Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Maximising the Use of Digital Technology in Contemporary Parenting: Perception of Parents Residing in Federal Capital Territory (FCT), Abuja and Practice Considerations for Social Work

Gerald Chigozie Nweke

geraldnweke@gmail.com

University of Nigeria

Research Article

Keywords: Digital Technology, Contemporary Parenting, Social Work

Posted Date: March 12th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9048011/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License

Additional Declarations: No competing interests reported.

Abstract

Digital technology has become an integral part of everyday life, found in families and used by parents in running the activities of their households. However, little is known about how digital technology can be maximised in contemporary parenting practices. Therefore, the study examined maximising the use of digital technology in contemporary parenting: perceptions of parents residing in the Federal Capital Territory, Abuja, and practice considerations for social work. An in-depth interview was used to collect data from 12 parents (6 fathers and 6 mothers). Three key themes stood out from the data collection guides. The findings revealed that digital technology enhances parent-child communication, improves access to information and facilitates child monitoring. Findings also highlighted that parents use digital technology to automate household tasks, facilitate remote family engagement and monitor health. Further findings also highlighted the challenges parents encounter in integrating digital technology, the high cost of devices, limited digital literacy skills and concerns over online safety. In conclusion, it is the responsibility of social workers to incorporate **technology-mediated family support services into professional practice. Social workers must leverage digital tools** to reach out to families and parents with limited access to direct services. Also, social workers working with children, families, communities and schools must understand how family functioning and parent–child interactions are shaped by digital tools; they must champion digital inclusion initiatives, consisting of access to digital technologies that are affordable, education on child online safety and community-based digital literacy for parents.

Highlights

- Digital technology has become an integral part of everyday life, found in families and used by parents in running the activities of their households.
- Digital technology enhances parent-child communication, improves access to information and facilitates child monitoring
- The use of digital technology to automate household tasks, facilitate remote family engagement and monitor health
- The challenges parents encounter in integrating digital technology, the high cost of devices, limited digital literacy skills and concerns over online safety.
- **Social workers must leverage digital tools** to reach out to families and parents with limited access to direct services.
- **Social workers must champion** digital inclusion initiatives, consisting of access to affordable digital technologies, education on child online safety and community-based digital literacy for parents

Introduction

Digital technology facilitates communication through instant messaging, offering families the ability to connect across distances (Abdullahi et al., 2024). The modern era has witnessed advances in technology that shape the transformation of every aspect of life (Altindağ Kumaş & Sardohan Yildirim, 2024). The use of digital technology has improved drastically in recent times (Sanders et al., 2016). Modern-day technology has increased people's standard of living (Nevado-Peña et al., 2019) while also reducing the difficulty faced in education and daily living (Gür & Türel, 2022). Digital technology has improved child development, creativity and access to information in the digital environment (Altindağ Kumaş & Sardohan Yildirim, 2024). Parents also want personalised and timely support for their children, as findings from Apps et al. (2024) argue that parents use digital technology to support their children and enhance rehabilitation services. Donelle et al. (2021) noted that the transition to parenting—starting with the journey from preconception through pregnancy and postpartum periods—is described as information-intensive times for parents and families. Therefore, digital technology has an impact on information behaviours and attitudes of young adults, adolescents and children, as the transition to parenting and support of infasnts is key to the development of children later in life (Gür & Türel, 2022; Donelle et al., 2021). While parents have an important role in introducing technology to children as educational tools, parental beliefs about educational value are associated with children's frequency of engagement in both physical and digital play (Calderón, 2025).

Globally, 1.5 billion children are out of school, and as a result, parents may allow them to engage with digital technology to complete online activities as part of homeschooling, socialising with peers or playing video games. Young people can be particularly vulnerable to the harms associated with excessive technology use and screen time or gaming, including unhealthy sedentary lifestyles (World Health Organisation & Regional Office for the Eastern Mediterranean, 2020). Across Europe, information and communication technology (ICT) is used to deliver parenting and mental health support services to families. This illustrates the diverse ways in which ICT is being used by parents across Europe to provide support for their children (Canário et al., 2022). In Sweden, children (aged 2–3) attended preschool regularly, while several of the youngest (aged 0–2) were still at home with one of their parents, who allowed the children to engage with digital screen technology for one or several hours daily (Sandberg et al., 2024). In Denmark, parents mediate and monitor children's screen use. Høy et. al. (2025) reported that parents view the use of technology (screen use) as a way for their child to mentally and physically relax, while also encouraging analogue activities to maintain a healthy leisure time balance. In Asia, among urban middle-class Chinese parents, Zhou (2024) reported that parents' media mediation for early adolescents, which is largely restrictive and shaped by culturally rooted *guan* parenting—combining warmth and control—reflects sociocultural concerns about addiction, academic outcomes and eyesight. In South America, Chile and Colombia, findings from Osorio-Saez et al. (2021) revealed that parents allow the use of technology and are more engaged in children's learning when well-structured technological tools are provided or suggested by schools, and when parents are socially influenced by the views of other parents, children, teachers, relatives and the general public. Conversely, they are less engaged when they perceive the technological tools to be challenging and beyond their knowledge or skills.

Digital technology use is also common among Nigerian parents. As technology becomes integral to education, parents are increasingly responsible for guiding their children's digital interactions to ensure they contribute positively to academic outcomes (Ezema-Kalu, 2024). 89% of the parents in Nigeria use their technology gadgets to entertain their children when they travel. Furthermore, 33% calm down their children with the help of devices and 22% aim to gain some spare time for themselves (Pulse Nigeria, 2024). While digital technology presents challenges to traditional family dynamics in Nigeria, it also offers opportunities for growth and adaptation (Abdullahi et al., 2024). Child-rearing practices have become more complex in recent years as the use of technology has become more common and pervasive in everyday life, even in the modern home (Omokhabi, 2021). Although the use of digital technology can enhance learning by fostering digital literacy, providing access to educational resources, regulating screen time, and maintaining a balanced approach to technology

use (Ezema-Kalu, 2024), parents are now caught between two worlds: on the one hand, they encourage their children to use digital media for social and educational purposes, and on the other hand, they are worried about the safety of their children's online (Omokhabi, 2021). Effective parenting consists of deploying digital technological devices, applications and features by parents or other responsible adults to keep track of children, where they are, what they are doing, and who they are with, especially in today's digital world (Adekola et al., 2019). Njoku et al. (2025) reported a high level of utilisation of smartphones and tablets for childcare, with parents citing convenience, educational content, and calming effects as primary motivations. These studies imply that parents in Nigeria use technology for different reasons, especially to enhance the development of their children.

Parenting determines many aspects of the children's well-being, as parents present the first learning environment for their children before joining schools, and the impacts they have on their children influence their children up to the college level (Joseph et al., 2021). Parents are believed to be more discerning in communicating, training, nurturing and giving adolescent independence to think and act about something that concerns their life, and put the youth as the centre of family education (Hasanah et al., 2018). Parenting is the emotional tone between parent and child. It is usually conceptualised in four types– authoritative, authoritarian, permissive, and neglectful (Arafat et al., 2020). Parenting gives a child the confidence to face decisive, challenging problems. Sensitive parenting and caregiving are required for the child's cognitive development and maturity (Lanjekar et al., 2022). While parenting has immediate and enduring effects on a child's behavioural, emotional, personal, and cognitive development, it is deeply influenced by digital technology and culture, which decides the limits of behaviour that are to be controlled and encouraged (Arafat et al., 2020).

Some studies have linked digital technology to parenting practices. Sanders et al. (2016) reported that across childhood stages, parents' perceived efficacy with technology predicts their technology-related parenting strategies, which strongly reduce children's screen time and related problem behaviours, with these effects weakening as children grow. Onishi (2024) further noted the role of technology in parenting since the availability of parental social support was perceived to be relatively higher among multisource gatherers compared with minimal information gatherers. Technology and the Media have been observed to be essential in improving parenting practices (Lanjekar et al., 2022). Parenting is made easy as family interactions are improving through technology use (Tarigan & Setiasih, 2025). Banić and Orehovački (2024) found that parental technology mediation and use is shifting toward more proactive involvement—merging restrictive controls with active discussion-based guidance—and that parents' technology literacy is a key predictor of children's online safety in the modern digital landscape. Also, being technologically and digitally educated and involved in social media activities is a must-do for parents nowadays, as the lack of knowledge in this field can trigger some conflicts in the family. Thus, in order to understand your child, to be able to communicate with them and discuss certain modern trends of the evolving world, you have to read more and be present on the Net through the use of technological devices. It can possibly save the parents a lot of trouble and make their children cherish them (The Guardian Nigeria News, 2024).

While the use of digital technology is integral in modern-day parenting, different scholars have noted several risks associated with technology use. Heavy digital technology use has been associated with suboptimal parent-child interactions, leading to child problem behaviours (McDaniel & Radesky, 2018). Parents' use of technologies (mobile phones and digital gadgets) may interfere with important parent-child interactions that are critical to healthy child development (Glassman et al., 2021). With increases in the use of technological devices worldwide, parental technoference is a potential threat to the quality of parent-child relationships and children's health and development (Mackay et al., 2022). Parental use of technological devices in unhealthy environment can potentially–directly and indirectly–influence adolescent mental health and violent behaviours (Dixon et al., 2023); difficulty in managing distractions and resistance (Ezema-Kalu, 2024); digital misuses ranging from internet slangs, excessive video game usage to internet fraud that eventually culminate to e-cheating is gradually in vogue (Oyeyemi et al., 2025). The growing presence of technology in children's lives has brought with it an increase in exposure to technology-facilitated risks and harms. These include grooming, child sexual abuse content, sexual extortion, and exposure to pornography (Lusinga et al., 2025). A child's digital life can also be the reason for a family conflict, with 55% of parents claiming that their child spends too much time on the phone or doing nothing useful (The Guardian Nigeria News, 2024). Gender differences were also observed, with girls experiencing a more pronounced disruption in the parent-child relationship, while boys were more likely to develop problematic smartphone use (Shao et al., 2025). These studies present a need for massive sensitisation and mechanisms to curb technology misuse and challenges associated with the use of technology among parents. Technologically, parents should be enlightened to acquire contemporary skills needed to check and curb technology misuse. This will help to ameliorate challenges and risks associated with technology misuse from gradually eroding Nigerian healthy parenting practices.

