the current study places therapeutic alliance at the heart; the model implies that guidance works not simply by increasing contact but by creating a relationship within which accountability and motivation may develop. Bringing the theories together provides a consistent set of predictions. The UTAUT has provided us with antecedents and contextual

conditioning of engagement. The supportive accountability model explains how, once engagement is established and humanly supported, engagement translates into proximal psychological changes, specifically alliance, self-efficacy, and active use of coping skills that produce symptom change and improved wellbeing. The moderators that were included in the framework reflect the realities reviewed in Themes 4 and 5 namely, digital literacy and access (facilitating conditions in UTAUT terms), stigma (a social-influence factor with particular force in India), and the cultural fit (degree to which the intervention aligns with local meaning systems). Figure 1 demonstrates these relationships graphically, offering the organizing logic for the hypotheses and the analysis plan.

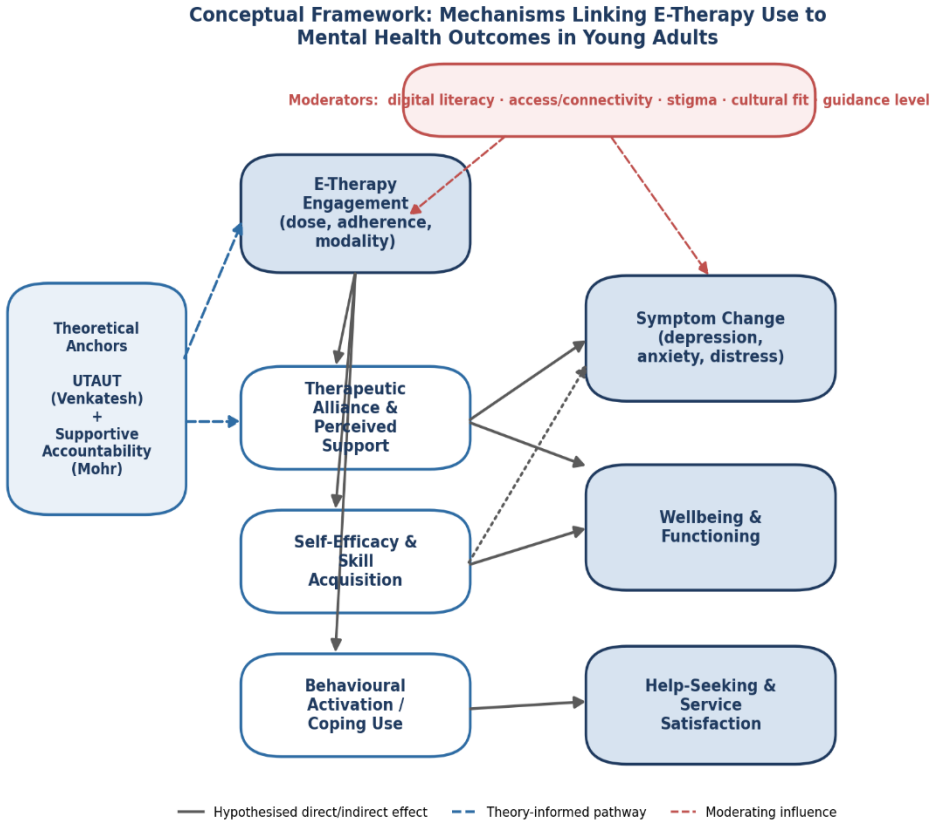

Figure 1 Conceptual framework linking e-therapy engagement to mental-health outcomes through hypothesised mediators and moderators. Adapted from UTAUT (Venkatesh et al., 2003) and the supportive accountability model (Mohr et al., 2011).

MATERIALS AND METHODS

Using a convergent parallel mixed-methods design, the researcher will collect quantitative and qualitative data at the same time, separately analyse them, and integrate at the interpretation level (Creswell & Plano Clark, 2018). Due to the fact that each of the research questions addresses both the magnitude of effects and the meaning of participants' experiences, and no single method can fully address either, this design is appropriate. The convergent research design is suggested when a researcher desires to obtain different but complementary data about the same phenomenon, to produce corroborating quantitative and qualitative findings, and to obtain a richer understanding than either approach could achieve alone. The study is underpinned by the philosophical position of pragmatism, which allows methods to be mixed on the grounds of their fitness for answering the research questions

rather than loyalty to one epistemology. The rationale behind integration is very necessary to highlight since mixed-methods research is far too often mixed in name only, with the two strands being reported and only side by side. The purpose of this paper is to discuss the possibility of training the qualitative actor-analyst to embody a low two-way interactive process of gathering empirical data from actors who cut across culture, gender, age, economic class, etc.

