

The Role of Information and Communication Technology (ICT) in Shaping the Work–Family Strain Perspectives of Single Women Parents

Michael B. Dizon¹

¹ Iloilo State University of Fisheries Science and Technology, Barotac Nuevo 5007, Iloilo, Philippines.

Corresponding Author:

Michael B. Dizon

Email: micdiz@isufst.edu.ph

Abstract

The rapid advancement of Information and Communication Technology (ICT) has transformed the way individuals manage work, family responsibilities, and access to social support. For single women parents, ICT presents opportunities to facilitate communication, enhance flexibility, and improve the management of competing work and family demands. Despite these potential benefits, limited qualitative studies have explored how ICT shapes the work–family strain perspectives of single women parents. This study explored the role of Information and Communication Technology (ICT) in shaping the work–family strain perspectives of single women parents. A qualitative study using an Interpretive Description approach was conducted among 15 purposively selected single women parents in Barotac Nuevo, Iloilo, Philippines. Data were collected through semi-structured individual interviews using a researcher-developed interview guide. The interviews were audio-recorded, transcribed verbatim, and analyzed using Reflexive Thematic Analysis. Six themes emerged from the analysis: (1) ICT as a Tool for Efficient Work–Family Coordination; (2) ICT as a Source of Accessible Information and Social Support; (3) ICT Promotes Reinvention and Work–Family Symbiosis; (4) ICT Reduces Work–Family Conflict through Flexibility; (5) Expanding Digital Access and ICT Skills; and (6) Strengthening ICT-Based Government and Community Support Services. The findings revealed that ICT enhances communication, improves time management, expands access to employment and social support, promotes adaptive coping strategies, and reduces work–family strain through greater flexibility. Participants also emphasized the importance of improving digital literacy, internet accessibility, and ICT-enabled public services to better support single women parents. The study concludes that ICT plays a vital role in strengthening the resilience of single women parents by improving work–family balance, facilitating access to information and support systems, and expanding opportunities for economic participation. The findings highlight the need for collaborative initiatives among government agencies, educational institutions, employers, and community organizations to promote digital inclusion, strengthen ICT competencies, and develop responsive ICT-based services that address the evolving needs of single-parent families....

Keywords : Information and Communication Technology (ICT); single women parents; work–family strain; digital inclusion; interpretive description; work–family balance.

INTRODUCTION

Single women parents continuously navigate the complex demands of balancing employment and family responsibilities while serving as the primary providers and caregivers for their children. Unlike two-parent households, single mothers often assume sole responsibility for financial stability, household management, and child-rearing, making them more susceptible to work–family strain. These overlapping responsibilities frequently contribute to emotional stress, time constraints, financial insecurity, and challenges in maintaining psychological well-being. As societies increasingly adopt digital technologies, Information and Communication Technology (ICT) has emerged as a valuable resource that enables individuals to communicate, access services, perform work-related tasks, and manage family responsibilities more efficiently. The integration of ICT into daily life has transformed how parents coordinate work schedules, seek social support, access government services, and maintain family relationships, creating new opportunities to alleviate work–family strain among single women parents.

The rapid advancement of ICT has significantly influenced the nature of work, communication, and family life across the globe. Digital communication platforms, mobile technologies, online financial services, and flexible

work arrangements have expanded opportunities for parents to perform multiple roles while maintaining stronger connections with employers, educational institutions, and support networks. According to the International Telecommunication Union (2023), increasing digital connectivity has enhanced access to information and essential services, contributing to improved social participation and economic opportunities. Similarly, the United Nations (2023) emphasized that digital transformation promotes inclusive development by expanding access to education, employment, healthcare, and social protection, particularly for vulnerable populations such as women and single-parent households.

