

eISSN: 2581-9615 CODEN (USA): WJARAI Cross Ref DOI: 10.30574/wjarr Journal homepage: https://wjarr.com/

	<b>()</b>	elissn 2501-8615 Coden (UBA): MUARAI
	WJARR	JARR
	World Journal of Advanced	
	Research and Reviews	
		World Journal Series INDIA
Check for updates		

(REVIEW ARTICLE)

# Digital communication tools in family therapy: A review of opportunities and challenges for English-Speaking practitioners

Mary Omoboye<sup>1</sup>, Nkechi Emmanuella Eneh<sup>2,\*</sup> and Mwuese Celestina Titor-Addingi<sup>3</sup>

<sup>1</sup> Independent Researcher, USA.

<sup>2</sup> Department of Public Law, University of Cape Town, South Africa.

<sup>3</sup> Independent Researcher, West Virginia, USA.

World Journal of Advanced Research and Reviews, 2024, 21(02), 1892–1899

Publication history: Received on 15 January 2024; revised on 25 February 2024; accepted on 27 February 2024

Article DOI: https://doi.org/10.30574/wjarr.2024.21.2.0635

# Abstract

Digital communication tools have revolutionized the field of family therapy, offering both opportunities and challenges for English-speaking practitioners. With the proliferation of technology, therapists have access to a wide array of platforms and applications that can enhance therapeutic interventions. However, integrating these tools into practice requires careful consideration of ethical, legal, and clinical implications. Digital communication tools offer numerous advantages for family therapy practitioners. Teletherapy platforms enable therapists to reach clients in remote locations or those with mobility constraints, expanding access to care. Video conferencing allows for face-to-face interactions, facilitating rapport building and nonverbal communication cues essential for effective therapy. Additionally, digital tools such as secure messaging apps or virtual whiteboards enhance communication between sessions, fostering continuity of care and homework completion. Online support groups and forums provide clients with opportunities for peer support and community engagement, supplementing traditional therapy approaches. Despite their benefits, digital communication tools pose significant challenges for English-speaking practitioners. Ensuring confidentiality and data security is paramount, requiring adherence to stringent privacy regulations such as HIPAA (Health Insurance Portability and Accountability Act). Therapists must navigate issues of informed consent, boundary maintenance, and emergency protocols in the digital realm. Moreover, technological barriers, such as internet connectivity issues or lack of digital literacy among clients, can hinder the effectiveness of therapy sessions. Cultural considerations also play a role, as language barriers or cultural differences in technology use may impact therapeutic engagement. Digital communication tools offer English-speaking family therapy practitioners unprecedented opportunities to enhance therapeutic interventions. However, these tools come with inherent challenges that must be addressed to ensure ethical and effective practice. By carefully navigating the opportunities and challenges presented by digital communication tools, therapists can harness the power of technology to improve client outcomes and advance the field of family therapy.

Keywords: Communication; Digital; Family; Therapy; English; Practitioner; Review

## 1. Introduction

The landscape of family therapy has undergone a profound transformation with the advent of digital communication tools (Duriez, 2021). In recent years, there has been a notable surge in the utilization of technology to facilitate therapeutic interventions, revolutionizing traditional modes of practice (Sugandh *et al.*, 2023). From teletherapy platforms to secure messaging apps, these digital tools offer unprecedented opportunities for English-speaking practitioners to engage with their clients in innovative ways (Jurcik *et al.*, 2021).

<sup>\*</sup> Corresponding author: Nkechi Emmanuella Eneh.

Copyright © 2024 Author(s) retain the copyright of this article. This article is published under the terms of the Creative Commons Attribution Liscense 4.0.

As the demand for mental health services continues to rise, especially amidst global challenges such as the COVID-19 pandemic, digital communication tools have emerged as indispensable assets in the therapeutic toolkit (Kola *et al.*, 2021). However, with this rapid integration of technology into clinical practice comes a myriad of opportunities and challenges that warrant careful examination.

