Analyzing the use of information technology in Guidance and Counseling services in Indonesia and Tanzania: A narrative review

Subira Kaserero[a,b], Muslihati[a] ⓘD, Muhammad Ramli[a] ⓘD

[a]Department of Guidance and Counseling, Faculty of Education, Universitas Negeri Malang, Indonesia
[b]Therapy Assistant Officer, Autism Therapy Behaviors Learning Centre (ATBLC), Dar Es Salaam Tanzania.
[a]Semarang St. No. 5 Malang East Java 65145 0341-574700 Indonesia
[b]Bahari Road, Dar es Salaam, P.O. BOX 6052, 55-784-249-777, Tanzania
*Corresponding Author, email: shubbykaserero@gmail.com

ARTICLE INFO	ABSTRAK

Karena kemajuan pesat dalam teknologi informasi, konselor sekolah harus memodifikasi layanan bimbingan dan konseling mereka untuk mencerminkan perubahan ini. Sayangnya, sedikit informasi tentang bagaimana konselor menggunakan TI tersedia, terutama di Tanzania dan Indonesia. Penelitian ini bertujuan untuk menganalisis bagaimana kedua negara ini menggunakan teknologi informasi untuk layanan bimbingan dan konseling. 100 artikel internasional dan Nasional telah direview dari tahun 2014 hingga 2024 di Google Scholar, sedangkan 25 artikel telah dipilih menggunakan model PRISMA. Konselor sekolah menggunakan komputer, smartphone, Microsoft Word, PDF, WhatsApp, Zoom, dan Google Meet. Namun, mereka menghadapi kesulitan seperti keterampilan TIK yang tidak memadai, dan kurangnya pelatihan, mereka sering belajar kemampuan digital baru dari rekan kerja mereka. Studi lebih lanjut tentang penggunaan TIK di negara-negara ini diperlukan, seperti halnya penyelidikan upaya pemerintah untuk meningkatkan literasi digital khusus untuk konselor sekolah.

ABSTRACT

In light of rapid advancements in information technology, school counselors must modify their guidance and counseling services to reflect these changes. Unfortunately, there is a paucity of information about how counselors use IT, especially in Tanzania and Indonesia. This study aims to analyze how these two countries use information technology for guidance and counseling services. A total of 100 international and national articles have been reviewed from 2014 to 2024 in Google Scholar, while 25 articles have been selected using the PRISMA model. School counselors use computers, smartphones, Microsoft Word, PDFs, WhatsApp, Zoom, and Google Meet. However, they encounter difficulties, such as inadequate ICT skills and lack of training. Consequently, they frequently learn new digital abilities from their work colleagues. Further studies on ICT use in these nations are required, as well as an investigation of government efforts to enhance digital literacy specifically for school counselors.

INTRODUCTION

Advancements in technology have impacted the way people study and gain knowledge. However, the Internet enables quick access to information technology across various sectors, increasing productivity and saving time. Innovative approaches to education and learning underscore the importance of online technology (Szymkowiak et al., 2021a). In addition, a certifying board for counselors was established in 2016. Because of its availability, affordability, and usefulness, their ideas have introduced a new paradigm for incorporating technology into counselor practices and training. As a result, there is now growing agreement that technology use in counseling should be included in training and practice. Accordingly, programs for counselor education must also increasingly adjust to how technology is used in student training and instructional interactions. Also, school counselors must be competent in information technology while providing guidance and counseling services because Generation Z ("Gen Z") students rely primarily on the Internet for information and can conduct quick searches (Woo et al., 2020). Generation Z represents a unique and increasingly important phenomenon in the field of education.

The characteristics of Gen Z can be described as follows: they were born in the 1990s and raised in the 2000s during the most significant developments of the 20th century. They have grown up in a world with the Internet, smartphones, laptops, open networks, digital media, and the web. Besides, generation Z is capable of surviving in both the physical and digital realms. They perceive these two worlds as complementary, so they may quickly move between them. The information that Generation Z needs is easily sourced and verified. They also communicate with people rapidly, use a wide range of social media platforms and communication gadgets, and their communication processing is constant. Those who use social media frequently have an extensive network of contacts and mostly communicate through these platforms to manage their daily lives. While in-person interactions are still significant to them, maintaining online relationships is just as vital. Generation Z uses a variety of mobile devices, tweets, blogs, and online forums to express their opinions and views. They also share videos and photographs on YouTube, Instagram, Pinterest, Facebook, and Snapchat and remark on reality, the environment, and their immediate surroundings. In addition to consuming content from the Internet, this generation also produces and manages it (Dolot, 2018).

Information technology offers numerous advantages in the education system. For example, social media gives students access to news, educational materials, and chances for skill development, making it a helpful tool for information and education (Asare et al., 2023). Social media can also facilitate enhanced access to treatments and the therapeutic experience. Service information presented in various media assistance and counseling can increase students' attention to college information. Therapists can design and deliver follow-up protocols and programs that can be distributed to individuals via text, audio, or video daily, weekly, or monthly. Through this media, there is room for improvement in the quality of counseling services and how students view the guidance and counseling materials (Alhadi et al., 2016). Simultaneously, social media use in the educational system may present certain disadvantages, such as jeopardized online safety, exposure to offensive content, exposure to private information, and cyberbullying. There is a risk of losing face-to-face communication, and scammers may use apps or adverts to deceive kids and students (Abudabbous, 2022).

Guidance and counseling services in Tanzania and Indonesia share a number of similarities and differences. To begin with similarities, both countries accepted counseling from Western nations. In Indonesia, guidance and counseling were first presented in public, academic, and educational settings by educators who had studied overseas. Many scholars during this time recognized and felt the need to provide the service, which contributed to its success (Sare et al., 2020). In Tanzania, the origins of guidance and counseling methods in Tanzanian schools may frequently be found with the emergence of vocational education during the colonial era. A type of occupational assistance known as professional guidance, overseen by professional masters, existed during the colonial era. However, the career masters chosen by the head of the school lacked any formal education in providing career guidance. Their only role was to assist students

with application letters and employment forms. Vocational counseling at the missionary school was limited to religious services.

Tanzanian and Indonesian school counselor credentials differ from one another. The Indonesian Ministry of National Education's regulation No. 27 Year 2008 clarified that academic and professional competency are included in the total figure of counselor competencies. Consequently, academic competencies serve as the cornerstone for the development of professional capabilities, which include a comprehensive understanding of counseling, mastery of the theoretical and practical framework for guidance and counseling, the ability to organize guidance and counseling services for self-sufficient individuals, and the ongoing development of counselors' personalities and levels of professionalism. Integrating professional counseling with academic competency fosters instructional integrity, personality, social skills, and professionalism. The Ministry of Education and Culture in Tanzania has provided guidelines for the application of circulars in guidance and counseling. These standards address concerns related to education and culture. According to the standards, principals of schools should choose teachers who can discreetly provide guidance and counseling. A school counselor is defined as a teacher with psychological training who is passionate about helping students develop both personally and intellectually. For a teacher to be effective in providing guidance and counseling, guidelines also state that a male and a female teacher should be chosen to serve as the guidance and counselor. Besides, the selected teacher should also have less work to do. When guidance and counseling are conducted at a school, a teacher-counselor should utilize the forms attached to the circular. One of the primary objectives of guidance and counseling in education is to identify and address the problems that students face (Chilewa & Osaki, 2022).

Information technology usage in guidance and counseling services involves embracing and adapting to technological advancements. Planning and designing guidance and counseling service systems, data processing, and cyber counseling practices are a few examples of innovations made to change the guidance and counseling work system (Fahriza et al., 2023). The use of technology in education has been steadily increasing, and more recently, it has been introduced into counseling and counselor education. The number of in-person conversations between counselors and students deemed appropriate for imparting necessary knowledge and skills has significantly decreased. Instead, most communication and learning methods now take place online (Snow & Coker, 2020). As a group impacted by the increasing use of information technology in educational settings, school counselors are expected to possess excellent information and technology literacy, which includes being aware of and comprehending computer use, finding and assessing information, organizing data, information creation, information transformation, information exchange, as well as utilizing data securely and safely(Abudabbous, 2022).

