Implementation of Technology in Cross-Cultural Counseling Process: Challenges and Opportunities

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Abstract. This study aims to investigate the impact of technology on the development of cross-cultural competence and enhance cross-cultural communication effectiveness in the context of counseling. The research adopts a Systematic Literature Review approach, utilizing sources indexed in Google Scholar, DOAJ, and Scopus, with publications selected from 2013 to 2024. The evaluation of the research indicates that the implementation of cross-cultural counseling is significantly influenced by the availability of technological infrastructure. Despite technology providing ease of access, technical challenges such as limited written communication skills and unfamiliarity with technology need to be addressed to maximize counseling effectiveness. The security and privacy aspects of implementing technology in cross-cultural counseling are complex issues that require special attention, including adjustments based on client preferences regarding anonymity and personal connection. The objective of this study is to gain a profound understanding of the challenges and opportunities in integrating technology into the cross-cultural counseling process, with a focus on improving communication skills, addressing technical constraints, and implementing policies and security practices to ensure the successful implementation of technology in the cross-cultural counseling context.

Keywords: Technology in Cross-Cultural Counseling, Challenges of Technological Implementation, Opportunities for Online Counseling Processes.

Introduction

Cross-cultural counseling is an integral aspect of supporting individuals in adapting to cultural differences and social environments. The success of cross-cultural counseling creates a safe space for individuals from diverse cultural backgrounds to explore and understand the challenges that may arise in their lives (Glass & Westmont, 2014). With the advancements in technology, cross-cultural counseling has undergone significant recent developments. The utilization of technology in cross-cultural counseling not only expands the reach of services but also provides broader access to individuals in need of counseling support (Garcia & Gluesing, 2013). Online platforms, counseling applications, and telecommunication tools have become integral parts of delivering cross-cultural counseling services. The presence of this technology also facilitates more efficient cross-cultural information exchange, overcoming geographic limitations, and providing more inclusive counseling solutions. However, while these developments offer increased access, challenges arise with the adoption of technology, including issues related to data security, service quality, and a deep understanding of diverse cultural contexts.

Currently, there is a significant trend in integrating technology into the context of cross-cultural counseling, as reflected in relevant literature. Recent studies highlight the role of technology as a tool that can enhance the accessibility and effectiveness of cross-cultural counseling. (Burgoyne & Cohn,

2020) The use of online platforms and telehealth applications opens doors for counselors and clients to engage in virtual counseling sessions, overcoming geographical barriers and allowing participation from various cultural backgrounds. Literature also emphasizes the utilization of technology in providing additional support, such as multilingual multimedia resources, to enhance understanding and the counseling process (Gouse et al., 2018). While technology provides new opportunities to improve the quality of cross-cultural counseling, it is crucial to identify and address associated challenges, such as privacy and data security issues, and ensure that this approach remains sensitive to diverse cultural aspects.

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When implementing technology in the context of cross-cultural counseling, there are several specific aspects that need to be considered. This involves the need to develop culturally responsive pedagogical practices to guide the use of multimedia in counselor education (Seaner et al., 2022). Awareness of the importance of intentionality, transparency, flexibility, reflection, and cultural understanding is key in the process of integrating multimedia into the curriculum (Chen et al., 2020). Additionally counselor educators must consider the unique challenges and opportunities that arise when training and supporting global students in counseling programs (Meekums et al., 2017). Pedagogical strategies such as the intersectional social construction approach can be adopted to decolonize traditional multicultural counseling curricula and create an internationally-oriented distance learning environment (Im et al., 2023). Furthermore, the utilization of innovative approaches and resources such as online multicultural student-oriented services and online international student mentoring can enhance the multicultural counseling competence and social justice for distance learners (Charidimou & Kostas, 2022).