The primary aim of this review is to explore the multifaceted landscape of digital communication tools in family therapy, with a specific focus on the opportunities and challenges encountered by English-speaking practitioners. By systematically analyzing the current state of the field, we seek to provide insights into how these practitioners can harness the potential of digital tools to optimize client care while navigating the complexities inherent in their use.

Outlined within this study are comprehensive discussions on the opportunities afforded by digital communication tools, including enhanced accessibility for clients in remote locations, improved communication through video conferencing, and the facilitation of continuity of care via secure messaging platforms. Moreover, we delve into the challenges posed by these technologies, ranging from ensuring confidentiality and data security to addressing cultural considerations and technological barriers.

Through a structured examination of the opportunities and challenges inherent in the integration of digital communication tools into family therapy practice, this review aims to equip English-speaking practitioners with the knowledge and insights necessary to navigate this rapidly evolving landscape effectively. By elucidating the nuances of digital communication tools in family therapy, we endeavor to contribute to the ongoing dialogue surrounding the ethical, clinical, and practical implications of technology in mental health care.

# 2. Literature and Background of Digital Communication Tools in Family Therapy

Digital communication tools have emerged as transformative assets in the field of family therapy, revolutionizing the way practitioners engage with clients and deliver therapeutic interventions (Dal *et al.*, 2023). The literature surrounding the use of these tools in family therapy underscores their potential to enhance accessibility, communication, continuity of care, and peer support.

Historically, traditional modes of family therapy predominantly relied on in-person sessions conducted within clinical settings. However, as technology has advanced, therapists have increasingly turned to digital communication tools to overcome barriers such as geographical distance, mobility constraints, and scheduling conflicts. This shift is underscored by a growing body of research that highlights the efficacy and acceptability of digital interventions in family therapy settings. The concept of accessibility lies at the core of the literature on digital communication tools in family therapy. Teletherapy platforms, for instance, have been instrumental in extending the reach of mental health services to underserved populations and individuals residing in remote or rural areas (Avalos and Aguilera, 2022). Studies have demonstrated the effectiveness of teletherapy in improving access to care for families facing geographical barriers or transportation limitations, thereby reducing disparities in mental health service utilization.

In addition to improving accessibility, digital communication tools offer unique advantages in facilitating enhanced communication between therapists and clients. Video conferencing, in particular, has emerged as a preferred modality for conducting remote therapy sessions, enabling therapists to engage in face-to-face interactions with clients regardless of their physical location (Robledo Yamamoto *et al.*, 2021). Research indicates that video-based interventions are associated with high levels of client satisfaction and therapeutic alliance, fostering rapport building and facilitating the expression of nonverbal cues critical for effective communication and understanding within the therapeutic dyad. Moreover, digital communication tools play a pivotal role in promoting continuity of care by providing channels for communication platforms allow therapists and clients to exchange messages, share resources, and collaborate on treatment goals outside of scheduled appointments (Stawarz *et al.*, 2020). These tools enhance the therapeutic process by enabling ongoing engagement, homework assignments, and progress tracking, thereby fostering a sense of continuity and support between sessions.

Furthermore, the literature emphasizes the importance of peer support in augmenting traditional therapy approaches. Online support groups, forums, and virtual communities provide clients with opportunities to connect with others facing similar challenges, share experiences, and access valuable resources and information (Strand *et al.*, 2020). By supplementing formal therapy with peer support networks, digital communication tools empower clients to build social connections, receive validation, and develop coping strategies in a supportive environment.

In summary, the literature on digital communication tools in family therapy underscores their potential to address accessibility barriers, enhance communication, promote continuity of care, and facilitate peer support. By leveraging these tools, therapists can extend the reach of their services, strengthen therapeutic alliances, and empower clients to actively engage in their treatment journey (Broglia and Barkham, 2024). However, it is essential for practitioners to remain mindful of ethical considerations, privacy concerns, and technological limitations when integrating digital communication tools into their practice.