Over these 60 years, guidance and counseling services in Indonesia have elapsed, beginning in the 1960s, during which Indonesian guidance and counseling evolved into something else entirely. Guidance and counseling have been included in the curriculum since 1975. Counselors were included in the category of educators in 2003 by Law No. 20. Counselor Competencies and Academic Qualification Standards enacted in 2008 by the Minister of National Education. The provision of its services at the elementary and secondary education levels was affirmed in 2011 by Minister of Education and Culture Regulation No. 1. As a discipline that needs to be adapted from Western countries and adapted to the Indonesian setting, the guidance and counseling profession has thus far been striving for its Indonesian identity (Zamroni et al., 2022). As regulated in the regulation of Ministry of Education and Culture Republic of Indonesia Number 111 of 2014, the principles that guide the implementation of guidance and counseling services include non-discrimination, accessibility for all, an individuation process that emphasizes positive values, and a joint responsibility between the head of the education unit, the counselor, or guidance and Counseling teachers and other educators in educational units encourage counselees to make and act on decisions responsibly. These decisions are made in various contexts and are an integral part of the educational process. They are carried out within the framework of Indonesian culture and are flexible, adaptive, and sustainable. They are set up based on the needs of the counselor.

Guidance and counseling services are seen as vital parts of education services in Indonesia and are positioned among the elements that lead to the accomplishment of education. Zamroni et al., (2022) identified three main elements—learning in the field of study, administration, and supervision, and counseling guidance—including guidance and counseling, which play a major role. Advice as well as therapy in guidance and counseling programs are provided in four service categories: career, learning, social, and personal. Assistance and advice programs provided by school counselors seek to assist students in becoming self-sufficient in completing tasks associated with their personal development and overcoming challenges (Ramli et al., 2023). Decree No. 27 of 2008, issued by the Ministry of National Education, on Academic Qualification Standards and Counselor Competencies Counselors' duties include assisting students in making professional options, assessing information about the job market, and supporting their personal growth based on their needs, skills, interests, and personalities. Services include information gathering, orientation, sharing of information, home visits, placement in a particular education program, subject-specific support, group and individual counseling, and mediation. Further, the counseling and guidance program is implemented through the following methods: program preparation, division of counseling and guidance teacher duties, and Guidance and counseling activity program consultation. Data collection, data analysis, and BK facility provision (Sepriati et al., 2022).

The implementation of guidance and counseling services in Tanzania is guided by the regulation of the Ministry of Education of Tanzania of 2002, number 11, which outlines the practice of this service in all schools and universities due to the emergence of a large number of moral erosions as many students were engaged in drug use, alcoholism, committing criminal offenses, destroying public properties, escaping from school, adultery which led to the increasing number of students with HIV and other sexually transmitted diseases who were discriminated by their fellow students. The instructions were conveyed to all heads of schools and universities, instructing them to recommend female and male teachers to be school counselors. These counselors would be elected by students and the school board. The directive stipulates that the teachers who become school counselors will be relieved of the responsibilities they have previously performed.

Following the aforementioned discussion, the school counselor should have the following qualities: love and compassion, patience, fairness, diligence, honesty, confidentiality, and heart to defend students' rights, courage, attachment to fellowship, being close to students, wise, courageous in dealing with student problems. The primary responsibilities of a school counselor, as stated by the Tanzania Ministry of Education, are providing counseling to all students, talking to students about their growth and the changes they are experiencing before and after puberty, sitting with students to discuss educational, social, and health problems, as well as helping them with different approaches to dealing with these problems, protecting the rights of students, consult with the school principal, the discipline teacher and all teachers about student problems, talking to girls to help them avoid bad company.

Following the incident, the school principal was instructed to form a subcommittee on AIDS counseling, and the members of this committee are a school counselor, a professional teacher, two representatives of teachers and students, two members from religious organizations, and two socially acceptable citizens near the school site. Their main tasks were to encourage and monitor AIDS counseling and teaching activities in schools, educate and engage the community in counseling and education to prevent HIV, and advise the school principal on the provision of counseling services in the school. This subcommittee will be involved in the review of all school counseling activities. In general, all School counselors need to have advocacy competencies to fulfill their professional duties. These competencies include understanding system changes, teamwork, communication, problem-solving, and organizational abilities. These advocacy abilities are inherent to the counselor's skill set and benefit professional advocacy (Wilder, 2018).

This research study aims to investigate the usage of information technology in guidance and counseling services in Indonesia and Tanzania. Whereby three main questions addressed in this study include identifying the different kinds of information technology used in guidance and counseling services in Indonesia and Tanzania, the challenges of using information technology,

and creative solutions to overcome the mentioned challenges of using information technology in guidance and counseling services both in Indonesia and Tanzania.

METHOD

This study employed narrative reviews, which typically focus on a subset of research on a particular subject selected according to availability or author preference. As they are primarily descriptive, they do not require a thorough literature search (La Torre et al., 2015). The preferred reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach was employed when searching for published research findings and articles (see Figure 1). To identify the answers to a specific study issue, a systematic evaluation that carefully examines all available public sources is required.
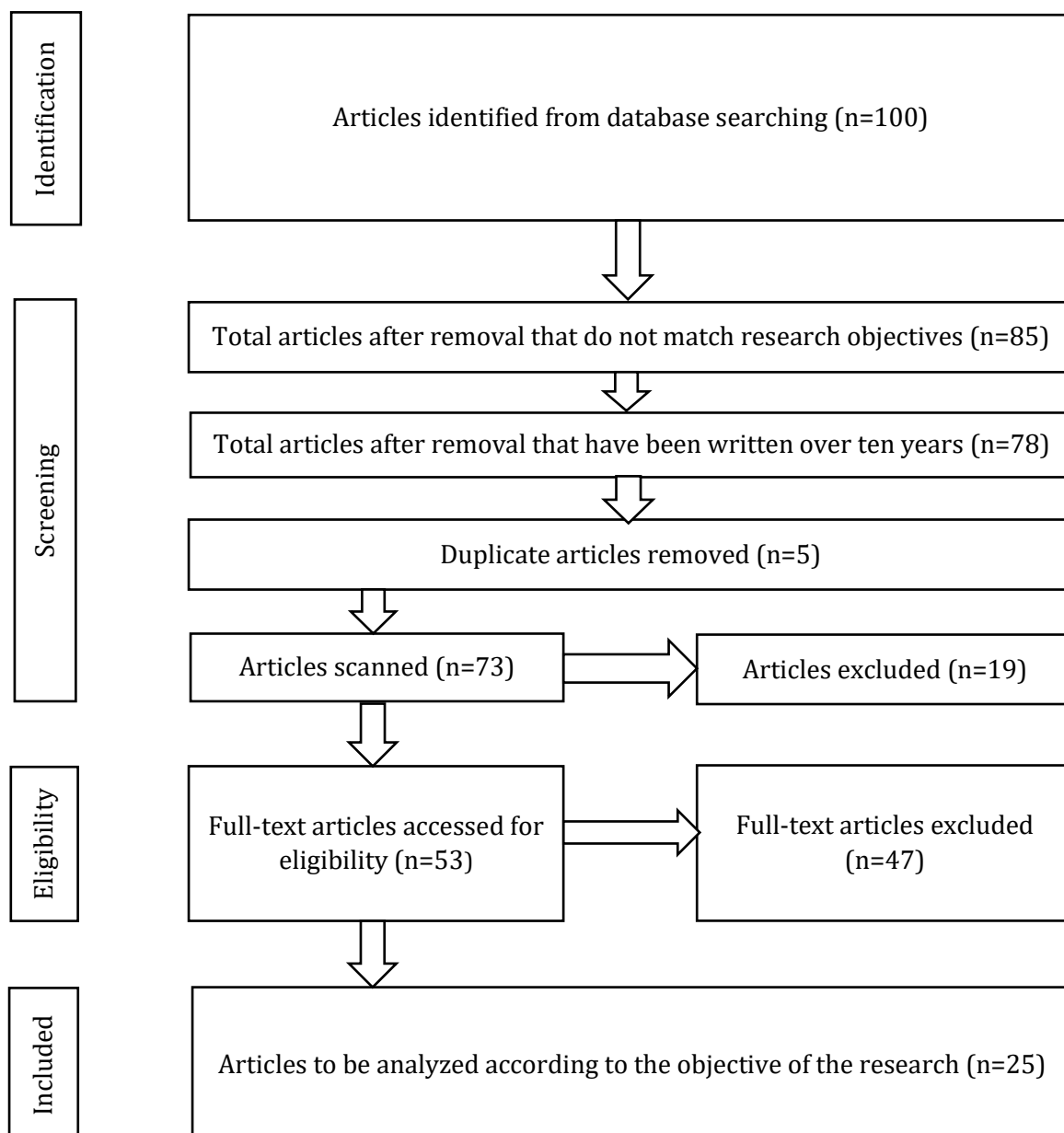
Identification