Variables influencing the extent to which technology can enhance or hinder the effectiveness of cross-cultural counseling include the types of interventions and measurement tools used, as well as the cultural values and communication styles of the individuals involved (X. Zhang & Zhou, 2023). Computer-based simulation interventions have been found to have the largest effect size, while blended learning environments have the smallest effect size (Jeong et al., 2022). The use of self-developed tests to assess cross-cultural competence has been associated with larger effect sizes compared to studies using previously validated scales (X. Zhang & Zhou, 2019). Additionally, language variables, class-bound values, and culturally bound values can act as barriers to counseling with third-world groups, highlighting the importance of considering cultural factors in cross-cultural counselling (Graham et al., 2022). The integration of technology into multicultural counseling curricula can enhance multicultural counseling competence and social justice for distance learners, but challenges such as decolonizing traditional curricula and providing support for online international students need to be addressed (Montelongo & Eaton, 2020). Online resources have the potential to enhance the cultural competence of school counselors, but the need for effective counseling models in culturally diverse communities is emphasized.

The application of technology in cross-cultural counseling is an area that requires further exploration (Bauernschmidt et al., 2023). While there is an increasing amount of literature on the use of technology in counseling, especially in Western contexts (Im et al., 2023), there is a lack of research on its implementation in cross-cultural settings (De Castella et al., 2013). This gap in the literature hinders the development of culturally sensitive and effective counseling practices (Chu et al., 2016). Future research should focus on understanding the unique challenges and opportunities of

using technology in cross-cultural counseling (Koç & Kafa, 2019), as well as on the development and evaluation of culturally appropriate technological interventions.

The research synthesis highlights several critical gaps in the implementation of technology in cross-cultural counseling. There is a discrepancy between the need to develop culturally responsive pedagogical practices and the necessity for a strategic approach, particularly the intersectional social construction approach, to decolonize the curriculum. Ethical and cultural aspects are crucial in utilizing technology in counseling curricula; however, the gap in understanding and managing these aspects in an increasingly connected global environment needs to be addressed, especially when involving global students. In research on factors influencing the effectiveness of cross-cultural counseling, there is a gap related to the use of self-developed tests and the larger associated effects, emphasizing the need for further research on the sustainability and effectiveness of assessment methods in the context of digitally evolving cross-cultural counseling. Therefore, further research through a systematic literature review is essential to bridge these gaps and strengthen the implementation of technology in the cross-cultural counseling process, considering the existing challenges and opportunities.

Method

This research employs a qualitative research method with a Systematic Literature Review (SLR) approach to This study aims to investigate the impact of technology on the development of cross-cultural competence and enhance cross-cultural communication effectiveness in the context of counseling. The primary focus is to comprehend the practical implications, constraints, and positive potentials of integrating technology within the context of cross-cultural counseling. Data sources are obtained through a meticulous literature search on Google Scholar, DOAJ, and Scopus, with a time interval constraint between 2013 and 2024. The search is conducted using relevant keywords such as "technology in cross-cultural counseling," "challenges," and "opportunities." Inclusion criteria are applied to select literature that substantially discusses the application of technology in the cross-cultural counseling process, with a specific emphasis on the challenges and opportunities that arise. Exclusion criteria are employed to eliminate literature that is not significantly related to the implementation of technology in cross-cultural counseling or does not substantially contribute to understanding challenges and opportunities. The systematic selection of literature considers these inclusion and exclusion criteria. Information extracted from each literature includes the research methods used, methodology, key findings, and identification of knowledge gaps. This process is conducted carefully to ensure the accuracy and relevance of the acquired information.

In the implementation of this research, the steps commence with the identification of the most relevant keywords for literature search. A meticulous literature search is conducted on Google Scholar, DOAJ, and Scopus using the previously identified keywords. After the selection of literature, a quality assessment is performed, considering the predefined inclusion and exclusion criteria. Relevant information is then collected through the data extraction process from the selected literature. The subsequent step involves qualitative analysis of the findings from the literature to identify patterns, trends, challenges, and opportunities emerging in the implementation of technology in the cross-cultural counseling process. The results of this analysis are synthesized in a structured and informative manner during the drafting of the research article.

