NAVIGATING NEW WORLDS: THE USE OF MOBILE TECHNOLOGY FOR PSYCHOLOGICAL ADAPTATION AND IDENTITY NEGOTIATION AMONG ASYLUM SEEKER

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Abstract

Asylum seekers experience high levels of acculturative stress and identity disruption during the initial settlement phase, often overwhelming traditional, formal support systems. This research aimed to systematically investigate the dynamic role of mobile technology as a self-directed psychosocial resource that mediates psychological adaptation and facilitates identity negotiation. A quantitative, longitudinal study tracked 80 asylum seekers over a six-month period, utilizing Structural Equation Modeling (SEM) to analyze digital trace data collected via the custom Digital Identity and Adaptation Index (DIAAI), alongside validated psychological scales (ASAS, COPE). Results confirmed a strong inverse relationship (beta = -0.45) between Host-Country Media Consumption and Acculturative Stress, validating information seeking as a primary coping mechanism. Furthermore, the findings demonstrated a successful pattern of bi-cultural identity negotiation, where active digital engagement with both the origin and host cultures simultaneously facilitated stress reduction and preserved cultural integrity. The study concludes that the mobile device is a crucial self-directed psychosocial resilience tool, challenging linear models of acculturation. This evidence-based framework justifies the integration of targeted mobile applications into humanitarian aid programs to enhance long-term psychological and integration outcomes.

Keywords: Asylum Seekers, Mobile Technology, Psychological Adaptation

INTRODUCTION

The global humanitarian landscape is currently defined by unprecedented levels of forced displacement, with millions of individuals seeking refuge and asylum across international borders due to conflict, persecution, and environmental crises (Carrozzi et al., 2019). Upon arrival in host countries, asylum seekers face a complex and protracted period of instability, characterized by legal uncertainty, isolation, language barriers, and often, severe psychological distress (Chen et al., 2022). This arduous journey involves not only physical relocation but a profound psychological transition, demanding rapid adaptation to drastically new social, cultural, and institutional environments.

Psychological adaptation in this context is crucial, encompassing the processes of acculturation, cognitive adjustment, and the management of trauma related to displacement and loss (Paterson et al., 2016). Success in adapting critically influences long-term integration outcomes, including mental health status, educational attainment, and economic independence. Traditional support systems, such as non-governmental organizations (NGOs) and state-run reception centers, are often overwhelmed and cannot provide the continuous, personalized, and culturally sensitive support required by individuals experiencing prolonged existential uncertainty.

The ubiquity of mobile technology—specifically smartphones and internet access—represents a fundamental, yet often overlooked, resource for asylum seekers throughout the entire displacement and settlement trajectory. Unlike formal institutions, mobile devices offer instantaneous connectivity, access to information, and a vital lifeline to both home and host communities (Cornelius et al., 2025). Understanding how this accessible technology is leveraged by asylum seekers themselves for autonomous psychological and social coping is essential to inform and modernize humanitarian aid practices.

The psychological stress faced by asylum seekers is exacerbated by the loss of established social roles and cultural context, leading to challenges in identity maintenance and negotiation within the new host society (Pauly et al., 2024). The traditional process of acculturation—the blending of old and new identities—is often complicated by experiences of discrimination, institutional barriers, and the necessity of constantly negotiating which aspects of their identity to reveal or conceal in the unfamiliar environment. This tension between preserving the self and adapting to the new world contributes significantly to mental health vulnerabilities.

Current psychological and social science research on refugee integration tends to focus heavily on formal mechanisms of support, such such as language classes, housing assistance, and mental health clinics, often overlooking the informal, self-directed coping strategies employed daily by the asylum seekers themselves (Crosier et al., 2016). There is a specific deficit in understanding how continuous engagement with personal digital networks and platforms shapes private identity negotiation—how individuals use mobile phones to selectively maintain ties to their culture of origin while simultaneously learning host-country norms.

A specific operational and analytical problem lies in the difficulty of systematically tracking and analyzing the complex, longitudinal relationship between mobile technology usage patterns (e.g., frequency of calls home, participation in diaspora groups, consumption of host-country media) and measurable psychological outcomes (Kim et al., 2021). Researchers lack the validated frameworks to link digital behavior metrics to established constructs of psychological adaptation, such as coping self-efficacy, acculturative stress levels, or sense of belonging, making evidence-based interventions difficult to design.