#### 3. Opportunities of Digital Communication Tools

In the realm of family therapy, digital communication tools offer a myriad of opportunities that enhance therapeutic interventions and improve client outcomes (Okunade *et al.*, 2023). From extending access to care to fostering peer support networks, these tools have the potential to revolutionize traditional therapy approaches.

One of the primary advantages of digital communication tools in family therapy is the ability to reach clients who may face geographical barriers or mobility constraints. Teletherapy platforms, including video conferencing and phone sessions, have made it possible for therapists to connect with clients regardless of their physical location (Rowen *et al.*, 2022). This is particularly beneficial for individuals residing in rural areas where access to mental health services may be limited. Research has shown that teletherapy is as effective as in-person therapy for a wide range of mental health issues, including depression, anxiety, and trauma (Giovanetti *et al.*, 2022; Crowe *et al.*, 2023). By leveraging digital platforms, therapists can extend their reach and ensure that all clients have access to the care they need.

Video conferencing has emerged as a preferred modality for conducting remote therapy sessions, offering advantages akin to in-person interactions (Thomas *et al.*, 2021). Through video conferencing, therapists can engage in face-to-face communication with clients, allowing for the exchange of nonverbal cues, facial expressions, and body language. This facilitates rapport building and enhances the therapeutic alliance, crucial components of successful therapy outcomes. Research suggests that clients perceive video-based therapy as more personal and engaging compared to other forms of remote communication, leading to higher levels of satisfaction and treatment adherence (Payne *et al.*, 2020; Song *et al.*, 2023).

Digital communication tools facilitate continuity of care by providing channels for ongoing communication between therapy sessions (Blasiak *et al.*, 2022). Secure messaging apps and virtual whiteboards enable therapists and clients to exchange messages, share resources, and collaborate on treatment goals outside of scheduled appointments. This fosters a sense of support and accountability, empowering clients to actively engage in their treatment journey. Additionally, virtual whiteboards allow for interactive activities, such as journaling, goal setting, and progress tracking, which promote reflection and self-awareness between sessions (Schueller *et al.*, 2022). By leveraging these tools, therapists can enhance the therapeutic process and support clients in achieving their goals.

Online support groups and forums play a valuable role in supplementing traditional therapy approaches by providing clients with opportunities for peer support and community engagement (Baptista *et al.*, 2021). These platforms allow individuals facing similar challenges to connect, share experiences, and offer mutual support in a safe and anonymous environment. Research has shown that participation in online support groups can reduce feelings of isolation, increase feelings of belonging, and improve coping strategies (Trail *et al.*, 2020; Agrawal *et al.*, 2021). By incorporating peer support networks into therapy, therapists can enhance social support, validate clients' experiences, and empower them to explore new perspectives and solutions to their problems.

Overall, digital communication tools offer numerous opportunities for enhancing family therapy interventions, including extending access to care, facilitating enhanced communication, promoting continuity of care, and fostering peer support networks (Lukong *et* al., 2021; Garapati *et al.*, 2023). By leveraging these tools effectively, therapists can overcome geographical barriers, strengthen therapeutic alliances, and empower clients to achieve meaningful change in their lives.

#### 4. Challenges of Digital Communication Tools

While digital communication tools offer numerous benefits for family therapy practitioners and clients, they also present unique challenges that must be addressed to ensure ethical and effective practice (Schmitz and Wing, 2021; Johnson *et al.*, 2023). From confidentiality concerns to technological barriers, navigating these challenges requires careful consideration and proactive measures.

Maintaining confidentiality and data security is paramount when using digital communication tools in family therapy. Therapists must ensure that all communication platforms comply with privacy regulations such as the Health Insurance Portability and Accountability Act (HIPAA) to protect client confidentiality (Rose *et al.*, 2023). This includes using encrypted messaging apps, secure video conferencing platforms, and secure file storage systems to safeguard sensitive information. Additionally, therapists should educate clients about the risks associated with digital communication and obtain informed consent for using these tools in therapy. By prioritizing confidentiality and data security, therapists can mitigate the risk of unauthorized access or breaches of privacy (LaMonica *et al.*, 2021).