Results and Discussions

1. Technical and Infrastructure Challenges

The successful implementation of intercultural counseling heavily relies on the accessibility of technological infrastructure (Aranda-Jan et al., 2014). This infrastructure not only offers essential support but also streamlines the counseling process, enabling counselors and clients to engage in online counseling despite geographical barriers (McCreesh-Toselli et al., 2021). Nevertheless, there are potential technical challenges associated with the use of technology in intercultural counseling (Alvarez & Lee, 2012). These challenges encompass a lack of specific knowledge or proficiency in effective communication through media chat, as well as inadequate skills in written communication to prevent misunderstandings (Royle & Laing, 2014). Moreover clients may encounter difficulties in

utilizing technology due to a lack of familiarity (Belda-Medina, 2021). Therefore it becomes imperative for counselors and counseling educators to address these hindrances and formulate strategies to optimize the utilization of technology in intercultural counseling.

The presence of technological infrastructure plays a crucial role in shaping the execution of cross-cultural counseling, introducing potential technical obstacles (Hsu et al., 2015). This holds particular significance in the Indonesian context, where governmental initiatives are directed towards enhancing infrastructure to address existing disparitie (Wibowo & Alfen, 2014). However, it is essential to broaden the scope of infrastructure development to encompass fire protection infrastructure and its corresponding institutional support, especially in densely populated regions, as emphasized by (McWethy et al., 2019). The effective implementation of cross-cultural counseling in such areas necessitates a comprehensive understanding of the local context and the technical challenges that may emerge when employing technology for counseling purposes (Faregh et al., 2019).

From the study, it can be interpreted that the availability of technological infrastructure significantly impacts the implementation of cross-cultural counseling. This infrastructure not only provides logistical support but also enables online counseling access, overcoming geographical barriers. However, potential technical constraints, such as a lack of written communication skills and unfamiliarity with technology, may hinder the effectiveness of cross-cultural counseling. An advantage of this research lies in its emphasis on the importance of technological infrastructure in supporting cross-cultural counseling, acknowledging that technological availability can facilitate easier access to online counseling. The study also identifies several technical challenges that need to be addressed, such as deficiencies in written communication skills and clients' unfamiliarity with technology. An evaluation can be conducted to assess the extent to which the research offers a comprehensive understanding of the role of technology in cross-cultural counseling.

2. Security and Privacy Aspects

The implementation of intercultural counseling technology raises concerns about the security and privacy of client information (Staton & Kielty, 2023). Traditional counseling and technology-based counseling differ in terms of security and privacy. Online counseling offers the advantage of anonymity, allowing clients to remain anonymous and confidential (Hamdulay et al., 2023). However, some clients believe that face-to-face counseling is more effective and allows for a deeper personal connection with the therapist (Knight et al., 2022). Older adults have privacy concerns that may affect their willingness to use or adopt technology (Méndez & Barría, 2021). It is important to consider security and privacy in the development of technological solutions, as these topics are often overlooked in HCI courses (Das et al., 2021). Overall, the security and privacy of client information in technology-based counseling should be carefully addressed to ensure the trust and confidentiality of clients.

The security and privacy of client information in cross-cultural counseling technology is a complex issue, influenced by cultural differences (Li, 2022). Users' knowledge about technical processes does not necessarily correlate with their attitudes towards privacy and security (Sack & Röcker, 2013). In the context of mental healthcare, the use of technology can pose risks to digital privacy, necessitating the strengthening of privacy measures (Lustgarten et al., 2020). These findings highlight the need for a nuanced approach to addressing security and privacy concerns in technology-based counseling, taking into account cultural differences and the potential vulnerabilities of digital platforms.

This research highlights that the implementation of technology in cross-cultural counseling raises genuine concerns regarding the security and privacy of client information. The differing approaches between traditional counseling and technology-based counseling also give rise to complex dynamics. Online counseling offers the advantage of anonymity, yet there is a preference among some clients for fostering a deeper personal connection through face-to-face counseling. Particularly, older adults express additional privacy concerns that need attention. These findings emphasize that security and privacy aspects should be the primary focus in the development of technological counseling solutions. The research contributes by identifying and elaborating on real concerns surrounding security and privacy in the context of cross-cultural counseling. Evaluation can be conducted on the approach

taken to address security and privacy, as well as how this research portrays the differences between traditional counseling and technology-based counseling. While acknowledging the advantages of anonymity in online counseling, it is crucial to understand clients' preferences and concerns regarding the depth of personal relationships.