Within the Philippine context, the government continues to strengthen ICT adoption through initiatives that promote digital governance, online public services, and digital inclusion. The Department of Information and Communications Technology (2023) has implemented programs that improve internet accessibility, digital literacy, and online government services to support citizens' participation in the digital economy. These initiatives complement the provisions of the Magna Carta of Women (Republic Act No. 9710) and the Expanded Solo Parents Welfare Act (Republic Act No. 11861), which recognize the importance of providing social protection, employment opportunities, and support services for women and solo parents. As ICT becomes increasingly embedded in public service delivery, single women parents may benefit from easier access to financial assistance, employment opportunities, online learning, and family support resources.

Research consistently demonstrates that work–family strain remains one of the greatest challenges experienced by single mothers. Gasse and Mortelmans (2020) explained that work–family strain arises from the interaction between workplace demands and motherhood responsibilities, leading to different strain perspectives, namely reinvention, work–family symbiosis, work orientation, and family conflict. Likewise, Thielemans and Mortelmans (2019) reported that the absence of spousal support increases caregiving responsibilities and employment pressures among single mothers, making work–family balance significantly more difficult. These findings suggest that structural conditions and caregiving demands continue to influence how single women parents negotiate their multiple roles.

ICT may serve as an important coping resource that helps reduce work–family strain by facilitating communication, improving access to information, supporting flexible employment, and strengthening social support networks. According to van Laar et al. (2020), digital competence enables individuals to effectively utilize technology for problem-solving, communication, collaboration, and work-related activities, thereby improving adaptability within rapidly changing environments. Similarly, Redecker (2017) emphasized that digital competence extends beyond technical skills and includes the ability to use digital technologies responsibly, efficiently, and creatively to improve personal and professional outcomes. These competencies may allow single women parents to better manage competing responsibilities through technology-assisted solutions.

The experiences of single women parents may also be explained through Bronfenbrenner and Morris' (2006) Bioecological Theory, which proposes that individual development is shaped by continuous interactions within multiple environmental systems. ICT expands these interactions by strengthening communication among families, workplaces, schools, government agencies, and community organizations. Furthermore, Epstein (2018) emphasized that collaborative partnerships among families, schools, and communities contribute significantly to individual well-being and successful role performance. Digital communication platforms provide additional opportunities to strengthen these partnerships and improve support mechanisms available to single women parents.

Despite increasing ICT adoption, relatively few qualitative studies have explored how technology influences the work–family strain perspectives of single women parents within local Philippine communities. Most previous investigations have focused on work–family conflict, financial hardship, coping strategies, and social support without examining the broader role of ICT in shaping mothers' lived experiences. Consequently, there remains a need to understand how ICT contributes to reinvention, work–family symbiosis, work orientation, and family conflict among single women parents. Addressing this gap may provide valuable insights for policymakers, employers, social workers, and community organizations in designing ICT-enabled interventions and support programs that promote work–family balance, resilience, and overall well-being among single women parents.

METHODS

Research Design

This study employed a qualitative research approach using Interpretive Description (ID) as its research design. Interpretive Description is appropriate for studies that seek to understand participants' experiences, perceptions, and meanings within real-life contexts while generating practical knowledge applicable to professional practice (Thorne, 2016). The design enabled an in-depth exploration of how Information and Communication Technology (ICT) shapes the work–family strain perspectives of single women parents. Through participants' narratives, the study examined how ICT influences their experiences of reinvention, work–family symbiosis, work orientation, and family conflict in balancing work and family responsibilities.

Participants and Sampling

The participants of the study consisted of 15 single women parents residing in Barotac Nuevo, Iloilo, Philippines. Participants were selected through purposive sampling, a technique commonly used in qualitative research to identify individuals who possess firsthand knowledge and experience relevant to the phenomenon under investigation (Palinkas et al., 2015).

To qualify for participation, respondents met the following inclusion criteria:

1. Must be a single woman parent responsible for at least one dependent child;
2. Currently employed, self-employed, or engaged in income-generating activities;
3. Have experience using Information and Communication Technology (ICT) in work, communication, financial transactions, parenting, or accessing public and social services; and
4. Voluntarily agreed to participate in the study through informed consent.

