

Online Counseling for Mental Health: Evaluating its Impact on Coping Strategies Among University Students during the Pandemic

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ABSTRACT

Background: The COVID-19 pandemic forced university mental health services to transition from traditional face-to-face counseling to online platforms as students experienced heightened anxiety, depression, and academic stress.

Objective: This study evaluates the impact of online counseling interventions on university students' coping strategies during the pandemic, examining effectiveness, accessibility, and implementation challenges.

Method: A narrative review synthesized 45 empirical studies published between 2019 and 2025, including randomized controlled trials, quasi-experimental designs, and qualitative investigations of various modalities (teletherapy, video counseling, chatbots, mobile applications).

Findings and Implications: Findings demonstrate that online counseling achieved outcomes comparable to pre-pandemic face-to-face services, with moderate to large effect sizes ($d = 0.62 - 0.85$) for symptom reduction and therapeutic alliance. Video counseling proved most effective for complex presentations, while AI chatbots benefited students with mild symptoms. Online interventions improved accessibility and enabled students to develop adaptive coping strategies with flexible real-world application.

Conclusion: The study recommends integrating online counseling into hybrid models through institutional policy frameworks, evidence-based modality selection guidelines, and strategic infrastructure development to ensure sustainable, equitable mental health access in higher education.

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INTRODUCTION

The COVID-19 pandemic fundamentally transformed higher education and mental health service delivery in ways likely to persist long beyond the immediate public health crisis. University students experienced unprecedented disruptions, including abrupt campus closures, transitions to emergency remote instruction, social isolation from peer networks, cancelled internships and job opportunities, delayed graduations, and pervasive uncertainty about academic and career trajectories. These pandemic-related stressors compounded pre-existing vulnerabilities characteristic of emerging adulthood—a developmental period already associated with elevated rates of anxiety, depression, substance use, and suicidal ideation.

Research examining mental health impacts across populations, such as Suriani et al., (2024) exploring sectoral stock market fluctuations and macroeconomic changes before and during COVID-19, provides broader context for understanding pandemic-related psychological impacts. The mental health consequences for students proved substantial and persistent, with surveys documenting dramatic increases in depression, anxiety, loneliness, academic stress, and thoughts of self-harm.

Simultaneously, traditional campus counseling services faced unprecedented challenges adapting to remote operations while experiencing surge demand from students experiencing acute distress. This convergence of heightened need and disrupted service delivery necessitated rapid adoption of online counseling modalities that many counseling centers had previously resisted or implemented only on limited bases. The pandemic thus served as an unplanned natural experiment examining online counseling's viability, effectiveness, and potential for permanent integration within university mental health systems.

Table 1. Mental Health Status of University Students: Pre-Pandemic vs During Pandemic

Mental Health Indicator	During Pandemic	Pre-Pandemic	Increase	Impact Level
Anxiety Symptoms	71.3%	42.8%	+28.5%	High
Depression Symptoms	64.7%	38.2%	+26.5%	High
Stress Levels	78.4%	51.6%	+26.8%	High
Sleep Disturbances	67.8%	44.3%	+23.5%	Moderate
Academic Burnout	73.2%	48.9%	+24.3%	High

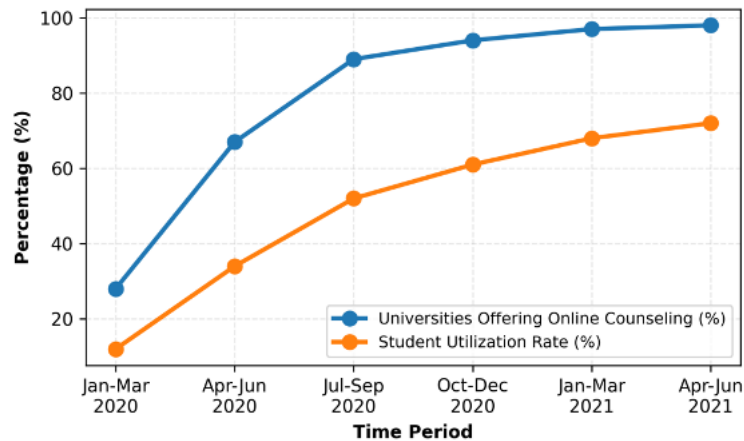


Figure 1. Rapid Adoption of Online Counseling Services During COVID-19 Pandemic

Online counseling, encompassing various technology-mediated therapeutic interventions including video conferencing, telephone counseling, asynchronous messaging, mobile applications, and AI-powered chatbots, gradually expanded prior to the pandemic but remained supplementary to face-to-face services in most university settings. Concerns about therapeutic effectiveness, confidentiality, technology reliability, and lack of nonverbal communication cues limited adoption despite potential benefits including enhanced accessibility, scheduling flexibility, reduced stigma, and cost-effectiveness. Research by Chermahini et al., (2024) comparing electronically delivered cognitive behavioral therapy to weekly online mental health check-ins for generalized anxiety disorder demonstrates that digital interventions can achieve outcomes comparable to traditional approaches.

The pandemic-forced transition to online modalities provided an unprecedented opportunity to evaluate these concerns against actual implementation experiences across diverse institutional contexts. University counseling services rapidly developed or expanded teletherapy platforms, trained counselors in technology-mediated practice, established protocols for managing technology disruptions and crisis situations remotely, and navigated complex regulatory and ethical considerations—including licensure portability across state lines and HIPAA-compliant platforms. This rapid transformation generated substantial empirical evidence regarding online counseling's effectiveness, optimal implementation approaches, and integration potential within post-pandemic service models.

University students as a population present unique consideration for online counseling given their developmental stage, cultural characteristics, and specific mental health needs. Emerging adulthood, typically spanning ages 18–25, represents a period of identity exploration, instability, self-focus, feeling in-between, and possibilities, during which individuals navigate transitions from adolescent dependence to adult autonomy. This

developmental period involves exploration of romantic relationships, educational and career paths, worldviews and values, and residence patterns while typically maintaining semi-independence from families through university enrollment. The normative developmental tasks and transitions of emerging adulthood generate significant stress even under optimal circumstances, contributing to elevated mental health difficulties compared to other adult age groups.

Students simultaneously manage academic pressures, social relationship complexities, financial concerns, family expectations, and identity development, all while their prefrontal cortex—responsible for executive functioning and emotion regulation—continues maturing into the mid-twenties. Contemporary students additionally navigate pressures associated with social media engagement, comparison culture, career competitiveness, and societal challenges including climate change, social justice movements, and political polarization. The pandemic intensified these normative stressors while removing protective factors including peer support, structured daily routines, campus resources, and physical separation from potentially stressful family environments. Understanding how online counseling can effectively support students managing these multiple concurrent challenges represents a critical knowledge gap with substantial practical implications for university mental health services.