During the analysis phase, a joint display will arrange the quantitative results together with their qualitative themes, making clear points of convergence, divergence, and expansion. When the strands agree confidence in the inference is strengthened; when they diverge the divergence itself becomes a finding requiring deeper interpretation. The methodological core of this proposal is its integrative ambition.

Design and Setting of the Study

The quantitative branch takes on a quasi-experimental two-arm long-studies design involving a baseline assessment at T0, followed by T1 at six weeks and T2 at twelve weeks. Those taking part will use an established evidence-based i-CBT programme. Participants will either use a guided arm, with weekly asynchronous coach contact, or a self-guided arm, in which the same content is accessed independently. A fully randomised random allocation design is pragmatically and ethically problematic for a master's-level study, including the randomisation infrastructure and the desirability of allowing some participant preference. That said, the allocation will be systematic and documented, and baseline equivalence will be examined and statistically adjusted where necessary. Young adults will be recruited from various colleges of Pune, Maharashtra. Due to the online nature of data collection, a wider population of participant will be the state of Maharashtra. The reasoning for implementing the study in the higher-education sector is deliberate: campuses are concentrated with the target-age group, have existing supportive structures through which recruitment and referral can be organised, and is exactly the setting where scalable digital mental-health promotion has been advocated for India (Mehrotra, 2020).

Selection and Engagement

Recruiters will use institutional channels and social media to solicit applications, as evidence suggests that young people are successfully recruited through existing social media platforms. Posters, announcements during class, and referrals to the counselling centre will be supplemented by short social media advertisements that link to the study information page. Anyone who is interested will complete an online screening, prior to any data collection. In order to minimise coercion, no academic credit will be offered, but a small and not-coercive reimbursement for time will be offered at each assessment point. This may help reduce retention in youth research. Materials for recruitment will be prepared in English and Hindi. The consent process will explain that participating in the study is independent of participants' academic standing and that their decision will not be disclosed to faculty.

Members

Individuals eligible for participation in this research must be young adults between the ages of 18 to 25 years with mildly severe or above symptoms of depression or anxiety on validated screening measures, who own a smartphone with internet access, and are fluently speaking in English or Hindi. People who are actively suiciding, suffering from current psychosis, or have a current diagnosis of bipolar disorder will be excluded and referred to appropriate in-person services. Exclusion is a) because these presentations require a level of

care which is not what an e-therapy is designed for, and b) because including such people would raise ethical and safety concerns inconsistent with our study's risk protocol. We propose a target sample of 320 (160 per arm). An a priori power analysis indicated that this sample has adequate power to detect a small-to-medium between-group difference at 12 weeks with 30% data attrition. The latter is consistent with observed dropout from similar web-based interventions. A purposive subsample of 24 people, stratified by condition and engagement (high, moderate and low) will be invited for interviews. This number was chosen to provide rich and varied accounts, while remaining manageable to analyse in depth and in accordance with guidance on information power in qualitative research.

Materials and Measures

The following standardised instruments will be used. All scales will be administered in validated English or Hindi versions.

Table 1 Principal Study Instruments and Their Role in the Analytic Model

Construct	Instrument	Role
Depression	Patient Health Questionnaire-9 (PHQ-9)	Primary outcome
Anxiety	Generalised Anxiety Disorder-7 (GAD-7)	Primary outcome
Distress / wellbeing	WHO-5 Well-Being Index	Secondary outcome
Therapeutic alliance	Working Alliance Inventory – Short Revised (digital adaptation)	Mediator
Self-efficacy	General Self-Efficacy Scale	Mediator
Engagement	Platform usage logs + self-report adherence	Predictor
Cultural fit	Study-specific perceived cultural-fit items	Moderator

Note. All instruments are widely used screening tools; study-specific items will be pilot-tested for clarity and reliability prior to the main study.

