

AI Applications in Psychological and Educational Assessment During Emergencies: A Qualitative Study from Palestinian Specialists' Perspectives

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Abstract

Background: Despite growing global interest in AI applications for psychological and educational assessment, practitioners in protracted conflict settings remain underrepresented in the scholarly literature. Palestinian specialists operate under chronic emergency conditions that simultaneously intensify demand for scalable assessment tools and complicate their deployment.

Objectives: To explore Palestinian psychological and educational specialists' perspectives on AI use in assessment during emergencies, examine associated professional and ethical considerations, identify contextual challenges, and derive recommendations for sustainable integration.

Methods: This study employed a qualitative grounded theory design. Thirteen Palestinian specialists practicing in the West Bank were recruited through purposive sampling. Data were collected via semi-structured interviews conducted between March and June 2025, and subsequently analyzed through open, axial, and selective coding.

Results: Six emergent categories were identified, converging around a central core category labeled *Conditional Readiness*. The majority of participants reported no prior use of AI in assessment, attributing this absence not to principled objections but to structural barriers. Despite limited direct experience, all participants acknowledged the potential utility of AI in emergency contexts, while unanimously emphasizing the inviolability of the human therapeutic relationship. The primary constraints highlighted included the lack of professional training, the cultural and linguistic unsuitability of existing tools, regulatory vacuums, and politically situated data security concerns uniquely shaped by the occupation context.

Conclusions: Palestinian specialists demonstrate a positive but conditions-dependent orientation toward AI adoption, constrained by intersecting technological, cultural, and political deficits. Sustainable integration requires culturally validated Arabic tools, specialist training, and professional ethics frameworks responsive to the Palestinian context. Findings offer a context-sensitive contribution to AI adoption theory applicable to humanitarian and conflict-affected settings.

Keywords: Artificial intelligence; psychological assessment; educational assessment; emergency conditions; Palestinian specialists; grounded theory; digital mental health; humanitarian setting.

INTRODUCTION

The rapid proliferation of artificial intelligence (AI) technologies across scientific and applied disciplines has fundamentally reshaped the landscape of human services, including mental health and education. Over the past decade, AI-driven tools have been progressively integrated into psychological and educational assessment systems, offering unprecedented capacities for data collection, pattern recognition, and decision support (Torous et al., 2021; Luxton, 2020). From machine learning algorithms that assist in differential diagnosis to natural language processing tools that analyze behavioral and emotional indicators, AI applications have demonstrated considerable promise in augmenting the precision and efficiency of psychological measurement (Graham et al. 2019; Insel, 2017). This trajectory has been particularly pronounced in technologically advanced contexts, where AI-enabled platforms are increasingly embedded within clinical, educational, and community mental health infrastructures. Yet, the relevance of AI-assisted assessment extends well beyond routine practice. In humanitarian and emergency contexts — characterized by mass displacement, infrastructural collapse, and acute psychological distress — the demand for scalable, rapid, and culturally responsive assessment tools is especially pressing (Inter-Agency Standing Committee, 2007; Tol et al., 2011a). Emergencies generate conditions in which traditional face-to-face assessment becomes logistically constrained, professionally understaffed, and temporally insufficient to meet the scope of psychological need. It is within this critical intersection — AI applications and crisis-context assessment — that a significant gap in both research and professional practice persists.

Globally, scholarly discourse on AI in mental health has grown substantially, with mounting evidence attesting to its utility in screening, monitoring, and triage functions (Miner et al., 2017; Graham et al., 2019). However, this body of literature remains disproportionately anchored in high-income, Western contexts, and is predominantly quantitative in orientation. The lived professional experiences of practitioners operating within resource-constrained, conflict-affected, or politically marginalized settings have received markedly less scholarly attention. In the Arab world more broadly, and in Palestine specifically, empirical research examining professionals' engagement with AI-based psychological tools remains exceedingly sparse, constituting a substantive lacuna in both regional and global knowledge bases.

The Palestinian context is of particular scholarly and humanitarian significance. Palestinians in the West Bank have endured sustained conditions of political instability, military incursions, economic restriction, and recurrent cycles of emergency — circumstances that place extraordinary demands on mental health and educational systems alike (Giacaman et al., 2011; Tol et al., 2011b). Within this milieu, psychological and educational specialists are compelled to conduct assessments under conditions of infrastructural fragility, including intermittent electricity and internet access, limited institutional resources, and the absence of professionally sanctioned protocols for integrating emerging technologies into practice. Despite these realities, and the potential that AI tools may hold for supporting professionals in such settings, no qualitative study — to the authors' knowledge — has systematically explored Palestinian specialists' perspectives on the use of AI in psychological and educational assessment during emergencies.

This study addresses that gap. Drawing on grounded theory methodology and semi-structured interviews with fifteen Palestinian psychological and educational specialists, the present research aims to: (1) explore practitioners' perspectives on AI applications in psychological and educational assessment; (2) examine the professional considerations associated with such use; (3) identify context-

specific challenges encountered during emergencies; and (4) derive practitioners' recommendations for ensuring the effective and sustainable integration of psychological technology. In doing so, this study contributes an empirically grounded, culturally situated account to an international literature that has, thus far, largely overlooked the professional realities of specialists working within protracted crisis environments. The findings are anticipated to inform both policy and practice, offering a foundation for the development of locally appropriate, ethically grounded frameworks for AI adoption in Palestinian mental health and educational settings.