Articles identified from database searching (n=100)

Screening

Total articles after removal that do not match research objectives (n=85)

Total articles after removal that have been written over ten years (n=78)

Duplicate articles removed (n=5)

Articles scanned (n=73) → Articles excluded (n=19)

Eligibility

Full-text articles accessed for eligibility (n=53) → Full-text articles excluded (n=47)

Included

Articles to be analyzed according to the objective of the research (n=25)

Figure 1. The Screening procedure and selection of articles in compliance with PRISMA guidelines

This study selected the reports to be included in the review using a range of inclusion and exclusion criteria and then summarized the results. A systematic review with meta-analysis was necessary for interpreting the results statistically. The PRISMA guidelines include a four-phase

flow diagram, which includes the identification, screening, eligibility, and inclusion criteria of the reports that are subject to a review (Selcuk, 2019). In the first stage of identification, Google Scholar was used to searching for relevant literature using one keyword at a time, such as "information technology usage" in Indonesia and Tanzania and "school guidance and counseling." Between 2014 and 2024, the author identified a total of 100 articles, both national and international. The second stage of screening was performed to identify articles that addressed the research's objectives, which included the types of information technology that school counselors use in guidance and counseling services in Tanzania and Indonesia, as well as obstacles and innovative overcoming them. A total of 73 articles, comprising both national and international articles, were chosen.

Out of this quantity, several articles were eliminated and reduced to 53 national and international articles. In the stage of eligibility and inclusion, a quality check was done to see the quality of the articles that have been selected for further analysis, whether the article covers ten years, and whether the research findings in the article are relevant to the main theme. This process resulted in the selection of 25 international and national article publications for additional analysis in the discussion section. After the material had been grouped, a detailed discussion analysis was conducted to identify findings that addressed the objectives of this study. The researcher considered the appropriateness of each article for inclusion in the results, with a focus on its implications for how school counselors use information technology in guidance and counseling services. Additionally, the article was evaluated for its discussion of school counselors' information technology usage in Indonesia or Tanzania. The Google Scholar database was selected for analysis in this study because it is user-friendly, as demonstrated by the fact that it can be used to find references in Mendeley. Additionally, the majority of research publications, particularly those about guidance and counseling, are simply available through the Google Scholar database.

RESULTS

The results of the analysis of the 25 articles suggested numerous online platforms utilized in the delivery of guidance and counseling services (Figure 2). Among these platforms, 92% of users use WhatsApp, 56% use Google Meet, 8% use Zoom Meeting, 8% use websites, 8% use email, and 4% use Microsoft Teams (Ramli et al., 2023). Zoom, WA Group, Google Form, Google Meet, and social networking tools are also used to handle issues related to distant guidance and counseling services (Efendi & Wangid, 2023). A large number of school counselors delivered presentations and information using technology like Vimeo, Google Slides, Prezi, YouTube, VoiceThread, UNIX, Naviance, Dropbox, Google Drive, Box, Evernote, and EZAnalyze. According to the findings of (Mulawarman et al., 2020), Moodle Flinders Learning Online (FLO) program is utilized in the learning with flipped classroom approach. The study reports that the videos for learning resources are distributed a few days before the start of the learning process. The findings indicate a rise in student engagement and a positive outlook on the practice of class flipping. Additionally, the media of a self-help model of reality counseling that assists the implementation of service include Google Meeting, Zoom Meeting, or WhatsApp and websites (Ramli et al., 2021). The software is used by educators to provide a range of guidance and counseling services. To put it in percentage terms, 68% of teachers use the Google Meet app, 32% use Zoom, 88% use WhatsApp, and 24% use other applications (Efendi & Wangid, 2023). These studies imply that the integration of technology into guidance and counseling services encompasses a diverse range of applications, including counseling management tools, student data sets, guidance and counseling information systems, media use when teaching regular topics in class, and counseling over the phone. School counselors mostly use social media in different guidance and counseling services, such as WhatsApp Group, Zoom, Google Classroom, Google Meet, Email, Skype, Facebook, and YouTube among other apps. These social media are chosen because they are easily used not only by them but also by students, parents, and other stakeholders. The devices that are mostly used are desktop computers, laptops, and smartphones (Figure 3). In contrast, computer apps that are used in guidance and counseling include Microsoft PC, PowerPoint files, PDFs, and eBooks (Figure 4).

The research indicates that school counselors face a number of challenges when providing guidance and counseling services in schools. These include lack of adequate ICT skills, insufficient ICT infrastructures, lack of technical and pedagogical support, inability to integrate ICT, Internet problems, shortage of computers, lack of electricity, and insufficient training. Besides, some school counselors lack the requisite training to utilize mobile phones to facilitate teaching and learning, have unstable signals, lack IT mastery of online service media, electricity, unequal distribution of technology support or facilities in schools, lack training in using technology for teaching and learning purposes.

In order to overcome the challenges posed by information technology in their careers, school counselors have developed a number of creative solutions. These include learning from each other how to use different applications and attending different information technology usage seminars provided by the government or different organizations. In addition to these efforts, both the Indonesian and Tanzanian governments are attempting to provide training, workshops, and other forms of support regarding digital skills, infrastructure support, technical and managerial support, technical assistance, ICT pedagogical abilities training, and efficient investment in ICT infrastructure (Figure 5 and 6). The summary of reviewed studies regarding the topic showed in the Table 1.
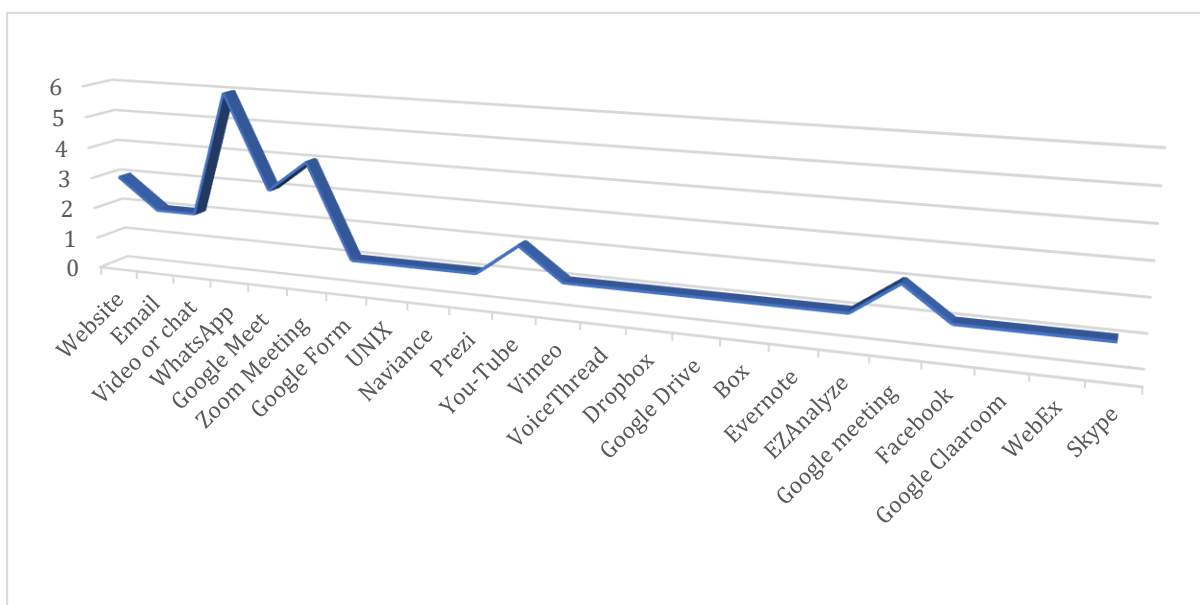

