



**Resilience among Black South African single working
mothers: A mixed-methods study**



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Thesis accepted in fulfilment of the requirements for the
degree *Doctor of philosophy* in *Health Sciences with Psychology*
at the North-West University

Promoter : Dr Tamlynn C Jefferis

Student : Ms Khumbudzo Leburu

PREFACE AND DECLARATIONS

This thesis is presented in article format. In addition to conducting the research, Khumbudzo Leburu wrote the manuscripts. Dr Tamlynn Jefferis was the promoter of the study. MT Editorial (Marielle Tappan) assisted with the language editing. This study received ethical approval from the North-West University Health Research Ethics Committee (NWU-HREC).

The referencing and editorial style follows the guidelines of the 7th Edition of the Publication Manual of the American Psychological Association (APA). All the manuscripts will be submitted for publication in peer-reviewed journals.

I, Khumbudzo Leburu, declare that “Resilience among Black South African single working mothers: A mixed-methods study” is my work. I have cited all the sources I used with complete references.



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Dr. T.C Jefferis

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Date of Edit: 24 November 2023

Edit: Khumi Leburu

RESILIENCE AMONG BLACK SOUTH AFRICAN SINGLE WORKING MOTHERS: A MIXED-METHODS STUDY

To whom it may concern,

I, Marielle Tappan, trading under the name MT Editorial, hereby confirm that I am a language editor.

I have extensive experience in the field of language and publishing and received my Bachelor of Information Science in Publishing from the University of Pretoria. I am also a registered member of the Southern African Freelancer's Association.

I hereby declare that the editing done for any client is done with the utmost diligence and the full appreciation of the English language and all of its intricacies, as was done for edited sections of this document.

If there are any other queries, please do not hesitate to contact me.

Kindest Regards,

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ETHICAL APPROVAL



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studies)

26 October 2021

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North-West University Health Research Ethics Committee (NWU-HREC) on 26/10/2021, the NWU-HREC hereby approves your study as indicated below. This implies that the NWU-HREC grants its permission that, provided the general conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Resilience among Black South African single working mothers: A mixed methods study																																
Principal Investigator/Study Supervisor/Researcher: Dr TC Jefferis																																
Student: Ms K Leburu																																
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Expiry date: 31/10/2022																																
Approval of the study is provided for a year, after which continuation of the study is dependent on receipt and review of an annual monitoring report and the concomitant issuing of a letter of continuation. A monitoring report is due at the end of October annually until completion of the study.																																

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- The principal investigator/study supervisor/researcher must report in the prescribed format to the NWU-HREC:
 - Annually on the monitoring of the study, whereby a letter of continuation will be provided annually, and upon completion of the study; and
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- Annually a number of studies may be randomly selected for active monitoring.
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- In the interest of ethical responsibility, the NWU-HREC reserves the right to:
 - request access to any information or data at any time during the course or after completion of the study;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;

- *withdraw or postpone approval if:*
 - *any unethical principles or practices of the study are revealed or suspected;*
 - *it becomes apparent that any relevant information was withheld from the NWU-HREC or that information has been false or misrepresented;*
 - *submission of the annual monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and/or*
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- NWU-HREC can be contacted for further information via Ethics-HRECAppl@nwu.ac.za or 018 299 1206

Special conditions of the research approval due to the COVID-19 pandemic:

Please note: Due to the nature of the study i.e. (online collection of quantitative and qualitative data from the general public), this study will be able to proceed during the current alert level, following receipt of the approval letter. No additional COVID-19 restrictions have been placed on the study except that the researcher must ensure that before proceeding with the study that all research team members have reviewed the North-West University COVID-19 Occupational Health and Safety Standard Operating Procedure.

The NWU-HREC would like to remain at your service and wishes you well with your study. Please do not hesitate to contact the NWU-HREC for any further enquiries or requests for assistance.