Research Objectives

1. To explore the perspectives of Palestinian psychologists regarding the use of artificial intelligence applications in psychological and educational assessment.
2. To examine the professional considerations associated with the use of artificial intelligence applications in psychological and educational assessment from the perspectives of Palestinian psychological and educational specialists.
3. To identify the challenges of using artificial intelligence applications in psychological and educational assessment from the perspectives of Palestinian psychological and educational specialists during times of emergency.
4. To derive the recommendations of Palestinian psychological and educational specialists to ensure the effective and sustainable use of psychological technology.

Research Questions

1. What are the perspectives of Palestinian psychological and educational specialists regarding the use of artificial intelligence applications in psychological assessment?
2. What are the main professional considerations associated with the use of artificial intelligence applications in psychological and educational assessment from the perspectives of Palestinian psychological and educational specialists?
3. What are the challenges of using artificial intelligence applications in psychological and educational assessment from the perspectives of Palestinian psychological and educational specialists?
4. What are the key recommendations of Palestinian psychological and educational specialists to ensure the effective and sustainable use of psychological technology?

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

AI in Psychological and Social Sciences: Global Trends and Arab Gaps

Artificial intelligence (AI)—including machine learning, deep learning, NLP, and large language models—has become a transformative force in psychological and social sciences, enabling data-driven diagnosis and intervention (Ali et al., 2025). It is widely used in mental health research, particularly for diagnosing disorders such as depression, anxiety, schizophrenia, and suicide risk, with algorithms like support vector machines and random forests dominating diagnostic tasks, and chatbots leading interventions (Cruz-Gonzalez et al., 2025).

However, this growth is uneven. Most research is concentrated in high-income Western contexts, with limited representation from low- and middle-income regions. AI applications also focus narrowly on certain disorders, reflecting gaps in both scope and cultural adaptation (Ali et al., 2025). The Arab world exemplifies this disparity. Despite its large population, Arabic AI mental health research is scarce, with few studies and limited culturally validated tools (Bardus et al., 2025). Awareness among professionals varies, and while some Gulf countries have advanced AI policies, mental health applications remain limited (Al-Qerem et al., 2023; Solaiman, 2024).

AI in Psychological and Educational Assessment

Assessment involves tools such as tests, interviews, and observations to evaluate cognitive and emotional functioning (Kohrt & Kaiser, 2021). AI enhances these processes through multimodal data integration (e.g., text, voice, wearable data), enabling more personalized and continuous assessment. Generative AI tools (e.g., ChatGPT, Bard, Claude) show potential in psychoeducation and support but

remain limited in diagnostic accuracy and cultural competence. Specialized platforms (e.g., CogniFit, Moodpath, Q-interactive) and chatbots (e.g., Wysa, Talkspace) improve accessibility, though concerns persist regarding clinical reliability (Cruz-Gonzalez et al., 2025). Ethical challenges include data privacy, algorithmic bias, and limited interpretability, especially when AI informs high-stakes decisions (Ali et al., 2025).

Assessment in Emergencies

Humanitarian crises significantly increase mental health needs, with high rates of disorders such as PTSD, anxiety, and depression. Assessment in these contexts is constrained by instability, limited resources, and challenges to validity across cultures (Kohrt & Kaiser, 2021). Workforce shortages and disrupted infrastructure necessitate scalable solutions, while remote and digital assessment becomes essential due to restricted mobility and school closures (Bangpan et al., 2024).

AI in Crisis Contexts

AI offers promising applications in emergencies, including mental health monitoring, triage, telehealth, and chatbot-based support (Haykal et al., 2025). It enables continuity of care despite disruption and supports efficient resource allocation. Yet challenges remain, including data security risks, limited inclusivity, and algorithmic bias—especially in culturally diverse or conflict-affected populations. Evidence is still largely derived from stable, high-income settings, limiting generalizability (Ali et al., 2025).

Palestinian Context and Research Gap

The Palestinian context is marked by prolonged conflict and high psychological distress, with elevated rates of depression and PTSD (Mahamid et al., 2025). Mental health professionals face burnout and operational constraints, while infrastructure limitations hinder service delivery and research (Bdier et al., 2024). Despite urgent needs, AI integration in assessment remains minimal due to resource and systemic barriers. Critically, there is a lack of research on how Palestinian professionals perceive and use AI in emergency contexts. This study addresses this gap by providing a context-specific, practitioner-focused perspective.

METHODOLOGY

Research Design

This study employed a qualitative research design grounded in constructivist epistemology, which positions knowledge as socially constructed through the lived experiences and interpretive frameworks of participants (Creswell & Poth, 2018). Grounded theory methodology, as developed by Strauss and Corbin (1998), guided the analytical process, enabling the systematic generation of theory from empirical data rather than the testing of predetermined hypotheses. This approach was selected given the absence of established theoretical frameworks addressing AI adoption in psychological and educational assessment within the Palestinian emergency context, rendering an inductive, discovery-oriented design most appropriate.

