

A Review on the Relationship Between Computer Self-Efficacy and Attitude toward Tele-Mental Health among School Counselors

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Abstract

Tele-mental health has emerged as an effective way to extend mental health services to diverse and geographically dispersed populations. However, the success of these programs is not solely dependent on technology, but also on the counsellors' willingness and readiness to embrace it in their professional practice. This underscores the significant role of counsellors' attitudes towards technology in executing such initiatives. The present study aimed to explore the relationship between computer self-efficacy and attitudes towards tele-mental health among school counsellors. The methodology applied inclusion and exclusion criteria based on the Ebscohost and Google Scholar databases. The results of this review address that the relationship between computer self-efficacy and attitudes toward tele-mental health among school counsellors highlights that higher confidence in using technology (computer self-efficacy) leads to more positive attitudes toward tele-mental health, as effective training and experience with digital tools make counsellors more willing and adept at integrating tele-mental health services into their practice. Through the process, ten articles in total were chosen. These results hold important implications for counselling practice, training, and policy formulation, emphasising the necessity of incorporating technology-related training into counselling education programs and providing ongoing support for counsellors in adopting tele-mental health approaches.

Keywords: Computer Self-Efficacy, Attitude, Tele-Mental Health, School Counsellors

Introduction

The rapid growth of the Internet has resulted in fundamental changes in everyday life, notably in human connections and communication. By January 2023, Malaysia had 33.03 million Internet users, accounting for 96.8 percent of the total population (Kemp, 2023). Internet-based communication has become an essential part of daily life, particularly among the younger population (Campbell & Colmar, 2014). According to statistics, 99.8 percent of

young people, or around 24.80 million, actively communicate on the Internet through various social media platforms.

Technological improvements, combined with broad adoption of the Internet and associated digital technologies, have resulted in a paradigm shift in counselling services, with tele-therapy replacing traditional face-to-face counselling (Mallen et al., 2005). Tele-mental health services are becoming increasingly popular in Malaysia as an alternative to in-person counselling sessions Lau et al (2013), especially during pandemics like the existing epidemic, when traditional counselling procedures are rendered unfeasible. This adjustment has had a significant impact on all counsellors.

During pandemics, counsellors are increasingly using tele-mental health as an alternative for traditional therapy approaches. Furthermore, the moment for introducing tele-mental health in schools is ideal, considering Malaysian adolescents' increasing usage of the internet and mobile devices. According to the Malaysian Communications and Multimedia Commission (MCMC), 83.2% of children and adolescents use the internet and mobile phones, spending an average of more than 6 hours per day on these devices (Kemp, 2019).

Tele-mental health is a previously established concept in the field of counselling. In the 1960s, computer software systems like ELIZA and PLATO pioneered tele-mental health in Western countries like the United States, where people communicated with computers rather than actual therapists (Lunt, 2004; Zainudin & Yusop, 2018). After these software programs, asynchronous ways of communication, such as email, were established. Asynchronous communication entails delayed contact (Teh et al., 2014). With technical improvements, synchronous connections in tele-mental health have been possible, allowing counsellors and clients to interact at the same time from separate locations (Manhal-Baugus, 2001). Synchronous modalities include video calls, live chat, and instant messaging (Foon et al., 2020; Mallen et al., 2005).

According to Zainudin and Yusof (2018), there is a need for greater student satisfaction with telemental health and face-to-face counselling. According to their findings, Malaysian students are more satisfied with telemental health than with face-to-face counselling. Anonymity Lekic (2006) and ease of access Skinner & Latchford (2006) are two challenges inherent in tele-mental health treatments that contribute to the satisfaction gap. Numerous research have established numerous benefits or advantages of telemental health, which may influence students' decisions to choose telemental health over traditional face-to-face counselling modalities.