Informed consent is essential when integrating digital communication tools into therapy, as it allows clients to make informed decisions about the use of technology in their treatment. Therapists should discuss the potential risks and benefits of using digital communication tools, including confidentiality concerns, technological limitations, and boundaries around communication outside of sessions (Stoll *et al.*, 2020; Ukoba and Jen, 2023). This ensures that clients are aware of the implications of using these tools and have the opportunity to express their preferences and concerns. Additionally, therapists must establish clear boundaries around communication and availability outside of scheduled sessions to prevent overreliance on digital platforms and maintain the therapeutic relationship (Wu and Sonne, 2021).

Technological barriers can pose significant challenges for both therapists and clients when using digital communication tools in therapy (Lukka *et al.*, 2023). Issues such as internet connectivity, device compatibility, and digital literacy can impact the effectiveness and accessibility of remote therapy sessions. Therapists should assess clients' technological capabilities and provide support and guidance as needed to ensure smooth communication and engagement (Knott and Block, 2020). This may include offering tutorials on how to use digital platforms, troubleshooting technical issues, and providing alternative communication options for clients with limited technological resources. By addressing technological barriers proactively, therapists can minimize disruptions to therapy and ensure that all clients can access the care they need (Anamu *et al.*, 2023).

Cultural considerations play a significant role in the use of digital communication tools in family therapy, particularly regarding language barriers and cultural differences in technology use (Ezeigweneme *et al.*, 2023). Therapists must be sensitive to clients' cultural backgrounds and preferences when selecting digital platforms and modes of communication. This includes offering translation services for clients who are not fluent in the dominant language, providing culturally relevant resources and materials, and adapting communication strategies to accommodate diverse cultural norms and values (Sagbakken *et al.*, 2020). Additionally, therapists should be mindful of cultural differences in attitudes towards technology and adjust their approach accordingly to ensure that digital communication tools are accessible and acceptable to all clients (Bagarić and Jokić-Begić, 2020; Ibekwe *et al.*, 2024). By addressing cultural considerations, therapists can enhance therapeutic engagement and promote positive outcomes for clients from diverse cultural backgrounds.

In summary, the challenges associated with digital communication tools in family therapy are multifaceted and require careful attention to ensure ethical and effective practice. By prioritizing confidentiality and data security, obtaining informed consent, addressing technological barriers, and considering cultural considerations, therapists can overcome these challenges and harness the full potential of digital communication tools to support their clients' well-being (Mumtaz *et* al., 2023; Etukudoh *et al.*, 2024).

## 5. Future Direction

As technology continues to evolve at a rapid pace, the future of digital communication tools in family therapy holds promise for further innovation and integration (Kumar *et al.*, 2023). Several trends and directions are likely to shape the landscape of digital therapy in the years to come:

- Advancements in Telehealth Platforms: Telehealth platforms will continue to evolve, offering enhanced features and functionalities to support remote therapy sessions (Ezeigweneme *et al.*, 2024). This may include improved video conferencing capabilities, virtual reality experiences, and interactive tools for collaborative therapy activities.
- Integration of Artificial Intelligence (AI): The integration of AI-driven tools and algorithms holds potential for augmenting therapeutic interventions and personalizing treatment approaches. AI-powered chatbots, for example, can provide immediate support and guidance to clients between sessions, while predictive analytics can help therapists identify patterns and trends in clients' behavior and progress (Thieme, *et al.*, 2023; Ilojianya *et al.*, 2024).