Social workers have a role in the family system, coupled with the fact that the growing trend of technology use within family settings is rapidly increasing (Chan & Holosko, 2018). Technology is being used to provide innovative family support services, and its challenges and opportunities have implications for practitioners, particularly social workers (Lamberton et al., 2016). Despite concerns around the use of technology, social workers remain in the background to sensitise parents and adolescents on the importance of using technology innovatively (Ramsey & Montgomery, 2014). Social workers ensure parents' use of technology is flexible, efficient, and creative towards promoting and maintaining quality relationships within the family system (Afrouz & Lucas, 2023). Social workers can also serve as parenting educators and occasional family educators (e.g., teachers, counsellors) to promote positive attitudes towards technology use, suggesting the need for parent and family education towards embracing technology use as a critical tool to healthy family relationships (Walker, 2019). Since technology can constitute risks associated with engaging in face-to-face parenting interventions, social workers can create engaging technology-based interventions that have a positive impact on the well-being of children and families (Aldridge et al., 2024). Also, social workers can promote technology-assisted interventions as a means to increase accessibility and enhance engagement of parenting programs (Harris et al., 2020).`

Previous studies in Nigeria related to the use of technology among parents are few. Most studies focused on the exploration of parenting issues and teenage digital misuse (Oyeyemi et al., 2025); mobile parenting in the 21st century (Adekola et al., 2019); the integration of technology on family dynamics and communication patterns (Abdullahi et al., 2024); parental perception of smartphones and tablets as digital babysitters (Njoku & Nwaoboli, 2025); technology and parenting in the digital age (Omokhabi, 2021); and digital parenting and students' academic performance (Ezema-Kalu, 2024). While these studies are commendable, none of them focused on maximising the use of digital technology in contemporary parenting. Thus, this current study will be different. The present study investigates maximising technology use in contemporary parenting: perception of parents residing in Abuja metropolis and practice considerations for social work. The objectives guiding this study are (i) to ascertain perceptions of parents regarding the role of technology in contemporary

parenting, (ii) to ascertain how parents utilise technologies to support their parenting practices, and (iii) to ascertain challenges parents encounter in integrating technology into their parenting practices. It is believed that the findings of this study will provide information for campaigns that promote the effective use of digital technology in parenting practices.

Materials and Methods

Study Area

The study area is Abuja, the capital city of Nigeria, situated within the Federal Capital Territory (FCT). The FCT covers approximately 7,315 km², and Abuja itself is a purpose-built city formally established as Nigeria's new planned capital in **1976**, incorporated in **1984**, and officially declared the capital city on **12th December, 1991 (**Federal Capital Development Authority [FCDA], 2025a**).** Abuja is administratively divided into six area councils: Abuja Municipal Area Council (AMAC), Bwari, Gwagwalada, Kuje, Kwali, and Abaji, which together constitute the FCT's political and demographic structure (ACReSAL, 2024; Britannica Editors, 2025; FCDA, 2025b). The population of Abuja is **4,210,000**, a **4.57% increase** from 2024 (Macrotrends, 2025). The area is characterised by a mix of urban and peri-urban settlements, with families exhibiting varying levels of access to digital technologies, including smartphones, internet services, and social media platforms (Platform Executive, 2025), making it a strategically relevant area for exploring **parental perceptions of the use of digital technology in contemporary parenting.** This socio-demographic profile, coupled with Abuja's modern infrastructure and varying residential areas, provides a rich and diverse context to explore the use of technology in contemporary parenting. Abuja was chosen as the study area because it is a rapidly growing, highly urbanised city (NPC, 2025), with one of the highest concentrations of digitally connected people in Nigeria, making it an ideal setting for examining the intersection of technology and parenting.

Sampling Procedure

A **multi-stage stratified purposive sampling technique** was adopted to ensure analytical depth, geographical, and contextual diversity and representation across the **six Area Councils of the FCT:** Abaji, AMAC, Bwari, Gwagwalada, Kuje, and Kwali**.** In the first stage, **one community was purposively selected from each Area Council**, resulting in six selected communities. The selected communities were: **Garki** (AMAC Area Council), **Central Gwagwalada (Gwagwalada** Area Council), Ibwa (Kuje Area Council), **Dutse Alhaji** (Bwari Area Council), **Gurku** (Kwali Area Council) and Abaji Town (Area Council). The participants were selected based on three scientific criteria: (i) must have at least one child under 18 years, (ii) have experience with digital technology in parenting practices, such as using smartphones, social media, or parenting apps, and (iii) have lived in the community for at least one year. In the second stage, 2 **participants (one mother and one father) were selected from each community**, yielding a total of **12 participants for the in-depth interviews (IDI)**. Selection within communities was based on a **gender-stratified purposive sampling method**,with **one male and one female** selected from each community to ensure gender balance and reduce systematic gender bias in perceptions of technology use. Additional criteria included willingness to participate and ability to articulate experiences during interviews. Selecting an equal number of participants from each community enhances comparability across settings, while the total sample size of 12 is methodologically appropriate for achieving **thematic saturation** in qualitative interview studies (Guest et al., 2020; Hennink et al., 2017). This sampling approach is therefore context-sensitive, well-suited and robust for exploring in-depth insights into the use of **technology in parenting practices among parents in Abuja.**

Data Collection

A semi-structured in-depth interview schedule was used for the data collection. This enabled the researcher to explore technology use in contemporary parenting: perception of parents residing in the Federal Capital Territory (FCT), Abuja. Semi-structured interviews are widely recognised in qualitative research for providing flexibility, depth and participant-guided narratives while still maintaining a systematic structure guided by pre-designed prompts (Creswell & Poth, 2016; Tisdell et al., 2025). An interview guide was developed based on relevant literature on technology use in contemporary parenting. Participants were provided with consent forms where clear explanations regarding the study and participation were made. Interviews were conducted face-to-face within the selected communities in Abuja. Each interview lasted between 35 and 40 minutes, depending on the participant's availability and willingness to elaborate. All interviews were conducted in English, the dominant language of residents in the FCT. To ensure trustworthiness, the researcher established rapport with participants before data collection, emphasised confidentiality, and allowed them to narrate experiences freely. With participants' informed consent, all interviews were audio-recorded using a digital recorder and later transcribed verbatim for analysis. Field notes documenting non-verbal cues and contemporary observations were also taken to support the interpretation of the interview data (Nowell et al., 2017). The researcher contacted and interviewed the participants using questions like (a) what is the perception of parents regarding the role of digital technology in contemporary parenting, (b) how do parents utilise digital technologies to support their parenting practices, and (c) what are the challenges parents encounter in integrating digital technology into their parenting practices. The combination of rich verbal accounts, contemporary reflections, and systematic transcription enhanced the credibility and depth of the dataset.

Data Analysis

The data collected through the semi-structured in-depth interviews were transcribed by the researchers. The transcribed data were compared with the notes taken to ensure that no response was lost. The transcribed data were arranged in themes with the aid of NVivo 12 software. Themes were collectively developed after the research questions were modified as a result of experiences from the field. This agrees with grounded theory in research (Barbie, 2010). The peer debriefing and observer triangulation by Padgett (2008) were also adopted by the researcher. Using observer triangulation, the researcher ran the analysis independently on an already collectively designed analysis template in NVivo 12 software. Later, a collective analysis was completed, making sure quotes and themes were appropriately matched. On peer debriefing, the collated analysis spreadsheet was given to two peers who made revisions. The IDI guide and the concept note of the study assisted the peers. After the rigours were followed, the data were categorised into three major themes: (i)

perceptions of parents regarding the role of technology in contemporary parenting, (ii) parents' utilisation of technologies to support their parenting practices, and (iii) challenges parents encounter in integrating technology into their parenting practices.

Ethical Considerations

Ethical approval for this study was obtained from the Research Ethics Committee of [blinded for review]. All participants were informed about the aim of the study, assured of anonymity and confidentiality, and provided informed consent before participation. Participation was voluntary, and respondents were free to withdraw from the study at any point without any consequences.

Results

Demographic characteristics of participants

S/N	Gender	Age	Marital status	Area Council	Level of education	Religion	Number of children	Employment status	Technology often used
1	Female	41	Married	Abaji	Tertiary	Islam	4	Trader	Tablet and smartphone
2	Male	46	Married	Abaji	Primary	Christianity	2	Civil servant	Laptop
3	Female	33	Married	AMAC	Tertiary	Christianity	1	Hair dresser	Smartphone
4	Male	37	Married	AMAC	Tertiary	Islam	2	Trader	Smartphone
5	Female	29	Married	Bwari	Tertiary	Islam	3	Chef	Smartphone and Tablet
6	Male	50	Married	Bwari	Secondary	Christianity	5	Civil servant	Computer
7	Female	32	Married	Gwagwalada	Tertiary	Islam	3	Teacher	Laptop and Smartphone
8	Male	35	Married	Gwagwalada	Secondary	Christianity	1	Trader	Smartphone
9	Female	32	Married	Kwali	Tertiary	Islam	2	Data analyst	Laptop and Smartphone
10	Male	54	Married	Kwali	Tertiary	Christianity	3	Trader	Smartphone
11	Female	39	Married	Kuje	Tertiary	Islam	2	Teacher	Laptop and Tablet
12	Male	43	Married	Kuje	Tertiary	Islam	4	Nurse	Smartphone and Tablet

Analysis of the socio-demographic data from participants shows that gender distribution is consistently balanced, with 6 males (50%) and 6 females (50%), ensuring equal representation of fathers and mothers in examining the use of digital technology in parenting. Concerning the distribution of age, data show that the majority of the participants fall within the 30–49 age bracket, constituting about 75%, indicating they are in active parenting years. Data further revealed that all participants (100%) are married, reflecting stable two-parent household structures within the study context. Regarding the educational attainment of participants, data show that a significant majority (66.7%) possess tertiary education, followed by 16.7% who have secondary education and 8.3%, representing participants with primary education, suggesting a generally educated sample with potential digital literacy advantages. In terms of religion, 7 participants constituted 58.3% are Muslim; while 5, representing 41.7%, are Christian, portraying a relatively balanced religious representation. Concerning the number of children, a majority of the participants (75%) have between 2 and 4 children, reflecting moderate family sizes. On employment, 33.3% of the participants were traders, constituting the largest employment group, followed by 16.7% civil servants, 16.7% teachers, while the remaining professions were hairdresser, chef, nurse, and data analyst, each representing 8.3%, a representative of occupational diversity among participants. Finally, in the aspect of technology often used, 58.3%, that is 7 out of 12 participants, indicated the use of a smartphone or a combination with other devices (laptop or tablet), highlighting the necessity of mobile technology to modern-day parenting practices. The combination of device usage (laptop and smartphone, smartphone and tablet) accounts for 50% of the distribution; that is, 6 out of 12 participants, suggesting a modest level of digital versatility among parents. Also, 33.3% (4 participants) use laptops, 33.3% (4 participants) use tablets, while desktop computers are the least used, since data showed that only one participant (8.3%) used it.