Tele-mental health is as successful as in-person counseling (Zainudin et al., 2020; Glasheen et al., 2016; Dunn, 2012). The anonymity factor distinguishes tele-mental health from traditional counselling (Campbell & Glasheen, 2012; Zainudin et al., 2020). Clients can seek therapy to improve their anonymity, security, and privacy, hence reducing unfavorable impressions of receiving counseling (Cartreine et al., 2010; McAdams & Wyatt, 2010; Situmorang, 2020). Furthermore, anonymity gives clients more control, especially those who are uncomfortable with face-to-face counseling owing to social anxiety (Campbell and Glasheen, 2012; Hanley, 2012; Zainudin et al., 2020).

One of the challenges that school counselors face when implementing tele-mental health into their practices is their proficiency with technology (Othman, 2000). School counselors that are very proficient in technology are more likely to use tele-mental health, per (Steele et al., 2014). A critical component of being prepared to embrace tele-mental health is technological proficiency (Othman, 2000). Ongoing professional development has to be skill-oriented and cover the most recent advancements in teenage internet culture. When

it comes to teenagers that use foreign language when interacting online, school counselors may run into problems (Harrad & Banks, 2016; Fang et al., 2017; Foon et al., 2020).

Objectives

The main objective for this review is

1. To investigate the relationship between computer self-efficacy and tele-mental health among school counsellors.
2. To investigate the relationship between attitude and tele-mental health among school counsellors.

Methodology

Search Procedure

The objectives serve as guides for selecting relevant articles for the search. Articles were retrieved from the Ebscohost and Google Scholar databases. The search began with the keywords: a) computer self-efficacy, b) attitudes, and c) tele-mental health. The search results were then filtered to only include abstracts and journals about counselling and school counsellors. The number of literatures found was large, but the relevance of literatures connected to computer self-efficacy, tele-mental health, and attitudes over the last five years was quite limited.

Figure 1 depicts the sequential selection procedure. 1398 articles matched the original keyword search parameters. Additional filtration was done on publications that included the terms "school counsellors" and "educational counsellors" in order to obtain more pertinent papers. The number was whittled down to 12 and 10 literatures were chosen for this review based on exclusion criteria pertaining to duplicate articles, reviewed articles, books and chapters, non-counselling publications, and full text assessments.

Findings of Literature Review

Figure 2 depicts the information from the selected papers about relationship between computer self-efficacy and attitude toward tele-mental health among school counsellors. Each literature review explicitly states the author, year of publication, title of journal articles, participants, survey design, and main findings. Figure 2 is intended to provide a clearer and more comprehensive picture of the facts connected to the deployment of the relationship of computer self-efficacy and attitudes towards tele-mental health among school counsellors. The research included in this study were conducted in Indonesia, Lebanon, Ghana, Nigeria, Turkey, India and the United States, with the intention of producing more balanced results.

