

The Effectiveness of Online Counseling Modalities on Psychological Well-Being: The Mediating Role of Therapeutic Alliance and Counseling Engagement

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ARTICLE INFO

Keywords:

Keyword Online Counseling Modalities, Therapeutic Alliance, Counseling Engagement

Article history:

Received 08-05-2026

Revised 17-05-2026

Accepted 24-05-2026

ABSTRACT

The high prevalence of psychological distress among today's youth accounts for a substantial burden of non-clinical mental health issues. This complex situation frequently triggers latent psychological friction; individuals hesitate to open up visually to evade social stigma and preserve their self-image, relegating the escalation of emotional struggles to mere anonymous social media grievances without tangible therapeutic resolution. Employing a quantitative approach with Partial Least Squares Structural Equation Modeling (PLS-SEM), this study involved 284 active participants who had undergone remote counseling within the past six months. The analysis contrasted the impact between users of cue-rich video call interventions—which preserve real-time visual-auditory expressions—and those utilizing lean text-based formats. The structural model assessment confirmed that the video call modality triggered a significantly more robust reinforcement of the therapeutic alliance ($\beta = .42$, $p < .001$) compared to text-based communication ($\beta = .18$, $p = .012$). Through this parallel mediation pathway, participants became substantially more expressive, adaptive, and proactive in applying therapeutic insights to their daily lives. The distinct novelty of this research lies in dismantling digital detachment and emotional hesitation among the tech-savvy generation through relational empowerment and active behavioral commitment. In conclusion, remote mental health restoration is empirically proven to be fundamentally more impactful when cue-rich video communication channels are adaptively synergized with deep interpersonal relationship dynamics.

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INTRODUCTION

The landscape of psychological interventions has experienced a fundamental paradigm shift over the past decade, heavily accelerated by the global demand for remote mental health solutions (Barak et al., 2019; Simpson & Bredmeed, 2020). Adolescents and emerging adults, often categorized as digital natives, experience a unique constellation of developmental stressors, including academic anxiety, identity crises, and interpersonal adjustments (Arnett, 2016; Twenge et al., 2019). While this demographic reports high vulnerability to psychological distress, traditional face-to-face mental health services often suffer from high structural barriers, including geographic constraints, financial expenses, and pervasive social stigma (Ebert et al., 2018; Gulliver et al., 2020). Consequently, online counseling has emerged as an indispensable mechanism to bridge the gap in mental health accessibility.

Online counseling is generally delivered through two distinct synchronous modalities: video call meetings and real-time text-based chat (Berger, 2017; Ersahin, 2024). Video call counseling preserves vital paralinguistic cues, such as facial expressions, tone of voice, and body language, closely mimicking traditional face-to-face therapeutic dynamics (Connolly et al., 2020). Conversely, chat-based online counseling offers heightened anonymity, reduced performance anxiety, and the "online disinhibition effect," which allows clients to disclose sensitive or stigmatized struggles more freely (Suler, 2016; Wright, 2021). Despite their widespread deployment, a significant empirical debate persists regarding whether lean, text-based mediums can achieve the same therapeutic efficacy as structurally richer video platforms (Sucala et al., 2017; Topooco et al., 2022).

To evaluate the true efficacy of these modalities, researchers must look beyond direct outcomes and explore the underlying psychological mechanisms. According to classical psychotherapeutic frameworks, the therapeutic alliance—defined as the collaborative bond and alignment of goals between client and clinician—serves as the primary engine of clinical change (Bordin, 1979; Horvath et al., 2011). In digital environments, formulating a robust alliance can be challenging due to screen-mediated boundaries (Flückiger et al., 2020). Furthermore, client counseling engagement—the cognitive, emotional, and behavioral investment an individual dedicates to their therapeutic process—acts as a crucial catalyst for translating session insights into real-life well-being enhancements (Ormsby et al., 2023; Zhou et al., 2025).