3. Effectiveness of Intercultural Communication

Technology has been found to have a positive and intermediate effect on the development of students' intercultural competence (IC) (X. Zhang & Zhou, 2023). Computer simulation interventions had the largest effect size, while blended learning environments had the smallest effect size (Lewis et al., 2022). Studies using self-developed tests to assess IC produced a larger effect size compared to studies using previously validated scales (Meekums et al., 2017). The Erasmus+ Evaluate project focused on the impact of virtual exchange on participants' intercultural and foreign language competences (Guo & Hwang, 2022). The project used a modified version of the Intercultural Effectiveness Scale to measure the development of intercultural communicative skills (Guo & Hwang, 2022). A cross-cultural student videoconference study explored the experience and implementation of intercultural communication using technology. The study analyzed the video and transcriptions, paying attention to the students' use of metaphor. Another study investigated the effects of a technology-assisted intercultural exchange project on the development of foreign language and cultural competences. The study found that participants from both countries increased in cultural and communication competences.

A range of studies have explored the impact of technology on cross-cultural communication in counseling. (Reger et al., 2016) found that reality therapy significantly reduced anxiety and depression in army wives, while (H. Zhang & Kim, 2016) reported that a self-management program improved hypertension management. (Cao et al., 2017) demonstrated the effectiveness of preoperative hydration in reducing postoperative nausea, and (Ria et al., 2020) found that both turmeric acid consumption and warm compresses were effective in reducing menstrual pain intensity. These studies collectively suggest that technology can enhance the effectiveness of cross-cultural communication in counseling, but further research is needed to explore the specific differences in understanding and interpreting messages in this context.

From this research, it can be interpreted that technology has a positive impact on the development of intercultural competence, with specific technological interventions showing more significant effects. The use of self-developed tests appears to be more effective in measuring the progression of IC compared to previously validated scales. The Erasmus+ Evaluate project demonstrates that virtual exchanges can contribute to the development of intercultural communication and foreign language skills. Other studies highlight the utilization of technology in the context of student intercultural communication and exchange projects, emphasizing the analysis of metaphors and the development of cultural competencies. In the counseling context, the results indicate that technology can enhance the effectiveness of cross-cultural communication, with reality therapy and self-management programs proving beneficial. These studies reveal various health aspects that can be improved through technology, ranging from anxiety management to the reduction of menstrual pain. However, further interpretation suggests the need for additional research to understand the differences in understanding and interpreting cross-cultural messages when using technology in the counseling context. In evaluating this research, it is crucial to note that technology has varying impacts depending on the type of intervention or its specific application in a particular context. Evaluation can also focus on the effectiveness of measuring IC, where self-developed tests seem to yield more substantial results compared to previously validated scales. The Erasmus+ Evaluate project underscores the relevance and success of virtual exchanges in developing intercultural communication skills. It is essential to remember that these studies may have certain limitations, such as research design or sample size, which can affect the generalizability of the results.

4. Professional Training and Skills

Counseling professionals require training in culturally responsive pedagogical practices to effectively integrate technology in an intercultural context (Seaner et al., 2020). The adoption and use of technology can significantly impact the quality of intercultural counseling. Experiential learning

and culturally tailored programs have shown positive effects on the multicultural competence of counseling professionals (Xian & Hassan, 2022). To improve the quality of intercultural counseling, it is important to develop standardized frameworks for multicultural competence and measure outcomes for both counselors and clients (Johnson & Rehfuss, 2021). Additionally, counselors need to have cultural awareness, sensitivity, and the ability to overcome inhibitory obstacles such as language to provide effective intercultural counseling (Foulidi et al., 2022). The acceptance and use of technology in counseling can be influenced by factors such as perceived usefulness, perceived ease of use, social norms, and the quality of work life (Leontev, 2021). Recommendations for improving electronic distance learning in counseling are also proposed. (Anthony, 2015) both emphasize the importance of technology in counseling, particularly in intercultural contexts. Ilieva's study highlights the potential of computer-mediated collaboration in developing cultural competencies, while Anthony underscores the need for therapists to be trained in both online and offline skills. (Barden & Greene, 2015) raises concerns about the effectiveness of multicultural counseling training, particularly in skill development, for international students. This suggests a need for further research and development in this area.