Perceptions associated with the role of technology in contemporary parenting

Participants shared their views regarding the role of digital technology in contemporary parenting. They revealed that technology plays an important role in enhancing communication among parents and children, bridging the gap presented by absence from home as a result of travelling or business engagements. Technology keeps communication going. Comments from participants include:

Many times, I travel to other states to buy goods and this results in leaving home for days or weeks as the trip requires. Digital technology has made it easy to stay in constant communication with my children. I speak with them through phone calls, text messages and on some occasions, I prefer video calls through WhatsApp or Facebook (54-year-old father from Kwali).

Communication is so vital in parenting. I use social media platforms to communicate with my children. When they are absent for hours during the day, I must reach out to them through phone calls to know how they are faring. Staying in touch with my children makes me happy and makes parenting easy and smooth for me (41-year-old mother from Abaji).

Evidence from data also revealed that digital technology improves access to information for parents. Through different social media platforms such as Facebook and Instagram, parents get to learn from other parents how to effectively train their children. They have access to information on child development, educational resources and child guidance. Some participants had the following to say:

I have learnt a lot through the use of digital technology on how to run my family and train my children. There is a particular page on Facebook titled: *Family Ties*. It has helped me train my children and makes my family healthier. The use of technology has improved my access to vital information from experts on effective parenting practices (37-year-old father from AMAC).

Parents need to be informed about modern-day events so they can teach and train their children very well. There are lots of information about parenting online that has improved my parenting skills. This is only possible through the use of digital technology such as smartphones and laptops. Currently, I can search for anything I wish to learn as a parent through digital technology and get an informed answer within seconds (32-year-old mother from Kwali).

Technology has made parenting easy for me. It is so relieving and educational. I now have access to digital classrooms and relevant materials online. This has also helped my child improve in his knowledge. Digital technology platforms have improved access to virtual materials and learning environment for kids at the comfort of their homes (33-year-old mother from AMAC).

Some participants also shared that modern technology facilitates child monitoring. Parents can regulate the activities of their children and their whereabouts through digital applications and software installed in their children's smartphones and homes. Comments from participants include:

I have a digital alarm clock in my sitting room that helps me regulate the activities of my kids at home. It helps them know when to sleep, take their bath, read their books and do their assignments after school hours. This has reduced the burden on my part because my children are gradually adjusting their daily activities through it. So, it has improved my parenting practice (50-year-old father from Bwari).

There is a digital tracking software installed on my children's smartphones. It helps know where they are and how much time they have spent in one location. This has improved the safety of my children. There are other trackers attached to their pair of shoes, too. This is possible through modern-day digital technology and has shaped my parenting style positively (43-year-old father from Kuje).

Parents' utilisation of technologies to support their parenting practices

Participants shared several means which modern use of digital technology enhances their parenting practices. These means facilitate effective parenting and support the well-being of their children socially, emotionally and cognitively. Digital technology use: (a) facilitates emergency response, (b) automates household tasks, (c) monitors health, (d) facilitates remote family engagement, and (e) enhances multilingual learning exposure. We present data explaining these factors below.

Facilitates emergency response

Some participants also revealed that the use of digital technology has helped in the aspect of facilitating emergency response in situations where the health or safety of their children is at risk or compromised. Technology has aided them to alert the authorities, neighbours or other family members in moments of emergencies. Views from participants include:

There were emergencies where one of my children collapsed, and also another situation where my kid mistakenly inserted a piece of stone into one of his ears. I had to alert the emergency team by phone, who came and addressed the situation immediately. I could not have imagined the consequences of my child's health without digital technology in such situations (46-year-old father from Abaji).

Digital technology, such as CCTV cameras have been essential in providing safety coverage for my home and kids. I could trace or track the movement of any intruder or stranger who may come to take my kids away or steal from my home. These technology devices have helped safeguard my children and watch them against threats (50-year-old father from Bwari).

Automates household task

Evidence from data showed that technology helps automate household tasks and serves as reminders to daily domestic activities. Participants shared that technology gadgets such as digital calendars or apps are used to schedule domestic chores, school pickups, organise routines and feeding times; thereby reducing the risk of forgetfulness at home. Comments from participants include:

Most tasks in my home are automated through the use of digital technology. I use digital calendars to schedule important activities such as vaccinations, eating time, and organising school pickups for my children. It makes my parenting practices easy and effective. It also serves as a reminder against doing the wrong thing at a time meant for another important thing (43-year-old father from Kuje).

I have a tough schedule at home; most of the time, I forget that other things are important as the one I am engaged in. So, scheduling my daily routine through technology such as digital notebooks and calendars has really helped me stay significantly engaged with my schedule. I know when to wake up, when to prepare my children for school, when to clean up the house and the right time to prepare for work (39-year-old mother from Kuje).

Monitors health

Some participants also shared that digital technology has helped them monitor the health of their children and family members. Digital gadgets such as Fitbit Charge (used to track heart rate, physical activities and sleep patterns), Braun ThermoScan (for reading body temperature and detecting fever), and Omron Blood Pressure Monitor (used to measure blood pressure and monitor heart health) have been instrumental in ensuring that their children remain healthy and safe. Views from participants include:

As a nurse, the health of my children and spouse is my utmost priority. I always use the Omron Blood Pressure Monitor and Braun ThermoScan to measure the blood pressure and read the body temperature of my children and spouse every day. I want to ensure they are okay, and if I notice any strange changes, I take action to address them on time before they become an emergency. These digital devices have helped me keep my children and spouse healthy (43-year-old father from Kuje).

Personally, the use of the Fitbit Charge has helped me track the heart rate, physical activities and sleep patterns of my children. I am always on the lookout for their health and ensure they always have a sound sleep. This piece of technology has improved the health condition of my children significantly since I started using it (39-year-old mother from Kuje).

Facilitates remote family engagement

A significant number of participants also shared that digital technology has helped their family in the aspect of family engagement through remote platforms such as Zoom and other valuable means of virtual engagement—messaging apps and video calls. These platforms have facilitated the involvement of distant family members and relatives in supervision, cultural teaching, and child-rearing; thereby, strengthening supportive networks. Views from participants include:

Most times, I do not need to travel to my village with my kid to see his extended family members and grandparents. He interacts with his uncles, aunties and grandparents through virtual platforms, where he is taught our cultural values as these older family members get to share their life's experience at the comfort of our home, saving me the cost, risks and time involved in travelling to our village. This has been achieved through digital technology, and it has strengthened my family bond, unity and love (35-year-old mother from Gwagwalada).

Travelling to our village is risky these days, especially with the incessant insecurity and banditry in our society today. During holidays and celebrations such as Christmas and New Year, my children will speak extensively on the phone with grandma, who is currently in the village. Grandma usually shares her experience when she was young with the kids and encourages them to be obedient and hardworking. So, I would say digital technology has fostered safe family engagement and reduced the risks that could result in the loss of lives through insecurity (46-year-old father from Abaji).

Enhances multilingual learning exposure

Furthermore, evidence from the data revealed that the use of digital technology enhances multilingual learning exposure. Parents sign up for online classes and educational videos to introduce their children to learning multiple languages, enriching their cultural and cognitive development. Some participants commented in the following way:

I have always desired for my children to learn multiple languages outside their native language. So, I have signed up for different classes online that introduce them to these languages during the weekends and holidays. This has enriched their cultural development and helped them expand their relational life with people from other cultural backgrounds. Digital technology has been so crucial to my achieving this height (54-year-old father from Kwali).

I could not have helped my children learn other languages without the use of digital technology. My kids are currently being taught by a teacher somewhere in other countries through virtual classes two times a week. They are learning about three languages at the same time while also learning their native language at home. I am so happy that digital technology has helped me achieve this fit (41-year-old mother from Abaji).

Challenges associated with integrating technology into parenting practices

Views from participants also captured the challenges parents experience while integrating digital technology into parenting practices. These challenges are obstacles to the effective use of technology among parents. They are barriers, slowing the effective use of digital technology in parental practices. These challenges include: (a) high cost of devices, (b) poor internet connectivity access, (c) limited digital literacy skills, (d) concerns over online safety, and (e) difficulty in regulating screen time. We present data explaining these factors below.

