CHEIKH ANTA DIOP UNIVERSITY OF DAKAR (UCAD)
Senegal

INSTITUTE OF HEALTH AND DEVELOPMENT (ISED - UCAD)
Senegal

Digital Mental Health Interventions in Crisis, Humanitarian, and Fragile Settings in LMICs: Delivery and Humanitarian Engagement



Kadidiatou DIARRA [1,2*]

[1] Department of Preventive Medicine and Public Health, Faeikh Anta Diop Umdicine, Pharmacy and Dentistry, Cheikh Anta Diop University of Dakar (UCAD), Dakar, Senegal
[2] Institute of Health and Development (ISED), Cheikh Anta Diop University of Dakar (UCAD), Dakar, Senegal
* Correspondence: kadidiatou.diarra@ucad.edu.sn

1. INTRODUCTION – OBJECTIVES

Digital mental health interventions can support continuity of care when conventional services are disrupted by humanitarian crises, conflicts, epidemics or health-system fragility. Evidence on their use and adaptation in these settings remains limited.

Objectives

1. Examine levels and modalities of community participation in digital mental health interventions in crisis or fragile settings in LMICs.
2. Describe their variation across intervention phases and study characteristics, and explore humanitarian engagement.

2. METHODOLOGY

Study design and data source
- Exploratory secondary analysis of 110 studies from an international scoping review.
- Focus on digital mental health interventions conducted in LMICs.

Study selection and data extraction
- Predefined eligibility criteria and standardized extraction grid.
- Two reviewers independently extracted data and verified the selection process.

Variables analysed
- Crisis/fragile setting (epidemic/pandemic, humanitarian crisis, systemic fragility)
- Humanitarian actor involvement
- Delivery modality (remote, hybrid, SMS)
- Study characteristics (region, period, population, implementation scale)
- Context-specific characteristics and adaptations

Statistical analysis
- Descriptive analysis (frequencies, proportions)
- Associations assessed using Fisher's exact test with Monte Carlo simulation (100,000 replicates)
- Significance level: $p < 0.05$

Qualitative analysis
- Thematic analysis of context-specific characteristics and adaptations.

3. RESULTS

Figure 1. Crisis and fragile settings in LMICs (N = 110)

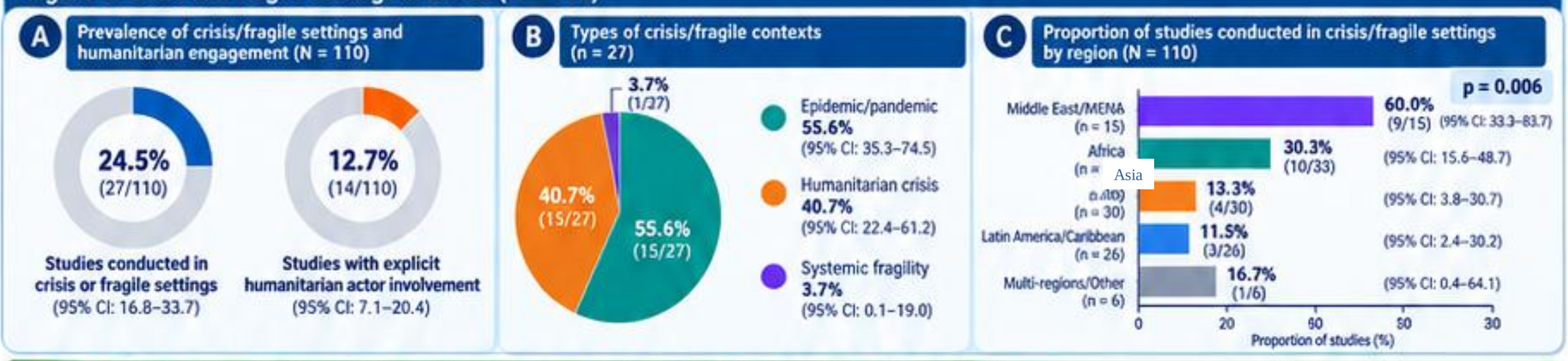


Figure 2. Delivery modalities and humanitarian engagement in crisis/fragile settings (n = 27)