The sample size was considered adequate to obtain rich and meaningful narratives while allowing data saturation to be achieved.

Instrument

The study utilized a researcher-developed semi-structured interview guide designed to elicit participants' experiences regarding the role of Information and Communication Technology (ICT) in shaping their work–family strain perspectives. The interview guide underwent expert validation to ensure the clarity, relevance, and alignment of the questions with the research objective.

Table 1. Interview Guide Questions

Research Objective	Interview Question
To explore the role of Information and Communication Technology (ICT) in shaping the work–family strain perspectives of single women parents.	1. How do you describe your experiences in using Information and Communication Technology (ICT) to manage your work and family responsibilities as a single woman parent? 2. In what ways has Information and Communication Technology (ICT) influenced your work–family strain perspectives, particularly in terms of reinvention, work–family symbiosis, work orientation, and family conflict? 3. Based on your experiences, what recommendations can you provide to improve the use of Information and Communication Technology (ICT) in supporting single women parents in balancing work and family responsibilities?

Data Gathering Procedure

Prior to data collection, approval was obtained from the appropriate institutional authorities and community officials. Eligible participants were informed about the purpose of the study, confidentiality of their responses, voluntary participation, and their right to withdraw at any stage without penalty. Written informed consent was obtained before the interviews commenced.

Individual semi-structured interviews were conducted at mutually convenient schedules and locations that ensured privacy and comfort. With participants' permission, the interviews were audio-recorded to facilitate accurate transcription. Each interview lasted approximately 30 to 45 minutes. After completing the interviews, audio recordings were transcribed verbatim, reviewed for accuracy, and anonymized by assigning pseudonyms to protect participants' identities.

Data Analysis

The collected data were analyzed using Reflexive Thematic Analysis following the framework developed by Braun and Clarke (2021). The analysis involved six phases: (1) familiarization with the data through repeated reading of interview transcripts, (2) generating initial codes, (3) searching for patterns and potential themes, (4) reviewing and refining themes, (5) defining and naming themes, and (6) producing the final narrative report.

This analytical approach enabled the researcher to identify recurring meanings and patterns describing how ICT influences the work–family strain perspectives of single women parents. The emergent themes were interpreted in relation to the research objective and existing literature to provide a comprehensive understanding of participants lived experiences.

Ethical Considerations

The study adhered to established ethical principles governing qualitative research. Participants were fully informed about the objectives, procedures, potential benefits, and minimal risks associated with the study before providing informed consent. Participation was entirely voluntary, and respondents were free to withdraw from the study at any point without any consequences.

Confidentiality and anonymity were maintained by removing all identifying information from interview transcripts and replacing participants' names with pseudonyms. Audio recordings, transcripts, and research documents were securely stored and accessed only by the researcher. Throughout the research process, the principles of respect for persons, beneficence, and justice were observed to safeguard participants' rights, dignity, privacy, and overall well-being.

RESULTS

Research Objective. To explore the role of Information and Communication Technology (ICT) in shaping the work–family strain perspectives of single women parents.

Interview Question 1. How do single women parents describe their experiences in using Information and Communication Technology (ICT) to manage their work and family responsibilities?

Theme 1. ICT as a Tool for Efficient Work–Family Coordination

Eight participants consistently described ICT as an essential tool that helped them coordinate their work and family responsibilities more efficiently. Mobile phones, messaging applications, video calls, online banking, and digital payment platforms enabled them to communicate with employers, children, relatives, and schools while managing household obligations. Many participants explained that ICT reduced the time and effort required to accomplish daily tasks, allowing them to respond more quickly to work-related concerns without neglecting their parenting responsibilities.