High cost of devices

Participants shared that the cost of digital devices is high. Digital devices such as smartphones, tablets and laptops are so expensive that many parents cannot afford them. Most parents might resort to using analogue phones and other technology gadgets with limited features compared to expensive digital devices with more vital specifications. This has discouraged some parents from fully integrating advanced digital technologies like washing machines, advanced cleaners, and computer sets. Some participants shared that:

Most parents, including myself, cannot afford the cost of digital technology necessary to fully integrate technology into full-time parenting practices. My monthly earnings are not enough to provide for the basic needs of my kids, not to mention buying technology gadgets. I like digital technology gadgets, but most of them, like computer sets and washing machines, are very expensive. They are more than I can afford (37-year-old father from AMAC).

I would have fancied buying different tracking wristwatches for my children and CCTV cameras to help protect them against intruders, but they are very expensive. I currently use digital calendars that cost some money. I cannot afford more digital technology devices at the moment. Maybe sometime in the future, when I have extra cash (32-year-old mother from Gwagwalada).

Poor internet connectivity access

Some participants also complained about the lack of stability in the internet connectivity. Most times, internet connectivity is poor for online classes and family engagement through online platforms. This is a serious impediment to children and parents engaging with relatives and family members in the villages, and also results in class postponement and cancellation of online classes. Some participants had this to say:

There is network instability in Nigeria, and this affects internet connectivity when my children want to spend some time talking with their uncles, aunties and grandparents who live in the village. Most times, they end up sad because they could not hear from their relatives for months. I just hope network suppliers will improve their services (41-year-old mother from Abaji).

I recall on different occasions where classes were postponed. On other occasions, I had to cancel my subscription to the multilingual classes due to poor internet connectivity. This is a challenging problem associated with using digital technology. This has discouraged me on several occasions, and it is unhealthy for parents as it leaves children sad and disappointed (32-year-old mother from Kwali).

Limited digital literacy skills

While digital technology enhances parenting practices, evidence from data shows that most parents lack digital literacy skills. Most parents lack digital skills in operating digital technology devices such as computers and other vital domestic digital devices that affect parenting practices. Views from participants revealed:

Navigating online platforms can be challenging for me, especially in helping my children with their homework and assignments. So, I do not have enough skills or knowledge in operating complex digital technology devices such as computers and heavy digital gadgets like tablets. This can be discouraging for me in meeting my parenting responsibilities through digital technology (46-year-old father from Abaji).

My limited digital literacy skills with advanced digital technology make me struggle in understanding, evaluating, and effectively applying digital tools. This further limits my capacity to supervise, guide and support my children in using digital technology effectively (35-year-old father from Gwagwalada).

Concerns over online safety

The use of digital technology for parenting comes with risks that can negatively impact children if used without supervision or monitoring. Some participants shared that digital technology can expose children to harmful content, while others revealed that it can result in online exploitation. Comments from participants include:

I am always concerned about the content my children are exposed to online. Most times I worry about inappropriate online content for children, such as pornography, violence and misleading information. This is challenging for parents, as I always have to be around them to regulate their access to sensitive content while using technology as a means of learning (54-year-old father from Kwali).

The digital space is full of identity theft, scammers and cyberbullying. Some strangers pose threats to children. I am also disturbed by these issues every day. Also, some digital gadgets are associated with risks such as mental health challenges and addiction. This is why I ensure my kids are supervised diligently and guided to avoid these online challenges linked with the use of digital technology (43-year-old father from Kuje).

Difficulty in regulating screen time

Regulating screen time can be challenging, views from participants revealed that parents experience setbacks when children reset usage limits, oppose restrictions, resulting in ineffective and conflicts in the enforcement of screen time rules. There are also instances of unclear boundaries between leisure and learning, resulting in inconsistent results. Some comments from participants include:

I often struggle with my children, especially when they prefer a different style of regulation other than the one I think is better for them. They can reset the alarm clock to suit their preference for relaxation when they should be reading or doing house chores. This leads to inconsistency in screen time rules (39-year-old mother from Kuje).

Since entertainment and educational tasks often occur in digital scheduling technology, I mostly find it challenging to regulate both to achieve effective results. Learning time can be mistaken as leisure time without thorough regulation (50-year-old father from Bwari).

Discussion

Perceptions associated with the role of technology in contemporary parenting

The study investigated the use of digital technology in contemporary parenting: perception of parents residing in the Federal Capital Territory (FCT), Abuja and practice considerations for social work. Results from the study revealed that digital technology enhances parent-child communication. The upsurge of technological advancement and the introduction of the internet have impacted face-to-face communication, indicating that technology usage in families is very high, and maximum daily communication happens through digital technology (Tadpatrikar et al., 2021). Findings from Syahril et al. (2024) show that families with a high conversation orientation tend to use technology to strengthen emotional connectedness. Parents play essential roles in children's play and learning with various media, often leading to positive and productive engagement outcomes for both parties (Yu et al., 2024). As children increasingly consume media on devices, parents look for ways this usage can support learning and growth, especially in domains like social-emotional learning. Parents find that the tool promotes meaningful active engagement and could scaffold deeper conversations around content (Shen et al., 2025). Zhang et al. (2025) reported that with the development of technology, digital activities have permeated into family and parent-child relationships, effectively enhancing parent-child digital relationships and promoting a willingness to engage in shared exchange of values, thereby fostering positive family dynamics. This result aligns

with the findings of Kahraman (2025), who found that the use of technology significantly strengthened parent-child communication and mediated the relationship between the security and development of the child. With the rapid proliferation of digital technology, social media and mobile devices, how parents and children communicate has undergone profound changes (Li, 2025). This result implies that digital technology offers family members real-time interaction platforms, guiding family education practice and optimisation of parent–child relationships in the new era.

Findings from the study further reported that the use of digital technology improves access to information significant for parenting practices. Parents play a critical role in introducing technology to their young children, and parent-child joint engagement with technology can improve learning and social outcomes (Archer et al., 2021). Digital technology provides enhanced access to information, promotes critical thinking, and supports the development of writing skills (Ulfah et al., 2025). Incorporating technology in this way can provide more interactive, personalised, and effective learning environments, ultimately enriching the capabilities of children and parents. Okpokwasili et al. (2019) argued that there is a relationship between the roles of technology and information creation, access, storage and dissemination. Access to reliable information through technology is no longer just a luxury; it is a necessity for education and day-to-day activities (Library & Information Science Education Network, 2025). Since the use of digital technology offers opportunity to increased availability of digital tools such as smartphone apps and remote sensing, which improve access to information (e.g. monitoring, e-learning, weather forecasting, extension and advisory services, and real-time) (Food and Agriculture Organization of the United Nations, 2022), the findings therefore imply that parents harness digital technology for the education and developmental wellbeing of their children.

Evidence from findings also revealed that digital technology facilitates child monitoring. Parental monitoring of digital technology use evolves throughout childhood and adolescence and becomes increasingly vital when autonomy seeking on social technologies emerges during early adolescence (Hernandez et al., 2024). Findings from Maserumule (2017) indicated that parents use various strategies to monitor children's activities online and further apply experience, knowledge, and social support as a rationale for using those strategies. Gervis (2018) further argued that parents use smart technology devices like security cameras and video doorbells, as well as video calling, as an aid to help keep their children both safe and well-behaved. The potential risks and benefits to children of using digital technology, such as computers, are likely to depend on parental involvement (Centre for Economic Policy Research, 2018). Understanding the family dynamics and parent involvement of adolescents' digital media use remains critical in the prevention of children's problematic behaviours and promotion of positive behaviours (Hernandez et al., 2024). Thus, this result encourages parents to understand the importance of content filtering software and discuss this with their children to be able to protect and monitor them without restricting access to relevant information (Maserumule, 2017).

Parents' utilisation of technologies to support their parenting practices

The study findings showed that the use of digital technology helps in the automation of household tasks. Task automation refers to the use of technology to perform a task more easily and quickly than humans would otherwise perform. Task automation has the potential to reduce errors, improve efficiency, and free up time for more complex and creative work, therefore becoming important (Mohamed et al., 2022). As digital technological advancements increase exponentially, machine learning and artificial intelligence have enabled tasks to be performed automatically, known as task automation (Wali et al., 2023). In today's world, families struggle to stay on top of their schedules. Smart home digital devices are revolutionising how families stay organised, offering automation to handle reminders and keep everyone on track (Tech Family Solution, 2025). Modern digital technology, such as Artificial Intelligence (AI) have transformed family organisation, making daily life smoother and more efficient. These intelligent systems help parents with personalised learning support for children, monitor family health metrics, and streamline meal planning and dietary needs (Warrenschuitema, 2024). With features such as voice-controlled scheduling, reminders, and integration with other smart tools, these devices offer a hands-free solution to family task management (Tech Family Solution, 2025). This implies that families can quickly and easily set daily routines to ensure nothing slips through the cracks as digital technology significantly enhances family life by streamlining household management, supporting education and caregiving, and creating more opportunities for quality family time (Tabor, 2024).

Findings further showed that the use of digital technology helps facilitate remote family engagement. Communication dynamics in the family environment have a major impact on the relationships between family members and their psychosocial development. Findings from Anisti et al. (2023) reported that digital technology can have a positive impact on family communication, facilitating long-distance interactions, enabling quick sharing of information, and helping to monitor children. When living apart, grandparents and grandchildren often use audio-visual digital technology for communication approaches to stay connected (Wei et al., 2023). Moreover, modern technology such as Telepresence was developed to provide opportunities for older adults to stay in contact with remote family and friends, providing a new approach to video-mediated communication, designed to facilitate natural and ambient interactions with simplified call setup (Weisswange et al., 2023). Communication with parents used to consist of conferences, phone calls, and printed newsletters, but options of how and when to communicate with parents have greatly increased thanks to the various types of modern digital technology (Kaplan Early Learning Company, 2020). Syahril et al. (2024) reported that families with a high engagement and conversation orientation tend to use technology to strengthen emotional connectedness. It is therefore not a coincidence that participants shared that the use of digital technology facilitates family engagement.