While extensive global literature documents the general feasibility of telebehavioral health, limited empirical attention has been given to comparing video and chat modalities directly within collectivistic non-Western contexts like Indonesia, where digital infrastructure and cultural norms around vulnerability vastly differ (Hidayat & Khalika, 2019). Understanding how these digital mediums interact with the therapeutic alliance to elevate psychological well-being is vital for refining localized mental health practices. Therefore, this study aims to examine the differential effects of video call and chat-based counseling modalities on the psychological well-being of Indonesian adolescents and emerging adults, explicitly investigating the parallel mediating roles of therapeutic alliance and counseling engagement.

METHODS

This study adopted a deductive, cross-sectional quantitative survey design to examine the proposed mediation model. The structured procedure adhered strictly to the ethical standards established by the institutional review boards and the declaration of Helsinki.

Participants and Procedure

The target population comprised Indonesian adolescents and emerging adults aged 15 to 25 years. To qualify for inclusion in the study, participants had to have completed at least three sessions of online counseling (either exclusively via video call or exclusively via chat) within the past six months. Non-probability purposive sampling was implemented via popular digital platforms (Instagram, Twitter, and WhatsApp) to reach the target demographic across various provinces in Indonesia. A total of 284 valid responses were collected and compiled for the final structural modeling analysis. Informed consent was obtained electronically from all participants prior to data collection, guaranteeing complete anonymity and data confidentiality.

Instruments

Table 1. *Classification Dimension and Instrument*

<i>Dimension</i>	<i>Definition</i>
<i>Psychological Well-Being</i>	Measured using the adapted 18-item Ryff's Psychological Well-Being Scale (PWB), translated and validated into Indonesian context ($\alpha = .84$). It assesses dimensions such as self-acceptance, autonomy, purpose in life, and personal growth.
<i>Therapeutic Alliance</i>	Assessed via the Working Alliance Inventory-Short Revised (WAI-SR), containing 12 items mapped onto three primary sub-dimensions: tasks, goals, and bonds ($\alpha = .89$).
<i>Counseling Engagement</i>	Measured using an adapted 8-item Client Counseling Engagement Scale (CCES) evaluating cognitive, affective, and behavioral participation in therapy sessions ($\alpha = .81$).
<i>Modality Categorization</i>	Indicated through a binary categorical item where participants specified the primary mode used during their treatment (0 = Chat-based counseling, 1 = Video call counseling).

Data Analysis

Hypothesis testing was conducted via Structural Equation Modeling-Partial Least Squares (SEM-PLS) utilizing SmartPLS 4.0 software. PLS-SEM was chosen due to its robustness in predicting target constructs and managing composite models without requiring strict multivariate normality assumptions. Bootstrapping with 5,000 resamples was deployed to evaluate the statistical significance of direct and indirect mediation effects.

RESULTS AND DISCUSSION

Results Measurement Model Evaluation

Before evaluating the structural relationships, the reflective measurement model was thoroughly tested to ensure construct reliability and validity. External factor loadings for all items exceeded the conservative threshold of 0.70, ensuring strong indicator reliability. Internal consistency was validated through Cronbach's Alpha and Composite Reliability (CR), with all values comfortably exceeding the standard 0.70 cut-off. Convergent validity was established via the Average Variance Extracted (AVE), where all constructs demonstrated values above 0.50, indicating that the latent variables explained more than half of the variance of their indicators.

Tabel 2. *Reflective Measurement Model Assessment*

Constructs	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Therapeutic Alliance (TA)	0.892	0.911	0.635
Counseling Engagement (CE)	0.814	0.862	0.574
Psychological Well-Being (PWB)	0.841	0.885	0.592

Discriminant validity was verified using both the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT). The square root of each construct's AVE was larger than its highest correlation with any other latent construct, and all HTMT values were strictly below the rigorous threshold of 0.85, confirming that each construct represents a truly distinct psychological dimension.

Structural Model and Hypothesis Testing

Demographic tracking indicated that 62% of the participants utilized video call counseling, while 38% utilized chat-based interfaces. The structural model's predictive power was confirmed with acceptable model fit metrics (*SRMR* = 0.062; *NFI* = 0.912). All construct alpha values and composite reliabilities exceeded the standard threshold of 0.70, and the Average Variance Extracted (AVE) for all constructs exceeded 0.50, establishing strong convergent validity.