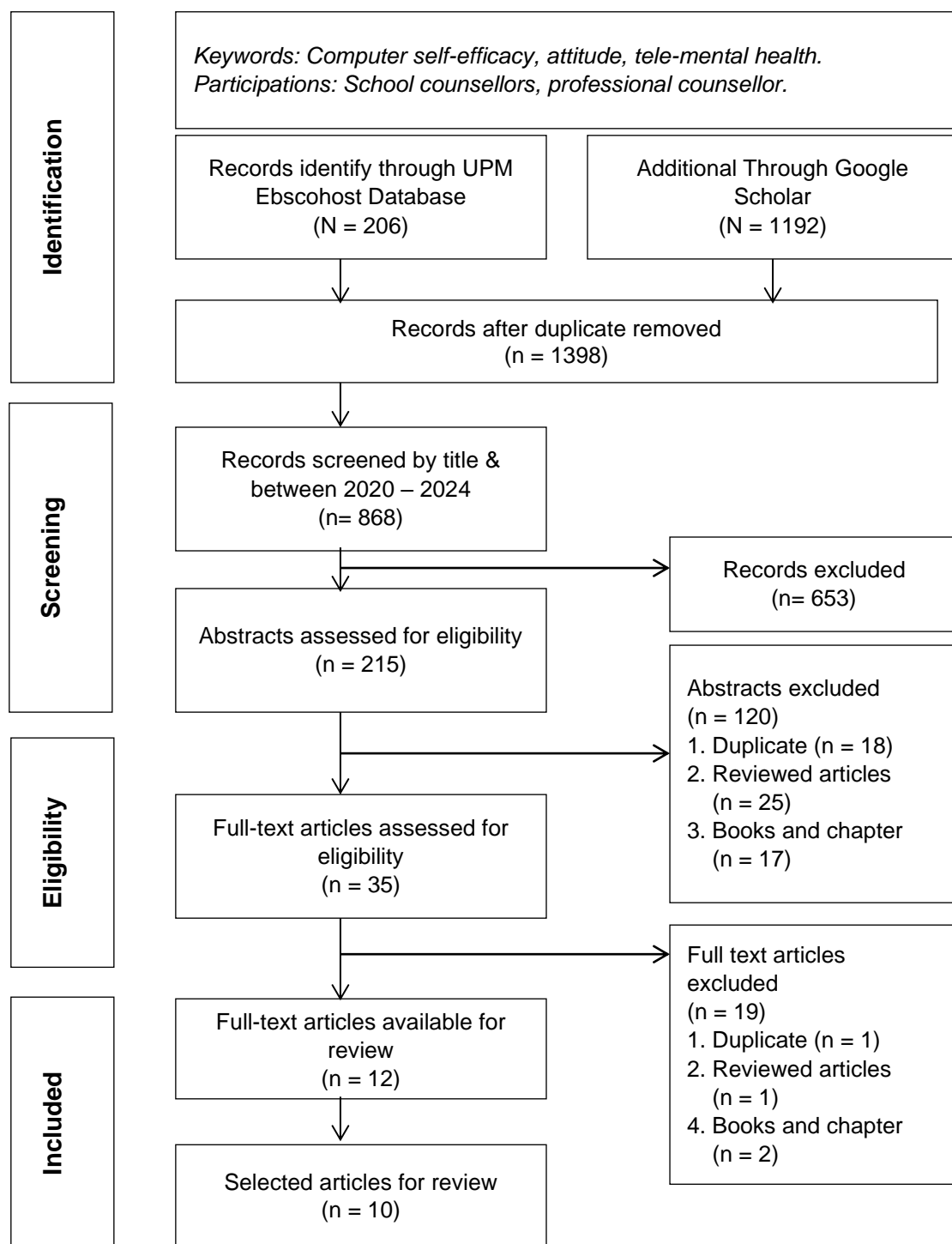


Figure 1. Flow diagram for selection review of studies on the relationship between computer self-efficacy and attitude toward tele mental health.

Author / Year	Title	Country	Journal	Participants of Study	Study Design	Findings Highlight
Akgül et al (2022)	School counselors' attitude toward online counseling services during the pandemic: The effects of resilience and digital self-efficacy.	Turkey	Psychology in the Schools	149 school counselors	Use cross-sectional and utilized a Mann-Whitney U test to examine gender differences.	The main findings indicated that higher resilience was significantly associated with better attitudes toward online school counseling. Additionally, resilient school counselors had higher digital self-efficacy, which boosted more positive attitudes toward online school counseling.
Julius et al (2020)	Digital literacy as a school counselor competence in the development of media in guidance services.	Indonesia	Jurnal Penelitian Bimbingan dan Konseling	School counselors	Formulating digital literacy competencies for school counselors in the development of media in guidance services.	The study highlighted that while millennial school counselors had the latest technological devices, they were still weak in using them effectively for guidance services. This indicates a gap in computer self-efficacy among school counselors, which could impact their ability to utilize digital tools efficiently in their roles.