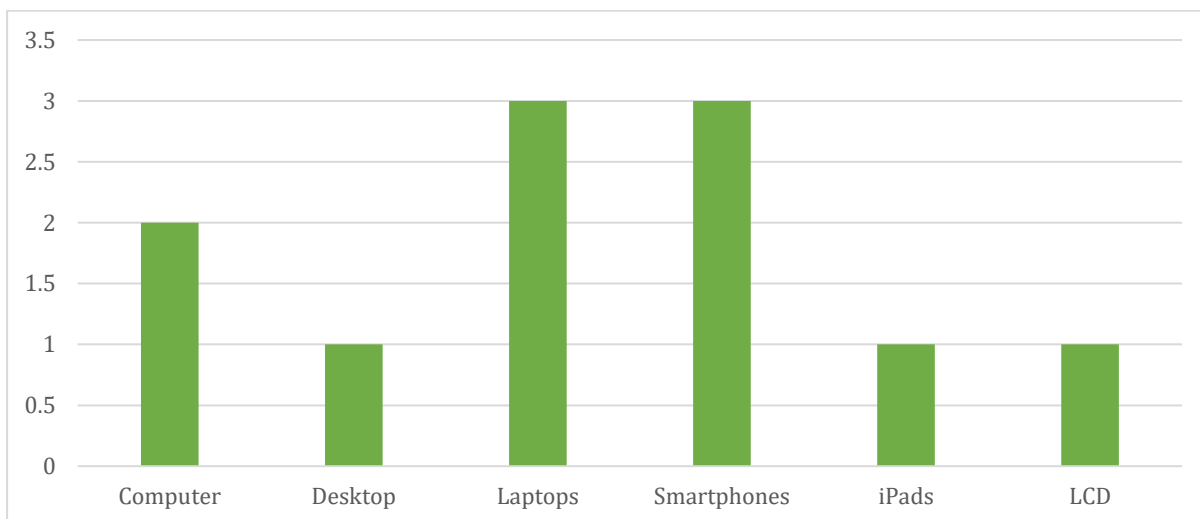**Figure 2. Several social media that are used in guidance and counseling services**

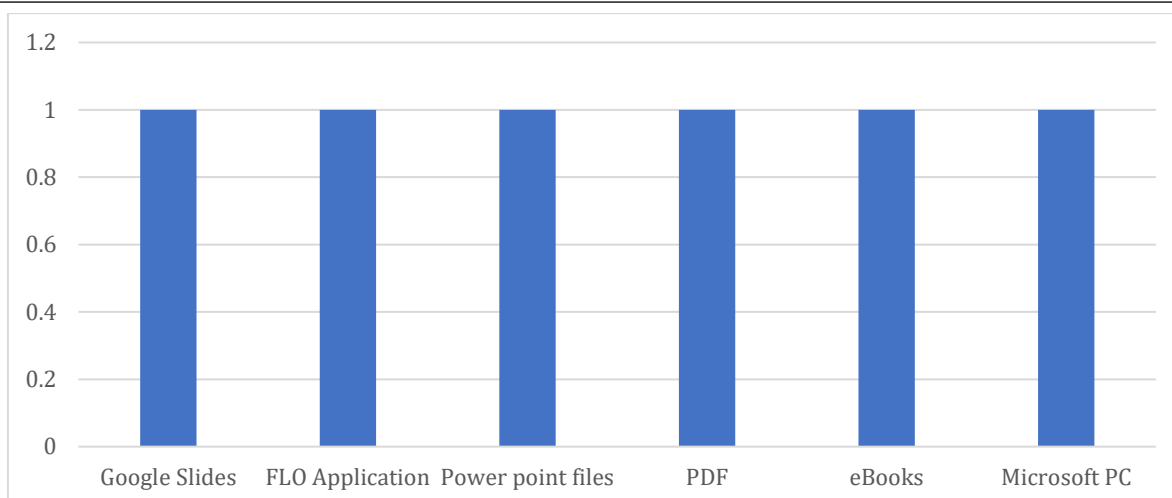**Figure 3. Devices used in guidance and counseling services**

Figure 4. Highlights soft copies that are used in guidance and counseling services
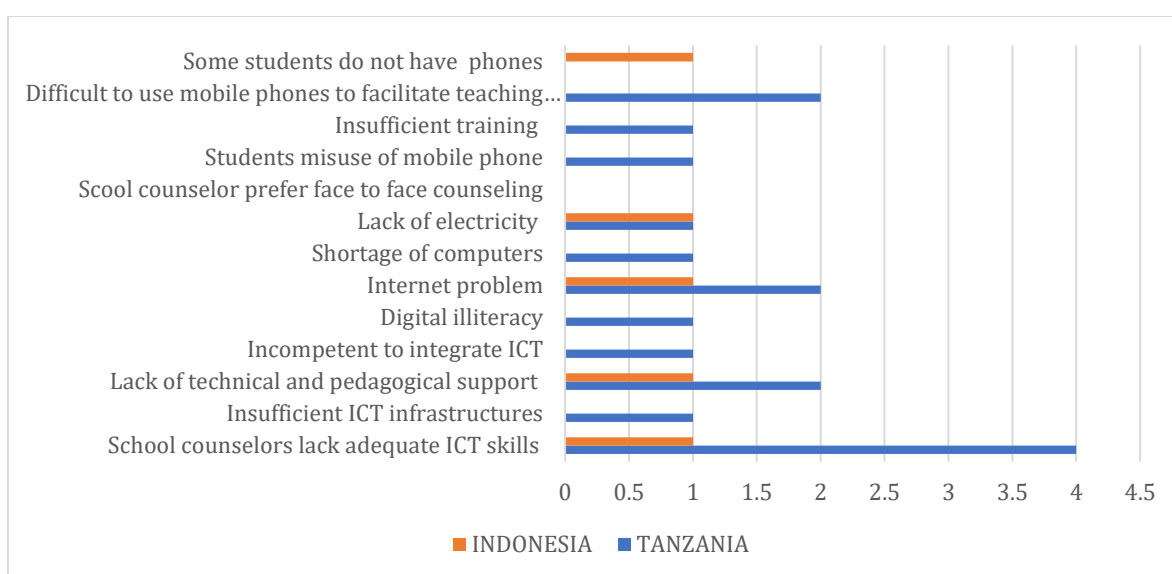

Figure 5. Information technology challenges in guidance and counseling services
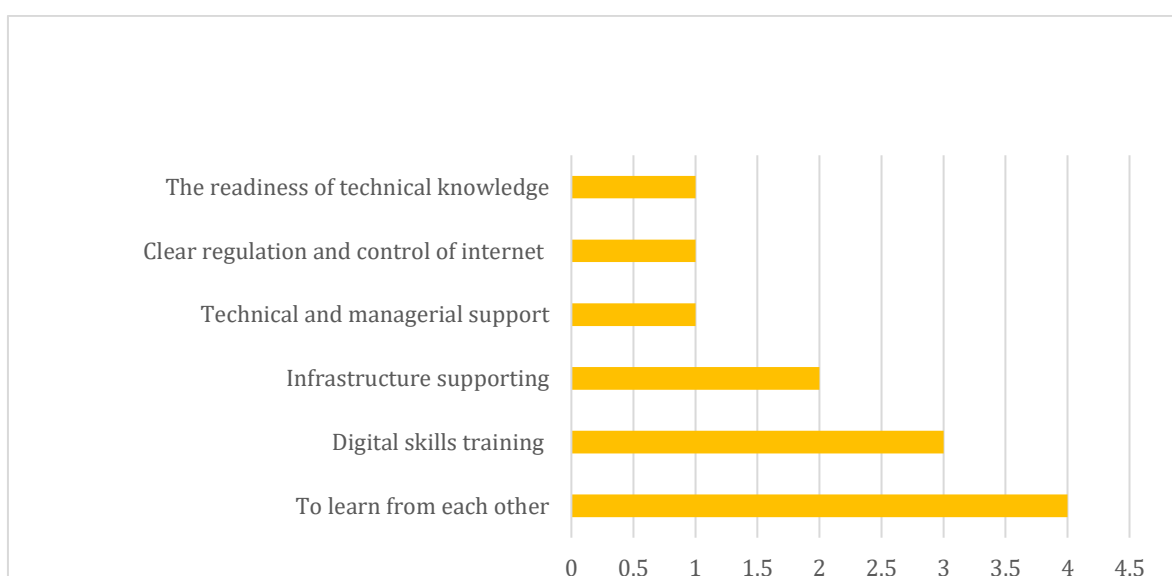