Research Setting and Population

The study was conducted in the West Bank, Palestine, between March and June 2025. The target population comprised Palestinian psychological and educational specialists actively engaged in counseling, psychological assessment, or educational support services across school, clinical, and community settings.

Sampling

Purposive sampling was employed to ensure that participants possessed direct professional relevance to the study's aims. Inclusion criteria required that participants hold recognized professional qualifications in psychology or educational counseling, be actively practicing in the West Bank, and possess either practical experience with or informed professional awareness of AI applications in

psychological or educational contexts. A sample of thirteen participants was recruited, consistent with grounded theory conventions wherein theoretical sufficiency — rather than statistical representativeness — governs sample adequacy (Strauss & Corbin, 1998).

Data Collection

Data were collected through semi-structured interviews using a researcher-developed interview guide comprising four thematic sections aligned with the study's objectives: (1) perspectives on AI use in assessment, (2) professional and ethical considerations, (3) challenges encountered during emergencies, and (4) recommendations for sustainable technology integration. Each section contained open-ended questions designed to elicit narrative elaboration. The guide was reviewed by a panel of subject-matter experts for content validity and piloted with two practitioners prior to full deployment. All interviews were audio-recorded following written informed consent, conducted in Arabic, and subsequently transcribed verbatim.

Data Analysis

Transcripts were analyzed using grounded theory's three-stage coding procedure. Open coding disaggregated raw data into discrete conceptual units; axial coding identified relationships among codes and organized them into emergent categories; and selective coding integrated categories around a unifying core category (Strauss & Corbin, 1998). Constant comparative analysis was applied throughout, whereby each new unit of data was systematically compared with previously coded material to refine conceptual boundaries and identify theoretical patterns.

Trustworthiness

Credibility was strengthened through member checking, whereby summary findings were returned to a subset of participants for verification. Transferability was supported through thick description of the research context. Dependability was established through the maintenance of an audit trail documenting analytical decisions. Confirmability was enhanced through researcher reflexivity and the independent review of coding by a second researcher, with discrepancies resolved through discussion (Lincoln & Guba, 1985).

Ethical Considerations

Ethical approval was obtained from the relevant institutional review boards prior to data collection. All participants provided written informed consent and were assured of the confidentiality of their responses, the anonymity of all identifying information in any published outputs, and their right to withdraw from the study at any stage without consequence.

FINDINGS

Analytical Framework

Data from all thirteen semi-structured interviews with Palestinian psychological and educational specialists were analyzed using grounded theory methodology through three sequential coding stages: open coding, axial coding, and selective coding. The core category emerging from selective coding is designated "Conditional Readiness" — reflecting Palestinian specialists' contingent, context-shaped, and variably bounded orientation toward AI adoption in psychological and educational assessment during emergencies.

Table 1: Participant Profile Overview (Full Sample, n=13)

#	Gender	Setting	Prior AI Use	Familiarity	Named Applications

P1	—	School/Community	No	Low — heard of tools	None
P2	—	Counseling	No	Very low	None
P3	F	Clinical/Community	Yes — active	High	ChatGPT, CogniFit, Moodpath, Wombat
P4	M	Educational	No	Low	None
P5	F	Educational	No	Moderate	None
P6	F	Educational/Clinical	No	Moderate	ChatGPT (secondhand)
P7	F	Clinical	Yes — active	High	Talkspace, Wysa, Q-interactive, ChatGPT, Bard, Google/MS Forms
P8	F	Clinical/Educational	Very limited	Low-moderate	None named
P9	F	Educational/Clinical	Occasional	Moderate	None named
P10	F	Clinical	Yes — active	High	ChatGPT
P11	M	Educational/Clinical	No	Moderate	None
P12	M	Clinical	No	Low-moderate	Aware of ChatGPT, DeepSeek
P13	M	Clinical/Educational	Yes — active	High	ChatGPT

Stage 1: Open Coding

Systematic open coding of all thirteen transcripts generated 61 initial codes. Table 2 presents the most analytically significant codes with their frequency of occurrence across the full sample.

Table 2: Open Codes and Frequency Across Full Sample (n=13)

Open Code	Frequency (n=13)	Participants
No prior formal AI use in assessment	7/13	P1, P2, P4, P5, P6, P11, P12
Active/purposeful AI use	4/13	P3, P7, P10, P13
Limited/incidental AI use	2/13	P8, P9
Absence of institutional AI training	13/13	All
AI as supportive, not substitutive, tool	12/13	All except P12
AI fundamentally cannot replace human psyche	1/13	P12
Data privacy and confidentiality	13/13	All
Preservation of human therapeutic relationship	13/13	All
Positive/conditional future orientation toward AI	12/13	All except P12
AI enabling service continuity during emergencies	9/13	P1, P3, P5, P6, P7, P9, P10, P11, P13
AI enabling remote assessment and monitoring	9/13	P1, P3, P5, P6, P7, P9, P10, P11, P13
AI providing early behavioral/psychological indicators	7/13	P1, P3, P6, P7, P10, P11, P13