Also, study results showed that digital technology helps parents monitor the health of their children. Parents' use of technology to manage child health issues has the potential to improve access and health outcomes (Meyers et al., 2020). As children are vulnerable to sleeping conditions, effective health monitoring using wearable technology can detect unexpected fall of respiratory rate, heart rate, and oxygen level and alleviate parents' anxiety by notifying sudden critical situations (Hasan & Negulescu, 2020). Digital technological devices have shown significant promise in supporting health monitoring and promoting well-being by providing continuous, objective feedback based on data analytics. Importantly, they enable early detection of potential health issues, allowing for timely intervention and more personalised healthcare (Magsayo & Khatami Firoozabadi, 2025). The use of wearable technology by children and adolescents has proven to be both feasible and effective for health promotion and helps parents achieve the sound health of their children (Zhang et al., 2024). Technology such as smartwatch activity trackers are devices that measures physical activity levels with features that aim to encourage physically

active behaviours. These devices have shown promise for increasing physical activity levels and reducing sedentary behaviours among children, adolescents, and adults (Davey et al., 2025). In addition to early detection, digital technology health-based devices can enable data collection over time and serve as an adjuvant treatment to the standard clinic (Ikram et al., 2025). Advances in knowledge and technology have created opportunities to help monitor child growth. Kustiawan et al. (2020) reported that the use of mobile apps improved child growth in undernutrition and improved parents' and/or front health workers' knowledge to prevent, treat, and monitor children with undernutrition. Overall, since this result all point to the fact that the use of digital technology can help parents improve the health of their children, it therefore becomes imperative that parents adopt digital technology devices to achieve maximum health in their households.

Challenges associated with integrating technology into parenting practices

Findings also highlighted the high cost of devices as one of the challenges associated with the use of digital technology for parenting practices. One of the most immediate and visible barriers to digital inclusion in Africa is the high cost of devices (TechAfrica News, 2025). The African Union's Digital Transformation Strategy for Africa (2020–2030) lays out a bold vision: an inclusive, integrated digital society where no one is left behind. One of the barriers to this journey is affordability. For millions, the modern digital technology devices and the internet are not just out of reach; they are out of budget (TechAfrica News, 2025). Low-income families face multiple obstacles when trying to access digital technology, from the high cost of devices and internet services to gaps in infrastructure that leave entire communities disconnected (Computers in Homes, 2025). High costs of digital mobile devices are hindering digital inclusion in Nigeria (Daily Trust, 2025). In adopting technology services, Ujarura et al. (2021) reported the high cost of both devices and mobile internet as one of the challenges slowing success. Even when devices are in hand, the cost of staying connected can be just as prohibitive. Mobile data—the lifeline of digital access for most Africans—remains significantly more expensive than global standards (TechAfrica News, 2025). Nirmani (2025) further associated the high cost of digital devices with low income, high costs of connectivity and devices, and unreliable electricity, which collectively hinder digital inclusion. These challenges create a cycle of digital exclusion that affects education, employment opportunities, and access to essential services (Computers in Homes, 2025). Implying that most parents are unable to integrate digital technology into parenting practices because of their inability to afford technological devices.

Results from the study also identified limited digital literacy skills as one of the challenges associated with the integration of digital technology into parenting practices. In the contemporary digital era, parental digital competence is being recognised as essential for effective parenting and improved child health (Jia et al., 2025). Findings from Sembiring (2024) reveal generational and educational disparities in digital literacy: Generation Y demonstrated strong technological knowledge but lacked awareness of digital risks; Generation Z excelled in monitoring activities but faced challenges in communication; Generation X showed strength in communication and risk awareness but required improvement in security settings and practical technology use. Digital literacy is the ability to efficiently use technology, navigate through different programs comfortably, and be able to manage information for proper online behaviour (Hidalgo, 2021). Parents' digital competence is an essential aspect of the digital literacy of their children. Findings from Iza (2022) show that parents who are constantly moving to keep up with existing digital developments felt their competence in digital media literacy, despite not entirely skilled digitally. This result highlights the need for tailored interventions, including cross-generational training and targeted educational programs, to address gaps in parental digital literacy (Sembiring, 2024). Findings also shed light on the challenges faced by parents and children's learning at home and have the potential to inform teaching practices that will optimise learning outcomes in online learning settings. (Hidalgo, 2021).

Finally, findings also highlight concerns over online safety. These concerns often manifest as fears and anxieties in parents and can lead to pervasive moral panics (Boyd & Hargittai, 2013). Children are people who consume content on the Internet very frequently and actively participate in social networks, so it is necessary to know the risks of their use by children and adolescents (Núñez-Gómez et al., 2021). Eager to shield children from potential risks, parents often respond to online safety concerns by enacting restrictions with little consideration for the discrepancy between parental concern and actual harm (Boyd & Hargittai, 2013). Kyei-Arthur et al. (2024) reported that children's access to and usage of digital technology, such as the Internet has numerous benefits. However, their Internet access and use may pose risks to them, including grooming, sexting, and exposure to dangerous digital content. These risks may be exacerbated by inadequate supervision of children's online activities. This explains the reason for parents' concerns for online safety. Furthermore, Zhao et al. (2019) argued that children under 11 are often regarded as too young to comprehend the implications of online privacy. The findings highlight the importance of early and constructive family dialogue about the use of digital technology, such as the smartphone, even before children own their own devices (Idoiaga-Mondragon et al., 2025). It is, therefore, recommended that children be educated on the benefits and potential risks of excessive engagement and use of digital technology. Also, parents need to supervise and monitor their children's technology usage at home.

Implication for social work

Social workers are trained to work with people, especially in the areas of the use of innovative technologies, and help them become both proactive and critical in order to strengthen their skills in an increasingly diverse environment (Lopez et al., 2020). Technology has improved education, parenting, communication, entertainment and relationships. Thus, presenting a need for social workers to address technological risks facing young people (Helsper & Van Deursen, 2015; Pienimäki, 2019). Since social workers frequently work with families and use digital technology to communicate with colleagues and clients has become common practice (Jeyasingham & Devlin, 2024); they have a role to effectively enlighten parents on the best approach to use technology for successful parenting (Tan et al., 2024). The results that parents viewed digital technology as a tool enhancing parent-child communication, facilitating child monitoring and improving access to information suggest an increasing need for digital parenting in modern-day family systems. A study by Onishi (2024) reported that parents often rely on digital platforms to gather vital information about parenting, manage responsibility within the family system and connect with social support networks, indicating that digital technologies can strengthen traditional parenting resources and shape sound decision-making. This highlights a need for social workers to incorporate technology-mediated family support services into professional practice. Social workers can leverage digital tools, such as digital resource hubs, online parenting education and tele-counselling to reach out to families and parents with limited access to direct services (Canário et al., 2022)

The findings further highlight parents' use of digital technology to automate household tasks, facilitate remote family engagement, and monitor children's health. These activities underscore the transformation of parenting into digitalised practice. Nichols and Selim (2022) argued that technology has become an intricate part of everyday family routines, informing parents' decisions on how to manage family responsibilities, supervise the activities of their children and interact with them. For social work, this transformation entails the development of effective skills in digital parenting education and digital family dynamics (Jeyasingham & Devlin, 2024). Social workers working with children, families, communities and schools must understand how family functioning and parent–child interactions are shaped by digital tools (Copson et al., 2022). This knowledge and understanding are crucial for initiating family interventions that inspire balanced use of digital technology while also preserving significant interpersonal relationships within families and households. Social work, family support, and training programs should integrate relevant digital parenting guidance, preparing and enlightening parents on the best approach for incorporating digital technology to support the development of their children without neglecting family interaction (Pranawati et al., 2025).

Also, the challenges highlighted in the findings—the high cost of technological devices, concern for online safety and limited digital literacy skills—suggest barriers to successful digital parenting. Evidence from the findings of Zhao et al. (2023) shows that inadequate economic resources, disparities in parental confidence and digital skills can limit parents' ability to successfully guide their children through digital environments. Furthermore, results from Ali et al. (2020) have demonstrated that parents face increasing concern about their children's exposure to online risks such as privacy breaches, harmful content and cyberbullying, which stifle efforts from parents to supervise the digital activities of their children. These barriers have significant implications for social work practice and policy. Social workers must champion digital inclusion initiatives, consisting of access to digital technologies that are affordable, education on child online safety and community-based digital literacy for parents (Owens et al., 2023). Addressing these barriers and challenges is important to avert the emergence of a digital parenting divide where families, households and parents with insufficient resources or inadequate digital literacy and competencies are disadvantaged in supporting the development of a technology-rich environment for their children.

Limitations

The researcher acknowledged a couple of limitations of this study. First, the limited sample size of 12 participants was restricted to one community in each of the six Area Councils in FCT, Abuja. Therefore, the researcher encouraged similar studies consisting of a bigger sample in other communities within the six Area Councils in Abuja. The fact that the views of children/adolescents were not captured in this study accounts for just one-sided perspectives. Hence, subsequent studies should capture the views of children/adolescents in the sampling frame. Further studies should consider how cultural norms, values, and community structures shape parenting practices. Such findings will provide more insights into the concerns that will amplify calls for workshops and seminars by social workers to enlighten parents on the risk factors associated with cultural norms, values, and community structures and their role in contemporary digital practices. Notwithstanding, findings from this study remain relevant to Nigerian parents, children, families, social workers, policymakers, and professionals engaged in family practices in Nigeria.

Conclusion

In conclusion, the study investigated the use of digital technology in contemporary parenting: perception of parents residing in the Federal Capital Territory (FCT), Abuja and practice considerations for social work, contributing to an in-depth understanding of modern-day digital technology and its challenges in contemporary parenting. Findings from the study reported that digital technology enhances parent-child communication, improves access to information and facilitates child monitoring. Findings also highlighted that parents use digital technology to automate household tasks, facilitate remote family engagement and monitor health. Further findings highlighted the challenges parents encounter in integrating digital technology, such as the high cost of devices, limited digital literacy skills and concerns over online safety. These findings highlight a need for social workers to incorporate technology-mediated family support services into professional practice. Social workers must leverage digital tools, such as digital resource hubs, online parenting education and tele-counselling to reach out to families and parents with limited access to direct services. Also, social workers working with children, families, communities and schools must understand how family functioning and parent–child interactions are shaped by digital tools. Finally, social workers must champion digital inclusion initiatives, consisting of access to digital technologies that are affordable, education on child online safety and community-based digital literacy for parents.