Figure 6. Creative solutions to information technology challenges used by school counselors in guidance and counseling services

Table 1. Research findings concerning school counselors' usage of information technology in guidance and counseling services between Indonesia and Tanzania

No	Author And Publishing Year	Title	Results
1	(Amalianita et al., 2017).	The Role of Online Counseling as a Part of Guidance and Counseling Services	Online counseling provides quick, efficient, and private sessions by utilizing various technological platforms, including websites, phones, email, video, and chat. This aims to aid school counselors in improving counseling services by making the best use of these resources.
2	(Ndume et al., 2021).	Integrating ICT in Tanzania Secondary Schools: Experience of Tanzania as it Grows to Second World Economy	With over 45.6% of instructors reporting dissatisfaction with the ICT resources in their schools, the study's main obstacle is the lack of ICT infrastructure. 35.5% stated that teachers' inadequate ICT proficiency interferes with the effective utilization of technology in teaching and learning. Moreover, the absence of pedagogical and technical support hinders the integration of ICT into educational activities.
3	(Fahriza et al., 2023).	Technology Framework İn Guidance and Counseling Services	When implementing or creating technology in counseling services, these aspects should be considered, including the standard operating procedures and provisions for using technology-based services, the counselor's technical expertise as a service manager, and the user experience the technology will provide.
4	(Kweka, K. H., & Ndibalema, P., 2018).	Constraints Hindering Adoption of ICT in Government Secondary Schools in Tanzania: The Case of Hanang District	Despite being regarded as a high priority, the study discovered that most government secondary school teachers need more competence in integrating ICT. Many teachers say they would be willing to get training to improve their ICT skills, but most are still not proficient. Although nearly all of the lecturers (77.0%) own a laptop or smartphone, they are not proficient in using these devices to help their teaching. However, most are likely to acquire relevant ICT pedagogical skills if they learn from one another.
5	(Ramli et al., 2023).	The Impact of Covid-19 on School Counselor Services	Guidance services are provided via various online channels. WhatsApp is the most popular application at 92%, followed by Google Meet at 56%, Zoom Meeting at 8%, websites and email at 8%, and Microsoft Teams at 4%. Google Meet (20%), Zoom meetings (24%), and WhatsApp (96%) are the leading platforms used for online counseling. It is recommended that counselors use several platforms to guarantee that students may quickly obtain assistance.
6	(Efendi & Wangid, 2023).	Utilization of Information Technology in Guidance and Counseling Services During the Covid-19 Pandemic	Guidance and counseling teachers deal with various challenges, such as students who don't have access to technology, such as cell phones and erratic internet signals. Additionally, lacking IT expertise can hinder some teachers from using online resources successfully. Several platforms are used to manage remote counseling services, such as Zoom, social networking apps, Google Forms, WhatsApp Groups, and Google Meet to solve these challenges. This method is flexible and

No	Author And Publishing Year	Title	Results
			approachable while giving the students advice and assistance.
7	(Ndibalema, 2014).	Teachers' Attitudes towards the Use of Information Communication Technology (ICT) as a Pedagogical Tool in Secondary Schools in Tanzania: The Case of Kondoa District	The results suggest that Tanzanian secondary school teachers must have greater mastery of using ICT as a teaching tool because their teacher education colleges provide inadequate training. The findings indicate that teachers receive inadequate training, primarily focusing on basic ICT abilities rather than pedagogical skills. The research looks deeper into the matter, arguing that despite being trained in ICT use, most teachers struggle to incorporate technology into their lesson plans.
8.	(Kafyulilo, 2014).	Access, use, and perceptions of teachers and students towards mobile phones as a tool for teaching and learning in Tanzania	Tanzanian institutions have the most accessible access to technology, such as mobile phones. However, teachers who responded to the survey described the need for help using their phones for teaching and learning purposes.
9	(Mason et al., 2019).	School Counselors' Use of Technology for Program Management	The majority of participants (84.4%) reported utilizing between two and four devices, such as desktop computers, laptops, and smartphones, with most favoring Microsoft PC operating systems (64.1%) and a notable portion opting for Mac/Apple (27.8%). In comparison, a minority mentioned third-party platforms like UNIX (1%) or expressed no preference (0.1%). Among school counselors, standard tools included Google, iPads, and Naviance. For presentations, most utilized various technologies, such as Google Slides, Prezi, YouTube, Vimeo, and VoiceThread, every month. Additionally, school counselors frequently employed technology platforms, such as Dropbox, Google Drive, Box, Evernote, and EZAnalyze, for organization, file management, data handling, and activity tracking.
10.	(Amalianita et al., 2017).	The Role of Online Counseling as a Part of Guidance and Counseling Services	The findings demonstrated that while school counselors had a favorable opinion of online counseling, some school counselors preferred providing services in person. This study also predicts that as time goes on, an increasing number of people will look up resources on the internet to help them with mental health issues.
11	(Budianto et al., 2019).	ICT application in cyber counseling as a teacher accelerator with optimizing WhatsApp-based mobile computing	The WhatsApp optimizers provide the foundation of mobile computing, which is highly significant and beneficial for school counselors in guiding how to address students' issues and find answers.

No	Author And Publishing Year	Title	Results
12	(Mulawarman et al., 2020).	Classroom Guidance Strategy with Flipped Method in Guidance and Counseling Services in Indonesia Schools in the Digital Era	The Moodle Flinders Learning Online (FLO) application was utilized in the study to implement the flipped classroom technique. Video-based learning materials are distributed a few days before the learning process. The findings indicate increased student involvement and a favorable opinion of the class-flipping strategy.
13	(Deslonde & Becerra, 2018).	The Technology Acceptance Model (TAM): Exploring School Counselors' Acceptance and Use of Naviance	Counselors reported that it was easy to review and apply all the pertinent data on the Naviance data application to advise students on academic success, college readiness, and social and emotional development.
14	(Susanto, 2014).	Technology Guidance and Counselling: Implementation Theory in Practice, Development, and Experience	Counselors should recognize how technology can improve their professionalism while honoring their clients' decision to use it. Traditional counseling services can be enhanced, complemented, or replaced by technology, for example, online counseling, LCD, laptop.
15	(Ramli et al., 2021).	Counselor Needs Analysis on the Development of A Website-Based Reality Counseling Self-Help Model for Reducing Academic Stress for High School Students	According to the study, Malang Raya high school counselors should implement a self-help reality counseling model based on websites to reduce their students' academic stress. This approach consists of seven essential elements, supported by platforms like Google Meet, Zoom meetings, WhatsApp, and a specific website for service delivery. The numerous service methods offered by these components include discussion/chat, video call/conference, relaxation techniques, and Biblio counseling.
16	(Ngao et al., 2022).	Understanding Teacher Educators' Perceptions and Practices about ICT Integration in Teacher Education Program	Teachers' perceptions of integrating ICT during preservice teachers' preparation revealed various factors, such as digital illiteracy, limited time per session, and the logic behind using ICT. Other factors include a vast teaching load, equipment challenges, and disregarding pedagogical knowledge.
17	(Malekani, 2018).	Access to, Use, and Challenges of ICTs in Secondary Schools in Tanzania: A study of Selected Secondary Schools in Morogoro Municipality	The study results show that while teachers are eager to incorporate ICT into the classroom, they face numerous obstacles. For example, computers and the Internet have yet to be fully utilized to improve teaching and learning in Tanzania's secondary schools, as students continue to take notes using traditional means and rely strongly on printed materials, handouts, and teacher notes.
18	(Oreku, 2022).	ICT in Education: Mapping Digital Learning Initiatives in Tanzania	Inadequate infrastructure and incompetent teachers in e-content for ICT-based education are among the problems with technology planning. Moreover, issues like inconsistent power supplies make employing solar energy or other alternative energy sources easier in urban and rural locations. The main areas of progress are enhancing teachers' digital skills, integrating technology into pedagogy, using digital tools ethically and