- Virtual Reality Therapy: Virtual reality (VR) therapy is emerging as a promising modality for immersive and experiential interventions. VR simulations can recreate real-life scenarios and environments, allowing clients to confront and practice coping strategies in a safe and controlled setting (Lindner, 2021; Umoh *et al.*, 2024). This technology has applications in exposure therapy, trauma treatment, and skill-building exercises.
- Mobile Applications and Wearable Devices: Mobile applications and wearable devices will play an increasingly prominent role in supporting therapy outcomes and promoting self-monitoring and self-care practices (Fabian *et al.*, 2023). These tools can track physiological indicators, monitor mood fluctuations, and deliver personalized interventions and reminders to enhance clients' engagement and adherence to treatment plans.
- Ethical and Regulatory Considerations: As the use of digital communication tools in therapy becomes more widespread, there will be a growing need to address ethical and regulatory considerations (Uchechukwu *et al.*, 2023). This includes ensuring compliance with privacy regulations, maintaining boundaries in digital interactions, and addressing disparities in access to technology and digital literacy.

Overall, the future of digital communication tools in family therapy is characterized by continued innovation, integration, and refinement. By embracing emerging technologies and staying abreast of best practices, therapists can harness the full potential of digital tools to enhance client care and advance the field of family therapy (Sherbersky *et* al., 2021; Akindote *et al.*, 2023).

# 6. Conclusion

#### 6.1. Summary of Key Points Regarding Opportunities and Challenges

In summary, digital communication tools offer numerous opportunities for enhancing family therapy interventions, including extending access to care, facilitating enhanced communication, promoting continuity of care, and fostering peer support networks. However, these tools also present unique challenges, such as maintaining confidentiality and data security, obtaining informed consent, addressing technological barriers, and considering cultural considerations.

#### 6.2. Importance of Addressing Challenges to Ensure Ethical and Effective Practice

It is imperative for therapists to address these challenges proactively to ensure ethical and effective practice. By prioritizing confidentiality and data security, obtaining informed consent, addressing technological barriers, and considering cultural considerations, therapists can mitigate risks and maximize the benefits of digital communication tools in family therapy.

# 6.3. Future Implications and Potential for Advancement in the Field of Family Therapy Through the Strategic Use of Digital Communication Tools

Looking ahead, the strategic use of digital communication tools holds significant potential for advancing the field of family therapy. By embracing emerging technologies, staying abreast of best practices, and adhering to ethical guidelines, therapists can enhance client care, improve treatment outcomes, and promote inclusivity and accessibility in mental health services. The future of family therapy lies in harnessing the power of digital communication tools to meet the evolving needs of clients and support their well-being in an increasingly connected world.

## **Compliance with ethical standards**

## Disclosure of conflict of interest

No conflict of interest to be disclosed.

#### References

- [1] Agrawal, N., Someshwar, A., Ravi, A., Dhas, A.A. and Srivastava, A., 2021. Understanding the Role of Participation in Online Support Groups on Mental Well-being. *Indian Journal of Health & Wellbeing*, *12*(4).
- [2] Akindote, O.J., Adegbite, A.O., Dawodu, S.O., Omotosho, A. and Anyanwu, A., 2023. Innovation In Data Storage Technologies: From Cloud Computing To Edge Computing. *Computer Science & IT Research Journal*, 4(3), pp.273-299.