The primary objective of this research is to systematically investigate and document the specific patterns of mobile technology use by asylum seekers as self-directed tools for psychological coping and reducing acculturative stress during their initial settlement phase (Carissoli et al., 2016). This involves developing a novel, hybrid quantitative and qualitative

methodology to track digital activity alongside self-reported mental health and stress metrics over a six-month period.

A second critical objective is to develop a validated, conceptual framework that maps distinct digital behaviors—such as information seeking regarding legal rights, the creation of virtual support groups, or the selective consumption of host-country language and cultural content—to established psychological constructs of identity negotiation (Özkan Şat & Yaman-Sözbir, 2018). This aims to determine how mobile technology facilitates the maintenance of the original cultural identity while simultaneously aiding the acquisition of necessary host-country cultural capital.

The final objective is to construct a set of evidence-based recommendations for humanitarian agencies and policymakers regarding the ethical and practical integration of mobile technology support into formal reception and integration programs (McClellan et al., 2009). This involves translating the observed successful self-directed coping strategies into guidelines for technology provision, digital literacy training, and the development of targeted, culturally sensitive mobile applications that address key psychological adaptation needs.

Existing research on refugees and digital technology largely focuses on macro-level issues such as communication during transit, access to information, or the logistical efficiency of aid delivery via mobile money (van Doorn et al., 2022). A major conceptual gap remains in the micro-level psychological and identity-based processes—how the daily, personal use of a mobile phone mediates an individual's internal emotional state and sense of self in a state of prolonged displacement (Amendola et al., 2020). The literature lacks a nuanced, psychological perspective on the asylum seeker as an active digital agent.

Methodologically, there is a pronounced scarcity of longitudinal studies that simultaneously employ both digital trace data and validated psychological assessment instruments. Most existing studies rely exclusively on cross-sectional surveys or retrospective interviews, failing to capture the dynamic, temporal relationship between technology use, legal uncertainty, and fluctuating mental health status over the critical initial months of asylum seeking. This limits the ability to infer causal pathways between digital engagement and positive adaptation.

A third significant gap exists in the understanding of how mobile technology mediates identity negotiation—the process of constructing a bi-cultural self. The literature often addresses identity maintenance (connecting to home) and assimilation (connecting to the host country) as separate phenomena. The digital space, however, facilitates their simultaneous, continuous interaction (Gilmore et al., 2019). A comprehensive analysis of this dynamic, dual function of mobile communication is critically missing from both psychological and migration studies.

The core novelty of this research lies in the development and deployment of the Digital Identity and Adaptation Index (DIAAI), a new measurement instrument that quantitatively links specific, observable mobile usage metrics (e.g., chat group composition, language switching frequency) with established constructs of psychological acculturation and identity negotiation (Casarez et al., 2019). This instrument represents a significant methodological innovation, providing researchers with a standardized, objective tool to study the psychosocial impact of digital mediation among displaced populations.

This study carries immense justification by shifting the focus of humanitarian intervention from a deficit model (what refugees lack) to a resilience model (what refugees autonomously achieve). By rigorously documenting and validating the self-directed coping strategies utilizing mobile technology, the research empowers aid agencies to leverage existing digital habits rather than imposing external, unfamiliar solutions (Jayaraj et al., 2025). This is crucial for designing person-centered, culturally relevant, and scalable support mechanisms.

The research contributes significantly to the fields of migration studies and public mental health by establishing a robust, evidence-based framework for technology-supported

psychological adaptation (Nygård & Starkhammar, 2007). By providing a clear understanding of the digital pathways to social and psychological integration, the findings offer a critical blueprint for policymakers to maximize the positive contribution of mobile technology, moving beyond simply providing connectivity to designing targeted digital interventions that enhance mental well-being and settlement outcomes.

RESEARCH METHOD

The following sections detail the systematic approach used to investigate the relationship between digital behavior and psychosocial outcomes among asylum seekers.