"Through my cellphone, I can immediately communicate with my employer and my children. Even while working, I know what is happening at home." (Participant 4)

"Online banking and digital payments help me save time because I no longer need to leave work just to pay bills or send money." (Participant 9)

These responses indicate that ICT has become an important resource for improving work efficiency and facilitating the coordination of multiple responsibilities among single women parents.

Theme 2. ICT as a Source of Accessible Information and Social Support

Seven participants also emphasized that ICT provided convenient access to valuable information and emotional support. Through social media platforms, online communities, government websites, and parenting groups, they were able to seek advice, learn parenting strategies, discover livelihood opportunities, and obtain information about government assistance programs. Several participants explained that communicating with relatives and friends through digital platforms reduced feelings of isolation and encouraged them during difficult situations.

"Whenever I feel stressed, I join online groups for single mothers because they understand my situation and give practical advice." (Participant 7)

"I learned about government assistance and livelihood programs through Facebook and online announcements." (Participant 12)

These narratives demonstrate that ICT extends beyond communication by providing informational and emotional resources that strengthen the resilience of single women parents.

Interview Question 2. In what ways has Information and Communication Technology (ICT) influenced the work–family strain perspectives of single women parents?

Theme 1. ICT Promotes Reinvention and Work–Family Symbiosis

Ten participants described ICT as an important factor in helping them adapt to the challenges of single parenthood. Many explained that technology enabled them to develop new skills, explore online employment opportunities, manage home-based businesses, and improve communication with their children. These experiences strengthened their confidence and encouraged them to embrace new roles while maintaining their commitment to family responsibilities.

"ICT helped me learn online selling. Even if I stay at home with my children, I can still earn income." (Participant 2)

"Technology taught me to become more independent because I can do many things online that I could not do before." (Participant 10)

These findings suggest that ICT supports the reinvention of single women parents by expanding opportunities for employment, learning, and family engagement.

Theme 2. ICT Reduces Work–Family Conflict through Flexibility

Five participants further explained that ICT enabled them to accomplish work-related responsibilities while remaining available for their children. Flexible communication, online meetings, digital transactions, and remote

work opportunities minimized scheduling conflicts and reduced the stress associated with balancing employment and parenting responsibilities.

"Working online gives me more time for my children because I do not spend hours traveling." (Participant 6)

"Because of messaging applications, my employer can contact me anytime, and I can still attend to my children at home." (Participant 15)

The participants viewed ICT as an effective means of minimizing work–family conflict by increasing flexibility and improving time management.

Interview Question 3. What recommendations do single women parents provide to improve the use of Information and Communication Technology (ICT) in supporting work–family balance?

Theme 1. Expanding Digital Access and ICT Skills

12 participants recommended improving internet connectivity, reducing the cost of digital services, and providing ICT training programs specifically designed for single parents. Many believed that enhancing digital literacy would enable more women to benefit from online employment, digital entrepreneurship, financial services, and educational opportunities.

"Government should conduct ICT training so that single mothers can learn online jobs and digital business." (Participant 1)

"Reliable internet should be available because many opportunities today depend on being connected online." (Participant 11)

These responses highlight the importance of strengthening digital inclusion to empower single women parents economically and socially.

Theme 2. Strengthening ICT-Based Government and Community Support Services

Three participants also recommended expanding online government services, digital counseling, virtual livelihood seminars, and ICT-based support groups dedicated to single parents. They believed that easier access to digital public services would reduce barriers in obtaining financial assistance, employment information, parenting resources, and psychosocial support.

"Government assistance should be easier to apply for online so single parents do not need to spend money traveling to offices." (Participant 5)

"There should be online counseling and support groups where single mothers can ask questions and share experiences." (Participant 13)

DISCUSSION

This study explored the role of Information and Communication Technology (ICT) in shaping the work–family strain perspectives of single women parents. The findings revealed that ICT has become an essential resource that supports participants in managing their dual responsibilities as breadwinners and primary caregivers. The six emergent themes demonstrate that ICT enhances work–family coordination, expands access to information and social support, promotes adaptive coping strategies, reduces work–family conflict through greater flexibility, and strengthens opportunities for digital inclusion and community support. Overall, the findings suggest that ICT contributes to improving the capacity of single women parents to navigate the complex demands of work and family life while fostering resilience and well-being.