- [3] Anamu, U.S., Ayodele, O.O., Olorundaisi, E., Babalola, B.J., Odetola, P.I., Ogunmefun, A., Ukoba, K., Jen, T.C. and Olubambi, P.A., 2023. Fundamental design strategies for advancing the development of high entropy alloys for thermo-mechanical application: A critical review. *Journal of Materials Research and Technology*.
- [4] Avalos, M.R.A. and Aguilera, A., 2022. Digital equity and inclusion in technology-based mental health services. In *Digital Transformation and Social Well-Being* (pp. 115-127). Routledge.
- [5] Bagarić, B. and Jokić-Begić, N., 2020. Measuring therapists' attitudes toward integration of technology in psychotherapy and predicting their use of technology. *Journal of clinical psychology*, *76*(6), pp.1151-1172.
- [6] Baptista, N., Pinho, J.C. and Alves, H., 2021. Examining social capital and online social support links: A study in online health communities facing treatment uncertainty. *International Review on Public and Nonprofit Marketing*, *18*(1), pp.57-94.
- [7] Blasiak, A., Sapanel, Y., Leitman, D., Ng, W.Y., De Nicola, R., Lee, V.V., Todorov, A. and Ho, D., 2022. Omnichannel Communication to Boost Patient Engagement and Behavioral Change With Digital Health Interventions. *Journal of Medical Internet Research*, *24*(11), p.e41463.
- [8] Broglia, E. and Barkham, M., 2024. Adopting the principles and practices of learning health systems in universities and colleges: recommendations for delivering actionable data to improve student mental health. *Cogent Mental Health*, *3*(1), pp.1-30.
- [9] Crowe, M., Inder, M., Manuel, J. and Carlyle, D., 2023. Characteristics of effective teletherapy for major depression: A systematic review. *Journal of Affective Disorders*, *327*, pp.175-182.
- [10] Dal Mas, F., Massaro, M., Rippa, P. and Secundo, G., 2023. The challenges of digital transformation in healthcare: An interdisciplinary literature review, framework, and future research agenda. *Technovation*, *123*, p.102716.
- [11] Duriez, N., 2021. Emotion regulation focused family therapy with contemporary families affected by information and communication technologies. *Frontiers in Sociology*, *6*, p.633515.
- [12] Etukudoh, E.A., Nwokediegwu, Z.Q.S., Umoh, A.A., Ibekwe, K.I., Ilojianya, V.I. and Adefemi, A., 2024. Solar power integration in Urban areas: A review of design innovations and efficiency enhancements. *World Journal of Advanced Research and Reviews*, 21(1), pp.1383-1394.
- [13] Ezeigweneme, C.A., Umoh, A.A., Ilojianya, V.I. and Adegbite, A.O., 2024. Telecommunications Energy Efficiency: Optimizing Network Infrastructure For Sustainability. *Computer Science & IT Research Journal*, 5(1), pp.26-40.
- [14] Ezeigweneme, C.A., Umoh, A.A., Ilojianya, V.I. and Oluwatoyin, A., 2023. Telecom project management: Lessons learned and best practices: A review from Africa to the USA.
- [15] Fabian, A.A., Uchechukwu, E.S., Okoye, C.C. and Okeke, N.M., (2023). Corporate Outsourcing and Organizational Performance in Nigerian Investment Banks. *Sch J Econ Bus Manag, 2023Apr, 10*(3), pp.46-57.
- [16] Garapati, J., Jajoo, S., Aradhya, D., Reddy, L.S., Dahiphale, S.M., Patel, D.J., Jyotsna, G. and srivani Reddy, L., 2023. Postpartum mood disorders: insights into diagnosis, prevention, and treatment. *Cureus*, *15*(7).
- [17] Giovanetti, A.K., Punt, S.E., Nelson, E.L. and Ilardi, S.S., 2022. Teletherapy versus in-person psychotherapy for depression: a meta-analysis of randomized controlled trials. *Telemedicine and e-Health*, *28*(8), pp.1077-1089.
- [18] Ibekwe, K.I., Ohenhen, P.E., Chidolue, O., Umoh, A.A., Ngozichukwu, B., Ilojianya, V.I. and Fafure, A.V., 2024. Microgrid systems in US energy infrastructure: A comprehensive review: Exploring decentralized energy solutions, their benefits, and challenges in regional implementation.
- [19] Ilojianya, V.I., Usman, F.O., Ibekwe, K.I., Nwokediegwu, Z.Q.S., Umoh, A.A. and Adefemi, A., 2024. Data-Driven Energy Management: Review Of Practices In Canada, Usa, And Africa. *Engineering Science & Technology Journal*, 5(1), pp.219-230.
- [20] Johnson, D., Pranada, E., Yoo, R., Uwadiunor, E., Ngozichukwu, B. and Djire, A., 2023. Review and Perspective on Transition Metal Electrocatalysts Toward Carbon-neutral Energy. *Energy & Fuels*, *37*(3), pp.1545-1576.
- [21] Jurcik, T., Jarvis, G.E., Zeleskov Doric, J., Krasavtseva, Y., Yaltonskaya, A., Ogiwara, K., Sasaki, J., Dubois, S. and Grigoryan, K., 2021. Adapting mental health services to the COVID-19 pandemic: reflections from professionals in four countries. *Counselling Psychology Quarterly*, 34(3-4), pp.649-675.
- [22] Knott, D. and Block, S., 2020. Virtual music therapy: Developing new approaches to service delivery. *Music Therapy Perspectives*, *38*(2), pp.151-156.