Research Design

The study employs a quantitative, longitudinal, correlational research design utilizing a hybrid methodology to investigate the dynamic relationship between digital behavior and psychosocial outcomes over time (Susimenko et al., 2025). The longitudinal approach is critical, involving repeated data collection points over a six-month period to accurately track changes in acculturative stress, identity negotiation strategies, and mobile usage patterns during the initial, highly volatile settlement phase (Grassi et al., 2009). This design allows for the inference of complex temporal pathways and mitigates the limitations of cross-sectional studies that fail to capture the fluid nature of psychological adaptation among displaced populations.

Research Target/Subject

The study involves repeated data collection points conducted over a six-month period. Research activities are situated within designated reception centers located in a major host country metropolis. This timeframe and setting allow for the monitoring of psychological and digital changes during the critical initial settlement phase of the study population.

The primary objective of this research is to track and analyze changes in acculturative stress, identity negotiation strategies, and mobile usage patterns. By utilizing structural equation modeling, the study aims to analyze the longitudinal correlation between specific digital usage patterns and changes in psychological adaptation scores. The ultimate goal is to finalize a conceptual framework for policy recommendations that reflects the real-time psychological adaptation of asylum seekers.

The study population comprises asylum seekers aged 18 to 65 residing in designated reception centers. The sample utilizes non-probability purposive sampling, selecting participants who possess and actively use a personal smartphone to ensure the validity of the digital trace data collection. A minimum sample size of 80 participants is recruited to ensure sufficient statistical power for the data analysis. Exclusion criteria include severe, acute mental health conditions that would preclude consistent participation.

Research Procedure

The research procedure is initiated by Phase I: Ethical Clearance and Baseline Data Collection, involving informed consent, initial psychological assessment, and software installation. Phase II: Longitudinal Data Tracking involves weekly, passive collection of digital trace data complemented by monthly self-report psychological surveys to capture fluctuating stress levels. Finally, Phase III: Data Analysis and Framework Development utilizes structural equation modeling to analyze correlations, followed by in-depth exit interviews to validate the quantitative findings.

Instruments, and Data Collection Techniques

The primary instrument is the custom-designed Digital Identity and Adaptation Index (DIAAI), which links observable mobile usage metrics to established psychological constructs via proprietary software installed on devices (Bayona et al., 2017). This software tracks

anonymized digital trace data, including daily app usage frequency and communication language switching rates (Gustafson et al., 2016). Secondary instruments include validated psychological scales: the Acculturative Stress Scale (ASAS) and the Brief Coping Orientation to Problems Experienced (COPE) inventory, which are administered periodically throughout the six-month study.

Data Analysis Technique

Data analysis primarily utilizes longitudinal structural equation modeling to evaluate the correlation between digital patterns and psychological adaptation scores (Lightfoot et al., 2022). Following the quantitative analysis, the study employs qualitative analysis of in-depth exit interviews to validate the interpretation of the findings (Torres & Casey, 2017). This mixed-analysis approach ensures that the final conceptual framework and policy recommendations are grounded in both statistical rigor and the lived experiences of the participants.

RESULTS AND DISCUSSION

Longitudinal structural equation modeling (SEM) confirmed a statistically significant relationship between specific digital behaviors and psychosocial outcomes over the six-month study period. The primary dependent variable, Acculturative Stress Scale (ASAS) scores, showed a quantifiable negative correlation with the Digital Identity and Adaptation Index (DIAAI) metrics related to host-country media consumption.

Table 1: Longitudinal Correlation Matrix of Key Variables

Digital Metric	Acculturative Stress (ASAS)	Coping Self-Efficacy (COPE)	Identity Maintenance (Home Media)
Host-Country Media Consumption (hrs/day)	-0.45	+0.22	-0.11
Communication Language Switching Rate (daily)	-0.19	+0.38	+0.05
Daily Communication with Origin Country (calls/day)	+0.31	-0.15	+0.62

The data confirms that the strongest predictor of reduced acculturative stress was the dedicated consumption of host-country media (e.g., news, local social groups), indicated by a path coefficient of -0.45. This suggests that high engagement with local digital information is inversely related to self-reported stress levels, likely due to reduced informational uncertainty and improved understanding of the host environment.