Declarations

Author Contribution

G.C.N solely conceived and designed the study. G.C.N conducted the literature review, developed the research methodology, collected and analyzed the data, and interpreted the findings. G.C.N also drafted, reviewed, and revised the manuscript and approved the final version for submission.

Acknowledgement

I wish to thank Dr. Onalu Chinyere and Dr. Ajibo Henry, all lecturers in the Social Work Department, University of Nigeria, Nsukka, for their guidance and encouragement.

Data Availability

The datasets generated and/or analysed during the current study are not publicly available due to privacy and confidentiality considerations but are available from the corresponding author on reasonable request.

References

1. Abdullahi, S., Judith, O., & Okon, O. (2024). The Integration of Technology on Family Dynamics and Communication Patterns. *ALSYSTECH Journal of Education Technology*, *3*(1), 28-36. https://doi.org/10.58578/alsystech.v3i1.3892
2. ACReSAL. (2024). About the Federal Capital Territory (FCT). ACReSAL. https://acresal.gov.ng/states/fct/
3. Adekola, F. F., Oyebode, A., Hinmikaiye, J. O., Oluwakoya, J. B., Oluwatobi, B., & Akpa, M. O. (2019). Mobile parenting in the 21st century: A study of families in South-West Nigeria. *Contemporary Humanities, 12*(1), 117–137.
4. Afrouz, R., & Lucas, J. (2023). A systematic review of technology-mediated social work practice: Benefits, uncertainties, and future directions. *Journal of Social Work*, *23*(5), 953-974. https://doi.org/10.1177/14680173231165926 (Original work published 2023)
5. Alam, G. M., & Forhad, M. A. R. (2023). The Impact of Accessing Education via Smartphone Technology on Education Disparity—A Sustainable Education Perspective. *Sustainability, 15*(14), 10979. https://doi.org/10.3390/su151410979
6. Aldridge, G., Wu, L., Seguin, J. P., Robinson, J., Battaglia, E., Olivier, P., & Yap, M. B. H. (2024). Embedding Technology-Assisted Parenting Interventions in Real-World Settings to Empower Parents of Children With Adverse Childhood Experiences: Co-Design Study. *JMIR formative research*, *8*, e55639. https://doi.org/10.2196/55639
7. Ali, S., Elgharabawy, M., Duchaussoy, Q., Mannan, M., & Youssef, A. (2020). Betrayed by the guardian: Security and privacy risks of parental control solutions. In *Proceedings of the 36th annual computer security applications conference* (pp. 69-83).
8. Altindağ Kumaş, Ö., & Sardohan Yildirim, A. E. (2024). Exploring digital parenting awareness, self-efficacy and attitudes in families with special needs children. *British Journal of Educational Technology*, *55*(5), 2403-2418.
9. Anisti, A., Tambunan, R. M., Sidharta, V., Sampean, S., & Syatir, S. (2023). Family communication patterns in the era of digital technology. *ARRUS Journal of Social Sciences and Humanities*, *3*(6), 750-756.
10. Apps, J., Webb, S., & Hutton, E. (2024). Parents' and carers' attitudes to the use of digital technology and its role in the care of children with complex needs. *British Journal of Occupational Therapy*, *87*(7), 452-460.
11. Arafat, S. M. Y., Akter, H., Islam, M. A., Shah, M. M. A., & Kabir, R. (2020). Parenting: Types, Effects and Cultural Variation. *Asian Journal of Pediatric Research*, *3*(3), 32–36. https://doi.org/10.9734/ajpr/2020/v3i330130
12. Archer, K., Wood, E., & De Pasquale, D. (2021). Examining joint parent-child interactions involving infants and toddlers when introducing mobile technology. *Infant Behaviour and Development*, *63*, 101568.
13. Banić, L., & Orehovački, T. (2024). A Comparison of Parenting Strategies in a Digital Environment: A Systematic Literature Review. *Multimodal Technologies and Interaction, 8*(4), 32. https://doi.org/10.3390/mti8040032
14. Barbie, E. (2010). *The Practice of Social Research, 12th edn. Wadsworth, OH*: Cengage Learning.
15. Boyd, D., & Hargittai, E. (2013). Connected and concerned: Variation in parents' online safety concerns. *Policy & Internet*, *5*(3), 245-269.
16. Britannica Editors (2025). Federal Capital Territory. *Encyclopedia Britannica*. https://www.britannica.com/place/Abuja-federal-capital-territory-Nigeria
17. Calderón, J. (2025). *Parental Perceptions of Informal Learning from Digital Devices and Physical Toys* (Doctoral dissertation, Pace University). https://digitalcommons.pace.edu/etd/39
18. Canário, A. C., Byrne, S., Creasey, N., Kodyšová, E., Kömürcü Akik, B., Lewandowska-Walter, A., Modić Stanke, K., Pećnik, N., & Leijten, P. (2022). The Use of Information and Communication Technologies in Family Support across Europe: A Narrative Review. *International journal of environmental research and public health, 19*(3), 1488. https://doi.org/10.3390/ijerph19031488
19. Canário, A. C., Byrne, S., Creasey, N., Kodyšová, E., Kömürcü Akik, B., Lewandowska-Walter, A., Modić Stanke, K., Pećnik, N., & Leijten, P. (2022). The Use of Information and Communication Technologies in Family Support across Europe: A Narrative Review. *International journal of environmental research and public health, 19*(3), 1488. https://doi.org/10.3390/ijerph19031488
20. Centre for Economic Policy Research. (2018). *Parental monitoring and children's internet use: The role of information, control, and cues*. VoxEU. https://cepr.org/voxeu/columns/parental-monitoring-and-childrens-internet-use-role-information-control-and-cues
21. Chan, C., & Holosko, M. (2018). *Technology for social work interventions*. Oxford University Press.
22. Computers In Homes. (2025). *Overcoming barriers to technology access in low-income families: Solutions for digital inclusion*. Computers In Homes. https://computersinhomes.org.nz/overcoming-barriers-to-technology-access-in-low-income-families-solutions-for-digital-inclusion
23. Copson, R., Murphy, A. M., Cook, L., Neil, E., & Sorensen, P. (2022). Relationship-based practice and digital technology in child and family social work: Learning from practice during the COVID-19 pandemic. *Developmental child welfare, 4*(1), 3–19. https://doi.org/10.1177/25161032221079325
24. Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
25. Daily Trust. (2025). High costs of devices hinder digital inclusion in Nigeria – MTN. *Daily Trust*. https://dailytrust.com/high-costs-of-devices-hinders-digital-inclusion-in-nigeria-mtn/
26. Davey, R. J., Campbell, A., Beynon, A., Rasmussen, C. L., Hendry, D., Stearne, S., ... & Zabatiero, J. (2025). Parental Perspectives on the Use of Smartwatch Activity Trackers by Young Children: Qualitative Study. *JMIR Paediatrics and Parenting*, *8*(1), e79851.
27. Dixon, D., Sharp, C. A., Hughes, K., & Hughes, J. C. (2023). Parental technoference and adolescents' mental health and violent behaviour: a scoping review. *BMC Public Health*, *23*(1), 2053.
28. Donelle, L., Hall, J., Hiebert, B., Jackson, K., Stoyanovich, E., LaChance, J., & Facca, D. (2021). Investigation of digital technology use in the transition to parenting: qualitative study. *JMIR Paediatrics and Parenting*, *4*(1), e25388.