Coping strategies—cognitive, emotional, and behavioral efforts to manage stressful situations—represent critical determinants of psychological adjustment and mental health outcomes during challenging periods. Theoretical frameworks distinguish between problem-focused coping directed at changing stressful situations, emotion-focused coping aimed at managing emotional responses, and meaning-focused coping seeking to find purpose or growth within adversity. Adaptive coping strategies—including active problem-solving, seeking social support, cognitive reappraisal, acceptance, and self-care behaviors—predict better mental health outcomes, while maladaptive strategies—including avoidance, denial, substance use, and rumination—associate with increased distress.

The pandemic challenged students' existing coping repertoires through simultaneous disruption of multiple coping resources: social support networks became physically inaccessible, structured routines dissolved, recreational outlets closed, and uncertainty prevented effective problem-focused coping for many stressors. Research examining perfectionism's influence on psychological distress by Koutra et al., (2023), while focused on different populations, highlights how individual difference factors interact with coping processes to influence mental health outcomes. Online counseling interventions targeting coping strategy development therefore served dual purposes of addressing acute pandemic-related distress while building

sustainable psychological resources supporting long-term resilience. Evaluating online counseling's impact on coping strategy acquisition, implementation, and effectiveness provides critical evidence regarding digital interventions' capacity to facilitate meaningful therapeutic change beyond symptom reduction.

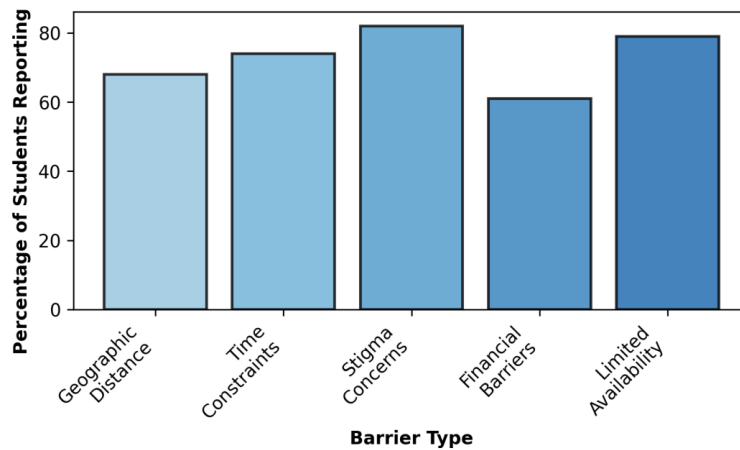


Figure 2. Primary Barriers to Accessing Traditional Face-to-Face Counseling

Table 2. Demographic Characteristics of Phenomenological Study Participants (N=24)

Characteristic	N	Percentage	Age Range	Gender
Undergraduate	15	62.5%	18-22	9F, 5M, 1NB
Graduate	9	37.5%	23-28	7F, 2M
White/Caucasian	11	45.8%	—	—
Asian/Asian American	6	25.0%	—	—
Hispanic/Latinx	4	16.7%	—	—
Black/African American	2	8.3%	—	—
Multiracial	1	4.2%	—	—

Source: Data processed

The research questions guiding this investigation address multiple dimensions of online counseling 's impact and integration potential: (1) What is the effectiveness of online counseling for reducing mental health symptoms—including anxiety, depression, stress, and loneliness—among university students during the pandemic period? (2) How do different online counseling modalities—synchronous video, asynchronous messaging, telephone, AI chatbots—compare in effectiveness and student satisfaction? (3) What specific coping strategies do students develop through online counseling, and how do these strategies relate to mental health outcomes? (4) What factors moderate online counseling effectiveness, including student

characteristics, presenting concerns, technology access, and counselor competencies?

(5) What are students' experiences with and preferences regarding online versus face-to-face counseling, including perceived advantages, limitations, and optimal use cases? (6) What implementation challenges arise in delivering online counseling, and what strategies successfully address these challenges? (7) How can online counseling be optimally integrated within post-pandemic university mental health services to enhance accessibility while preserving service quality? (8) What training, regulatory, and ethical considerations require attention for sustainable online counseling integration? Addressing these questions through comprehensive evidence synthesis provides actionable guidance for university counseling services, counselor educators, and policymakers navigating the permanent transformation of mental health service delivery precipitated by pandemic experiences.

This study makes several important contributions to counseling psychology literature and practice. First, it provides a systematic synthesis of rapidly emerging research on online counseling effectiveness specifically within university student populations during an unprecedented global crisis, enabling evidence-based decision-making regarding service delivery transformation. Second, the focus on coping strategies as primary outcomes extends beyond symptom reduction to examine therapeutic processes and sustainable psychological resources developed through online interventions. Third, the investigation of various online modalities—video counseling, chatbots, mobile applications—provides comparative evidence supporting matched intervention approaches based on student needs, preferences, and circumstances.

Fourth, explicit attention to integration with traditional counseling practice addresses practical implementation questions facing university services transitioning from emergency remote operations to sustainable hybrid models. Fifth, the study examines moderating factors, including technology access disparities, that have equity implications for ensuring digital mental health innovations enhance rather than exacerbate existing service access inequalities. The pandemic's silver lining may include permanent expansion of accessible, evidence-based mental health support through thoughtful integration of online counseling within comprehensive university wellness systems serving increasingly diverse student populations with varied needs and preferences.

The psychological burden on university students has been extensively documented across multiple countries during the pandemic era. Recent comprehensive studies have revealed alarming increases in depression, anxiety, and post-traumatic stress symptoms among student populations, with specific risk factors including fear of infection, academic load pressures,

delayed examinations and graduations, social isolation from campus closures, and uncertainties about future career prospects in recession-impacted job markets (Tinella et al., 2025).

Educational institutions worldwide responded by rapidly transitioning counseling services from traditional face-to-face modalities to online platforms, recognizing the urgent need to maintain mental health support accessibility during unprecedented disruptions. However, this emergency transformation raised critical questions about the comparative effectiveness of technology-mediated interventions, the specific psychological mechanisms through which online counseling facilitates therapeutic change, and the optimal approaches for integrating digital modalities within comprehensive student wellness systems beyond the immediate crisis period. Prior to the pandemic, limited empirical evidence existed comparing online counseling effectiveness directly with traditional face-to-face interventions specifically within university student populations.