A short explanation for why the instruments will be selected. The PHQ-9 and GAD-7 were chosen for their brevity, free availability, Indian and Hindi validation, and wide use in research and routine care, making comparison with other studies easier. The selected index of wellbeing - WHO-5 - is positively framed unlike symptom measures and hence limits reporting change against change only in deficits. The short-revised version of the Working Alliance Inventory is adapted for digital delivery and it is the operationalisation of the alliance construct. It is the anchor of a supportive accountability model. It is based on the centrality of the alliance to the change process. The General Self-Efficacy Scale captures the perceived sense of power about personal agency that is sought to be created through CBT-based interventions. The usage logs of the platform (number of log-ins, number of individual modules completed, time on task) will be used to measure engagement (objectively). A short self-report adherence measure will be used to assess engagement (subjectively). This measure reflects the earlier stated multidimensional conception of engagement. In the last phase, we will create and pilot test items for perceived cultural fit and for stigma because there are no validated measures to assess these in the context of e-therapy in India. Furthermore, these will be assessed for internal consistency and refined further for the main study.

Give Us a date

The study will be conducted in 5 phases over a period of around 12 months as outlined in Table 2. Following the receipt of ethics clearance and piloting of instruments, recruitment and baseline assessment will occur. Thereafter, participants will be randomised to a condition and will undertake the intervention over a 12-week period with mid-point and end-point assessments. Interviews will take place soon after the end-point assessment while experiences are fresh. The study will then analyze and integrate, which will be followed by dissemination.

Table 2 Indicative Study Timeline by Phase

Phase	Activity	Indicative timing
1	Ethics approval, instrument development and piloting	Months 1–2
2	Recruitment, screening, and baseline (T0) assessment	Months 3–4
3	Intervention period with T1 (6-week) and T2 (12-week) assessments	Months 4–7
4	Semi-structured interviews with purposive subsample	Months 7–8
5	Analysis, integration, and dissemination	Months 9–12

Note. Timings are indicative and will be adjusted in light of recruitment pace and ethics-committee feedback.

Data Collection

After giving informed consent, participants will take the baseline survey on a secure webpage before being assigned to a condition. Participants will be sent reminder messages before each follow-up assessment to reduce attrition. This is in accordance with evidence that gentle reminders can help people to stay engaged. Interviews will be conducted over secure video call at a time chosen by the participant. They will be audio-recorded with participant consent and transcribed verbatim. Participants will be able select whether to be interviewed in English or Hindi. Hindi transcripts will be translated keeping the essence of meaning intact. The interview guide will examine why participants engaged or disengaged, their feeling of connection to any supporter, how well they felt the intervention fitted with their life and values, and their views around privacy and stigma. The processed data will be kept on a secure, encrypted and access-controlled system, while participants will be identified with a Code rather than their name. The linking key will be stored separately and will be available only to the Principal Investigator.

Psychological Factors

The key psychological factors are arranged as follows.

- The independent variable of e-therapy engagement will be operationalised through the guidance condition. Furthermore, the intensity of platform use will also be another operationalisation for the independent variable.
- Mediators include therapeutic alliance, self-efficacy and behaviour activation
- Factors for Moderation: Digital Literacy, Perceived Stigma and Cultural Fit.
- Dependent variables include depression, anxiety, distress, wellbeing, and service satisfaction.

Analysis of Scores and Data

The hypotheses will guide the analysis of quantitative data. The change in symptoms will be analyzed through linear mixed-effects models, considering time, condition, as well as their