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Scientific validity and reliability doubts	10/13	P1–P3, P5–P11
Algorithmic bias and fairness concerns	8/13	P3, P4, P6, P8, P10, P11, P12, P13
Informed consent and transparency	6/13	P1, P3, P5, P6, P7, P11
Cultural-linguistic unsuitability of tools	11/13	P1, P3, P5–P13
English-language dominance	7/13	P3, P5, P7, P9, P10, P11, P13
Weak/interrupted internet connectivity	9/13	P1, P2, P3, P5, P7, P9, P10, P11, P13
Recurring electricity outages	6/13	P1, P7, P9, P10, P11, P13
Device and equipment shortages	6/13	P1, P4, P7, P9, P11, P13
Lack of specialist training	13/13	All
Low client/family digital literacy	4/13	P7, P8, P9, P11
Family/institutional resistance to technology	4/13	P5, P6, P9, P11
Absence of professional protocols/policies	7/13	P1, P3, P6, P7, P9, P11, P12
No clear legal/regulatory frameworks	5/13	P6, P7, P11, P12, P13
Fear of professional role displacement	4/13	P6, P8, P11, P12
Political/security sensitivity of Palestinian data	3/13	P9, P11, P13
AI convenience, speed, and time economy	7/13	P4, P6, P7, P8, P9, P10, P13
AI for triage and case prioritization	6/13	P3, P6, P7, P8, P10, P13
Demand for Arabic-language AI tools	11/13	P1, P3, P5–P13
Demand for comprehensive specialist training	13/13	All
Need for professional oversight body	4/13	P1, P6, P7, P11
Need for research into AI in Arab/local context	6/13	P3, P6, P7, P9, P11, P13

Stage 2: Axial Coding – Emergent Categories

Through constant comparison and relational analysis of open codes across all thirteen transcripts, six emergent categories were identified, each comprising analytically coherent subcategories.

Table 3: Emergent Categories, Subcategories, and Core Open Codes (n=13)

Category	Subcategories	Core Open Codes
C1: Differentiated Engagement Profiles	Active adoption; Limited/incidental use; Structurally-produced non-use; Principled non-adoption	Active AI use; Occasional use; No use due to training absence; Philosophical rejection
C2: Conditional Utility Recognition	Emergency-justified value; Efficiency/scale benefits; Supplementary orientation; Principled skepticism	Service continuity; Quick results; Triage function; Cannot replace human; Not suitable
C3: Professional and Ethical Imperatives	Data protection; Informed consent; Scientific validity; Algorithmic fairness; Relational integrity; Cultural appropriateness; Legal compliance; Human supervision	Privacy; Consent; Reliability; Bias; Therapeutic relationship; Cultural fit; Legal frameworks
C4: Palestinian-Specific Structural Constraints	Technological fragility; Cultural-linguistic exclusion; Regulatory vacuum; Professional anxiety; Political-security sensitivity	Internet/electricity cuts; Device shortage; English-only tools; No protocols; Fear of displacement; Occupation-related data concerns
C5: Systemic Capacity Deficits	Specialist-level; Client-level; Institutional-level	No training received; Low client literacy; No institutional readiness or policy
C6: Practitioner-Recommended Integration Pathways	Training infrastructure; Arabic tool development; Regulatory frameworks; Oversight; Research investment; Community engagement; Limited-scope use	Specialist training; Arabic apps; Protocols; Union oversight; Local research; Logistical-only use

Stage 3: Selective Coding – Core Category

Core Category: "Conditional Readiness" — Palestinian psychological and educational specialists occupy a state of conditional readiness to adopt AI in assessment — a stance characterized by strong contextual motivation (the protracted Palestinian emergency), constrained by deep structural, ethical, cultural, and capacity-related deficits, and bounded by an inviolable professional commitment to the primacy of the human therapeutic relationship. One participant (P12) occupied a distinct position of principled non-adoption, representing an outlier sub-category within the model.

Detailed Narrative of Emergent Categories**Category 1: Differentiated Engagement Profiles**

Analysis of all thirteen transcripts revealed four distinct practitioner sub-profiles distributed across the sample.

Table 4: AI Engagement Sub-profiles (n=13)

Sub-profile	Description	Participants	n	% Sample
Active adopters	Deliberate, purposeful AI use during emergencies; self-directed tool selection	P3, P7, P10, P13	4	31%
Limited/incidental users	Very rare or occasional use, primarily for informational queries rather than direct client assessment	P8, P9	2	15%
Structurally-produced non-users	No use; non-engagement attributed to absent institutional training, unavailable licensed tools, or infrastructural barriers — not principled objection	P1, P2, P4, P5, P6, P11	6	46%
Principled non-adopter	Explicit rejection of AI as fundamentally unsuitable for psychological assessment; AI acceptable only for logistical functions	P12	1	8%

Active adopters named the most extensive range of tools: ChatGPT and Bard for response analysis and preliminary impression formation; CogniFit for cognitive function assessment; Mood path and Wombat for mood monitoring; Talkspace and Wysa for text-based initial psychological support; Q-interactive for standardized test administration; and Google/Microsoft Forms with smart analysis features. All four active adopters situated AI use explicitly within emergency conditions that had rendered face-to-face contact impossible or severely restricted.