Yours sincerely,



Digitally signed by
Prof Petra Bester
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- Dr Suria Ellis, you are an incredible statistician. I appreciate your efforts in making me understand my findings better, you made it look easy;
- Pelisa Nongena, thank you for agreeing to be my independent gatekeeper. You were incredible and the data collection would have not been a success without your help;
- Mr Manganye, thank you for making it possible for me to reach this final lap when it didn't look possible. I can never thank you enough;
- To the Health Sciences Faculty, thank you for the financial assistance provided from start to finish, I will forever be grateful for the opportunity granted to put together this piece of work and contribute to your scientific archives;
- Lastly, to my mom, daughter and siblings - thank you for your enormous support when I needed it the most. Thank you for understanding that midnights were for my Pomodoro! You have been such a good support structure that also contributed to my sanity. WE DID IT!

SUMMARY

Title: Resilience among Black South African single working mothers: A mixed-methods study.

In many South African communities, mothers play a significant role in families, especially considering the numerous duties they perform for the benefit of not only children but other dependents. These responsibilities include providing an income, maintaining the home, offering emotional support, and rearing and protecting children, amongst others. Single motherhood among Black women and female-headed households are also on the rise in South Africa, however, research on the resilience resources available to them is limited.

This dissertation focused on the resilience of single, Black working mothers (referred to herein as SBWMs) based in the Gauteng Province (GP) of South Africa. It identified the resilience factors in which they scored higher or lower and used the results to inform the qualitative study. In the qualitative phase, the study explained the specific resilience resources found in the personal and relational resilience resources of single mothers. Quantitative data for the first phase of the study were obtained through an online survey, while qualitative data were generated through photo-elicitation and interviews conducted virtually. The researcher hoped to contribute to resilience literature, specifically regarding the revised version of the Adult Resilience Measure (ARM-R), which still lacks contextual resilience items that reflect the resilience of the Black adult population.

Manuscript 1 used the ARM-R to measure the resilience scores of SBWMs. The instrument focused on two sub-scales, namely personal- and relational resilience. Data were collected over three weeks through an online survey from 400 single mothers who reside in GP, aged 23 years and above, held any kind of job to earn a living, provided childcare support alone, and did not receive any form of support from the children's fathers. The ARM-R proved to be reliable, however, we were unable to establish construct validity despite multiple variations. Further analysis revealed that single mothers exhibited far better relational resilience mean scores than personal resilience. In terms of resilience compared by employment status, single mothers classified as 'employed', scored averagely higher on relational and overall resilience than those who were self-employed. Regarding marital status, those that are not cohabiting; and those that are in a relationship but not cohabiting, exhibit higher mean scores of

relational resilience compared to those separated, divorced and widowed. In contrast, the widowed and divorced exhibit higher mean scores of personal resilience than those in different marital statuses. However, the divorced and widowed displayed poor overall resilience mean scores. A low level of educational attainment also showed a significant relationship with personal resilience, while the correlation suggested that a high level of education had a significant relationship with relational resilience.

Manuscript 2 followed a mixed-methods design to explain the quantitative results. The study aimed at describing and explaining the contextual resilience resources of Black, single mothers and how these resources interplay. Due to the Coronavirus 2019 (COVID-19) restrictions, data was collected online using photo-elicitation and in-depth interviews. Data was generated from four single mothers who in total, submitted 59 photographs of what has helped them stay strong as single mothers. In-depth interviews were conducted via WhatsApp and Zoom, to allow participants to explain what the captured photographs meant in the context of their experience. Both visual and textual data were analysed using inductive thematic analysis. The qualitative findings showed that the high relational resilience mean scores found in quantitative results concerned single mothers' positive attachments they have with their parents, sisters, colleagues and churchmates. All these individuals are women, with only one single mother who received emotional support from her father. The presence of agency and mastery explained personal resilience.