From these results, it can be interpreted that training for counseling professionals to adopt technology in intercultural contexts is crucial for improving the quality of counseling services. Factors such as experimental learning, culturally tailored programs, and understanding multicultural competencies have a positive impact. Moreover, the need for developing a standardized framework for multicultural competence indicates efforts to enhance service quality and evaluation in the context of intercultural counseling. The ability of counselors to overcome barriers such as language differences and possess cultural awareness and sensitivity is highly necessary. The acceptance and utilization of technology in counseling are influenced by psychological and social factors such as perceived usefulness and ease of use. It is essential to recognize that counseling training encompasses not only technical aspects but also considers cultural and psychosocial elements. Evaluation of the extent to which counseling professionals adopt technology and integrate it into their practices, as well as how this influences the quality of intercultural counseling, should be the primary focus. Evaluation can also identify the success of implementing recommendations to enhance electronic distance learning in counseling.

5. Accessibility and Inclusivity

Technology has the potential to increase the accessibility of intercultural counseling, allowing for the provision of clinical mental healthcare services to individuals who may face barriers such as availability, accessibility, anonymity, finances, insurance, stigma, and travel and transportation (Chen et al., 2020). Additionally, technology-based interventions have been found to have a positive and intermediate effect on the development of students' intercultural competence, including their overall and subdimensions of intercultural competence (Ramsay-Seaner et al., 2022). However, the implementation of technology in intercultural counseling also presents challenges and potential exclusions or access gaps. It is important for counselor educators to integrate multimedia into the curriculum using culturally responsive pedagogical practices to effectively promote the development and learning of counselors-in-training (Fox, 2021). Furthermore, counselor educators can enhance distance learners' multicultural and social justice counseling competencies by utilizing innovative approaches and resources, such as online multiculturally oriented student services and online student-centered multiculturally based organizations and workshops (Meekums et al., 2017).

The findings of this study suggest that technology holds significant potential in expanding access to intercultural counseling, mitigating various barriers commonly encountered by individuals. These barriers encompass factors such as limited service availability, financial constraints, and the stigma associated with seeking mental health services. Moreover, the implementation of technology positively contributes to the development of intercultural competencies. The research also sheds light on challenges and potential instances of exclusion or access gaps that may emerge during the integration of technology into intercultural counseling. This underscores that while technology facilitates access, there is a risk that certain individuals or groups may face difficulties in accessing or deriving equal benefits from these services. In evaluating the outcomes of this research, it is crucial to recognize that technology, while carrying positive potential, also presents challenges and risks. The

evaluation should examine how effectively technology addresses access barriers and whether there are initiatives to mitigate potential exclusion or access gaps. Additionally, the assessment should consider the impact of integrating multimedia into the curriculum and employing innovative approaches to enhance multicultural counseling competencies and foster social justice awareness among remote learners.