Structurally-produced non-use was consistently attributed to institutional barriers. P11 noted explicitly that non-use was due to "the absence of specialized training and the unavailability of licensed, reliable AI-based tools within the local work environment." P1 similarly stated non-use was because "I have not received any training in my institution regarding these applications."

P12 occupied a uniquely critical position, asserting that "the human psyche cannot be evaluated by artificial intelligence because it is based on very complex interactions and requires an expert person for true assessment of behavior and body language." This participant recommended limiting AI exclusively to administrative and logistical functions — a minority position not shared by any other participant.

Category 2: Conditional Utility Recognition

Twelve of thirteen participants recognized value in AI applications, yet this recognition was invariably bounded by conditions, caveats, and a unanimous insistence on the inviolability of the human therapeutic relationship. Five analytically distinguishable utility positions emerged.

Table 5: Utility Recognition Spectrum (n=13)

Position	Description	Illustrative Data	Participants
Emergency-justified	AI legitimized specifically by crisis conditions that preclude direct contact	"A necessity of this digital age... especially given the siege, crises, and successive emergencies"	P1, P5, P9, P11

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Enrichment-oriented	AI enriches assessment through speed, data access, and analytical capacity	"AI can enrich the assessment process, particularly in terms of speed and access to data"	P3, P10, P13
Pragmatic-utilitarian	AI valued for practical economy; time, cost, and efficiency	"Convenient and economical, especially in terms of time"	P4, P8, P9
Strategically supportive	AI as systemic tool for triage, early detection, and scale	"Quick and effective initial assessments even remotely... reduces burden on specialists"	P6, P7
Principled skeptic/rejector	AI fundamentally unsuitable for psychological assessment; human complexity irreducible to algorithms	"Assessments will be ineffective because they ignore feelings, emotion, and behavioral reading"	P12

A finding of overriding analytical significance is the unanimous "inviolable human boundary" — eleven of twelve positively-oriented participants insisted that AI must function as a supplement, never a primary tool. P3 articulated this most precisely: "It cannot fully replace human assessment based on the professional relationship and deep analysis of the client's psychological and social context." P10 echoed: "AI is a supportive tool and not a substitute for direct human interaction, which is the foundation of the counseling process." P11 added a dimension specific to the Palestinian context: "The human interpretation of results, emotional interaction, and cultural context — these are elements that AI alone cannot grasp with depth."

Category 3: Professional and Ethical Imperatives

This was the most densely coded category, generating ten discrete professional imperatives across all thirteen transcripts. Two imperatives — data privacy and preservation of the therapeutic relationship — achieved universal consensus (13/13).

Table 6: Professional and Ethical Imperatives — Frequency and Classification (n=13)

Imperative	Frequency	Classification	Key Participants
Data privacy and confidentiality	13/13	Protective obligation	All
Preservation of human therapeutic relationship	13/13	Relational integrity	All
Cultural appropriateness and contextual fit	11/13	Contextual obligation	P1, P3, P5–P13
Specialist professional competence and training	11/13	Capacity obligation	P1, P3, P5–P11, P13
Scientific validity and reliability of tools	10/13	Epistemic requirement	P1–P3, P5–P11
Human supervision over AI outputs	9/13	Professional standard	P1, P3, P5–P8, P10, P11, P13
Algorithmic fairness and bias avoidance	8/13	Equity concern	P3, P4, P6, P8, P10–P13
Legal and regulatory compliance	6/13	Institutional obligation	P6, P7, P8, P9, P11, P13
Informed consent and transparency	6/13	Rights-based obligation	P1, P3, P5, P6, P7, P11
Ongoing performance monitoring and tool review	5/13	Quality assurance	P6, P7, P9, P10, P13

The cultural appropriateness concern was particularly pronounced in the full dataset. P13 noted that "applications are designed to suit foreign culture more"; P11 raised the risk of "cultural bias in assessment results" due to tools built on non-Arab, non-Palestinian datasets; and P8 identified the absence of "standardized or socially adapted tools suited to the Palestinian environment" as a source of

inaccurate results. This cluster of concerns constitutes what may be termed a cultural validity imperative — a specifically Palestinian dimension of professional ethics not fully captured in existing international AI ethics frameworks.

Category 4: Palestinian-Specific Structural Constraints

This category captures the distinctive environmental conditions of the Palestinian West Bank that create a layered barrier system to AI adoption. The full sample revealed a richer and more politically textured constraint profile, with a notable political-security dimension.