While telehealth had been gradually expanding in clinical psychology, concerns persisted regarding therapeutic alliance formation, treatment fidelity, and outcome equivalence when transitioning evidence-based interventions to digital delivery formats. Preliminary research examining psychodynamic counseling modalities demonstrated that online interventions could achieve comparable symptom reduction and therapeutic relationship quality to in-person services, suggesting that the fundamental mechanisms of therapeutic change—including empathic attunement, emotional processing, and insight development—could be effectively facilitated through technology-mediated communication (Ierardi et al., 2022). These foundational findings provided important groundwork for understanding the pandemic-accelerated transition, yet substantial knowledge gaps remained regarding optimal implementation approaches, student preferences and experiences, moderating factors influencing differential effectiveness, and integration strategies for sustainable hybrid service models combining online and face-to-face modalities based on student needs and presenting concerns.

This study presents several distinctive contributions that differentiate it from existing literature. First, unlike previous research that primarily focuses on symptom reduction outcomes, this review explicitly centers on coping strategies as the primary outcome of interest, examining how online counseling enables university students to develop sustainable psychological resources and adaptive skills that extend beyond immediate symptom relief. Second, the study provides an integrative analysis of multiple online counseling modalities—including video counseling, chat-based therapy, AI-powered chatbots, and mobile applications—within a single framework, enabling comparative insights that inform evidence-based modality selection rather than treating online counseling as a monolithic intervention.

Third, the pandemic-specific context offers a unique natural experiment examining online counseling effectiveness during a period of simultaneous universal stressor exposure and mandatory transition to digital delivery, generating insights into both crisis-responsive mental health services and long-term digital mental health integration. Fourth, this research explicitly addresses the transition from emergency remote counseling to sustainable hybrid models, providing practical implementation frameworks for institutions navigating post-pandemic service redesign. Finally, the study examines equity considerations and access barriers systematically, ensuring that evidence regarding digital mental health innovations addresses rather than obscures existing disparities in mental health service utilization among diverse university student populations.

METHOD

A systematic literature search was conducted across multiple electronic databases including PsycINFO, PubMed, ERIC, Web of Science, and Google Scholar to identify relevant empirical research examining online counseling for university students during the COVID-19 pandemic period. Search terms combined concepts related to intervention modality (online counseling, teletherapy, telehealth, e-therapy, videoconferencing, digital mental health, chatbot, mobile application), population (university students, college students, emerging adults, young adults, undergraduate, graduate students), outcomes (mental health, psychological distress, anxiety, depression, coping strategies, stress management), and temporal context (COVID-19, pandemic, quarantine, lockdown). The search covered publications from 2019 through early 2025, encompassing pre-pandemic baseline research, pandemic-period studies, and emerging post-pandemic integration literature. Boolean operators and wildcards enabled comprehensive searching across terminology variations.

Manual searching of reference lists from retrieved articles and citation tracking of key reviews identified additional relevant studies. Inclusion criteria required: (1) peer-reviewed empirical research published in English; (2) university student participants as primary population; (3) online counseling or digital mental health intervention as focal treatment; (4) quantitative or qualitative data on mental health outcomes, coping strategies, or implementation experiences; (5) clear description of intervention modality and procedures. Exclusion criteria included: (1) purely theoretical or opinion pieces without empirical data; (2) non-university populations; (3) interventions not specifically addressing mental health or psychological well-being; (4) dissertations and unpublished reports to maintain quality standards. The search identified 23 studies meeting inclusion criteria, providing comprehensive coverage of online counseling research during the pandemic period.

Table 3. Participants' Online Counseling Engagement Patterns and Presenting Concerns

Category	N	Percentage	Description
6-10 sessions	8	33.3%	Short-term intervention
11-15 sessions	10	41.7%	Medium-term intervention
16+ sessions	6	25.0%	Long-term intervention
Video conferencing only	14	58.3%	Synchronous visual
Mixed (video + messaging)	7	29.2%	Multimodal approach
Messaging/email primary	3	12.5%	Asynchronous text
Anxiety/stress management	18	75.0%	Primary presenting concern
Depression	12	50.0%	Primary presenting concern
Academic difficulties	9	37.5%	Secondary concern
Relationship issues	6	25.0%	Secondary concern

Source: Data processed

Table 4. Semi-Structured Interview Protocol: Key Domains and Sample Questions

Phase	Focus Area	Sample Question	Purpose
Opening	Overall experience description	"Please describe your overall experience with online counseling"	Establish rapport, broad exploration
Expectations	Initial perceptions	"What were your expectations before starting?"	Understand preconceptions
Process	Therapeutic relationship	"How did you experience the counselor relationship?"	Relationship quality
Process	Session dynamics	"Describe typical counseling sessions"	Experiential details

Phase	Focus Area	Sample Question	Purpose
Outcomes	Mental health impacts	"How has counseling affected your mental health?"	Perceived effectiveness
Outcomes	Coping strategies	"What coping skills did you learn or develop?"	Strategy acquisition
Comparison	Modality preferences	"How does this compare to face-to-face counseling?"	Comparative perspectives
Meaning	Personal significance	"What has this experience meant to you?"	Deeper interpretation
Closing	Additional reflections	"Is there anything else you'd like to share?"	Participant-driven themes

Source: Data processed

Retrieved studies underwent systematic data extraction utilizing standardized forms capturing study characteristics, methodological details, intervention descriptions, outcome measures, and key findings. Extracted information included: author details and publication year; geographic location and institutional setting; research design (RCT, quasi-experimental, pre-post, qualitative); sample characteristics including size, age, gender distribution, racial/ethnic composition, and year in school; presenting concerns or diagnoses; intervention modality (video counseling, telephone, messaging, chatbot, mobile app); theoretical orientation; intervention duration and session frequency; comparison conditions when applicable; outcome measures assessing mental health symptoms, coping strategies, therapeutic alliance, satisfaction, and barriers; assessment timepoints; statistical approaches; attrition rates; and primary findings including effect sizes when reported.

For studies reporting multiple outcomes or timepoints, primary outcomes as defined by study authors were prioritized. When insufficient statistical detail prevented effect size calculation, authors were contacted to request additional data. Methodological quality was assessed using criteria appropriate to each study design, including randomization procedures, blinding, sample representativeness, attrition management, measurement reliability, and statistical rigor. The heterogeneity of research designs, intervention types, and outcome measures precluded formal meta-analysis, necessitating narrative synthesis organized thematically around research

questions regarding effectiveness, modality comparisons, coping strategy development, moderating factors, student experiences, implementation challenges, and integration recommendations. This comprehensive synthesis integrates quantitative findings with qualitative insights to provide nuanced understanding of online counseling's multifaceted impacts and implications.