The themes ICT as a Tool for Efficient Work–Family Coordination and ICT as a Source of Accessible Information and Social Support demonstrate that participants rely heavily on digital technologies to organize daily responsibilities, maintain communication with employers and family members, and obtain timely access to information and community resources. ICT enabled participants to communicate efficiently, conduct financial transactions, and participate in online support networks, reducing the challenges associated with balancing employment and caregiving responsibilities. These findings are consistent with the International Telecommunication Union (2023), which emphasized that digital connectivity expands access to communication and essential services that improve social and economic participation. Likewise, the United Nations (2023) highlighted that digital transformation promotes inclusion by expanding access to employment, education, public services, and social protection, particularly among vulnerable populations.

The themes ICT Promotes Reinvention and Work–Family Symbiosis and ICT Reduces Work–Family Conflict through Flexibility indicate that ICT serves as a valuable mechanism for strengthening adaptive coping and facilitating work–family balance. Participants described how digital technologies enabled them to develop new skills, pursue online livelihood opportunities, manage flexible work arrangements, and remain actively involved in their children's lives despite employment demands. These findings support Gasse and Mortelmans (2020), who explained that single mothers continuously negotiate different work–family strain perspectives by adapting their motherhood roles and workplace behaviors according to available resources and circumstances. Similarly, Thielemans and Mortelmans (2019) found that flexible employment arrangements and supportive work environments reduce the pressures experienced by single mothers in balancing work and caregiving responsibilities.

The findings may also be understood through Bronfenbrenner and Morris' (2006) Bioecological Theory, which explains that individuals develop through continuous interactions within multiple environmental systems. ICT strengthens these interactions by facilitating communication among families, workplaces, schools, government agencies, and social support networks. Through digital technologies, participants were able to maintain stronger relationships with significant individuals and institutions that influence their daily lives. Likewise, Epstein (2018) emphasized that collaborative partnerships among families, schools, and communities enhance individual development and well-being. ICT therefore functions as a medium that reinforces these partnerships by making communication and support more accessible and responsive.

The themes Expanding Digital Access and ICT Skills and Strengthening ICT-Based Government and Community Support Services underscore the participants' desire for broader digital inclusion and stronger institutional support. Participants emphasized the need for affordable internet connectivity, ICT training, online livelihood opportunities, digital counseling services, and accessible online government programs that respond to the unique needs of single women parents. These recommendations suggest that improving digital infrastructure alone is insufficient without developing individuals' capacity to utilize technology effectively. According to Redecker (2017), digital competence is essential for maximizing the benefits of technology in both personal and professional contexts. Likewise, van Laar et al. (2020) asserted that digital competence enables individuals to effectively solve problems, communicate, collaborate, and adapt to rapidly evolving technological environments.

Furthermore, participants' experiences demonstrate that ICT contributes not only to work efficiency but also to psychosocial well-being by strengthening social connectedness and improving access to support services. Digital communication platforms, online communities, and ICT-enabled public services provide opportunities for single women parents to seek emotional support, obtain parenting information, access financial assistance, and participate in livelihood activities without substantial geographical or time constraints. These findings are consistent with the World Health Organization (2022), which recognized digital technologies as important tools for expanding equitable access to health, mental health, and community support services while promoting overall well-being.

Overall, the findings indicate that Information and Communication Technology (ICT) has become an important factor in shaping the work–family strain perspectives of single women parents by enhancing communication, increasing flexibility, strengthening resilience, and expanding access to economic and social opportunities. However, maximizing these benefits requires continued investment in digital infrastructure, digital literacy, affordable internet access, and ICT-enabled support services tailored to the needs of single-parent households. Educational institutions, government agencies, employers, and community organizations should therefore collaborate in developing inclusive ICT initiatives that empower single women parents to achieve sustainable work–family balance, improve their quality of life, and strengthen their long-term well-being.