Jaber& Al-Hroub (2023)	School counselors' perceptions of virtual counseling in Lebanon: A qualitative study.	Lebanon	Frontiers in Psychology	The study involved a total of 7 school counselors	Descriptive research design following a qualitative approach.	The counselors highlighted benefits such as increased flexibility in counseling, the ability to engage students anonymously, and improved bonding in the counseling relationship through virtual therapy.
Maurya et al (2020)	Counselors' perceptions of distance counseling: A national survey.	United State of America	Journal of Asia Pacific Counseling	193 counselors across the United States	Use descriptive survey research design to explore counselors' perceptions of distance counseling.	The study found that counselors' attitudes towards distance counseling were generally positive, with the majority perceiving it as an effective mode of delivering counseling services. In terms of computer self-efficacy, it did find that counselors with more experience were more open and comfortable with conducting distance counseling.
Robertson & Lowell (2021)	Counselor educator, supervisor, and practitioner	United State of America	Journal of Counselor Preparation and Supervision	132 participants who identified as Counselor	The study design was exploratory in nature, aiming to evaluate	The main findings of the study included that attitude

	perspectives on distance counseling and telemental health training and practice.			Educators (CE), Counseling Supervisors (CS), or Counseling Practitioners (CP)	the distance counseling and telemental health training and practice.	towards distance counseling and telemental health (TELE-MENTAL HEALTH) among Counselor Educators (CE), Counseling Supervisors (CS), and Counseling Practitioners (CP) have improved over time, with a majority of mental health practitioners viewing TELE-MENTAL HEALTH interventions favorably.
Abdillah et al (2020)	The acceptance of school counselor in the use of ICT during school from home in the Covid-19 era.	Indonesia	Journal for the Education of Gifted Young Scientists	214 school counselors	The study design is correlational using Structural Equation Modeling.	The findings include significant effects of Computer Self-Efficacy on Perceived Usefulness and Perceived Ease of Use. These results indicate the importance of Computer Self-Efficacy and Collegial Collaboration in shaping attitudes towards the use of technology in school counseling during the Covid-19 era.

Oktaviani et al (2021)	Developing a web-based application for school counselling and guidance during COVID-19 Pandemic.	Indonesia	Journal of Community Service and Empowerment.	Consisting of 19 students and one counseling and guidance teacher.	Involved lectures and questionnaires to enhance the counseling and guidance system.	The findings showed that the majority of respondents had positive attitudes towards the web-based application of counseling and guidance during the COVID-19 pandemic. Additionally, the study indicated that the development of the web-based application enhanced the counseling and guidance system at the school.
Nagarajan (2021)	Mental health counsellors' perceptions on use of technology in counselling.	India	Current Psychology	Involving 11 counselor (5 of them are counselor in a faculty)	The study design used snowball sampling to select participants for the study.	The findings show, most counsellors had a positive attitude towards using technology in counselling, with only a few expressing concerns about the limitations on human contact. Additionally, the counsellors were quite aware of the process, benefits, and costs of using different forms of technology in counselling.

Amos et al (2022)	Online counseling: perceptions of counselors, counselor educators and trainees.	Ghana	Journal of Asia Pacific Counseling	Involving 7 counselors, 11 counselor educators, and 134 counselor trainees, (152 participants).	Use an explanatory sequential mixed-method design.	The finding showed that there was a generally negative attitude towards online counseling among counselors, counselor educators, and counselor trainees. However, counselor educators and counselor trainees exhibited positive attitudes towards specific aspects of online counseling.
Adio & Bolaji (2023)	Perception and Attitude of Professional Counsellors Towards E-Counselling Services Delivery in Kwara State, Nigeria.	Nigeria	Educational Psychology Journal	Involving 400 professional counsellors	The study design employed was a descriptive survey.	The main findings of the study indicated that professional counsellors in Kwara State had positive attitudes towards e-counselling. Thus, the counsellors' mixed perception reflects their knowledge or experience of the benefits and challenges of ICT for interaction through the use of Android

Figure 2. Selected articles pertaining the relationship between computer self-efficacy and attitude toward tele-mental health among school counsellor

Discussion

Relationship between computer self-efficacy and tele-mental health among school counsellors.