No	Author And Publishing Year	Title	Results
			critically, and improving the technical support and infrastructure for digital learning.
19	(Afdilah et al., 2020).	A review of the research on the subject of school counselors' involvement in developing spiritual intelligence in the COVID-19 framework, with a focus on distance education	School counselors communicate via various apps, including WebEx, Zoom, Google Classroom, Google Meet, Skype, and WhatsApp Groups. During distance learning, they instruct parents and students on how to manage internet usage, use it responsibly, promote respectful communication, and implement policies to stop cyberbullying, internet addiction, and depression.
20	(Gai Mali et al., 2023).	Problems and Difficulties with Technology Use in Indonesian Schools: Effects on Education	Due to insufficient technical infrastructure, such as reliable energy and internet connection, teaching and learning are negatively impacted in Indonesian schools. This problem is worsened by unequal resource allocation, which increases educational inequality. In addition, many Indonesian educators are not trained to incorporate technology into their lessons, which limits the technology's ability to improve student learning.
21	(Kholiq & Solehuddin, 2020).	The Use of Facebook as a Media for Career Guidance and Counseling Services in Junior High School	Students find it easier to be more transparent and honest with the school counselors about their personal life when they use Facebook. Therefore, one type of service offered by the guidance and counseling instructor at school is Facebook guidance and counseling.
22	(Haryati, 2020b).	Online Counselling As an alternative strategy for counselors in implementing e-counseling services in the industrial era 4.0	According to the report, online therapy uses digital tools such as computers, social media networks, chat rooms, email, phones, video conferencing, and instant messaging. To ensure professional conduct, counselors should develop solid online interactions, uphold confidentiality, understand legal issues, and obtain the appropriate license.
23	(Joyce-Gibbons et al., 2018).	Mobile phone use in two secondary schools in Tanzania	Mobile phone technology is affordable and widely available, but because of worries about disruption and misuse, its educational potential is still largely unrealized. Due to risk factors like cyberbullying, teachers are against replacing the current restriction with instructional use. This study and earlier research point to the absence of school initiatives teaching responsible technology use.
24	(Rodliyatun et al., 2022).	School Counselors' Efforts in Implementing Career Guidance Services	The study's results show that the school counselor's duty in providing career advising services is to identify problems, discover solutions, and identify potential for employment as career educators, informants, program facilitators, and implementers. These included orientation services, information technology services (via websites and WhatsApp groups,

No	Author And Publishing Year	Title	Results
25	(Putri et al., 2022).	School Counselor Professional Competence (PC-SC): Social Media Utilization in Guidance and Counselling Services (GC-S)	PowerPoint files, PDFs, eBooks, and instructional videos), placement and distribution services (which used internship programs to guide students' skills), and learning video services. The research findings report that school counselors have successfully supported guidance and counseling services with positive categories on social media. Because of its accessibility and ease of use for students, school counselors mainly utilize YouTube and WhatsApp, even if not all students can engage, converse, and participate in these platforms actively.

DISCUSSION

It is evident from the findings of previous relevant research presented in Table 1 technology has ingrained itself into every aspect of human life, including the education field. Accordingly, school counselors must become proficient in technology as part of their education to adjust to the needs of today's students, who have grown up with technology in their hands. In response to this, counselor organizations have introduced digital skills for counselor education, which includes a list of technological competencies for guidance and counseling teachers. Technical proficiency is linked to the objective of technology mastery, which is to enhance the integration of technology in the provision of guidance and counseling services following the characteristics of students and to develop professional competence sustainably. Adaptation to technology and recognition of its importance in guidance and counseling is essential for enhancing their technological skills (Kurniasih et al., 2022).

Some technologies have proven to be more readily utilized by school counselors. For instance, school counselors' eexplore comfort level and technology use in a quantitative study. According to the findings, 92.7% of counselors said they were either very comfortable or somewhat comfortable using specific software and technology. Others reported feeling uneasy and nervous or slightly nervous when utilizing new technologies (Deslonde & Becerra, 2018). Besides, school counselors can effectively apply Zoom, Google Classroom, Google Meet, WebEx, Skype, and WhatsApp Groups, among other applications (Afdilah et al., 2020). Additionally, many counselors engage with social media platforms such as Facebook, Instagram, and other synchronous (video conferencing, phone calls) and asynchronous (emails, text messages) forms of communication (Jaber & Al-Hroub, 2023).

School counselors positively perceive using information technology to provide guidance and counseling services at school. They have shown positive responses by using information technology in their career (Putri et al., 2022) due to their recognition of the potential for growth and advancement that this technology offers. For more accessible and effective work, school counselors often use information technology when providing guidance and counseling services (Mason et al., 2019). School counselors indicated that they manage data, interact with files, and keep track of their actions using information technology on a regular basis. As many as 65% of school counselors, at least once a week and half of them daily, organize and store the files associated with their school counseling program. They also use technology at least once a week for file sharing, teamwork on projects with coworkers, collecting and keeping program-related data, data exchange, and monitoring students' progress or time management. Though they support the use of technology in guidance and counseling, school counselors are recommended to be concerned about the legal implications of internet-based telephony and licensing (Haryati, 2020a). Besides, according to the American Counseling Association's 2014 Code of Ethics, professional school counselors who use technology must be aware of online communication's ethical and legal ramifications exchange. These include concerns about security, client verification

issues, consent, equity, and unequal access to the Internet for users with disabilities and members of lower socioeconomic groups (Goodrich et al., 2020)**.**

In some parts of Indonesia, school counselors encounter information technology issues similar to those in Tanzania. These issues include inadequate support for technology facilities related to inadequate electricity and internet connections, unequal distribution of technology support or facilities in schools, and a lack of training on the use of technology for teaching and learning (Gai Mali et al., 2023). Meanwhile, in Tanzania, school counselors have low familiarity with how to use ICTs, unstable power supplies and electricity, lack of training and development in digital skills, difficulty in utilizing technology in education, and poor infrastructure for digital learning (Oreku, 2022). Apart from those challenges, it has been posited by different authors that in Tanzania, school counselors have personal phones, laptops, and iPads, but they lack skills in how to use information technology to support their career, especially when they provide guidance and counseling services (Kafyulilo, 2014). Globally, there are several restrictions and obstacles to school counseling in connection to the discipline's digital transition. Boundaries are administrative constructions that restrict school counselor's ability to use technology within their profession. The most important of these are time, tools, and skills. A barrier might be a lack of desirable, usable, and acceptable abilities (Crandall et al., 2020).

In Indonesia, school counselors use different kinds of information technology when providing guidance and counseling services because they have attended training on technology usage skills. According to Rodliyatun et al. (2022), during the pandemic period, school counselors introduced students to study programs to guide their career paths, which resulted in excellent information technology services. Meanwhile, in Tanzania, most educators at the forefront of integrating technology into education, including school counselors, lack essential technology skills and knowledge. Teachers receive insufficient initial training on how to use digital technologies in teaching, learning, and education administration. These findings highlight gaps in knowledge and skill among educators implementing technology into education (Oreku, 2022). The ability of teachers, including school counselors, to use information and communication technology is still vital for advancing education, even with the rise of engaging and modern teaching methods. Teachers are expected to integrate technology, including smartphones, into their daily lessons, set an example for their students, and encourage them to use the Internet and technology for learning (Szymkowiak et al., 2021b).

It is suggested that school counselors must be able to use creative skills to create media when providing guidance and counseling services in school. This will enable these counselors to experience many advantages like possibly overcoming resource challenges, time, energy, and space constraints. Besides, it turns the process of guidance and counseling services to be more exciting and interactive, improving the quality of counseling services and improving students' positive attitude toward the material guidance and counseling services, enabling a more direct interaction between students and teachers in guidance and counseling, giving the same stimulation, and likening the experience and perceptions (Alhadi et al., 2016). The research by Ramli et al. (2021) suggested that school counselors have to create a reality counseling self-help website to decrease the academic stress that students experience. By being creative, school counselors will be able to help students socially, academically, and psychologically, hence fulfilling the main goals of Guidance and counseling. The American Counseling Association advises professional school counselors to participate in continuous professional development related to technology to enhance their digital literacy skills. This will enable them to successfully guide students who may be exposed to risks related to safety, security, and reputation through online interactions. Additionally, they will maintain their professional knowledge and increase their technology skills as required by the modern counseling field (Goodrich et al., 2020).