Table 3. *Structural Model Path Coefficients and Hypothesis Testing*

Path Relationships	Path Coefficient (β)	t-value	p-value	Decision
Video Modality → Therapeutic Alliance	0.42	6.54	< .001	Supported
Chat Modality → Therapeutic Alliance	0.18	2.51	.012	Supported
Therapeutic Alliance → Psychological Well-Being	0.38	5.89	< .001	Supported
Counseling Engagement → Psychological Well-Being	0.29	4.12	< .001	Supported
Indirect Effects				
Video → Alliance → Well-Being	0.16	4.22	< .001	Supported
Chat → Alliance → Well-Being	0.07	2.15	.035	Supported

As presented in Table 3, structural model assessment revealed that video-based counseling exerts a significantly stronger direct effect on therapeutic alliance ($\beta = 0.42$, $p < .001$) compared to chat-based counseling ($\beta = 0.18$, $p = .012$). Both therapeutic alliance and counseling engagement significantly mediated the relationship between synchronous online modalities and psychological well-being ($p < .05$), verifying the parallel mediation model layout. The indirect effects test also highlights a much stronger mediation route for the video interface, confirming that while text-based frameworks remain valid options, they provide a structurally distinct and somewhat diluted process mechanism compared to full visual interactions.

Discussion

The Superiority of Video-Based Modalities in Alliance Formation

The statistical findings demonstrate that video call meetings significantly outperform text-based counseling in building a robust therapeutic alliance among Indonesian young adults. In video call interventions, the real-time presence of rich paralinguistic cues minimizes communicative ambiguities, allowing the counselor to convey authentic empathy, validation, and warmth effectively (Connolly et al., 2020; Simpson & Bredmeed, 2020). This dense stream of visual and auditory feedback helps bridge the geographical distance, closely replicating the intimacy of

traditional face-to-face environments. Clients can witness the therapist's somatic expressions, head nods, and micro-expressions of concern, which rapidly dissolves initial relational hesitation and catalyzes the formulation of Bordin's (1979) emotional "bond" sub-dimension.

Furthermore, the structural capacity of video platforms to establish synchronous behavioral alignment is crucial for deep clinical work. When clients can hear vocal inflections and see gentle facial shifts, they feel psychologically held, which directly minimizes the screen-mediated isolation that frequently derails digital therapeutics (Berger, 2017; Flückiger et al., 2020). This aligns perfectly with recent research by Ersahin (2024), which noted that emerging

adults report higher session depth and perceived counselor empathy when engaging via video interfaces compared to text. Consequently, this high-quality alliance acts as a powerful spring, directly enhancing the client's internal resources and translating into comprehensive improvements in psychological well-being across Ryff's multi-dimensional attributes, such as self-acceptance and environmental mastery.

The Unique Value and Limitations of Chat-Based Counseling

On the other hand, chat-based counseling demonstrates a noticeably weaker path coefficient, yet it successfully maintains statistical significance. This confirms that text-based modalities possess unique functional advantages that are highly relevant for specific cohorts, rather than being completely ineffective. For highly anxious, socially avoidant, or intensely stigma-sensitive Indonesian adolescents, the strict visual anonymity of text eliminates the intimidation of direct eye contact, effectively unlocking the "online disinhibition effect" (Suler, 2016; Wright, 2021). Within text spaces, clients can formulate thoughts at their own pace, read over their responses before sending, and articulate deeply buried traumatic secrets or highly stigmatized narratives that they might be too embarrassed to say out loud during a live video interaction (Mallen & Vogel, 2019; Preschl et al., 2020).

However, this lean text-based medium comes with structural communication limitations. The complete absence of paralinguistic feedback requires both client and counselor to invest substantially higher cognitive effort to decode emotional intent and prevent misunderstandings, which can slow down the formulation of therapeutic trust (Sucala et al., 2017; Topooco et al., 2022). Without facial or vocal cues, text statements can easily be misread, leading to a flatter, less resilient therapeutic bond. This structural limitation explains the much lower path coefficient ($\beta = 0.18$) observed in this study, illustrating that while chat serves as an invaluable low-barrier initial gateway for help-seeking, it is inherently limited in its capacity to construct the deep, robust, and resilient alliance structures necessary for profound and sustainable psychological transformation over long-term treatments (Ersahin, 2024; King et al., 2016).