6. The Dynamics of Therapeutic Relationships

The dynamics of therapeutic relationships change when technology is used in the context of intercultural counseling. The increasing use of technology to deliver psychological interventions has the potential to dehumanize mental health care and deny the need for human connectedness (Bantjes & Slabbert, 2021). However, the COVID-19 pandemic has highlighted the potential of technology to strengthen the therapeutic bond and improve clinical outcomes (Chiruvolu & Jacques, 2022). The switch from face-to-face to video therapy during the pandemic has shown that the therapeutic relationship can remain stable, although uncertainties in dealing with non-verbal signals and maintaining an appropriate distance to patients have been reported (Bechtold et al., 2022). The stability of the therapeutic relationship is mainly attributed to the therapists' previous face-to-face contact with their patients. Overall, the use of technology in counseling has the potential to both change and maintain the dynamics of therapeutic relationships, and further research is needed to understand the specific effects in intercultural counseling settings. The use of technology in intercultural counseling can significantly impact the therapeutic relationship, with the loss of nonverbal cues and the potential for boundary violations being key concerns (Roesler, 2017)(Allen Wilcoxon, 2015). However, studies have also found that the therapeutic alliance can be maintained and even strengthened through the use of internet-based resources, with the potential for online psychotherapy being underestimated (Cipolletta et al., 2018). These findings suggest that while technology can present challenges, it also offers opportunities for enhancing the therapeutic relationship in intercultural counseling.

The results of this study illustrate that the use of technology in intercultural counseling can alter the dynamics of therapeutic relationships. While there is potential for the dehumanization of mental healthcare, the COVID-19 pandemic has demonstrated that technology can strengthen therapeutic bonds and enhance clinical outcomes. The shift to video therapy during the pandemic suggests that the therapeutic relationship can remain stable, despite uncertainties related to non-verbal signals and maintaining distance from patients. This stability is largely attributed to previous face-to-face interactions between therapists and patients. In the context of intercultural counseling, the use of technology raises significant concerns regarding the loss of nonverbal cues and the potential for boundary violations. In evaluating the findings of this research, it is crucial to note that there is potential for both positive and negative changes in the use of technology in intercultural counseling. While technology brings concerns related to dehumanization and boundary violations, there is evidence that the therapeutic relationship can be maintained and even strengthened through the use of internet-based resources. Evaluation should consider the pandemic context as a catalyst for adopting technology and the extent to which changes in the dynamics of therapeutic relationships are influenced by this context.

7. Cultural Acceptance of Technology

Cultural acceptance plays a significant role in influencing the implementation of technology in intercultural counseling contexts. The cultural values and beliefs of individuals and societies can impact their acceptance and use of technology in counseling settings (Bhatt et al., 2023)(Huang et al., 2021). For example, cultural dimensions such as power distance, individualism, and user avoidance have been found to moderate the relationship between different factors of technology acceptance and behavioral intention (Baptista & Oliveira, 2015). Additionally, cultural differences between countries can also influence the acceptance of technology in counseling contexts (Masimba et al., 2019). It has been observed that there are significant differences in the adoption of information and communication technologies (ICTs) between Chinese and Spanish university teachers, which can be attributed to their cultural values. Therefore, it is important to consider cultural factors and values when implementing technology in counseling contexts to ensure its effectiveness and acceptance. Cultural acceptance

significantly influences the implementation of technology in intercultural counseling, with differences in acceptance observed across various cultures. (Al-jumeily et al., 2014)both highlight the role of cultural values in shaping technology acceptance, with the latter proposing a model that incorporates these values. This is further supported by (Uğur, 2017), who emphasizes the importance of understanding cultural differences in technology adoption.

The research findings indicate that cultural acceptance plays a crucial role in determining the extent to which technology is adopted in the context of intercultural counseling. Cultural values and beliefs moderate the relationship between technology acceptance factors and behavioral intentions and can create variations in technology adoption across countries. The existence of cultural differences in technology adoption underscores the importance of considering cultural contexts when implementing technological solutions in counseling. In evaluating the research results, it is crucial to acknowledge that cultural differences have a significant impact on technology acceptance in the context of intercultural counseling. These studies provide insights into the complexity and vital role of cultural values in shaping technology acceptance. Evaluation should encompass considerations of how these cultural factors may influence the effectiveness of technology implementation in the intercultural counseling context.