interaction as fixed effects, with participants viewed as random effects which properly takes repeated measures and lack of data into account, under a missing at random assumption. It is better to utilize this method because it uses all available data rather than dropping participants who have not completed their follow-up. With high dropout rates likely, this is an important consideration. We will test for mediation (H2, H3) using bias-corrected bootstrapped indirect effects. Bias-corrected bootstrapped indirect effects do not assume the indirect effect is normally distributed, and they provide robust confidence intervals. Moderation (H4, H5) will be tested with interaction terms and probed with a simple-slopes analysis. We will analyze the data according to an intention-to-treat principle, and we will conduct sensitivity analyses to see if our conclusions are sensitive to different handling of missing data. We will provide an emphasis on effect sizes and confidence intervals instead of just focusing on significance testing. The qualitative data collected through interviews will be analysed using thematic analysis according to Braun and Clarke's contemporary approach. The analysis will go through the well-known steps of familiarisation, coding, generating initial themes, reviewing and developing themes, refining and naming themes, and writing up, but remembering these steps are recursive not linear. Coding will allow patterns that are expected theoretically as well as those that are not but will be informed by the framework. Following the reflexive tradition, themes will be understood as actively produced by the researcher at the intersection of the data and the analytical lens, rather than as objects passively discovered in the data. The analysis will consider semantic and latent meanings; looking beyond the participants' statements to the assumptions and ideas that underpin them.

The two strands will be integrated based on a triangulation logic. A combined presentation will show quantitative results (for instance, the size of the guidance effect, strength of mediation) in relation with the corresponding qualitative themes (for example, how coaches' presence sustained motivation).

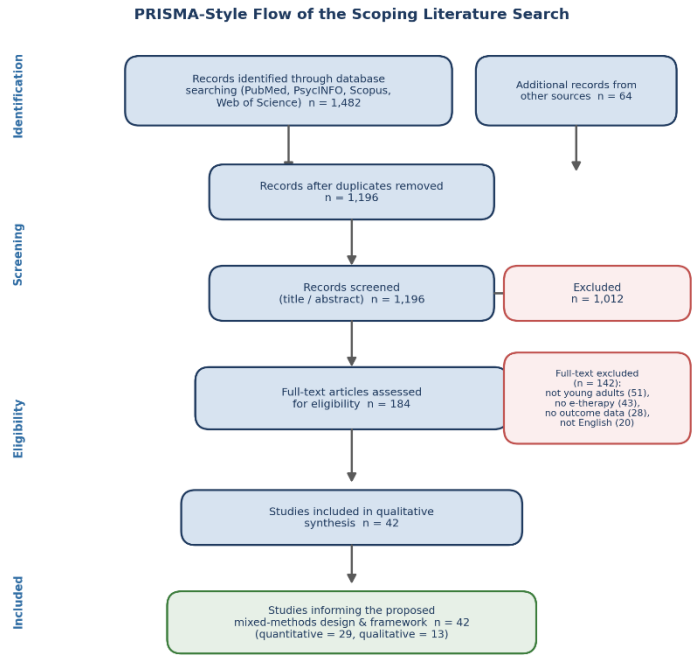

Figure 3 PRISMA-style flow of the scoping literature search informing the study design. Counts are illustrative of the proposed screening process.

Trustworthiness and Rigour

In accordance with the sensitivity and logic of each strand, it will be afresh; In the quantitative stream, the internal consistency will be supported by examining, adjusting for baseline differences between arms, by pre-specifying the analysis and by reporting effect sizes with confidence intervals, reliability will be supported by using validated instruments and by reporting internal-consistent coefficients.

In the qualitative strand, the criteria of credibility, transferability, dependability, and confirmability will be used to address trustworthiness. Credibility concerns will be addressed through prolonged engagement with the data and the keeping of an audit trail. Transferability will involve a thick description of the context in order for readers to judge the applicability to their own settings. Dependability will involve the documentation of analytic decisions. Confirmability will involve reflexive attention to the influence of the researcher. Participation of a small group of members in the research team's interpretation of preliminary findings will be sought to enrich rather than certify truth.

Reflexivity

According to reflexive thematic analysis, researchers should outline their own position since the interpretation is influenced by who is interpreting. The lead researcher, who is from Assam and was careful that the study did not favour or malign any ethnic group, is a master's student in clinical psychology studying in Pune and thus has both insider's knowledge of the young Indian adult experience and the assumptions that come with such proximity. This position is as much an analytic resource as a possible source of bias; it makes the analysis sensitive to idioms of distress and the weight of stigma and family expectation, demanding vigilance lest the researcher's own expectations be read into participants' accounts. During the entire course of data collection and subsequent analysis, a reflexive journal will be maintained.