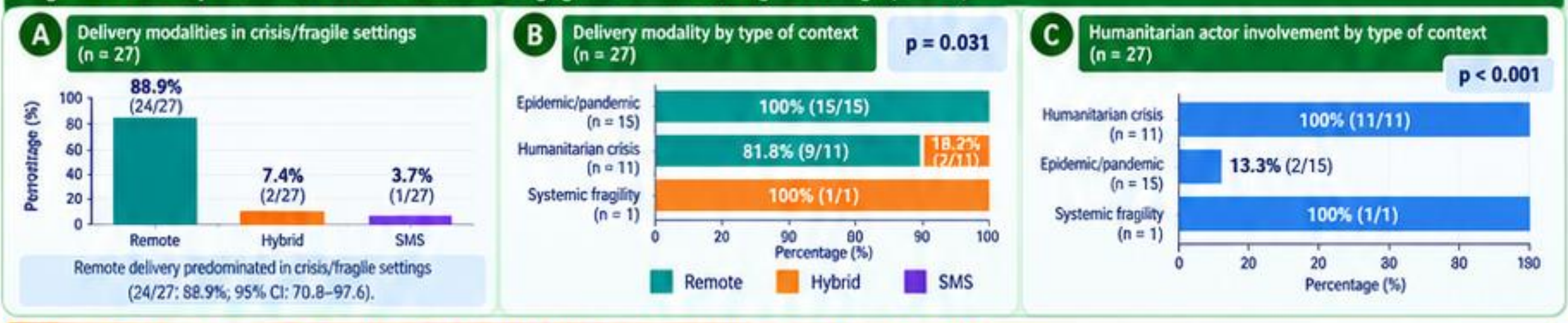


Figure 3. Context-specific characteristics and adaptations in crisis/fragile settings (n = 27)

A Key characteristics by type of context (n, %)

Theme	Humanitarian crisis (n = 11)	Epidemic/pandemic (n = 15)	Systemic fragility (n = 1)
Humanitarian actors involved	11 (100.0%)	2 (13.3%)	1 (100.0%)
COVID-19/pandemic	5 (45.5%)	15 (100.0%)	0 (0.0%)
Conflict/displacement	9 (81.8%)	1 (6.7%)	0 (0.0%)
Refugees/migrants	7 (63.6%)	0 (0.0%)	0 (0.0%)
Fragility/underserved areas	1 (9.1%)	2 (13.3%)	1 (100.0%)
Remote delivery	10 (90.9%)	15 (100.0%)	0 (0.0%)
Adaptations facilitating access*	1 (9.1%)	1 (6.7%)	0 (0.0%)

B Documented adaptations facilitating access (n = 2/27)

2/27 studies (7.4%)

Adaptations explicitly documented as facilitating access (e.g. user input, co-design, implementation adjustments).

User adaptation
- Adaptation with user input
- Consideration of connectivity constraints

Co-design
- Joint development with communities
- Adaptation to local needs

Implementation
- Adjustment of delivery strategies in response to context
- Use of existing community structures

Limitations
- Adaptations were rarely documented (2/27 studies)
- Absence of documentation does not necessarily indicate absence of adaptation

DISCUSSION

- Digital mental health interventions in crisis and fragile settings were unevenly represented across LMIC regions. Remote delivery predominated, particularly during the COVID-19 pandemic, illustrating its potential to maintain psychological support during service disruptions (Bantjes et al., 2021; Yan et al., 2022; Santa-Cruz et al., 2022).
- Humanitarian engagement was concentrated in humanitarian crises, while mobile-based approaches have also been explored among refugees (Tomita et al., 2016).
- Access-facilitating adaptations were explicitly documented in only 2/27 studies, underscoring the need for better reporting of context-specific implementation strategies.

4. CONCLUSIONS

- Digital mental health interventions have an uneven presence in crisis and fragile settings in LMICs, with marked regional variation.
- Remote delivery predominates, while humanitarian engagement is concentrated in humanitarian crises.
- Better documentation and evaluation of context-specific adaptations are needed to support accessible mental health care during crises.

5. REFERENCES

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6. ORCID & CONTACT

ORCID
0009-0001-3651-0462

Correspondence
kadidiatou.diarra@ucad.edu.sn