Different authors have discussed the measures taken by governments and school administrators in Indonesia and Tanzania to improve information technology usage in the education system. For example, the government of Indonesia has implemented the policy through the teacher competency improvement program, learners' design is founded on the teacher competency standards (SKG), derived from Minister of National Education Regulation No. 16 of 2007 about teacher competencies and academic qualification standards. The activities of capacity

building are designed to enhance and develop skills, abilities, and attitudes. As a result of these initiatives, it is anticipated that teachers, including school counselors, to experience a change in behavior (Retnawati, 2019). Seeing how digital technology may enhance student performance, teacher preparation, and the delivery and quality of education, the Tanzanian government introduced the First National Telecommunications Technology (ICT) Policy in 2003. As a result, ICT is taught as a subject at different grade levels and is utilized to enhance instruction (Oreku, 2022). Apart from the government efforts, innovative measures can be used by school counselors to get around information technology. As proposed by Nye (2015), these measures include sharing devices, which is a crucial strategy for lowering obstacles brought on by a lack of hardware, moving an Intelligent tutoring system(ITS) away from desktop computers and toward mobile ones, asynchronous communication, which provides endurance against internet issues in a mobile setting, and sophisticated equipment that can handle power outages. Besides, data costs mainly impact mobile learning. Hence, the primary solutions are to use data locally and in batches and avoid relying on it.

The theoretical benefits of this research include knowledge expansion and enrichment. The study facilitates a more profound comprehension of the manner in which information technology is employed in guidance and counseling services. Besides, the study also provides new resource accessibility regarding the topic that can be discussed by other researchers, which may benefit the education sector by promoting awareness of different issues in the guidance and counseling department regarding the use of information technology in its services. Generally, the research provides insight into how technological advancements affect guidance and counseling services positively and negatively.

There are two practical benefits offered by this research. First, school counselors will benefit from the findings of this study by obtaining a vast knowledge regarding the use of digital skills when providing services by exploring the types of information technology to be used, as well as the guidance and counseling services, challenges, and creative solutions that will enable them to provide services to students with more significant support. Students will benefit from the best availability of guidance and counseling services. The findings of this study will provide school counselors with a comprehensive understanding of the use of digital skills in providing guidance and counseling services. This understanding will enable counselors to offer students a more comprehensive range of professional, personal, and emotional support, as well as greater access to resources and information. Third, the perspectives of school counselors on the use of information technology in guidance and counseling services will provide insights for school administrators and policymakers. School administrators will be aware of the challenges their staff are facing and will be able to prepare for further training and find other solutions to help them further develop their skills. Fourth, future researchers will have a comprehensive understanding of how school counselors in Indonesia and Tanzania use information technology in guidance and counseling services. Additionally, they will be able to identify areas that require further exploration.

CONCLUSION

School counselors use information technology in providing guidance and counseling services. During this process, they usually use a number of devices, including laptops and smartphones. They employ various software formats, including Microsoft Word and PDF. Meanwhile, for social media, they frequently use WhatsApp, Zoom meetings, and Google Meet. However, the efficacy of information technology in the context of school counseling in Indonesia is constrained by the rapid pace of technological advancement. This assertion is supported by the observations of numerous authors. In Tanzania, as in Indonesia, school counselors face a number of challenges in dealing with the high-tech revolution. These challenges include a lack of adequate ICT skills, network problems, a lack of sufficient information technology usage training, and an insufficient ICT infrastructure. To overcome these challenges, most school counselors learn digital skills from each other, which helps them to be competent when providing guidance and counseling services. One of the limitations of this study is the need for further research on the application of ICT in Tanzanian and Indonesian guidance and counseling services. Additionally, it is challenging to

apply the findings of this study to other countries. Future researchers should investigate different strategies that the government under the Ministry of Education has specifically for school counselors to help them acquire digital skills for better provision of guidance and counseling services at schools.

Author contributions
The authors made significant contributions to the study's conception and design. The authors was in charge of data analysis, interpretation, and discussion of results. The final manuscript was read and approved by the authors.

Funding
There was no specific grant for this research from any funding organization in the public, private, or nonprofit sectors.

Conflict of interest
The authors declare that there is no potential conflict of interest.

Data availability statement
All data are available from the authors.

REFERENCES
Abudabbous, N. (2022). Advantages and disadvantages of social media and its effects on young learners. *ssrn electronic journal*, *march*. https://doi.org/10.2139/ssrn.4002626

Afdilah, I. H., Hidayah, N., & Lasan, B. B. (2020). A literature review; the role of bk teachers developing spiritual intelligence in the pandemic era (covid-19): based on online learning. *konselor*, *9*(2), 153–164. https://doi.org/10.24036/0202093109050-0-00

Alhadi, S., Supriyanto, A., & Dina, D. A. M. (2016). Media in guidance and counseling services: a tool and innovation for school counselor. *Schoulid: Indonesian Journal of School Counseling*, *1*(1), 6. https://doi.org/10.23916/schoulid.v1i1.35.6-11

Amalianita, B., Ifdil, I., Agustin, A. W., & Zikra, Z. (2017). The role online counseling as a part of guidance and counseling services. *Schoulid: Indonesian Journal of School Counseling*, *2*(3), 65. https://doi.org/10.23916/08457011

Asare, S., Agyeman, E. P., Ahmoah, J. D., & Asare, B. O. (2023). A systematic review of the role of social media in providing guidance and support to adolescents: a case study of online counseling platforms. *American journal of Multidisciplinary Research and Innovation*, *2*(6), 42–48. https://doi.org/10.54536/ajmri.v2i6.2213

Budianto, A. E., Aziz, A., & Hidayah, N. (2019). Ict application in cyber counseling as a teacher accelerator with optimizing WhatsApp based mobile computing. *Journal of Physics: Conference series*, *1375*(1). https://doi.org/10.1088/1742-6596/1375/1/012006

Chilewa, E. A., & Osaki, K. (2022). The effectiveness of guidance and counseling practices on students' career development in secondary schools in Temeke municipality. *Journal of Humanities and Education development*, *4*(1), 160–181. https://doi.org/10.22161/jhed.4.1.17

Crandall, K. S., North, M., & Crandall, K. (2020). Digitally transforming the professional school counselor. *Issues in information systems*, *21*(1), 1–11. https://doi.org/10.48009/1_iis_2020_1-11

Deslonde, V., & Becerra, M. (2018). The technology acceptance model (tam): exploring school counselors' acceptance and use of naviance. *The professional counselor*, *8*(4), 369–382. https://doi.org/10.15241/vd.8.4.369

Dolot, A. (2018). The characteristics of generation z. *e-mentor*, *74*, 44–50. https://doi.org/10.15219/em74.1351

Efendi, B. A., & Wangid, M. N. (2022, December). Utilization of Information Technology in Guidance and Counseling Services During the Covid-19 Pandemic. In *Annual Conference on Research, Educational Implementation, Social Studies and History (AREISSH 2021)* (pp. 5-12). Atlantis Press. https://doi.org/10.2991/978-2-494069-17-6_2

Fahriza, I., Supriatna, M., Suryahadikusumah, A. R., & Fitrah, S. (2023). *Technology framework i n guidance and counseling services technology framework in guidance and counseling services*. *january*. https://doi.org/10.30653/001.202371.247

Gai Mali, Y. C., Kurniawan, D., Januardi, J. I., Swara, S. J., Lokollo, N. C. E., Picauly, I. A., Paramitha, N. G.,

Tanore, J. A., Dewani, M. S., & Pakiding, R. W. (2023). Issues and challenges of technology use in Indonesian schools: implications for teaching and learning. *ijiet (International Journal of Indonesian education and Teaching)*, *7*(2), 221–233. https://doi.org/10.24071/ijiet.v7i2.6310

Goodrich, K. M., Kingsley, K. V., & Sands, H. C. (2020). Digitally responsive school counseling across the asca national model. *International Journal for the Advancement of Counselling*, *42*(2), 147–158. https://doi.org/10.1007/s10447-020-09396-9

Haryati, A. (2020b). Online counseling sebagai alternatif strategi konselor dalam melaksanakan pelayanan e-counseling di era industri 4.0. *bulletin of counseling and psychotherapy*, *2*(2), 27–38. https://doi.org/10.51214/bocp.v2i2.33