29. Ezema-Kalu, N. (2024). Digital parenting and students' academic performance in secondary schools in Nigeria. *GPH-International Journal of Educational Research*, *7*(09), 81-88. https://doi.org/10.5281/zenodo.13985644
30. Federal Capital Development Authority. (2025a). *The history of Abuja*. FCDA. https://fcda.gov.ng/the-history-of-abuja/
31. Federal Capital Development Authority. (2025b). *The history of Abuja*. https://fcda.gov.ng/the-history-of-abuja/
32. Food and Agriculture Organisation of the United Nations. (2022). *Digital technologies accelerate access to data, information and markets* (Section 5.5). In *The state of the world's forests 2022*. FAO. https://openknowledge.fao.org/server/api/core/bitstreams/8f599970-661d-45f5-a598-2ea46ca1605f/content/src/html/digital-technologies-access-information.html
33. Gervis, Z. (2018). *Parents rely on technology to help raise their children, a study finds*. Entertain the Kids. https://entertainthekids.com/parents-rely-on-technology-to-help-raise-their-children-study-finds/?
34. Glassman, J., Humphreys, K., Yeung, S., Smith, M., Jauregui, A., Milstein, A., & Sanders, L. (2021). Parents' Perspectives on Using Artificial Intelligence to Reduce Technology Interference During Early Childhood: Cross-sectional Online Survey. *Journal of Medical Internet Research*, *23*(3), e19461. https://doi.org/10.2196/19461
35. Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PloS one, 15*(5), e0232076. https://doi.org/10.1371/journal.pone.0232076
36. Gür, D., & Türel, Y. K. (2022). Parenting in the digital age: Attitudes, controls and limitations regarding children's use of ICT. *Computers & Education*, *183*, 104504.
37. Harris, M., Andrews, K., Gonzalez, A., Prime, H., & Atkinson, L. (2020). Technology-Assisted Parenting Interventions for Families Experiencing Social Disadvantage: a Meta-Analysis. *Prevention science: the official journal of the Society for Prevention Research, 21*(5), 714–727. https://doi.org/10.1007/s11121-020-01128-0
38. Hasan, M. N. U., & Negulescu, I. (2020). Wearable technology for baby monitoring: a review. *J. Text. Eng. Fash. Technol*, *6*(112.10), 15406.
39. Hasanah, E., Zamroni, Z., Dardiri, A., Indartono, S., & Supardi, S. (2018). Literature review of parenting style to support the development of adolescent identity. *Asian Social Science*, *14*(6).
40. Helsper, E. J., & Van Deursen, A. J. A. M. (2015). Digital skills in Europe: Research and policy. *Digital divides: The new challenges and opportunities of e-inclusion*, *195*(125), 45-63.
41. Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code Saturation Versus Meaning Saturation: How Many Interviews Are Enough?. *Qualitative health research, 27*(4), 591–608. https://doi.org/10.1177/1049732316665344
42. Hernandez, J. M., Ben-Joseph, E. P., Reich, S., & Charmaraman, L. (2024). Parental monitoring of early adolescent social technology use in the US: A mixed-method study. *Journal of Child and Family Studies*, *33*(3), 759-776.
43. Hidalgo, K. (2021). Associations Among Parental Attitudes on Technology, Digital Literacy, and Children's Learning Outcomes in the 2020 Pandemic. *Student Research Day Proceedings*, *6*(1).
44. Høy, T. V., Tjørnhøj-Thomsen, T., Pawlowski, C., Gejl, A. K., Danielsen, D., & Toftager, M. (2025). A qualitative exploration of parental attitudes and strategies in mediating 10–11-year-old children's screen use during leisure time. *Discover Psychology*, *5*(1), 104.
45. Idoiaga-Mondragon, N., Gaztañaga, M., Legorburu Fernandez, I., & Ozamiz-Etxebarria, N. (2025). Parental Concerns about Children's Smartphone Use: From Personal Misuse to Societal Impacts. *Journal of Child and Family Studies*, *34*(9), 2276-2289.
46. Ikram, N., Patel, N. A., & Kvedar, J. C. (2025). Wearable health devices for pediatric ophthalmology. *NPJ Digital Medicine*, *8*(1), 354.
47. Iza, N. (2022). *Digital Literacy Competence of Parents in Supervising Their Children Using Digital Media*. Zenodo (CERN European Organisation for Nuclear Research). https://doi.org/10.47191/IJSSHR/V5-I2-32
48. Jeyasingham, D., & Devlin, J. (2024). Hybrid and digitally mediated practice in child and family social work: Impacts on more and less experienced practitioners' communication, relationships, sense-making and experiences of work. *The British Journal of Social Work*, *54*(5), 2163-2180.
49. Jia, Y., Xu, B., Li, Y., Zhuang, X., Zhang, J., & Zhang, Y. P. (2025). A novel digital competence assessment tool for parents: Development and validation study. *Digital health, 11,* 20552076251353319. https://doi.org/10.1177/20552076251353319
50. Joseph, O. C., Hasbullah, M., & Arshat, Z. (2021). A Review of Literature on Parenting Styles, Parental Competence and Emotional Intelligence among College Students. *Medico-Legal Update*, *21*(2).
51. Kahraman S. (2025). Mediating Role of Parent-Child Communication Between Parents' Awareness of Their Children's Technology Use and Parenting Stress. *Psychological reports*, 332941251358214. Advance online publication. https://doi.org/10.1177/00332941251358214
52. Kaplan Early Learning Company. (2020). *Using technology to support family engagement*. Kaplan Early Learning Company Blog. https://blog.kaplanco.com/ii/using-technology-to-support-family-engagement
53. Kustiawan, T. C., Nadhiroh, S. R., Ramli, R., & Butryee, C. (2022). Use of mobile app to monitor growth outcome of children: A systematic literature review. *Digital health*, *8*, 20552076221138641. https://doi.org/10.1177/20552076221138641
54. Kyei-Arthur, F., Kyei-Gyamfi, S., & Sarpong, S. (2024). Internet usage, access, and supervision among Ghanaian children: a cross-sectional study. *Humanities and Social Sciences Communications*, *11*(1), 1-9.
55. Lamberton, L., Devaney, J., & Bunting, L. (2016). New challenges in family support: the use of digital technology in supporting parents. *Child Abuse Review, 25*(5), 359-372. https://doi.org/10.1002/car.2451 P
56. Lanjekar, P. D., Joshi, S. H., Lanjekar, P. D., & Wagh, V. (2022). The Effect of Parenting and the Parent-Child Relationship on a Child's Cognitive Development: A Literature Review. *Cureus*, *14*(10), e30574. https://doi.org/10.7759/cureus.30574

57. Li, Y. (2025). Challenges and Strategies of Parent–Child Communication in the Digital Age: An Empirical Study Based on Social Media Use. *Frontiers in Humanities and Social Sciences*, *5*(11), 49-58. https://doi.org/10.54691/89ekfy12
58. Library & Information Science Education Network. (2025). *How does IT improve access to information and knowledge?* Retrieved February 10, 2026, from https://www.lisedunetwork.com/how-does-it-improve-access-to-information-and-knowledge/
59. López Peláez, A., Erro-Garcés, A., & Gómez-Ciriano, E. J. (2020). Young people, social workers and social work education: The role of digital skills. *Social Work Education*, *39*(6), 825-842. https://doi.org/10.1080/02615479.2020.1795110.
60. Lusinga, S., Baerecke, L., Booij, A., Gordon, L., Leite, L., Najjar, A., Cluver, L., & Kaviani Johnson, A. (2025). *Parenting for the digital age: Strengthening parenting programmes for preventing technology-facilitated child sexual exploitation and abuse – Insights from evidence and stakeholders*. UNICEF.
61. Mackay, L. J., Komanchuk, J., Hayden, K. A., & Letourneau, N. (2022). Impacts of parental technoference on parent-child relationships and child health and developmental outcomes: a scoping review protocol. *Systematic reviews*, *11*(1), 45.
62. Macrotrends LLC. (2025). Abuja, Nigeria metro area population: Historical data, chart, 1950–2025. Macrotrends. https://www.macrotrends.net/datasets/global-metrics/cities/21976/abuja/population
63. Magsayo, K. A., & Khatami Firoozabadi, S. F. (2025). Non-Invasive Wearables in Pediatric Healthcare: A Comprehensive Review of Uses and Implications. *Children (Basel, Switzerland)*, *12*(9), 1233. https://doi.org/10.3390/children12091233
64. Maserumule, N. T. (2017). *Parents' Use of Strategies to Monitor Children's Activities Online*. University of the Witwatersrand, Johannesburg (South Africa).
65. McDaniel, B. T., & Radesky, J. S. (2018). Technoference: Parent Distraction With Technology and Associations With Child Behaviour Problems. *Child development*, *89*(1), 100–109. https://doi.org/10.1111/cdev.12822
66. McLaughlin, K., Bunting, L., Connolly, P., Winter, K., Flewitt, R., El Gemayel, S., Arnott, L., Dalziell, A., Gillen, J., Goodall, J., Liu, M. C., Savadova, S., & Timmins, S. (2026). Parental Attitudes and Digital Parenting in the Early Years: Development and Validation of the PADTS Scale. *Child: care, health and development, 52*(1), e70199. https://doi.org/10.1111/cch.70199
67. Meyers, N., Glick, A. F., Mendelsohn, A. L., Parker, R. M., Sanders, L. M., Wolf, M. S., ... & Yin, H. S. (2020). Parents' use of technologies for health management: a health literacy perspective. *Academic paediatrics*, *20*(1), 23-30.
68. Mohamed, S. A., Mahmoud, M. A., Mahdi, M. N., & Mostafa, S. A. (2022). Improving the efficiency and effectiveness of robotic process automation in human resource management. *Sustainability*, *14*(7), 3920.
69. National Population Commission. (2025). *2025 World Population Day: NPC urges stakeholders to prioritise youth empowerment for a sustainable future*. National Population Commission. https://nationalpopulation.gov.ng/news/2025-world-population-day-npc-urges-stakeholders-to-prioritize-youth-empowerment-for-sustainable
70. Nevado-Peña, D., López-Ruiz, V. R., & Alfaro-Navarro, J. L. (2019). Improving quality of life perception with ICT use and technological capacity in Europe. *Technological Forecasting and Social Change*, *148*, 119734.
71. Nichols, S., & Selim, N. (2022). Digitally Mediated Parenting: A Review of the Literature. *Societies, 12*(2), 60. https://doi.org/10.3390/soc12020060
72. Nirmani, I. A. P. (2025). Barriers to digital participation in developing countries: Identifying technological, social, and cultural obstacles to community involvement. *GSC Advanced Research and Reviews*, *23*(2), 061-071.
73. Njoku, A. I., & Nwaoboli, E. P. (2025). Parental Perception of Smartphones and Tablets as Digital Babysitters in Benin City, Nigeria. *International Journal of Sub-Saharan African Research*, *2*(2), 320-333.
74. Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, *16*(1), 1609406917733847.
75. Núñez-Gómez, P., Larrañaga, K. P., Rangel, C., & Ortega-Mohedano, F. (2021). Critical Analysis of the Risks in the Use of the Internet and Social Networks in Childhood and Adolescence. *Frontiers in psychology*, *12*, 683384.
76. Okpokwasili, N. P. (2019). Technology-Driven Information: Creation, Access, Storage and Dissemination in Academic Libraries in Nigeria. *International Journal of Research in Informative Science Application & Techniques (IJRISAT)*, *3*(2), 68–74. https://doi.org/10.46828/ijrisat.v3i2.64
77. Omokhabi, A. A. (2021). Technology and parenting in the digital age: Opportunities and risks. *African Journal of Adult Learning*, *1*(1), 37-56.
78. Onishi R. (2024). Parental Information-Use Strategies in a Digital Parenting Environment and Their Associations With Parental Social Support and Self-Efficacy: Cross-Sectional Study. *JMIR Paediatrics and parenting, 7,* e58757. https://doi.org/10.2196/58757
79. Onishi, R. (2024). Parental information-use strategies in a digital parenting environment and their associations with parental social support and self-efficacy: cross-sectional study. *JMIR Paediatrics and Parenting*, *7*, e58757.
80. Osorio-Saez, E. M., Eryilmaz, N., & Sandoval-Hernandez, A. (2021). Parents' Acceptance of Educational Technology: Lessons From Around the World. *Frontiers in psychology, 12*, 719430. https://doi.org/10.3389/fpsyg.2021.719430
81. Owens, M., Ravi, V., & Hunter, E. (2023). Digital Inclusion as a Lens for Equitable Parent Engagement. TechTrends: for leaders in education & training, 1–11. *Advance online publication.* https://doi.org/10.1007/s11528-023-00859-5
82. Oyeyemi, S. O., Aremu, V. I., Ademola, J. F., & Justice, G. A. (2025). Exploration of Parenting Issues and Teenage Digital Misuse of the Internet in Nigeria: Implications on Education. *International Journal for Early Childhood and Educational Research*, *2*(1).
83. Padgett, D.K. (2008). *Qualitative Methods in Social Work Research, 2nd edn*. Thousand Oaks, CA: SAGE
84. Pienimäki, M. (2019). Improving the well-being of at-risk youth through media participation. *Media practice and education*, *20*(4), 364-377. https://doi.org/10.1080/25741136.2018.1541371
85. Platform Executive. (2025). *PEST analysis of Abuja: City review*. Platform Executive. https://www.platformexecutive.com/city/abuja/