Expected Outcomes and Analysis

According to the two hypotheses and as established by a recent meta-analysis of these kinds of interventions, both arms will show symptom reductions across 12 weeks. It is expected that the improvement in the guided arm will be significantly better. In addition, the attrition rates will be lower than that of the self-guided arm. It is anticipated that self-efficacy and the therapeutic alliance will prove to be significant mediators. It is also expected that perceived cultural fit will moderate the engagement-outcome relationship, such that the benefit of engagement will be greater for those who perceive the intervention to fit with their values and circumstances. We expect higher baseline stigma to predict lower engagement and higher attrition across both arms, suggesting stigma may influence even a private, digital mode of help.

It is anticipated that the qualitative strand will shed light on why these patterns are occurring. For example, interviews can reveal that the relational accountability of a coach is a reason for students to stay engaged through low motivation periods. This reflects the model of supportive accountability. Another example is how the privacy of a platform lowers the threshold for helpseeking among young people who are averse to being seen at a counselling centre. Finally, content that assumes discourses around western family structures or idioms of distress will quietly erode trust and cause disengagement. The qualitative stories gleaned from these accounts would complement the quantitative associations and would generate hypotheses about the particular nature of culturally

responsive design. Where the strands converge a strong quantitative mediation effect of alliance alongside vivid qualitative accounts of the coach relationship confidence in the inference would be strengthened. The divergence of the works would be instructive in itself, perhaps showing that what participants might label meaningful engagement is not captured by statistical engagement metrics.

If these results confirm these expectations, they would expand the Western evidence base into a non-WEIRD setting. They would provide actionable insights for the culturally adaptive design and implementation of e-therapies in India. They would also bolster the theoretical grounds for conceptualizing engagement not as a nuisance but as a mechanism that works through alliance and self-efficacy. It may also be of interest to examine alternative findings. For instance, if guidance proves to be of little use or if cultural fit fails to have the desired moderating effect on outcomes, it may provide cause to rethink the assumptions that are being imported from other contexts. Similar to any other proposal, the projections are views to be validated rather than established conclusions. Actual results will be discussed in reference only to the results and the wider literature, and claims that the data do not support will be avoided.

Constraints and Moral Considerations

It is expected and acknowledged that there will be several limitations. Given feasibility, the quasi-experimental design selected provides weaker causal inference than a randomised controlled trial; while the baseline adjustment will address confounding, it cannot take away selection effects. Recruiting the youth from institutions of higher education in one region may limit the generalizability to young adults who are not students. Or to those living in rural areas with poorer connectivity. This limitation is pertinent as digital access itself is unevenly distributed in India. There's a possibility of social-desirability and recall bias with self-report measures, which is partially countered here with objective platform-usage data. Expected dropout from the study was accounted for in the power analysis, but if dropout is systematic rather than random, then it will bias results. In the end, the study has a 12-week time frame and can't speak to the long-term durability of any observed benefits.

The Institutional Ethics Committee will approve the study before the start of data collection. All subjects will provide informed consent, participation will be voluntary, and the participant can withdraw at any time without penalty and without any impact on their academic performance. Due to the possibility of those involved in the research experiencing psychological distress, a clear risk protocol will be implemented. Participants who screen positive for active suicidality will be excluded from the intervention arms at any stage and signposted to professional, in-person support. A named clinician will also be available to advise on escalation. We will ensure confidentiality, data security and the responsible handling of sensitive data throughout the project with all data stored on encrypted systems, and identifiers held separately. The research will not include any activity that could increase distress and at all stages the welfare of participants will override these goals of data-collection.

Importance and Spread

The proposed research is significant for three reasons. The paper fills a well documented, scientifically identified gap by producing evidence of e-therapy effectiveness among young adults in a non-WEIRD setting, that is integrated and mechanism-focused. Basically, its aim is to contribute towards the design of scalable and culturally responsive digital services for a

population poorly reached by the official mental-health system in India. In a broader sense, this study contributes toward normalising help-seeking behaviour among young people by explicitly addressing stigma and cultural fit. The results will be made available in the form of a master's dissertation, submission to a peer-reviewed journal, and accessible summaries shared with participating institutions and, where appropriate, with participants, so that the knowledge generated returns to the community that produced it.