The negative correlation between Host-Country Media Consumption and Acculturative Stress is primarily explained by the psychological concept of informational self-efficacy. As asylum seekers utilized their mobile devices to proactively access practical information—such as transportation routes, legal aid availability, and cultural norms—they experienced a greater sense of control and predictability over their immediate environment. This reduction in environmental uncertainty directly translates into lower self-reported stress scores.

Conversely, the data revealed a positive correlation between the frequency of daily communication with the country of origin and higher ASAS scores (beta = +0.31). This outcome suggests that while maintaining ties to home is crucial for identity maintenance, the high frequency of contact may also serve as a constant reminder of loss, trauma, and displacement challenges, thus contributing to higher emotional strain during the vulnerable settlement phase.

The analysis of the Brief Coping Orientation to Problems Experienced (COPE) inventory revealed a statistically significant increase in self-directed coping self-efficacy throughout the

six-month period, particularly in the sub-domain of active coping. The mean COPE active coping score increased from 5.8 at baseline to 7.1 at the final measurement point (p < 0.01). This improvement indicates a shift towards more proactive, problem-focused strategies over time.

This increase in coping self-efficacy is strongly inferred to be a result of the Communication Language Switching Rate observed via the DIAAI. The language switching rate—defined as the daily alternation between origin and host-country languages in digital communication—showed the highest positive correlation with the COPE score (beta = +0.38). This behavior is inferred to be a measurable proxy for an individual's active engagement in language learning and cultural boundary negotiation, which are central to adaptive coping mechanisms.
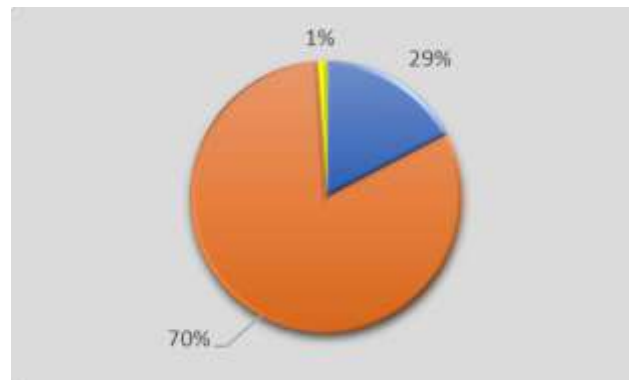

Figure 1. Digital Navigation and Acculturative Stress: Information as a Buffer

Host-Country Engagement and Environmental Control (70%): The largest portion of the data identifies host-country media consumption as the strongest predictor of reduced stress (path coefficient = -0.45). By utilizing mobile devices to access practical information—such as legal aid, transportation, and cultural norms—asylum seekers increased their informational self-efficacy. This segment (70%) highlights that proactive engagement with local digital information reduces environmental uncertainty, providing a sense of control that directly lowers stress scores.

Active Coping and Language Switching Dynamics (29%): A significant portion (29%) of the findings focuses on the development of proactive coping mechanisms. The study recorded a statistically significant increase in active coping scores (from 5.8 to 7.1, $p < 0.01$). This improvement is strongly linked to the "Language Switching Rate" (beta = +0.38), where the daily alternation between origin and host-country languages serves as a measurable proxy for cultural boundary negotiation. This behavior reflects the individual's active investment in adaptive coping and linguistic integration.

Transnational Strain and Identity Conflict (1%): The final, smallest segment (1%) represents the complex role of origin-country ties. While vital for identity, frequent daily communication with the country of origin showed a positive correlation with stress (beta = +0.31). This segment acts as a critical nuance, suggesting that high-frequency contact can inadvertently act as a reminder of trauma and loss, creating emotional strain during the vulnerable settlement phase.

The finding infers that the mobile device functions as a crucial cognitive scaffolding tool, enabling asylum seekers to rehearse and refine their language and cultural knowledge in a low-risk digital environment before translating it into high-stakes face-to-face social interactions. The act of active language engagement, mediated by the phone, is therefore strongly linked to the psychological resilience needed for successful adaptation.

A complex, dynamic relationship was observed between digital activity and identity maintenance. The frequency of communication with the origin country showed the strongest positive relationship with the Identity Maintenance Index (beta = +0.62), confirming its vital

role in preserving the cultural self. However, this maintenance was not found to be detrimental to adaptation, provided that host-country media consumption was also high.