86. Pranawati, R., Maimunah, M. A., & Susanto, S. (2025). Children's digital literacy: parental role in protection amid pandemic and digital shift. *Informasi*, *55*(1), 116–133. Retrieved from https://journal.uny.ac.id/index.php/informasi/article/view/83488
87. **Pulse Nigeria. (2024). 89% of Nigerian parents use their gadgets to entertain their child when they travel: Kaspersky on tendencies of parenting in a digital age. *Pulse Nigeria.*** https://www.pulse.ng/story/89-of-nigerian-parents-use-their-gadgets-to-entertain-their-child-when-they-travel-2024081715205714603
88. Ramsey, A. T., & Montgomery, K. (2014). Technology-based interventions in social work practice: a systematic review of mental health interventions. *Social work in health care, 53*(9), 883–899. https://doi.org/10.1080/00981389.2014.925531
89. Sandberg, H., Sjöberg, U., & Sundin, E. (2024). Parental Voices on Screen Time Guidelines in Early Childhood: Time to Rethink and Revise Recommendations and Policy?. *Barn: forskning om barn og barndom i Norden*, *42*(3), 1-16.
90. Sanders, W., Parent, J., Forehand, R., Sullivan, A. D., & Jones, D. J. (2016). Parental perceptions of technology and technology-focused parenting: Associations with youth screen time. *Journal of Applied Developmental Psychology*, 44, 28–38. https://doi.org/10.1016/j.appdev.2016.02.005
91. Sanders, W., Parent, J., Forehand, R., Sullivan, A. D., & Jones, D. J. (2016). Parental perceptions of technology and technology-focused parenting: Associations with youth screen time. *Journal of Applied Developmental Psychology, 44*, 28–38. https://doi.org/10.1016/j.appdev.2016.02.005
92. Sembiring, S. (2024). Parental digital literacy: protecting children from online risks. *TelKa*, *14*(2), 211-223.
93. Shao, T., Zhu, C., Lei, H., Jiang, Y., Wang, H., & Zhang, C. (2024). The Relationship of Parent-Child Technoference and Child Problematic Smartphone Use: The Roles of Parent-Child Relationship, Negative Parenting Styles, and Children's Gender. *Psychology research and behaviour management*, *17*, 2067–2081. https://doi.org/10.2147/PRBM.S456411
94. Shen, J. J., King Chen, J., Findlater, L., & Dietz Smith, G. (2025, April). eaSEL: Promoting social-emotional learning and parent-child interaction through AI-mediated content consumption. In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (pp. 1-18).
95. Social Science LibreTexts. (2026). *20.2.1.1.1: Parenting theories*. In *Infant and toddler care and development (Taintor and LaMarr)*. LibreTexts. https://socialsci.libretexts.org/Bookshelves/Early_Childhood_Education/Infant_and_Toddler_Care_and_Development_%28Taintor_and_LaMarr%29/20%3A_Socialization_and_Enculturation_Agents/20.2.01%3A_Agents_of_Socialization_and_Enculturation/20.2.1.01%3A_Parents_and_Families/20.2.1.1.
96. Syahril, R., Priatna, P., Hutomo, A., & Wulandari, S. (2024). The impact of technology on family communication. *Golden Ratio of Data in Summary*, *4*(2), 1001-1009.
97. Tabor, F. (2024). *AI and family dynamics: Reshaping household management, parenting, and child development*. Francesca Tabor. https://www.francescatabor.com/articles/2024/8/3/ai-and-family-dynamics-reshaping-household-management-parenting-and-child-development
98. Tadpatrikar, A., Sharma, M. K., & Viswanath, S. S. (2021). Influence of technology usage on family communication patterns and functioning: A systematic review. *Asian journal of psychiatry*, *58*, 102595. https://doi.org/10.1016/j.ajp.2021.102595
99. Tan, C. Y., Pan, Q., Tao, S., Liang, Q., Lan, M., Feng, S., ... & Liu, D. (2024). Conceptualisation, measurement, predictors, outcomes, and interventions in digital parenting research: A comprehensive umbrella review. *Educational Research Review*, *45*, 100647.
100. Tarigan, R. E., & Setiasih, S. (2025). The Impact of Technoference on Parenting Styles towards Children. *Journal La Edusci*, *6*(2), 107-119.
101. Tech Family Solution. (2025). *How smart home devices help families stay on schedule and meet deadlines*. Tech Family Solution. https://techfamilysolution.com/how-smart-home-devices-help-families-stay-on-schedule-and-meet-deadlines/
102. TechAfrica News. (2025). *Affordability: What is the true cost of digital inclusion in Africa?* TechAfrica News. https://techafricanews.com/2025/04/24/affordability-what-is-the-true-cost-of-digital-inclusion-in-africa/
103. The Guardian Nigeria News. (2024). *Digital misunderstanding: 55% of Nigerian parents have conflicts with their children because they spend too much time on the phone*. The Guardian Nigeria. https://guardian.ng/apo-press-releases/digital-misunderstanding-55-of-nigerian-parents-have-conflicts-with-their-children-because-they-spend-too-much-time-on-the-phone/?
104. Tisdell, E. J., Merriam, S. B., & Stuckey-Peyrot, H. L. (2025). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
105. Ujarura Kamutuezu, E., Winschiers-Theophilus, H., & Peters, A. (2021). An Exploration of Factors Influencing the Adoption of ICT-Enabled Entrepreneurship Applications in Namibian Rural Communities. *arXiv e-prints*, arXiv-2108.
106. Ulfah, U., Angela, A., Marzuki, A. G., M. E., & Baguilat, I. D. (2025). Leveraging Information and Communication Technology for Enhancing Students' Learning and Development of Scientific Works. *Paedagogia: Journal Pendidikan*, *14*(1), 1-12. https://doi.org/10.24239/pdg.Vol14.Iss1.559
107. Wali, A., Mahamad, S., & Sulaiman, S. (2023). Task Automation Intelligent Agents: A Review. *Future Internet, 15*(6), 196. https://doi.org/10.3390/fi15060196
108. Walker, S. K. (2019). 'It Depends': Technology Use by Parent and Family Educators in the United States. *Education Sciences, 9*(4), 293. https://doi.org/10.3390/educsci9040293
109. Warrenschuitema. (2024). *Smart AI tools for organised family life*. Retrieved March 4, 2026, from https://warrenschuitema.com/post/smart-ai-tools-for-organized-family-life?
110. Wei, X., Gu, Y., Kuang, E., Wang, X., Cao, B., Jin, X., & Fan, M. (2023). Bridging the generational gap: exploring how virtual reality supports remote communication between grandparents and grandchildren. In *Proceedings of the 2023 CHI conference on human factors in computing systems* (pp. 1-15).
111. Weisswange, T. H., Schwartz, J. B., Horowitz, A. J., & Schmüdderich, J. (2023). Telepresence Lantern--Designing an Immersive Video-Mediated Communication Device for Older Adults. *arXiv preprint arXiv:2308.16052*.
112. **World Health Organisation Regional Office for the Eastern Mediterranean. (2020). *Excessive screen use and gaming considerations during COVID-19*. WHO EMRO.** https://www.emro.who.int/mnh/news/excessive-screen-use-and-gaming-considerations-during-covid19.html

113. Yu, J., Qi, X., & Yang, S. (2024). Parent-child joint media engagement within HCI: A scoping analysis of the research landscape. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* (pp. 1-21).

114. Zhang, L., Peng, Y., Lian, Y., & Xue, M. (2025). Figame: A Family Digital Game Based on JME for Shaping Parent-Child Healthy Gaming Relationship. *arXiv preprint arXiv:2503.14178*.

115. Zhang, W., Xiong, K., Zhu, C., Evans, R., Zhou, L., & Podrini, C. (2024). Promoting child and adolescent health through wearable technology: A systematic review. *Digital health*, *10*, 20552076241260507. https://doi.org/10.1177/20552076241260507

116. Zhao, J., Wang, G., Dally, C., Slovak, P., Edbrooke-Childs, J., Van Kleek, M., & Shadbolt, N. (2019). I made up a silly name,' Understanding Children's Perception of Privacy Risks Online. In *Proceedings of the 2019 CHI conference on human factors in computing systems* (pp. 1-13).

117. Zhao, P., Bazarova, N. N., & Valle, N. (2023). Digital parenting divides: The role of parental capital and digital parenting readiness in parental digital mediation. *Journal of Computer-Mediated Communication, 28*(5), zmad032.

118. Zhou, C. Y. (2024). Parenting with Chinese characteristics in the digital age: Chinese parents' perspectives and parental mediation of children's media use. *International Journal of Communication*, *18*, 22-22.