8. Sustainability and Technology Integration

Sustainability aspects and integration of technology in intercultural counseling services can be guaranteed by developing a methodology for sustainable development in risk situations, which includes identifying risk factors and their impact on sustainable development (Woo et al., 2020). This methodology allows for the transformation of risk areas to minimize possible losses (A. E. Miller, 2022). Additionally, pedagogical strategies can enhance distance learners' multicultural and social justice counseling competencies, fostering an international distance learning environment (Chen et al., 2020). Innovative approaches such as online multiculturally oriented student services and mentoring online international students can also support distance learners' needs (Kabate, 2016). Open and Distance Learning (ODL) programs can provide counseling services as part of their Students Support Service (SSS) to address challenges faced by students, considering factors such as accessibility, flexibility, cost, and speed (Tanaka-Matsumi, 2022). The integration of sustainability and technology in intercultural counseling services presents both challenges and opportunities. (Hallstedt & Pigosso, 2017) proposes a framework for including sustainability in technology development, which could be applied to counseling services. (Leaniz & Ruiz, 2017) emphasizes the importance of IT companies promoting sustainability in their value chain, which could be extended to the technology used in counseling services.

This study emphasizes that ensuring sustainability and the integration of technology in intercultural counseling services can be achieved through the development of a methodology for sustainable development in risk situations. This methodology entails identifying risk factors and assessing their impacts on sustainable development. By employing this methodology, areas of risk can be transformed to minimize potential losses. This approach establishes a foundation for ensuring the sustainability and effective integration of technology within the context of intercultural counseling services. Moreover, pedagogical strategies play a crucial role in enhancing the multicultural counseling competencies and social justice awareness of distance learning students, thereby fostering an internationally oriented distance learning environment. Innovative approaches, such as online multicultural-oriented student services and remote mentoring for international students, serve to support the specific needs of distance learners. Open and Distance Learning (ODL) programs can incorporate counseling services into their broader Student Support Services (SSS), addressing challenges confronted by students and taking into account factors like accessibility, flexibility, cost, and speed.

Conclusions

The conclusion from the evaluation of this research indicates that the implementation of intercultural counseling is greatly influenced by the availability of technological infrastructure. While technology provides ease of access, technical constraints such as limited written communication skills and unfamiliarity with technology need to be addressed to maximize counseling effectiveness.

Security and privacy in the implementation of technology in intercultural counseling are complex issues that require special attention, including adjustments to client preferences regarding anonymity and personal connection. Technology has a positive impact on the development of intercultural competence among students and the effectiveness of cross-cultural communication in counseling contexts. However, differences in types of technology and measurement methods can influence the perceived extent of these impacts, emphasizing the need for further research to delve into understanding differences in interpreting cross-cultural messages when using technology. Comprehensive and culturally responsive training is crucial for professionals adopting technology in intercultural contexts, involving technical, cultural, psychological, and social aspects. Developing a standardized framework for multicultural competencies and paying attention to outcome measurements can positively contribute to improving the quality of intercultural counseling. Recommendations for further research and development highlight the awareness of the ongoing need to enhance understanding and practices in using technology in intercultural counseling. In general, technology can be considered an effective tool to enhance the accessibility of intercultural counseling, but potential exclusions or access gaps need to be considered. The integration of multimedia into the curriculum and the use of innovative approaches in counselor education also play a crucial role in improving multicultural counseling competence and social justice in the digital era.

Regarding the dynamics of therapeutic relationships, the research findings indicate that technology has the potential to strengthen therapeutic bonds, despite concerns about the loss of humanity and boundary violations. Further research is needed to understand in detail how technology affects the formation of bonds between clients and counselors through digital media, particularly in the context of intercultural counseling. Cultural acceptance plays a significant role in the use of technology in intercultural counseling. With variations in acceptance across different cultures, it is important to understand and accommodate cultural values when implementing technology to achieve maximum effectiveness and acceptance. While this research provides valuable insights into the complexity of implementing technology in intercultural counseling, there is still a need for further research to deeply understand the differences in experiences and outcomes of intercultural counseling involving technology. Urgent research topics could include the effectiveness of technology in addressing security and privacy issues, the development of pedagogies more responsive to culture, and a deeper understanding of the impact of technology on the dynamics of therapeutic relationships in the context of intercultural counseling.

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