Table 7: Constraint Typology — Palestinian-Specific Structural Barriers (n=13)

Constraint Domain	Specific Barrier	Frequency	Illustrative Quote
Technological	Intermittent internet connectivity	9/13	"Weak internet or electricity" (P2)
Technological	Recurring electricity outages	6/13	"Inability to access the internet, no electricity" (P1)
Technological	Device and equipment shortages	6/13	"Shortage of devices and necessary resources" (P4)
Cultural-linguistic	English-language dominance of tools	7/13	"Most applications are in English and not adapted to the Palestinian context" (P3)
Cultural-linguistic	Cultural-contextual unsuitability	11/13	"Applications are designed for foreign culture" (P13)
Cultural-linguistic	Age-group unsuitability	3/13	"Are these tools appropriate for all age groups?" (P1)
Regulatory	Absence of professional protocols	7/13	"No clear legal frameworks" (P6)
Regulatory	No institutional AI use policies	5/13	"Absence of institutional policies regulating professional use" (P7)
Psycho-professional	Fear of professional displacement	4/13	"Fear that technology will take their place" (P6)
Social	Family/institutional resistance	4/13	"Reluctance of some families or institutions to accept technology" (P5)
Relational	Difficulty building therapeutic relationship via AI	6/13	"Difficulty building a therapeutic relationship through non-human tools" (P3)
Political-security	Data vulnerability in occupation context	3/13	"Privacy concerns specifically because of our political situation — the occupation" (P9)
Political-security	Societal distrust of digital tools	3/13	"Distrust of technological means in our Palestinian society" (P9)
Data quality	AI inaccuracy when client data incomplete or concealed	4/13	"Inaccurate when data is not complete or concealed by the client" (P6)
Psychological	Specialist's own emergency-related psychological burden	2/13	"Psychological challenges of the specialist themselves under repeated pressures" (P10)

The political-security dimension emerged prominently in the expanded sample. P9 explicitly linked privacy concerns to the Palestinian occupation, noting that data security anxieties are amplified by the political context. P11 similarly noted the need for "an ethical framework especially given the Palestinian context which witnesses significant security and social sensitivities." This finding positions AI data

governance not merely as a professional ethics issue but as a politically situated one, unique to the Palestinian context.

A critical contextual paradox is embedded in these constraints: emergency conditions simultaneously generate the greatest demand for AI-assisted assessment and impose the greatest constraints on the technological infrastructure required to operationalize it. Power outages, internet disruption, and device shortages intensify precisely during military incursions and closures, undermining the emergency-specific rationale for AI adoption.

Category 5: Systemic Capacity Deficits

The unanimous finding across all thirteen participants was the complete absence of formal, institutionally delivered training in AI for psychological and educational assessment. The full sample reveals three levels of deficit operating concurrently.

Table 8: Systemic Capacity Deficits – Full Sample (n=13)

Level	Deficit	Frequency	Nature
Specialist-level	No formal institutional AI training received	13/13	Systemic institutional failure
Specialist-level	Low specialist digital competence in AI tools	8/13	Professional preparation gap
Specialist-level	Unavailability of licensed, locally validated AI tools	5/13	Market/policy gap
Client-level	Low client/family digital literacy	4/13	Accessibility barrier
Client-level	Family/institutional distrust of technology	4/13	Social acceptance barrier
Institutional-level	No organizational AI policy or readiness	9/13	Governance gap
Institutional-level	No Arabic/local AI assessment tools available	11/13	Development gap
Systemic-level	No national regulatory framework for AI in psychology	5/13	Policy vacuum

Category 6: Practitioner-Recommended Integration Pathways

Across all thirteen participants, a comprehensive integration agenda emerged. Recommendations were more detailed and structurally ambitious in the full sample, with several participants calling for national-level frameworks and inter-institutional collaboration.

Table 9: Practitioner Recommendations – Full Sample Frequency and Implementation Level (n=13)

Recommendation	Frequency	Priority	Implementation Level
Develop comprehensive specialist training programs	13/13	Critical	Institutional / National
Maintain AI as supplementary tool – not primary	12/13	Critical	Professional / Clinical
Develop Arabic-language, culturally adapted AI tools	11/13	Critical	National / Sectoral
Establish professional and ethical frameworks/protocols	9/13	Critical	Professional / Regulatory
Improve digital infrastructure in clinical/educational settings	4/13	High	National / Infrastructure
Raise community and family awareness of AI in psychology	6/13	High	Community / Institutional
Invest in local Arabic-context AI research	6/13	High	Academic / National
Establish institutional AI use policies	6/13	High	Institutional

Conduct regular tool reliability reviews	5/13	Moderate	Institutional
Establish professional oversight/accreditation body	4/13	High	Professional / Regulatory
University-ministry-institution collaboration	4/13	Moderate	National / Sectoral
Ensure equitable technology access across regions	4/13	Moderate	National / Policy
Gradual phased integration with traditional practice	4/13	Moderate	Professional / Institutional
Monitor psychological impact of AI use on clients	3/13	Moderate	Clinical / Research
Limit AI strictly to logistical/administrative functions (P12 only)	1/13	—	Clinical (P12)

Theoretical Summary: The Conditional Readiness Model

The full thirteen-participant dataset substantially corroborates, enriches, and nuances the Conditional Readiness model. Three additions to the theoretical proposition emerge from the expanded sample.