The rapid expansion of tele-mental health services necessitates understanding various factors that influence the effectiveness and acceptance of these services. One crucial aspect is the role of computer self-efficacy an individual's confidence in their ability to use computer technology effectively in shaping the success of tele-mental health practices. According to Julius et al (2020), despite of having the latest tech devices, struggle to use them effectively for guidance services, showing a gap in computer self-efficacy among millennial counsellors. It is very important for school counsellor to understand the connection between computer self-efficacy and the integration and acceptance of tele-mental health services.

Additionally, computer self-efficacy is pivotal in determining how effectively counsellors can incorporate technology into their practice. The confidence a counsellor has in their computer skills can significantly influence their willingness and ability to deliver services through tele-mental health platforms. Abdillah et al (2020) emphasize that school counsellors with high computer self-efficacy are more inclined to integrate technology into their counselling practices. This integration stems from the heightened comfort level experienced by counsellors who are adept with computer technology when conducting online sessions.

More than that, studies indicate that technological competence is closely linked to the successful implementation of tele-mental health services. Suggs et al (2022) found that counsellors who are proficient in technology and possess substantial counselling experience positively impact the effectiveness and perception of tele-mental health. On the other hand, Oktaviani et al (2021) stated that school counsellors need to master technological equipment such as web-based applications to improve the overall counselling and guidance system. This suggests that computer self-efficacy is crucial in shaping how counsellors view and utilize tele-mental health modalities.

Educational background and training play a vital role in enhancing computer self-efficacy. Garza et al (2018) highlight that a counsellor's years of experience and comfort with technology predict their self-efficacy. Maurya et al (2020) also stated that counsellors with more experience are more comfortable in delivering distance counselling services. Training programs focusing on computer skills can bolster counsellors' confidence and competence in using tele-mental health platforms, leading to more effective online counselling practices.

Last but not least, resilience is another significant factor that influences computer self-efficacy and attitudes toward tele-mental health. According to Akgül & Ergin (2022), school counsellors with high resilience demonstrate improved computer self-efficacy and a more favourable outlook toward tele-mental health. This resilience enables them to tackle the inherent challenges of tele-mental health more effectively.

In conclusion the relationship between computer self-efficacy and tele-mental health is complex and multifaceted. Increasing counsellors' confidence in their computer skills can enhance their willingness and ability to engage in tele-mental health practices. As such, prioritizing education and training in computer skills is crucial for fostering more effective and accepted tele-mental health services.

Relationship between attitude and tele-mental health among school counsellors.

The integration of technology into counselling practices has become a cornerstone of modern mental health services. Tele-mental health, which enables counsellors to provide services remotely via digital platforms, has gained significant traction. However, the successful adoption and effectiveness of tele-mental health largely depend on counsellors' attitudes toward these digital tools. As tele-mental health becomes increasingly integral to mental health services, understanding counsellors' attitudes toward these platforms is essential.

Prior research by Garza et al (2018); Hennigan & Goss (2016) suggests that years of experience and comfort with technology enhance counsellors' self-efficacy, which in turn improves their attitudes toward tele-mental health. Counsellors with more extensive experience and familiarity with technology tend to have more positive attitudes towards tele-mental health. Robertson and Lowell's (2021) study demonstrated that increased exposure to tele-mental health practices leads to greater comfort and acceptance over time. This suggests that providing more opportunities for counsellors to engage with digital tools can foster more positive attitudes.

Training and education are vital for shaping positive attitudes towards tele-mental health. Adequate training in counselling skills can significantly boost confidence levels, enabling counsellors to manage online sessions more effectively (Chen et al., 2021). Research constantly shows that sufficient training in digital tools and tele-mental health practices considerably boosts counsellors' confidence and readiness to employ these technologies. Robertson and Lowell (2021) stated that ongoing education and practical experience are critical for improving attitudes and fostering greater acceptance of tele-mental health. Training that integrates both counselling techniques and computer skills is particularly beneficial.