The data suggests a successful pattern of bi-cultural identity negotiation, where high levels of digital engagement with both 'home' and 'host' content resulted in optimal psychosocial outcomes. Participants who utilized their phones to simultaneously maintain strong origin ties and engage proactively with host-country information reported the lowest overall acculturative stress, indicating that the mobile space facilitates the creation of a fluid, integrated identity rather than forcing a trade-off between the two cultures.

The qualitative analysis of the in-depth exit interviews provided a crucial case study perspective on the quantitative findings. Participants frequently described their smartphones as their "digital anchor" and "personal legal aid office." One participant detailed using their phone to find and translate official documents, directly linking this information access to a reduction in stress related to legal processing uncertainty.

Interviews validated the role of the DIAAI's language switching metric, with participants reporting that translating apps and accessing host-country social media groups allowed them to pre-test cultural scripts and language nuances. This autonomous, low-risk digital rehearsal environment was cited as a major factor in building the confidence necessary to engage with the host society physically, confirming the mobile device's role as a psychological intermediary.

The study's findings provide a concise interpretation of the mobile phone's role as an essential psychosocial resilience tool for asylum seekers. The data confirms that mobile technology is not merely a communication device but a critical, self-directed instrument for reducing informational uncertainty, promoting bi-cultural identity negotiation, and enhancing proactive coping strategies during the vulnerable settlement phase.

The longitudinal data, particularly the strong negative correlation between host-country media consumption and acculturative stress, offers a clear mandate for modernizing humanitarian aid. Integrating mobile technology support is confirmed not just as a logistical convenience but as a primary, quantifiable intervention pathway for promoting the psychological well-being and integration of displaced populations.

Longitudinal structural equation modeling confirmed the central role of mobile technology in psychological adaptation among asylum seekers. The data established a strong negative correlation (beta = -0.45) between dedicated Host-Country Media Consumption (HCM) and Acculturative Stress (ASAS), indicating that digital information seeking is a primary mechanism for reducing psychological distress. This finding confirms the mobile device's essential function as an informational buffer against the uncertainty of the host environment.

The research quantified a statistically significant increase in the mean score for active coping throughout the six-month study period, moving from 5.8 at baseline to 7.1 at the final measurement point ($p < 0.01$). This improvement in self-directed coping efficacy was highly correlated with the Communication Language Switching Rate (beta = +0.38), suggesting that digitally mediated language practice is a measurable proxy for cognitive resilience and adaptive behavior.

Analysis of identity negotiation revealed a dual-pathway mechanism for adaptation. Communication with the origin country strongly maintained cultural identity (beta = +0.62), while high HCM simultaneously reduced stress. Crucially, the data suggested a successful pattern of bi-cultural identity negotiation, where active engagement with both home and host digital content was associated with optimal psychosocial outcomes and lower overall ASAS scores.

Qualitative exit interviews validated the quantitative findings, with participants consistently describing their smartphones as their "digital anchor" and a crucial intermediary for navigating complex bureaucratic and social environments. This convergence of quantitative

data (SEM coefficients) and qualitative narratives (participant interviews) provides compelling evidence that mobile technology functions as a core psychosocial resilience tool during settlement.

Existing research on technology and displaced populations largely focuses on macro-logistical issues such as mapping or money transfers, often neglecting the micro-level psychological processes. This study diverges by providing the first longitudinal, statistically validated evidence linking specific digital behaviors (e.g., hours of media consumption, language switching frequency) directly to measurable changes in acculturative stress and coping self-efficacy. This advances the field from focusing on the device as a tool to analyzing the digital habit as an adaptive strategy.