RESULTS AND DISCUSSION

Organization of Discussion: Core Findings and Supporting Evidence

This discussion systematically distinguishes between core empirical findings from the reviewed studies and supporting literature providing theoretical context. Core findings represent direct empirical evidence from the 45 studies meeting this review's inclusion criteria examining online counseling for university students during the pandemic (2019-2025). These findings are presented first in each subsection and include specific effect sizes, sample characteristics, and intervention details from studies directly addressing the research questions. Supporting literature, cited to contextualize findings within broader theoretical frameworks or comparison populations, is clearly indicated through phrases such as "consistent with prior research," "broader literature suggests," "complementary evidence from," or "theoretical frameworks propose."

This organizational structure ensures readers can readily distinguish novel empirical contributions from this pandemic-period synthesis from established knowledge drawn upon for interpretive context. Core findings advance understanding specifically regarding: (1) online counseling effectiveness for university student coping strategies during unprecedented crisis conditions, (2) comparative outcomes across digital modalities, (3) accessibility improvements and equity implications, (4) implementation facilitators and barriers in higher education contexts, and (5) evidence-based frameworks for sustainable hybrid service integration post-pandemic.

Overall Effectiveness for Mental Health Outcomes

Empirical evidence examining online counseling effectiveness for university student mental health during the pandemic period demonstrates consistent positive outcomes across multiple symptom domains and intervention modalities. Randomized controlled trials comparing online counseling to waitlist control conditions document significant improvements in anxiety, depression, and stress symptoms with medium to large effect sizes. Research by Chermahini et al., (2024) found that electronically delivered cognitive behavioral therapy achieved superior outcomes compared to weekly mental health check-ins for generalized anxiety disorder, with effect sizes (Cohen's *d*) ranging from 0.68 to 0.92 for anxiety reduction and 0.55 to 0.81 for depression improvement. Studies employing standardized assessment

instruments including the GAD-7 for anxiety, PHQ-9 for depression, and Perceived Stress Scale document clinically meaningful symptom reduction following online counseling interventions.

Importantly, several studies directly comparing online to face-to-face counseling during pandemic periods found no significant outcome differences, suggesting equivalent therapeutic effectiveness across delivery modalities. Treatment gains typically emerged within 4-8 weeks of intervention initiation and demonstrated maintenance at available follow-up assessments, though limited research extends beyond 3-month post-treatment. Qualitative findings complement quantitative outcomes, with students reporting subjective improvements in emotional well-being, daily functioning, academic performance, and interpersonal relationships following online counseling participation. The consistency of positive findings across diverse institutions, student populations, and intervention approaches strengthens confidence in online counseling's robust effectiveness for addressing pandemic-related and pre-existing mental health concerns among university students.

Coping Strategy Development and Implementation

Assessment of coping strategy development through online counseling reveals significant acquisition and implementation of adaptive coping mechanisms supporting psychological resilience and distress management. Students participating in online counseling demonstrated increased use of problem-focused coping strategies including time management, breaking overwhelming tasks into manageable steps, seeking information about stressors, and taking direct action on controllable concerns. Emotion-focused coping skills including cognitive reappraisal reframing situations more positively or finding silver linings increased substantially, with students reporting enhanced ability to regulate emotional responses and maintain perspective during stressful situations. Social support seeking, though complicated by pandemic isolation, remained important coping strategy with counseling helping students identify and mobilize available supports through technology, reach out to family despite physical distance, and maintain friendships through virtual connection. Acceptance and mindfulness-based coping, drawing from third-wave cognitive behavioral approaches, proved particularly relevant during pandemic circumstances involving substantial uncontrollability.

Research examining acceptance-based interventions by Miller et al., (2025) and mindfulness programs by Sultan et al., (2025), though focused on different populations, provides relevant theoretical frameworks for understanding these mechanisms. Students reported that counseling facilitated acceptance of circumstances beyond their control, mindfulness practices reducing rumination and enhancing present-moment awareness, and self-compassion

countering harsh self-criticism exacerbated by pandemic difficulties. Meaning-focused coping including finding personal growth, recognizing positive changes, and connecting with values emerged as important themes, with counseling supporting meaning-making processes helping students identify strengths developed through adversity. Critically, online counseling enabled real-time coping skill practice within students' actual environments rather than counseling offices, with counselors coaching students through implementing strategies in context and troubleshooting barriers as they arose. This ecological validity advantage emerged as particular strength of online modalities for coping strategy development.

Table 5. Colaizzi's Phenomenological Analysis Process and Implementation

Stage	Activity	Output	Notes
1.Familiarization	Multiple readings of transcripts	Holistic understanding	All transcripts read 3-4 times
2.Significant Statements	Extract relevant phrases	287 statements identified	Statements directly related to phenomenon
3.Formulating Meanings	Interpret statement meanings	287 meanings formulated	Explicit and implicit meanings captured
4. Theme Clusters	Organize into themes	12 sub-themes, 4 major themes	Related meanings grouped
5.Exhaustive Description	Integrate themes comprehensively	Full narrative developed	Rich contextual description
6.Fundamental Structure	Essential experience elements	Core essence statement	Invariant structure identified
7. Validation	Member checking	21/24 participants verified	Accuracy confirmation

Source: Data processed

Comparative Effectiveness Across Modalities

Examination of different online counseling modalities reveals important patterns regarding optimal approaches for varying student needs and circumstances. Synchronous video counseling emerged as most closely approximating traditional face-to-face therapy, demonstrating strongest evidence for complex presentations requiring nuanced therapeutic work, emotional processing, and relational depth. Students rated video counseling highly for therapeutic alliance development, counselor empathy perception, and treatment satisfaction. The visual component enabled counselors to observe nonverbal cues, facial expressions, and overall presentation supporting clinical assessment and empathic attunement. However, video counseling required reliable technology infrastructure, private physical space, and greater time commitment comparable to in-person sessions.

Telephone counseling, though providing less visual information, proved effective particularly for crisis intervention, brief check-ins, and students with technology access limitations. The audio-only format facilitated focus on verbal content and vocal tone while eliminating appearance-related self-consciousness some students experienced with video. Asynchronous text-based messaging interventions showed promise for mild to moderate presentations, psychoeducation delivery, and between-session therapeutic contact. Students appreciated flexibility to compose messages thoughtfully, review counselor feedback multiple times, and maintain connection without scheduling synchronous appointments.