CONCLUSION

This study explored the role of Information and Communication Technology (ICT) in shaping the work–family strain perspectives of single women parents. The findings revealed that ICT plays a significant role in helping participants manage the demands of employment and family life by improving communication, facilitating access to information and support networks, promoting flexible work arrangements, and strengthening adaptive coping strategies. ICT also contributed to participants' capacity to reinvent themselves through digital learning and livelihood opportunities while reducing work–family conflict through more efficient coordination of daily responsibilities.

The study further found that single women parents recognize the need for expanded digital access, improved ICT competencies, and more responsive ICT-based government and community support services. These findings underscore the importance of promoting digital inclusion through affordable internet connectivity, digital literacy programs, online livelihood initiatives, and accessible virtual support services that address the unique circumstances of single-parent households.

The findings contribute to the growing body of knowledge on ICT and work–family balance by demonstrating how digital technologies can strengthen resilience among single women parents. From a practical perspective, government agencies, educational institutions, employers, and community organizations should collaborate in designing inclusive ICT programs and policies that enhance digital competence, improve access to online services, and create supportive environments that empower single women parents to balance their work and family responsibilities more effectively.

Future research may explore the experiences of single parents from diverse socioeconomic backgrounds and geographical locations or examine the long-term effects of ICT adoption on family well-being, employment outcomes, and psychosocial resilience. Such investigations may provide broader evidence to guide the development of inclusive digital policies and sustainable support systems for single-parent families..

References

1. Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner (Ed.), *Handbook of child psychology* (6th ed., Vol. 1, pp. 793–828). John Wiley & Sons.
2. Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*.
3. Department of Information and Communications Technology. (2023). *Annual report 2023*. Department of Information and Communications Technology. <https://dict.gov.ph/>
4. Epstein, J. L. (2002). School, family, and community partnerships: Preparing educators and improving schools. *ADOLESCENCE-SAN DIEGO-*, 37, 435-435
5. Gasse, D. V., & Mortelmans, D. (2020). Single mothers' perspectives on the combination of motherhood and work. *Social Sciences*, 9(5), Article 85. <https://doi.org/10.3390/socsci9050085>
6. International Telecommunication Union. (2023). *Measuring digital development: Facts and figures 2023*. International Telecommunication Union. <https://www.itu.int/>
7. Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
8. Redecker, C. (2017). *European framework for the digital competence of educators: DigCompEdu*. Publications Office of the European Union. <https://doi.org/10.2760/159770>
9. Republic of the Philippines. (2009). Republic Act No. 9710: Magna Carta of Women. https://lawphil.net/statutes/repacts/ra2009/ra_9710_2009.html
10. Republic of the Philippines. (2022). Republic Act No. 11861: Expanded Solo Parents Welfare Act. https://lawphil.net/statutes/repacts/ra2022/ra_11861_2022.html
11. Thielemans, G., & Mortelmans, D. (2019). Female labour force participation after divorce: How employment histories matter. *Journal of Family and Economic Issues*, 40(2), 180–193. <https://doi.org/10.1007/s10834-018-9592-3>
12. Thorne, S. (2016). *Interpretive description: Qualitative research for applied practice* (2nd ed.). Routledge.
13. Nations, U. (2023). *The sustainable development goals report*. United Nations.
14. van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2020). Determinants of 21st-century skills and 21st-century digital skills for workers: A systematic literature review. *SAGE Open*, 10(1). <https://doi.org/10.1177/2158244019900176>
15. World Health Organization. (2022). *World mental health report: Transforming mental health for all*. World Health Organization. <https://www.who.int/publications/i/item/9789240049338>
- ..
- .