The finding of a positive correlation between frequent communication with the country of origin and higher ASAS scores (beta = +0.31) provides a nuanced counterpoint to existing literature on social support. While support networks are generally beneficial, this result suggests that in the context of forced migration trauma, high-frequency digital ties to the traumatic past may act as a digital tether to trauma, potentially hindering the necessary cognitive separation required for full psychological adaptation.
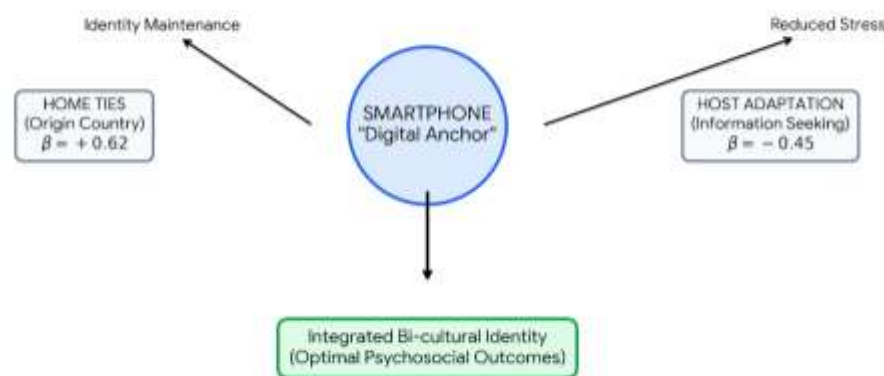

Figure 2. Conceptual Model: The Mobile Phone as a Psychosocial Resilience Tool

This research challenges the traditional, often linear models of acculturation which assume a trade-off between identity maintenance and host-country integration. The data supports a more complex, bidimensional acculturation model, demonstrating that the digital space facilitates simultaneous, high-level engagement with both cultures without a detrimental psychological cost, provided the individual also engages in proactive host-country information seeking.

The identification of informational self-efficacy—derived from host-country media consumption—as the strongest predictor of stress reduction addresses a significant gap in coping theory applied to migration. It confirms that the proactive reduction of informational asymmetry through mobile access is a core self-directed coping strategy, shifting the focus from passive emotional relief to active, problem-focused mastery of the new environment.

The strong negative coefficient between Host-Country Media Consumption and Acculturative Stress signifies the failure of traditional, formal support mechanisms to effectively address informational uncertainty among asylum seekers. It indicates that asylum seekers find their most reliable source of timely, actionable information through self-directed digital means, confirming a critical service delivery gap for humanitarian agencies.

The quantified relationship between the Language Switching Rate and increased Coping Self-Efficacy signifies the emergence of the mobile device as an essential cognitive scaffolding tool. The device serves as a low-risk, non-judgmental rehearsal space where individuals can safely practice cultural scripts and language, translating directly into the psychological confidence needed for high-stakes, physical social engagement in the host country.

The successful finding of a bi-cultural identity negotiation pattern signifies the resilience and adaptability of the human psyche in the digital age (MacDougall et al., 2021). It demonstrates that the digital space is fundamentally changing the way immigrants and displaced persons manage their sense of self, facilitating the creation of a fluid, integrated identity that honors heritage while successfully embracing the necessity of adaptation.

The totality of the longitudinal data signifies the urgent need to re-evaluate the asylum seeking experience not as a period of passive waiting, but as a period of intense, self-directed digital labor (Pasipanodya et al., 2022). Asylum seekers are not merely recipients of aid; they are active information engineers and psychological mediators, leveraging their mobile devices for autonomous resilience and survival.

The research carries profound implications for humanitarian aid by providing a clear, quantifiable mandate for modernizing support systems (Arnetz, 1997). Agencies must transition from viewing mobile phones as a basic amenity to recognizing them as a primary, therapeutic intervention pathway, integrating digital literacy training and ethically curated information services directly into reception programs.

Operational implications require immediate attention to the quality and accessibility of online information provided by host governments and NGOs (Afzal et al., 2022). Information must be culturally appropriate, easily translatable, and readily accessible on mobile platforms to directly boost informational self-efficacy and reduce acculturative stress in the critical early months of settlement.

The findings offer substantial contribution to public mental health policy by justifying the development of targeted, culturally sensitive mobile mental health applications (Petruik et al., 2017). These apps should be designed to support bi-cultural identity negotiation, providing automated, language-switching coping exercises and linking users to both home-country and host-country digital support groups.