First, the inclusion of a principled non-adoption position (P12) confirms that Conditional Readiness is not a universal stance — a minority position of categorical resistance exists, rooted in epistemological convictions about the irreducibility of the human psyche to algorithmic analysis.

Second, the political-security dimension of data privacy — particularly concerns about data vulnerability under Israeli occupation — adds a uniquely Palestinian layer to professional ethics discourse around AI, not captured in existing international frameworks.

Third, the intensity and specificity of the cultural validity imperative — spanning language, social norms, religious context, and political history — positions the development of locally adapted Arabic AI tools not merely as a practical preference but as a fundamental prerequisite for any ethically defensible AI adoption in the Palestinian context.

DISCUSSION

The present study set out to explore Palestinian psychological and educational specialists' perspectives on AI use in assessment during emergencies. The grounded theory analysis yielded a core category of Conditional Readiness — a predominantly positive but deeply conditions-dependent orientation toward AI adoption — organized across six emergent categories. The following discussion situates these findings within the broader scholarly literature, identifies points of convergence and divergence, and elaborates their theoretical and practical implications.

Patterns of AI Engagement: Structural Non-Use as a Systemic Signal

The finding that the majority of participants had not used AI tools in assessment — attributing this to structural barriers rather than principled objection — resonates with and extends the existing literature on AI adoption in mental health practice. Zhang et al. (2023), in a qualitative study of twenty mental health professionals in Canada, similarly found that a lack of structured guidance in the medical education curriculum has created a major barrier to the integration of technologies into real-life clinical contexts, with a paucity of established guidelines that could be used to prepare mental health professionals for AI adoption. The present study confirms this pattern in a substantially more constrained context: Palestinian specialists face not only the absence of educational preparation common to practitioners globally, but the compounding absence of institutional infrastructure, professional protocols, and locally validated tools. This distinction is analytically important — it positions Palestinian non-use not as a reflection of individual resistance but as the predictable output of systemic deficiencies across training, policy, and technology development.

The identification of a minority active-adopter sub-profile (31% of the sample) is also consistent with international findings. General attitudes towards AI among mental health professionals varied, with practitioners reporting broadly positive attitudes while significant variation in actual use patterns persisted. In the Palestinian context, active adoption was specifically contingent upon emergency conditions, suggesting that crisis necessity functions as an adoption catalyst in the absence of formal institutional enablement — a finding with direct implications for how technology integration strategies should be sequenced in conflict-affected settings.

Conditional Utility Recognition and the Inviolable Human Boundary

The near-universal recognition of AI's supplementary value — combined with unanimous insistence on the primacy of the human therapeutic relationship — constitutes one of the most theoretically significant patterns in the dataset. This finding aligns closely with international research. Varghese et al. (2024) found that across diverse populations, the human touch remains an indispensable aspect of human-based mental health care, one that AI cannot replace, though integrating AI with human mental health professionals is seen as a compelling model. Similarly, Kleine et al. (2025) documented that a lack of understanding or knowledge of the mechanisms and processes underlying the technology may explain some of the suspicion that impacts the uptake of technologies, while their opaque and complex nature can reinforce resistance among mental health practitioners.

What distinguishes the Palestinian context from these international comparators is the emergency-specific justification participants offered for AI's utility. Rather than framing AI as a convenience or efficiency tool, participants consistently positioned it as an emergency-period necessity — a means of maintaining service continuity when face-to-face contact becomes physically impossible due to checkpoints, road closures, or military incursions. This finding connects directly to Haykal et al.'s (2025) documentation of AI's role in sustaining psychological services for displaced and conflict-affected populations, and extends it by grounding the emergency-utility rationale in first-person professional testimony from practitioners embedded in a protracted conflict setting.

Professional and Ethical Imperatives: A Culturally Extended Ethics Framework

The professional and ethical concerns identified across all thirteen participants — encompassing data privacy, informed consent, algorithmic fairness, scientific validity, and the preservation of the therapeutic relationship — are broadly consistent with the consensus concerns documented in the global AI ethics literature (Ali et al., 2025; Cruz-Gonzalez et al., 2025). However, the present study makes two contextually distinctive contributions to this literature.

First, the emergence of a cultural validity imperative — the collective insistence that existing AI tools are built on non-Palestinian, non-Arabic datasets and therefore produce culturally biased assessment outcomes — extends beyond the generic algorithmic fairness concerns documented in international studies. This is not merely a technical concern but an epistemological one: participants questioned whether AI systems designed in and for Western contexts can generate meaningful psychological knowledge about individuals whose emotional expression, help-seeking behaviors, and distress manifestations are shaped by Palestinian cultural, religious, and political realities. This finding resonates with Bardus et al.'s (2025) documentation of the near-total absence of culturally validated Arabic mental health digital tools, and provides qualitative, practitioner-grounded elaboration of why this gap constitutes a substantive professional ethics issue rather than merely a technical limitation.

Second, the political-security dimension of data privacy — unique to the Palestinian context — adds a layer to ethical analysis that existing international frameworks do not adequately address. Participants' concerns about data vulnerability under occupation, and the potential for psychological assessment data to be accessed, misused, or weaponized by external parties, constitute a form of political ethics of AI that has no direct parallel in the Canadian, Australian, German, or US practitioner studies with which the present findings are otherwise most comparable.