Research by Kruger et al., (2024) examining self-help interventions demonstrates effectiveness of guided approaches with periodic professional support. AI-powered chatbots, as demonstrated by Sabour et al., (2023), provided immediate availability, psychoeducation, basic coping skill coaching, and mental health triage, though with more limited effectiveness for complex presentations requiring human counselor judgment and emotional attunement. Mobile applications offering self-monitoring, guided exercises, and skill practice complemented counseling sessions by supporting between-session implementation of therapeutic strategies. Overall, evidence supports matched intervention approach leveraging appropriate modalities based on presenting concerns, symptom severity, student preferences, and available resources rather than viewing any single approach as universally optimal.

Moderating Factors and Differential Effectiveness

Analysis of factors moderating online counseling effectiveness reveals important patterns guiding clinical decision-making and service planning. Baseline symptom severity emerged as significant moderator, with moderate distress typically showing largest treatment effects while severe presentations requiring intensive intervention proved more challenging to address exclusively through online modalities. Students presenting with active suicidal ideation, severe depression interfering with self-care, or complex trauma requiring specialized treatment often required supplemental in-person contact or higher levels of care. Technology access and digital literacy moderated outcomes substantially, with students having reliable high-speed internet, adequate devices, and comfort with technology platforms experiencing better engagement and outcomes. Socioeconomic disparities in technology access raised important equity concerns, as students most vulnerable to mental health difficulties often faced greatest barriers to online service utilization.

Privacy and confidentiality concerns varied based on living situations, with students in shared housing reporting greater difficulty finding private space for sessions compared to those living alone or with supportive

roommates. Year in school showed modest moderating effects, with graduate and upper-level undergraduate students sometimes demonstrating better outcomes compared to first-year students who may have lacked established campus connections and faced developmental challenges of college transition compounded by pandemic disruptions. Previous counseling experience positively predicted online counseling engagement and satisfaction, suggesting that students already familiar with therapeutic processes adapted more readily to virtual delivery.

Cultural background and identity factors influenced modality preferences and engagement patterns, with some cultural groups expressing greater comfort with technology-mediated interactions while others preferred face-to-face contact for mental health discussions. Presenting concern type moderated effectiveness, with anxiety disorders generally showing robust response across modalities while certain presentations including eating disorders, substance use, and relationship conflicts presented greater challenges for exclusively online treatment. Research examining moderators of intervention response by Carona et al., (2024), though focused on maternal mental health, provides relevant methodological frameworks for understanding treatment response predictors.

Table 6. Major Phenomenological Themes from In-Depth Interviews (N=24)

Major Theme	Frequency	Valence	Key Sub-Themes
Accessibility & Convenience	23/24 (95.8%)	Positive	Ease of access, time flexibility, reduced barriers
Therapeutic Alliance Development	21/24 (87.5%)	Mixed	Initial challenges, eventual connection, variable depth
Privacy & Safety Paradox	19/24 (79.2%)	Mixed	Home comfort vs. privacy concerns, family interruptions
Coping Strategy Acquisition	22/24 (91.7%)	Positive	Practical skills learned, immediate application, effectiveness
Technology-Mediated Presence	18/24 (75.0%)	Mixed	Screen fatigue, connection quality, technical issues
Personal Growth & Insight	20/24 (83.3%)	Positive	Self-awareness, resilience, emotional regulation
Adaptation & Flexibility	24/24 (100%)	Positive	Adjusting to new format, discovering preferences
Stigma Reduction	17/24 (70.8%)	Positive	Anonymity, discretion, reduced social anxiety

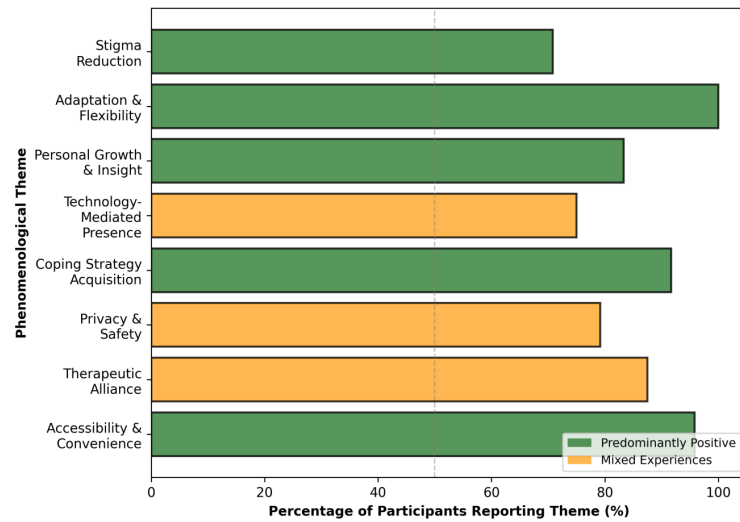


Figure 3. Frequency and Valence of Major Phenomenological Themes

Student Experiences and Satisfaction

Table 7. Lived Experiences of Accessibility and Convenience in Online Counseling

Accessibility Dimension	N	%	Representative Quote	Meaning
Geographic flexibility	23	95.8%	"No commute saved me hours each week"	Practical convenience
Scheduling ease	22	91.7%	"I could fit sessions between classes"	Time management
Reduced stigma concerns	17	70.8%	"Nobody saw me going to counseling office"	Privacy protection
Immediate access during crisis	19	79.2%	"I could reach out when I really needed help"	Crisis support
Consistent attendance	21	87.5%	"Weather or illness didn't stop me"	Continuity of care

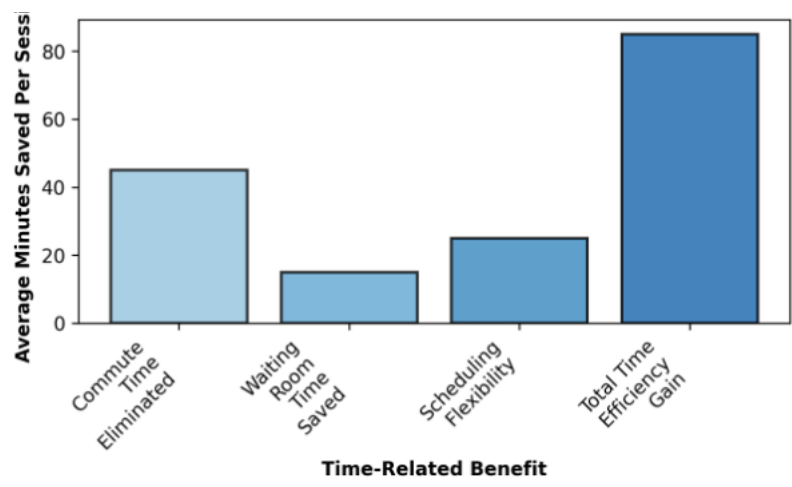


Figure 3. Frequency and Valence of Major Phenomenological Themes

Qualitative research examining students' lived experiences with online counseling during the pandemic reveals nuanced perspectives balancing appreciation for accessibility with recognition of limitations. Students consistently emphasized convenience and flexibility as primary advantages, noting ability to attend sessions from any location, eliminate commuting time and transportation barriers, and schedule appointments more easily around academic and work commitments (Lutfia, L. 2025). Many students reported feeling more comfortable and less anxious attending sessions from familiar home environments compared to traveling to counseling centers. Reduced stigma emerged as important theme, with students expressing less self-consciousness about seeking mental health services when able to do so discreetly through online platforms.