More over, Golden et al (2023) found that a counsellor's educational background and confidence levels are strongly linked to their willingness to use online counselling services. This is supported by Zainudin et al (2022), who noted that educational experiences in technology use enhance counsellors' self-efficacy and experiences, leading to greater confidence in conducting online sessions. Similarly, Adio and Bolaji (2023) stated that counsellors who have experience in navigating the technical aspects of digital platforms have better confidence in conducting online counselling. This balanced view reflects a pragmatic understanding of the benefits and obstacles inherent in adopting tele-mental health.

Cultural attitudes and contextual factors deeply impact how tele-mental health is perceived and utilized. Tailoring tele-mental health approaches to align with local cultural and contextual realities can help mitigate resistance and foster more positive attitudes (Amos et al., 2022). Besides, Chen et al (2023); Jaffe & Steele (2024) found that therapists with older age, and those working in mental health centres generally demonstrate excellent proficiency in conducting tele-mental health sessions. This proficiency is attributed to their high levels of self-efficacy, which correlate with a greater willingness to tackle challenges and adapt to the nuances of tele-mental health.

According to Nagarajan (2021), mental health counsellor generally had a positive attitude towards integrating technology into their practice. This positive outlook is supported by earlier research by Teo (2012); Wilkins (2012), which highlights the effectiveness of training programs that incorporate technology and blended learning approaches. These programs equip counsellors with the necessary skills to adapt to tele-mental health modalities. As a result, counsellors who receive training through online education are more likely to develop

a favorable attitude towards using tele-mental health services, as they feel better prepared and more confident in their ability to utilize digital tools effectively in their practice.

Attitudes towards tele-mental health are significantly shaped by the balance between its perceived benefits and challenges. For example, Jaber and Al-Hroub (2023) found that counsellors valued the ability to conduct sessions remotely, appreciating the increased scheduling flexibility and the option to engage students anonymously. This adaptability and convenience made virtual counselling appealing to them. However, as Nagarajan (2021) noted, counsellors also expressed concerns about the potential loss of the personal touch that is often a critical part of face-to-face interactions. This duality recognizing the convenience and flexibility of tele-mental health while worrying about the diminished personal connection that highlights the importance of understanding these trade-offs.

In conclusion, counsellors' attitudes toward tele-mental health are significantly influenced by their self-efficacy and training in both counselling and technology use. Enhancing counsellors' confidence through targeted education and training can lead to more favourable perceptions and greater acceptance of tele-mental health services.

Implication

The findings of a recent study underscore the significance of integrating counselling techniques and computer skills training into educational programs. This study has contributed immensely to advancing counselling education and training programs. Researchers have emphasised the importance of incorporating computer and tele-mental health skill training into counselling programs to enhance the confidence and competence of counsellors in utilising tele-mental health services in the future.

To further enhance counsellors' confidence in utilising tele-mental health tools, skill-building opportunities tailored to their specific needs could be provided. These could include workshops, seminars, or online courses on enhancing computer literacy and counselling efficacy in virtual environments. By providing such initiatives, we can better equip counsellors with the necessary skills to deliver effective counselling services in the ever-evolving technological landscape.

Blended learning, a combination of online and in-person education, is an effective strategy to prepare counsellors to use tele-mental health; according to research by Teo (2012), counsellors who have undergone blended learning exhibit enhanced readiness to adapt to online counselling practices. Therefore, blended learning should be integrated into degree or master's degree counselling courses to equip future counsellors with the necessary skills and attitudes to engage effectively in virtual counselling settings.

To ensure that counsellors are adequately equipped to utilise tele-mental health tools, policymakers and educational institutions can consider incorporating tele-mental health training into counselling curricula. This training would assist practising counsellors in staying abreast of technological advancements and adopting best practices in the field. Additionally, policies promoting continuous professional development in tele-mental health could be implemented to support practising counsellors in enhancing their skills and expanding their knowledge base.

Future Recommendation

The use of tele-mental health has been gaining popularity in recent years. However, to provide more comprehensive insights into its effectiveness, it is recommended that future research should explore additional moderation variables beyond the single mediator tested

in this study. Factors such as age, gender, cultural background, clinical experiences, and years of experience should be included in future research better to understand the impact on counsellor attitudes toward tele-mental health.