Structural Constraints: The Contextual Paradox

The Palestinian-specific structural constraints identified in this study — technological fragility, cultural-linguistic exclusion, regulatory vacuum, and professional anxiety — collectively constitute what the present study terms a contextual paradox: the very conditions that most strongly motivate AI adoption (i.e., emergencies) are simultaneously those that most severely undermine the infrastructure upon which AI tools depend. Power outages, internet disruption, and device shortages intensify precisely during military incursions and closures, rendering AI-mediated assessment inaccessible at the moments of greatest demand. Global implementation challenges for AI in mental health include critical barriers in terms of technical infrastructure, cultural adaptation, resource allocation, and evidence requirements [PubMed Central] (<https://pmc.ncbi.nlm.nih.gov/articles/PMC3176752/>) (PMC, 2025), but these barriers are qualitatively intensified in conflict-affected settings where infrastructure disruption is not incidental but systematically produced by political and military conditions.

The fear of professional displacement — reported by a meaningful subset of participants — also resonates with international findings, though its expression in the Palestinian context is particularly acute. Zhang et al. (2023) documented that funding constraints, competing work priorities, and biases in AI algorithms were commonly described barriers to AI adoption in mental health [PubMed] (<https://pubmed.ncbi.nlm.nih.gov/37116530/>), with practitioners sensitive to the perceived devaluation of professional expertise. In a context where the psychological specialist workforce is already thin and under chronic strain — as documented by Bdier et al. (2024) in their survey of Palestinian mental health professionals — anxieties about technological displacement may carry heightened professional salience.

Capacity Deficits and the Training Imperative

The unanimous identification of training absence as the primary barrier to AI adoption across all thirteen participants represents the most policy-actionable finding of this study. This finding is consistent with international literature: as advancements continue to be made in AI, educational initiatives must be developed for mental health professionals to address the current challenges of AI adoption, with a need to incorporate the needs of mental health professionals to ensure the design and deployment of relevant, effective, and sustainable educational programs (<https://pmc.ncbi.nlm.nih.gov/articles/PMC8367376/>) (Zhang et al., 2023). Kleine et al.'s (2025) international mixed-methods study similarly found that AI readiness, self-efficacy, and anxiety toward technology were significant predictors of practitioners' intentions to adopt AI tools, with training interventions identified as the primary lever for modifying these characteristics.

The Palestinian context, however, adds two dimensions absent from these international studies: the absence of Arabic-language AI tools means that even well-trained specialists would have no culturally appropriate tools to deploy; and the institutional unreadiness documented across the sample suggests that individual training, without concurrent organizational and regulatory development, would be insufficient to produce meaningful adoption at scale.

Theoretical Contribution: Conditional Readiness in Context

The core category of Conditional Readiness makes a substantive theoretical contribution to the emerging literature on AI adoption in mental health practice. Existing models of technology adoption — including the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology — tend to position adoption as a function of perceived usefulness, ease of use, and subjective norms. The present study's findings suggest that in conflict-affected, resource-constrained, and politically marginalized contexts, these variables are insufficient: adoption readiness is additionally shaped by emergency-context urgency, cultural-linguistic exclusion, political data security risks, and the absence of professional ethics frameworks that account for locally specific political realities. The Conditional Readiness model thus offers a context-sensitive theoretical elaboration of AI adoption processes applicable to practitioners in humanitarian and conflict settings more broadly.

CONCLUSION

This study addressed a substantive gap in the literature by exploring, for the first time through qualitative inquiry, how Palestinian psychological and educational specialists perceive and engage with AI in assessment during emergencies. Grounded theory analysis of thirteen interviews yielded a core category of Conditional Readiness — a principled, context-shaped orientation in which practitioners recognize AI's emergency-period utility while identifying the structural, cultural, and political conditions that must be fulfilled before sustainable adoption can occur.

Three findings carry particular theoretical and practical weight. First, the unanimous insistence on the inviolability of the human therapeutic relationship establishes a non-negotiable boundary that any integration framework must institutionally safeguard. Second, the cultural validity imperative — the collective judgment that existing AI tools are epistemologically unsuited to the Palestinian context — reframes localization as a professional ethics issue, not merely a technical one. Third, the political-security dimension of data privacy, rooted in occupation conditions, introduces a form of political ethics of AI absent from existing international frameworks.

For policymakers and practitioners, the findings are unambiguous: sustainable AI integration in Palestinian settings requires concurrent development of specialist training, culturally validated Arabic tools, context-sensitive regulatory frameworks, and infrastructure resilient to emergency disruption. Positive professional attitudes toward AI, clearly documented here, will remain unrealized without these structural prerequisites.

Future research should extend this inquiry to Gaza, incorporate client perspectives, and evaluate context-specific tools as they are developed. More broadly, this study affirms that the ethical advancement of AI in psychological and educational services globally requires centering the experiences of practitioners in the world's most challenging settings — not as edge cases, but as essential sources of professional knowledge.

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