CONCLUSIONS

The proposed research employs a mixed-methods design to tackle a timely and important question. Here's a way of putting it differently.

- E-therapies offer a scalable solution to young adults' unmet mental-health need, but their effectiveness is determined by engagement, alliance and cultural fit rather than content alone.
- Combining data from e-therapy's effectiveness and users' experience explains whether e-therapy works, why it works, and who it works for.
- This study provides contextually relevant evidence that can inform the culturally attuned design of digital mental health services in non-WEIRD contexts (like India) in South Asia, and beyond.
- By treating engagement as a theoretically meaningful mechanism rather than a nuisance variable, the study advances both the science and the practice of digital mental-health care.

REFERENCES

Andersson, G. (2024). Internet-delivered cognitive behaviour therapy: Mechanisms and guidance intensity. *Clinical Psychology Review, 109*, 102412.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health, 11*(4), 589–597.

Buelens, T., Luyckx, K., & Gandhi, A. (2024). Engagement and attrition in digital mental health interventions for young people. *Journal of Medical Internet Research, 26*, e12387.

Chan, N. Y., Li, S. X., & Wing, Y. K. (2022). Effectiveness of digital cognitive behavioral therapy for insomnia in young people: A systematic review and meta-analysis. *Healthcare, 10*(4), 714.

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.

Gaiha, S. M., Sunil, G. A., Kumar, R., & Menon, S. (2020). Stigma associated with mental health problems among young people in India: A systematic review of magnitude, manifestations and recommendations. *BMC Psychiatry, 20*, 538.

Garrido, S., Millington, C., Cheers, D., Boydell, K., Schubert, E., Meade, T., & Nguyen, Q. V. (2019). Internet and computer-based cognitive behavioral therapy for anxiety and depression in adolescents and young adults: Systematic review and meta-analysis. *Frontiers in Psychiatry, 10*, 759.

Liang, J. H., Li, J., & Xu, Y. (2025). Comparative effectiveness and acceptability of internet-based psychological interventions on depression in young people: A systematic review and network meta-analysis. *BMC Psychiatry, 25*, 318.

Lipschitz, J. M., Van Boxtel, R., & Torous, J. (2023). Comparative attrition across digital mental health intervention formats: A systematic review. *Journal of Medical Internet Research, 25*, e48964.

McGorry, P. D., Mei, C., & Killackey, E. (2022). The reform of youth mental health services and the failure to meet demand. *World Psychiatry, 21*(1), 61–62.

Mehrotra, S. (2020). Indian higher education and youth mental health: Challenges and opportunities. *Journal of Global Health, 10*(2), 020307.

Mohr, D. C., Cuijpers, P., & Lehman, K. (2011). Supportive accountability: A model for providing human support to enhance adherence to eHealth interventions. *Journal of Medical Internet Research, 13*(1), e30.

Radomski, A. D., Wozney, L., & Newton, A. S. (2023). Young people's mental health during the COVID-19 pandemic. *Journal of Adolescent Health, 72*(2), 173–181.

Rasmussen, J., Högström, J., & Mataix-Cols, D. (2025). Efficacy of an internet-based, therapist-guided cognitive behavioral therapy intervention for adolescents and young adults with body dysmorphic disorder: A randomized controlled trial. *BMC Psychiatry, 25*, 367.

Tandon, T., Biswas, R., Meteier, Q., Daher, K., Abou Khaled, O., Meyer, B., Berger, T., Gupta, R., & Martin Soelch, C. (2026). Retention and engagement in culturally adapted digital mental health interventions: Systematic review of dropout, attrition, and adherence in non-WEIRD settings. *JMIR Mental Health, 13*, e80624.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478.

Wanniarachchi, V. U., Greenhalgh, C., & Warren, J. (2025). Adolescents' and youths' perceived barriers and facilitators to engaging with digital mental health interventions for depression and anxiety: A scoping review. *Internet Interventions, 42*, 100884.

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Devi, K. (2026). Mental Health Support in the Digital Era: Examining the Effectiveness of E-Therapies Among Young Adults. *International Journal of Indian Psychology*, *14*(2)*,* 1850-1866. DIP:18.01.171.20261402, DOI:10.25215/1402.171