- [23] Kola, L., Kohrt, B.A., Hanlon, C., Naslund, J.A., Sikander, S., Balaji, M., Benjet, C., Cheung, E.Y.L., Eaton, J., Gonsalves, P. and Hailemariam, M., 2021. COVID-19 mental health impact and responses in low-income and middle-income countries: reimagining global mental health. *The Lancet Psychiatry*, 8(6), pp.535-550.
- [24] Kumar, R., Gupta, S.K., Wang, H.C., Kumari, C.S. and Korlam, S.S.V.P., 2023. From Efficiency to Sustainability: Exploring the Potential of 6G for a Greener Future. *Sustainability*, *15*(23), p.16387.
- [25] LaMonica, H.M., Roberts, A.E., Lee, G.Y., Davenport, T.A. and Hickie, I.B., 2021. Privacy practices of health information technologies: privacy policy risk assessment study and proposed guidelines. *Journal of Medical Internet Research*, 23(9), p.e26317.
- [26] Lindner, P., 2021. Better, virtually: the past, present, and future of virtual reality cognitive behavior therapy. *International Journal of Cognitive Therapy*, *14*(1), pp.23-46.
- [27] Lukka, L., Karhulahti, V.M. and Palva, J.M., 2023. Factors affecting Digital tool use in client interaction according to mental health professionals: interview study. *JMIR human factors*, *10*, p.e44681.
- [28] Lukong, V.T., Ukoba, K.O. and Jen, T.C., 2021. Analysis of sol aging effects on self-cleaning properties of TiO2 thin film. *Materials Research Express*, *8*(10), p.105502.
- [29] Mumtaz, H., Riaz, M.H., Wajid, H., Saqib, M., Zeeshan, M.H., Khan, S.E., Chauhan, Y.R., Sohail, H. and Vohra, L.I., 2023. Current challenges and potential solutions to the use of digital health technologies in evidence generation: a narrative review. *Frontiers in Digital Health*, 5, p.1203945.
- [30] Okunade, B.A., Adediran, F.E., Bukola, A., Adewusi, O.E. and Daraojimba, R.E., 2023. Technological advancements in African social work: implications for Us practice. *International Journal of Management & Entrepreneurship Research*, *5*(12), pp.1012-1035.
- [31] Payne, L., Flannery, H., Kambakara Gedara, C., Daniilidi, X., Hitchcock, M., Lambert, D., Taylor, C. and Christie, D., 2020. Business as usual? Psychological support at a distance. *Clinical Child Psychology and Psychiatry*, 25(3), pp.672-686.
- [32] Robledo Yamamoto, F., Voida, A. and Voida, S., 2021. From therapy to teletherapy: Relocating mental health services online. *Proceedings of the ACM on Human-Computer Interaction*, *5*(CSCW2), pp.1-30.
- [33] Rose, R.V., Kumar, A. and Kass, J.S., 2023. Protecting privacy: Health Insurance Portability and Accountability Act of 1996, Twenty-First Century Cures Act, and social media. *Neurologic Clinics*, *41*(3), pp.513-522.
- [34] Rowen, J., Giedgowd, G. and Baran, D., 2022. Effective and accessible telephone-based psychotherapy and supervision. *Journal of Psychotherapy Integration*, *32*(1), p.3.
- [35] Sagbakken, M., Ingebretsen, R. and Spilker, R.S., 2020. How to adapt caring services to migration-driven diversity? A qualitative study exploring challenges and possible adjustments in the care of people living with dementia. *PloS one*, *15*(12), p.e0243803.
- [36] Schmitz, A.J. and Wing, L., 2021. Beneficial and ethical ODR for family issues. *Family court review*, 59(2), pp.250-267.
- [37] Schueller, S.M., Neary, M., Lai, J. and Epstein, D.A., 2021. Understanding people's use of and perspectives on mood-tracking apps: interview study. *JMIR mental health*, 8(8), p.e29368.
- [38] Sherbersky, H., Ziminski, J. and Pote, H., 2021. The journey towards digital systemic competence: Thoughts on training, supervision and competence evaluation. *Journal of Family Therapy*, *43*(2), pp.351-371.
- [39] Song, J., Litvin, B., Allred, R., Chen, S., Hull, T.D. and Areán, P.A., 2023. Comparing message-based psychotherapy to once-weekly, video-based psychotherapy for moderate depression: Randomized controlled trial. *Journal of Medical Internet Research*, 25, p.e46052.
- [40] Stawarz, K., Preist, C., Tallon, D., Thomas, L., Turner, K., Wiles, N., Kessler, D., Shafran, R. and Coyle, D., 2020, April. Integrating the digital and the traditional to deliver therapy for depression: Lessons from a pragmatic study. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (pp. 1-14).
- [41] Stoll, J., Müller, J.A. and Trachsel, M., 2020. Ethical issues in online psychotherapy: A narrative review. *Frontiers in psychiatry*, *10*, p.993.
- [42] Strand, M., Eng, L.S. and Gammon, D., 2020. Combining online and offline peer support groups in community mental health care settings: A qualitative study of service users' experiences. *International Journal of Mental Health Systems*, *14*(1), pp.1-12.