To better understand the effectiveness of tele-mental health training, longitudinal studies are essential to assess the long-term effects of such training on counsellor attitudes and confidence levels. Implementing such studies can help educators track the effectiveness of training programs and identify areas for improvement.

It is essential to compare attitudes and practices to better understand the adoption and acceptance of tele-mental health across different cultural contexts. This can help identify culturally specific factors that may influence adoption and acceptance and inform the development of culturally sensitive tele-mental health interventions. Besides, involving more state school counsellors will also bring a similar effect on understanding different cultural contexts.

Finally, ethical and legal considerations surrounding tele-mental health practice should be thoroughly examined. Confidentiality, informed consent, and boundary management are ethical dilemmas encountered in virtual counselling settings that must be addressed. Developing strategies for effectively navigating these challenges can inform the development of professional guidelines and training protocols. Additionally, researching ethical dilemmas encountered in virtual counselling settings can help professionals involved in tele-mental health practice to make informed decisions and ensure that their practices adhere to ethical and legal standards.

Limitation

Research into computer self-efficacy and attitudes towards tele-mental health is essential for understanding how technology impacts counselling practices. However, several limitations across various studies must be acknowledged. Firstly, many studies involve small and homogenous groups, which restricts the generalizability of their findings. For example, research with only a few participants or limited to specific cultural contexts cannot reliably be applied to broader populations or different regions. Secondly, descriptive and exploratory designs are common, which are good for identifying trends and perceptions but inadequate for establishing causal relationships. In addition, cross-sectional studies provide only a snapshot in time, limiting their ability to show how variables like self-efficacy and attitudes change over time. Moreover, findings from studies focused on particular regions, such as Indonesia or Ghana, may not be applicable to other areas with different technological and cultural contexts. This specificity can limit the broader application of the results. Furthermore, many studies were conducted during the COVID-19 pandemic, a time of significant change in tele-mental health usage. As technology and societal norms continue to evolve, findings from this period may not hold in a post-pandemic world or in different future contexts. Therefore, addressing these limitations through more diverse, longitudinal, and cross-cultural research will provide deeper and more broadly applicable insights into how technology influences counselling practices and attitudes toward tele-mental health.

Conclusion

This study has illuminated several key findings regarding the relationship between counselling self-efficacy, computer self-efficacy, and attitudes toward tele-mental health among school counsellors. First and foremost, counsellors with high levels of self-confidence in their counselling skills are more likely to utilize tele-mental health services, with counselling

self-efficacy playing a reinforcing role in this association. Additionally, the study underscores the critical importance of both counselling and computer self-efficacy in fostering the adoption and effective use of tele-mental health practices.

Counsellors who are confident in their computer skills are more willing and capable of delivering services through tele-mental health platforms, which enhances their integration into practice. Moreover, educational background and training have been identified as pivotal in enhancing computer self-efficacy, suggesting that targeted training programs can significantly bolster counsellors' confidence and competence in using tele-mental health technologies. Furthermore, resilience has been found to positively influence computer self-efficacy and attitudes toward tele-mental health, enabling counsellors to navigate the challenges of virtual counselling more effectively.

Based on these findings, several recommendations can be made. It is essential to prioritize education and training in computer skills and tele-mental health practices to boost counsellors' confidence and competence. Additionally, incorporating resilience training can help counsellors manage the inherent challenges of tele-mental health more effectively. Finally, ongoing research should explore additional moderating factors such as age, gender, cultural background, clinical experiences, and years of experience to provide a more comprehensive understanding of the influences on counsellors' attitudes towards tele-mental health.

By embracing technology and investing in the development of counsellors' skills, the mental health care system in school setting can be enhanced to provide more inclusive and responsive services. These efforts will ultimately improve access to and the quality of mental health care, benefiting the student. Healthcare organizations, policymakers, and mental health service providers can use these insights to develop strategies that leverage tele-mental health to improve patient outcomes and overall mental health care delivery.

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