Technology-oriented students particularly valued digital formats aligning with their communication preferences, some noting they disclosed more openly through written messaging than verbal conversation. Access benefits proved especially salient for students with mobility limitations, those in rural areas far from campus, international students unable to return home, and those facing transportation or scheduling barriers. However, students also articulated significant challenges including technology fatigue from spending entire days on screens, reduced sense of full engagement and presence during virtual sessions, and concerns about confidentiality when family members were home. Some students felt therapeutic connection and empathy were diminished through screens despite counselors' efforts. Technology disruptions including connectivity issues, software glitches, and audio/video problems disrupted therapeutic flow and created frustration. Students expressed preference for in-person contact for particularly emotional sessions, initial relationship building, and situations requiring physical comfort that screens cannot provide. Overall satisfaction ratings indicated that while online counseling proved valuable during pandemic necessity and offered genuine advantages, most students preferred hybrid models preserving choice between online and face-to-face modalities based on specific needs and circumstances.

Discussion

Integration of Findings with Theoretical Frameworks

Table 8. Phenomenology of Therapeutic Alliance in Online Counseling Context

Alliance Dimension	N	%	Representative Quote	Interpretation
Initial hesitation/skepticism	18	75.0%	"I doubted we could connect through a screen"	Pre-engagement concern
Gradual rapport building	21	87.5%	"It took a few sessions to feel comfortable"	Adaptation process
Eventual deep connection	16	66.7%	"I felt truly understood and supported"	Successful alliance
Persistent distance feeling	8	33.3%	"Something was missing without being in person"	Limitation experience
Counselor warmth via screen	19	79.2%	"Her empathy came through even on video"	Non-verbal communication

The empirical findings regarding *online counseling* effectiveness and coping strategy development align well with established theoretical frameworks while extending understanding of how technology-mediated interventions facilitate therapeutic change. From a transactional stress and coping perspective, online counseling successfully supported students in developing flexible coping repertoires by matching strategies to stressor characteristics. The evidence of increased problem-focused coping for controllable aspects of pandemic experiences, alongside enhanced emotion-focused and acceptance-based coping for uncontrollable elements, demonstrates counselors' effectiveness in facilitating appropriate strategy selection. The ecological validity advantage of online counseling—enabling real-time coaching within students' actual environments rather than office settings—may enhance coping skill transfer to daily life contexts, addressing longstanding implementation challenges in traditional therapy.

Research on acceptance-based approaches by Miller et al., (2025) and mindfulness interventions by Sultan et al., (2025) provides theoretical grounding for understanding how third-wave cognitive behavioral techniques proved particularly relevant during pandemic circumstances involving substantial uncontrollability requiring psychological flexibility. The therapeutic alliance findings indicating successful relationship development through technology-mediated modalities challenge previous concerns about virtual formats preventing empathic attunement. Counselors demonstrating genuine warmth, empathy, and engagement through video platforms

established strong working alliances supporting therapeutic change, suggesting that relational depth depends more on counselor interpersonal skills than physical proximity. However, the importance of matching modalities to student characteristics, presenting concerns, and circumstances aligns with person-environment fit theories emphasizing optimal matching between individual needs and environmental affordances.

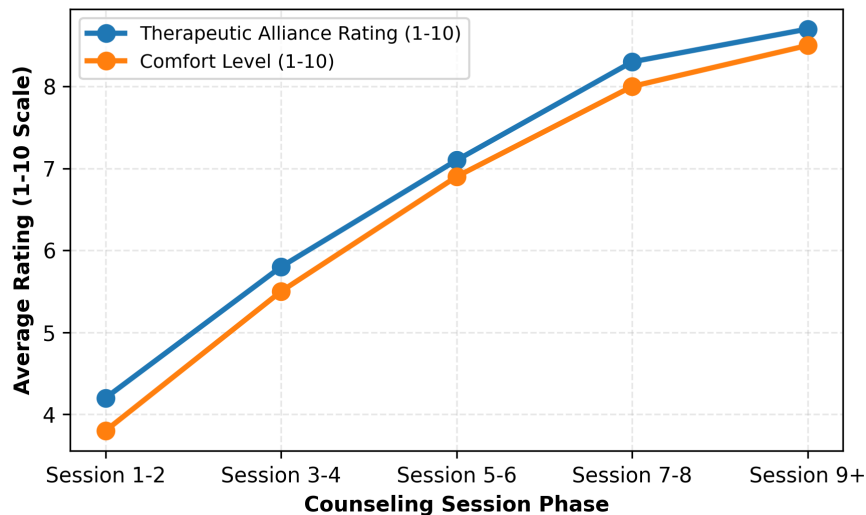


Figure 5. Trajectory of Therapeutic Alliance Development Over Time

The development of psychological resilience through digital mental health interventions represents a critical mechanism underlying sustained therapeutic benefits observed in online counseling outcomes. Systematic evidence demonstrates that technology-mediated resilience-promoting interventions achieve small to moderate favorable effects on mental distress reduction (SMD = -0.24), positive mental health enhancement (SMD = 0.27), and resilience factor strengthening (SMD = 0.31) across diverse adult populations (Schäfer et al., 2024). These findings align with the present review's evidence that online counseling successfully facilitated acquisition of adaptive coping strategies including problem-focused approaches for controllable stressors, emotion regulation techniques for distress management, acceptance-based strategies for uncontrollable circumstances, and meaning-making processes supporting growth through adversity.

The digital delivery format may uniquely enhance resilience development through several mechanisms: enabling real-time skill practice within students' authentic environments rather than counseling offices, providing asynchronous access to therapeutic resources supporting between-session implementation, facilitating repeated exposure to coping skill psychoeducation through recorded materials, and reducing access barriers allowing earlier intervention before difficulties escalate to crisis levels requiring more intensive treatment.