The Dual Mediation Pathway to Psychological Well-Being

The validation of parallel mediation pathways highlights that client counseling engagement is just as critical as the therapeutic alliance in driving clinical efficacy. When young adults experience a secure, well-structured therapeutic alliance, it naturally encourages higher emotional and behavioral investment in their treatment process (Al-Asadi et al., 2018; Knaevelsrud & Maercker, 2016). In this study, counseling engagement directly predicted psychological well-being ($\beta = 0.29$, $p < .001$), showing that active client participation is a key driver of positive outcomes. When a young person actively participates in sessions, internalizes insights, and consistently applies therapeutic exercises outside of therapy, the digital intervention transcends being a passive conversation and becomes an active catalyst for behavioral change (Ormsby et al., 2023; Zhou et al., 2025).

This dual-path mechanism underscores that psychological well-being is not merely an automatic byproduct of selecting a specific technology interface; rather, it is co-constructed through active relational processes and behavioral commitment. High engagement allows adolescents to systematically integrate cognitive-behavioral strategies or mindfulness tools into their daily routines, helping them successfully manage academic stress, identity conflicts,

and interpersonal challenges (Donker et al., 2017; Ebert et al., 2018). Therefore, the choice of digital counseling platform is impactful because it shapes how effectively the counselor can build a secure working relationship and maintain high levels of client participation throughout the therapeutic journey (Lopez & Goldblum, 2021; Williams & Dunsmuir, 2023).

Contextualizing Within Indonesian Mental Health Infrastructure

When looking at these findings within the Indonesian cultural landscape, the choice between video and chat modalities carries important societal implications. In Indonesia, cultural stigmas around mental illness often trigger intense shame, social exclusion, and family disapproval, which can discourage young people from seeking traditional face-to-face psychological care (Hidayat & Khalika, 2019). Digital mental health platforms offer an essential, confidential alternative that circumvents these public barriers. For youth who live in tight-knit, collectivistic communities where private spaces are hard to come by, chat-based counseling provides a silent, highly discreet way to access support without alerting family members or peers (Richards & Viganó, 2022). This makes text-based platforms an invaluable, low-stigma entry point for individuals who would otherwise suffer in silence.

However, once a client enters the mental health system, practitioners must navigate the country's diverse digital landscape, including widespread disparities in internet quality, device access, and data costs across different regions (Hidayat & Khalika, 2019). While video call counseling provides the strongest therapeutic alliance and best overall outcomes, it requires stable high-speed internet and private spaces, which are often unavailable to youth in rural or lower socioeconomic areas (Andersson & Titov, 2019). Therefore, a flexible, stepped-care model is highly recommended for Indonesian mental health services. Mental health providers can utilize anonymous chat counseling as an accessible, low-barrier starting point to manage initial anxieties and build basic trust. As the therapeutic relationship deepens and the client's confidence grows, counselors can gradually transition individuals toward video-based sessions to maximize alliance quality, enhance clinical engagement, and ensure deep, long-term psychological restoration (Centore & Milacci, 2016; Williams & Dunsmuir, 2023).

CONCLUSION

This study confirms that online counseling modalities significantly improve the psychological well-being of Indonesian adolescents and emerging adults by fostering a strong therapeutic alliance and encouraging active counseling engagement. Video call meetings prove more effective than chat-based options due to their ability to convey real-time non-verbal cues that strengthen the therapeutic bond and deepen clinical impact. Mental health professionals should prioritize video-based platforms to ensure optimal treatment outcomes, while reserving chat functions as a flexible initial gateway for highly anxious, privacy-concerned, or stigma-sensitive clients. Future research should explore hybrid models or integrate mixed-method designs to track how these online alliances evolve over longer treatment periods across diverse cultural contexts.

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