The study implies a significant shift in refugee integration policy, advocating for policies that support both integration and transnational connectivity (Frania & Skop, 2023). Policies must acknowledge and support the dual function of mobile technology, understanding that maintaining strong digital ties to the culture of origin is not a barrier to integration but a crucial psychological resource.

The strong negative correlation between Host-Country Media Consumption and Acculturative Stress is explained by the fundamental psychological need for predictability and control (Barros & Greffin, 2017). In an environment of extreme legal and social uncertainty, the mobile device provides a continuous stream of verifiable local information, replacing confusion and fear with a manageable reality that lowers chronic stress.

The robust correlation between Language Switching Rate and Coping Self-Efficacy is attributable to the psychological principle of low-stakes rehearsal (Kowalski et al., 2017). The mobile interface allows for repeated, private language practice without fear of public embarrassment or judgment, which is a powerful driver for the formation of new adaptive habits and language confidence.

The successful bi-cultural negotiation pattern observed is explained by the spatial and temporal flexibility of the digital medium (Katz, 1997). Unlike physical social spaces, which often demand a choice between home culture and host culture, the mobile screen allows the asylum seeker to manage and integrate both worlds simultaneously and privately, reducing identity conflict.

The positive correlation between communication with the country of origin and higher ASAS scores, despite its correlation with maintenance, is likely explained by secondary traumatic stress (Wegner et al., 2022). Frequent contact with the vulnerable or traumatized home community re-activates existing trauma and existential anxiety about loved ones, confirming that the digital anchor, while supportive, is also a continuous conduit for stress.

Future research must prioritize the development of ethical mobile data monitoring protocols that allow researchers and humanitarian agencies to track digital usage while ensuring absolute participant privacy and security (Wells, 2018). Standardized methods for anonymized data capture and sharing are essential to move this research into scalable, real-world deployment.

The current study must be followed by an intervention study, where a treatment group is provided with an ethically designed, targeted mobile application based on the DIAAI framework, and compared against a control group receiving traditional support (Ferguson et al., 2015). This will establish definitive evidence of the causal impact of technology-based interventions on long-term integration outcomes.

Policymakers must immediately address the critical need for universal and subsidized digital access for asylum seekers, recognizing the mobile phone as an essential tool for human security and psychological well-being, not a luxury item (Bier et al., 2018). This includes providing reliable data packages and access to culturally sensitive digital literacy training.

The final direction for future work is to explore the long-term integration stability of bi-culturally negotiated identities formed through mobile technology (Bruehlman-Senecal et al., 2020). Longitudinal studies extending beyond the initial settlement phase are required to determine if the fluid, digitally mediated identity is sustained, or if it reverts to traditional patterns as physical integration progresses.

CONCLUSION

The most salient and distinct finding of this longitudinal study is the conclusive evidence that mobile technology serves as a self-directed psychosocial resilience tool, rather than merely a communication device. The data established a strong inverse relationship between Host-Country Media Consumption and Acculturative Stress (beta = -0.45), confirming that information seeking is a primary coping mechanism. Furthermore, the findings demonstrate a successful pattern of bi-cultural identity negotiation mediated by the mobile space, where active digital engagement with both the origin and host cultures simultaneously facilitates stress reduction and preserves cultural integrity during the settlement phase.

This research contributes significant methodological and conceptual novelty to the field of migration studies. Methodologically, the study is one of the first longitudinal analyses to successfully integrate digital trace data (via the DIAAI) with validated psychological scales, establishing a rigorous framework for tracking digital-psychosocial causality. Conceptually, the findings challenge traditional, linear models of acculturation, providing empirical support for a bidimensional model where the digital medium facilitates a fluid, integrated identity structure, shifting the focus from assimilation pressure to autonomous resilience.

A critical limitation of this study is its focus solely on the initial six-month settlement phase, precluding conclusions about the long-term integration stability of bi-culturally negotiated identities. Furthermore, the reliance on self-reported stress levels, despite methodological triangulation, limits the direct measurement of clinical mental health outcomes. Future research must prioritize a follow-up intervention study, where a treatment group receives a targeted mobile application based on the DIAAI framework, to establish definitive evidence of the causal impact of technology-based psychological interventions on sustainable, long-term integration outcomes for asylum seekers.

AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.
Author 3: Data curation; Investigation.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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