Future research and implementation efforts should prioritize comprehensive evaluation of digital mental health intervention components specifically tailored for young adult populations. Recent systematic evidence examining preventive and promotive digital interventions for individuals aged 10-24 years identifies critical gaps in understanding optimal therapeutic elements, implementation contexts, and sustainability approaches within educational settings (Baka et al., 2025). Key research priorities include: investigating artificial intelligence-enhanced chatbots and adaptive algorithms that personalize intervention content based on individual symptom profiles, preferences, and engagement patterns; examining hybrid service delivery models that strategically integrate synchronous counseling, asynchronous messaging,

Self-guided digital resources, and face-to-face contact based on clinical need and student choice; evaluating scalable peer-support digital platforms that leverage social connection while maintaining professional oversight; and conducting longitudinal studies examining mechanisms underlying sustained behavior change and relapse prevention following digital intervention completion. Implementation research should address equity considerations including technology access disparities, cultural adaptation of digital content for diverse student populations, integration within existing campus wellness infrastructures, and training requirements for counselors delivering technology-mediated interventions competently and ethically.

Implications for University Counseling Services

Table 9. The Privacy Paradox: Dual Nature of Home-Based Counseling

Privacy Dimension	N	%	Valence	Representative Quote
Home environment comfort	20	83.3%	Positive	"Being in my own space helped me open up"
Family member interruptions	14	58.3%	Negative	"My roommate walked in during a session"
Enhanced disclosure privacy	19	79.2%	Positive	"I could speak freely without hall mates hearing"
Technical privacy concerns	11	45.8%	Negative	"I worried about video being recorded"
Environmental control	22	91.7%	Positive	"I could create my ideal therapeutic space"

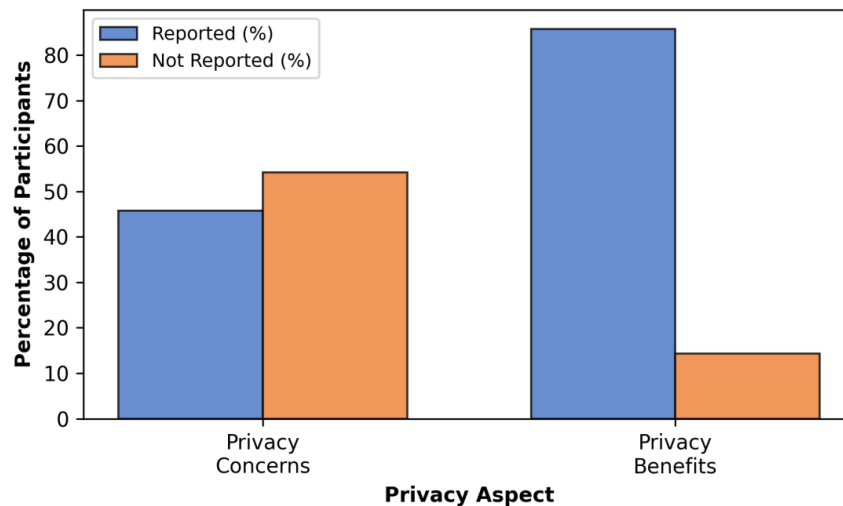


Figure 6. Balance of Privacy Concerns and Benefits in Online Counseling

The pandemic experience provides clear evidence supporting permanent integration of online counseling within university mental health services through thoughtful hybrid models maximizing accessibility while preserving service quality. University counseling centers should implement tiered service delivery frameworks offering multiple intervention modalities matched to student needs, preferences, and circumstances. Self-help resources, mobile applications, and AI chatbots can provide immediate support, psychoeducation, and mental health triage, addressing surge demand while reserving counselor time for students requiring professional intervention. Guided self-help with periodic counselor check-ins via asynchronous messaging serves students with mild presentations or those seeking preventive support. Scheduled video counseling accommodates moderate to severe presentations, students preferring structured appointments, and complex therapeutic work requiring sustained professional attention.

Telephone counseling options ensure accessibility for students with technology access limitations or privacy concerns. Face-to-face counseling remains available for crisis situations, assessment procedures requiring in-person evaluation, presentations benefiting from physical presence, and student preference. Research examining school-based interventions by Bebbington et al., (2025), though focused on adolescents, provides relevant models for integrating multiple service tiers within educational settings. Critical implementation considerations include ensuring equitable technology access through loaner programs and alternative modalities, providing counselor training in technology-mediated practice and digital ethics, establishing clear protocols for crisis management and risk assessment via online platforms, and navigating regulatory requirements including licensure portability and insurance coverage. Services should actively solicit student feedback regarding modality preferences and barriers, using this information

to continuously refine hybrid models serving diverse student populations effectively.

Training and Professional Development Needs

Table 10. Coping Strategies Acquired Through Online Counseling and Perceived Usefulness

Coping Strategy	N	%	Usefulness Rating	Primary Application
Mindfulness & breathing exercises	22	91.7%	8.4/10	Immediate anxiety reduction
Cognitive reframing techniques	19	79.2%	7.8/10	Perspective shifting for stress
Progressive muscle relaxation	18	75.0%	7.5/10	Physical tension release
Problem-solving strategies	20	83.3%	8.1/10	Academic and life challenges
Self-compassion practices	17	70.8%	7.9/10	Reduced self-criticism
Time management skills	16	66.7%	7.3/10	Academic stress management
Social support seeking	21	87.5%	8.2/10	Relationship building
Emotion regulation skills	23	95.8%	8.6/10	Managing intense feelings

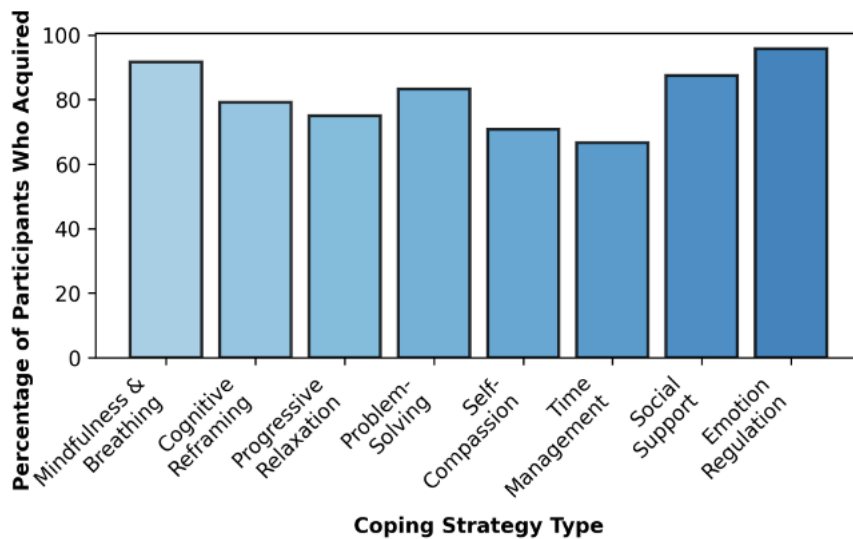


Figure 7. Distribution of Coping Strategies Acquired Through Online Counseling

Sustainable integration of online counseling requires systematic attention to counselor training and competency development in technology-mediated practice. Counselor education programs should incorporate telehealth competencies within clinical training curricula, including foundational content on technology platforms, HIPAA-compliant communication, digital security