- [43] Sugandh, F.N.U., Chandio, M., Raveena, F.N.U., Kumar, L., Karishma, F.N.U., Khuwaja, S., Memon, U.A., Bai, K., Kashif, M., Varrassi, G. and Khatri, M., 2023. Advances in the management of diabetes mellitus: a focus on personalized medicine. *Cureus*, 15(8).
- [44] Thieme, A., Hanratty, M., Lyons, M., Palacios, J., Marques, R.F., Morrison, C. and Doherty, G., 2023. Designing human-centered AI for mental health: Developing clinically relevant applications for online CBT treatment. *ACM Transactions on Computer-Human Interaction*, *30*(2), pp.1-50.
- [45] Thomas, N., McDonald, C., de Boer, K., Brand, R.M., Nedeljkovic, M. and Seabrook, L., 2021. Review of the current empirical literature on using videoconferencing to deliver individual psychotherapies to adults with mental health problems. *Psychology and Psychotherapy: Theory, Research and Practice*, *94*(3), pp.854-883.
- [46] Trail, T., Friedman, E., Rutter, C.M. and Tanielian, T., 2020. The relationship between engagement in online support groups and social isolation among military caregivers: longitudinal questionnaire study. *Journal of medical Internet research*, 22(4), p.e16423.
- [47] Uchechukwu, E.S., Amechi, A.F., Okoye, C.C. and Okeke, N.M., 2023. Youth Unemployment and Security Challenges in Anambra State, Nigeria. *Sch J Arts Humanit Soc Sci*, *4*, pp.81-91.
- [48] Ukoba, K. and Jen, T.C., 2023. Thin films, atomic layer deposition, and 3D Printing: demystifying the concepts and their relevance in industry 4.0. CRC Press.
- [49] Umoh, A.A., Adefemi, A., Ibewe, K.I., Etukudoh, E.A., Ilojianya, V.I. and Nwokediegwu, Z.Q.S., 2024. Green Architecture And Energy Efficiency: A Review Of Innovative Design And Construction Techniques. *Engineering Science & Technology Journal*, *5*(1), pp.185-200.
- [50] Wu, K.S. and Sonne, J.L., 2021. Therapist boundary crossings in the digital age: Psychologists' practice frequencies and perceptions of ethicality. *Professional Psychology: Research and Practice*, *52*(5), p.419.