Jaber, F., & Al-Hroub, A. (2023). School counselors' perceptions of virtual counseling in Lebanon: a qualitative study. *frontiers in psychology*, *13*(january). https://doi.org/10.3389/fpsyg.2022.1083644

Joyce-Gibbons, A., Galloway, D., Mollel, A., Mgoma, S., Pima, M., & Deogratias, E. (2018). Mobile phone use in two secondary schools in Tanzania. *education and information technologies*, *23*(1), 73–92. https://doi.org/10.1007/s10639-017-9586-1

Kafyulilo, A. (2014). Access, use and perceptions of teachers and students towards mobile phones as a tool for teaching and learning in tanzania. *education and information technologies*, *19*(1), 115–127. https://doi.org/10.1007/s10639-012-9207-y

Kholiq, A., & Solehuddin, M. (2020). *The use of facebook as a media for career guidance and counseling services in junior high school*. *438*(aes 2019), 224–228. https://doi.org/10.2991/assehr.k.200513.050

Kurniasih, C., Rodhiyya, Z. A., Hanum, N. C., Bhakti, C. P., & Fithroni, F. (2022, April). The Urgency of Technology Competencies for Guidance and Counseling Teacher. In *International Seminar on Innovative and Creative Guidance and Counseling Service (ICGCS 2021)* (pp. 58-61). Atlantis Press. https://doi.org/10.2991/assehr.k.220405.011

Kweka, K. H., & Ndibalema, P. (2018). Constraints hindering adoption of ICT in government secondary schools in Tanzania: The case of Hanang District. *International Journal of Educational Technology and Learning*, *4*(2), 46-57. https://doi.org/10.20448/2003.42.46.57

La Torre, G., Backhaus, I., & Mannocci, A. (2015). Rating for narrative reviews: concept and development of the International Narrative Systematic Assessment tool. *Senses and Sciences*, *2*(2), 31-35. https://doi.org/10.14616/sands-2015-1-3135

Malekani, A. A. (2018). Access to, use and challenges of icts in secondary schools in tanzania: a study of selected secondary schools in morogoro municipality. *information impact: Journal of Information and Knowledge Management*, *9*(2), 44–57. https://doi.org/10.4314/iijikm.v9i2.4

Mason, E. C. M., Griffith, C., & Belser, C. T. (2019). School counselors' use of technology for program management. *Professional School Counseling*, *22*(1), 1–10. https://doi.org/10.1177/2156759x19870794

Mulawarman, M., Susilawati, S., Syifa, L., & Rifani, E. (2020). Classroom guidance strategy with flipped method in guidance and counseling services at Indonesia schools in the digital era. *Islamic Guidance and Counseling Journal*, *3*(2), 61–74. https://doi.org/10.25217/igcj.v3i2.646

Ndibalema, P. (2014). Teachers' attitudes towards the use of information communication technology (ICT) as a pedagogical tool in secondary schools in Tanzania: The Case of Kondoa District. *International Journal of Education and Research*, *2*(2), 1-16.

Ndume, V. A., Kisanga, D. H., & Selemani, M. (2021). Integrating ict in Tanzania secondary schools: experience of Tanzania as it grows to second world economy. *International Academic Journal of Education & Literature*, *2*(5), 81–95. https://doi.org/10.47310/iajel.2021.v02i05.010

Ngao, A. I., Sang, G., & Kihwele, J. E. (2022). Understanding teacher educators' perceptions and practices about ict integration in teacher education program. *education sciences*, *12*(8). https://doi.org/10.3390/educsci12080549

Nye, B. D. (2015). Intelligent tutoring systems by and for the developing world: a review of trends and approaches for educational technology in a global context. *International journal of Artificial Intelligence in Education*, *25*(2), 177–203. https://doi.org/10.1007/s40593-014-0028-6

Oreku, G. S. (2022). Ict in education: mapping digital learning initiatives in Tanzania. *Literacy Information and Computer Education Journal*, *13*(1), 3684–3703. https://doi.org/10.20533/licej.2040.2589.2022.0486

Putri, T. R., Supriyanto, A., Martaningsih, S. T., & Rosada, U. D. (2022). School counselor professional competence (pc-sc): social media utilization in guidance and counselling services (gc-s). *counsellia: Jurnal Bimbingan dan Konseling*, *12*(1), 36. https://doi.org/10.25273/counsellia.v12i1.10846

Ramli, M. B., Mega, N., & Saputra, A. (2023). *The Impact of Covid-19 on School Counselor Services. In International Conference on Educational Management and Technology (ICEMT 2022) (pp. 107-112).*

Atlantis Press. https://doi.org/10.2991/978-2-494069-95-4

Ramli, M., Hidayah, N., Eva, N., Saputra, N. M. A., & Hanafi, H. (2021). Counselor needs analysis on the development of a website-based reality counseling self-help model for reducing academic stress for high school students. *proceedings - 2021 7th international conference on education and technology, icet 2021*, 266–271. https://doi.org/10.1109/icet53279.2021.9575100

Retnawati, E. (2019). Efforts to support and expand the use of educational technology as a means of delivering learning. *ijiet (International Journal of Indonesian Education and Teaching)*, *3*(1), 128–137. https://doi.org/10.24071/ijiet.v3i1.1725

Rodliyatun, M., Sutrisno, S., Salaeh, A., & Iqdami, M. N. (2022). School counselors' efforts in implementing career guidance services. *pamomong: Journal of Islamic Educational Counseling*, *3*(2), 85–98. https://doi.org/10.18326/pamomong.v3i2.85-98

Sare, Y. D., Hidayah, N., & Rahman, D. H. (2020). *Historical guidance and counseling perspective in Indonesia. In 6th International Conference on Education and Technology (ICET 2020) (pp. 389-392). Atlantis Press.* https://doi.org/10.2991/assehr.k.201204.075

Selcuk, A. A. (2019). A guide for systematic reviews: prisma. *Turkish archives of otorhinolaryngology*, *57*(1), 57–58. https://doi.org/10.5152/tao.2019.4058

Sepriati, E., Qurniati, Q., Dharminto, M., Hoiriyah, E., & Zahara, E. (2022). Implementasi peraturan menteri pendidikan nasional ri nomor 27 tahun 2008 tentang standar kualifikasi akademik dan kompetensi konselor di SMA Bhakti Suci Jaya Tanjung Batu Kabupaten Ogan Ilir. *Jurnal Ilmu Administrasi dan Studi Kebijakan (jiask)*, *4*(2), 97–112. https://doi.org/10.48093/jiask.v4i2.85

Snow, W. H., & Coker, J. K. (2020). Distance counselor education: past, present, future. *The professional counselor*, *10*(1), 40–56. https://doi.org/10.15241/whs.10.1.40

Susanto, E. (2014). Technology guidance and counselling: implementation theory in practice, development and experience. *in The Current Issue of Guidance and Counseling*. https://doi.org/10.13140/rg.2.1.1983.4084

Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021a). Information technology and gen z: the role of teachers, the internet, and technology in the education of young people. *Technology in society*, *65*(january). https://doi.org/10.1016/j.techsoc.2021.101565

Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021b). Information technology and gen z: the role of teachers, the internet, and technology in the education of young people. *Technology in society*, *65*(december 2020). https://doi.org/10.1016/j.techsoc.2021.101565

Wilder, C. (2018). Promoting the role of the school counselor. *Journal of Professional Counseling: Practice, Theory & Research*, *45*(2), 60–68. https://doi.org/10.1080/15566382.2019.1646085

Woo, H., Dondanville, A., Jang, H., Na, G. E., & Jang, Y. (2020). A content analysis of the counseling literature on technology integration: American Counseling Association (ACA) counseling journals between 2000 and 2018. *International Journal for the Advancement of Counselling*, *42*(3), 319–333. https://doi.org/10.1007/s10447-020-09406-w

Zamroni, E., Hanurawan, F., Hambali, I., & Hidayah, N. (2022). Trends and research implications of guidance and counseling services in Indonesia from 2010 to 2020 : a bibliometric analysis. *SAGE Open*, *12*(2), 21582440221091261. https://doi.org/10.1177/21582440221091261