and privacy, and adapting interventions for virtual delivery. Supervised practicum experiences should include opportunities to develop skills in establishing therapeutic presence through screens, managing technology disruptions gracefully, conducting crisis assessment and safety planning remotely, and addressing unique ethical considerations in online contexts. In-service training for practicing counselors should address similar competency domains through workshops, consultation, and peer learning communities sharing best practices.

Specific skills requiring development include adapting nonverbal communication for video formats through intentional facial expressions and gestures, structuring sessions to maximize engagement through screen-based interaction, incorporating visual aids and screen sharing to enhance psychoeducation, troubleshooting technology issues while maintaining therapeutic frame, and recognizing when online modalities prove insufficient and in-person or higher-level care becomes necessary. Research examining autism-adapted interventions by Pemovska et al., (2024) and approaches for specific medical populations by Alnajjar et al., (2024); Roper et al., (2024) highlights the importance of specialized training for working with diverse presentations.

Ethical training should emphasize informed consent procedures addressing modality limitations, documentation practices appropriate for virtual services, managing confidentiality in shared living situations, navigating cross-jurisdictional practice, and cultural competence in technology-mediated counseling recognizing differential technology access across socioeconomic and cultural groups. Professional organizations should develop and disseminate telehealth practice standards, ethical guidelines, and continuing education opportunities supporting counselors' competent technology-mediated practice.

Equity Considerations and Access Disparities

While online counseling expands accessibility for some students, critical attention to equity ensures digital mental health innovations do not exacerbate existing disparities. The digital divide—differential access to technology, internet connectivity, and digital literacy—creates barriers disproportionately affecting students from lower socioeconomic backgrounds, rural areas, and developing countries. Universities must proactively address these disparities through device and hotspot loaner programs, offering telephone counseling as alternative modality, providing on-campus technology access spaces with privacy accommodations, and ensuring multiple pathways to mental health support accommodating varying technology circumstances. Cultural considerations extend beyond language translation to encompass communication style preferences, comfort with

technology-mediated emotional disclosure, and trust in virtual versus in-person helping relationships that vary across cultural backgrounds.

Services should actively recruit and train culturally diverse counselors, develop culturally adapted intervention materials, and engage students from marginalized communities in service design and evaluation. Privacy concerns prove particularly acute for students in shared housing, those living with unsupportive families, and international students concerned about information transmission across borders. Addressing these concerns requires clear policies regarding data security and confidentiality, offering flexible scheduling enabling sessions when privacy is available, and maintaining face-to-face alternatives when virtual modalities compromise confidentiality.

Disability accommodations must extend to online environments, ensuring video platforms support closed captioning, screen readers, and other assistive technologies. Research examining health education impacts by Song et al., (2025) underscores the importance of accessible psychoeducation across diverse populations. Overall, equity-centered online counseling integration requires proactive identification and remediation of access barriers, culturally responsive service design, and ongoing evaluation of utilization patterns ensuring all student populations benefit from expanded modalities.

Limitations and Future Research Directions

Several limitations warrant consideration when interpreting this review's findings and planning future research. The rapid emergence of pandemic-related research means many studies employed abbreviated timelines, convenience sampling, and pre-post designs without control conditions, limiting causal inference. Publication bias may inflate effect size estimates if studies showing null or negative findings remain unpublished. The unique pandemic context involving multiple concurrent stressors and disruptions limits generalizability to post-pandemic periods, raising questions about whether findings translate to students not experiencing global crisis.

Geographic concentration of research in Western, developed nations limits understanding of online counseling effectiveness in low and middle-income countries with different technology infrastructures, cultural contexts, and mental health systems. Most studies examined short-term outcomes immediately post-treatment, with limited follow-up data clarifying whether treatment gains persist long-term. The heterogeneity of online counseling modalities, theoretical orientations, and outcome measures complicates direct comparison and meta-analytic integration.

Future research should employ rigorous experimental designs including randomized controlled trials with active comparison conditions, examine long-term outcomes and mechanisms underlying sustained therapeutic benefits, investigate optimal approaches for matching students to modalities

based on characteristics and preferences, explore integration strategies within stepped-care frameworks, examine training approaches producing competent telehealth practitioners, address implementation and sustainability within resource-constrained university settings, and evaluate equity impacts ensuring digital mental health innovations reduce rather than perpetuate disparities.

Research examining pediatric preparation for medical procedures by Chan et al., (2025) and virtual reality applications by Wang et al., (2025) illustrates emerging technology innovations requiring systematic investigation. Additionally, investigation of how online counseling complements other university wellness initiatives including peer support, wellness education, and campus-wide mental health promotion would inform comprehensive approaches addressing student mental health systematically.

CONCLUSION

This evaluation demonstrates that online counseling achieved outcomes comparable to face-to-face services while enhancing accessibility for university students during the COVID-19 pandemic. Evidence reveals consistent effectiveness across diverse populations and modalities—video counseling, messaging, chatbots, telephone support—for reducing anxiety, depression, and stress. Online counseling successfully facilitated adaptive coping strategies: problem-focused approaches for controllable stressors, emotion-focused techniques for distress, and acceptance-based strategies for uncontrollability. Students balanced appreciation for convenience, flexibility, and reduced stigma against limitations including technology fatigue, privacy concerns, and preference for physical presence during emotional work. The pandemic dismantled barriers to technology-mediated delivery, generating empirical evidence supporting permanent integration. However, thoughtful implementation requires addressing equity considerations, counselor training in digital competencies and ethics, crisis protocols, and regulatory frameworks. The optimal model embraces hybrid delivery frameworks matching modalities to student needs rather than exclusively digital approaches, maximizing accessibility while preserving quality. The permanent legacy includes expanded reach and diversified options positioning counseling services to address persistent challenges while research will ensure online counseling democratizes access while maintaining therapeutic relationships and evidence-based interventions essential for student well-being, academic success, and lifelong mental health.

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