Manuscript 3 provides ethical reflections on using photo-elicitation virtually to engage SBWMs. The manuscript was prompted by the challenges experienced by the first author throughout the research process, especially during COVID-19 and at a time when the country was experiencing an electricity crisis known as *load shedding*. The manuscript reflects on several points of discussion, namely i) ethical issues surrounding the online recruitment process; ii) limitations of online recruitment and participation, and iii) ethical challenges on privacy and confidentiality for online participation. The study further makes suggestions for future researchers on alternative and flexible ways of engaging with vulnerable individuals such as single mothers in resource-constrained countries like South Africa. It also makes recommendations for universities' ethics committees on how to better meet both the student's and participants' needs in their ethical guidelines or decisions when approving studies.

Keywords: Resilience, ARM-R, Single, Black mothers, working, South Africa, descriptive, Photo-elicitation.

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LIST OF ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANOVA	Analysis of Variance
ARM-R	Adult Resilience Measure
CFA	Confirmatory Factor Analysis
COVID-19	Coronavirus 2019
CYRM	Child Youth Resilience Measure
DSD	Department of Social Development
ESOMAR	European Society for Opinion and Marketing Research
GBV	Gender-Based Violence
GP	Gauteng Province
HEAIDS	Higher Education and Training HIV/AIDS Programme
HIV	Human Immunodeficiency Virus
HSRC	Human Sciences Research Council
ICA	Institutional Childhood Abuse
KZN	KwaZulu-Natal
MIIC	Mean Inter-Item correlation
NGO	Non-Governmental Organisation
NHREC	National Health Research Ethics Council
NWU	North-West University
REC	Research Ethics Committee
RRC	Resilience Research Centre
RS	Resilience Scale
SBWM	Single Black Working Mother
SETR	Social-Ecological Resilience Theory
SSA	Sub-Saharan Africa

StatsSA	Statistics South Africa
SWM	Single Working Mother

NOTE TO EXAMINERS

While utmost care and caution were exercised during the preparation of this thesis, several exceptions should be noted:

- Page numbering: For the sake of ease in reading, page numbering in this thesis is consecutive throughout;
- Article length: The length of Manuscript 1 and 2 exceeds the specified requirements of the targeted journals. However, this extension was considered appropriate for examination purposes as it provides essential contextualisation for the broader study and research topic;
- Data duplication: Manuscripts 1, 2 and 3 have data collection methods containing the same information, leading to potential duplication in reporting;
- Ethical numbers: Ethical numbers were included in each manuscript but will be removed once the articles are submitted to journals;
- Tables and figures: While some journal guidelines recommend that tables and figures be included as separate documents, all tables and figures in the manuscripts have been included within the text to facilitate a smoother reading experience. They have also been numbered consecutively for the sake of the study. Each manuscript has its own list of figures and tables provided in the list; and
- Questionnaire: This study makes mention of the RRC-ARM with 28 items, which was the questionnaire used to obtain quantitative data. However, the results section is based on the revised version (ARM-R) with 17 items, which was used as a result of the unfavorable outcomes from the RRC-ARM.

These exceptions and the associated rationale were carefully considered to ensure the quality and relevance of the research.

SECTION A: INTRODUCTION

This study followed a sequential explanatory mixed methods approach in a form of quantitative (survey) and qualitative (Photo-elicitation interviews). The aim of the quantitative study was to administer the Adult Resilience Measure (ARM-R) to investigate and describe the resilience scores of single, Black working mothers (referred to as SBWMs within this paper) in South Africa. In the second study, the aim was to describe and explain the contextual resilience resources of South African SBWMs by integrating the quantitative and qualitative data within a mixed-methods approach. To contribute towards ethics with visual methods conducted online, this study also provides a study reflecting on ethical challenges experienced during the research process. The study at large aimed at contributing towards holistic understanding of what promotes resilience of SBWMs in South Africa as no similar study has been found in the literature.

The entire study comprises three sections and follows the guidelines provided by the North-West University (NWU) for an article-format dissertation. Section A highlights the reviewed literature on the core concepts of this study, followed by a motivation for the methodology that motivates the use of the pragmatic paradigm and the Social-Ecological Resilience Theory (SERT). It further outlines the data collection and analysis methods for each manuscript.

Section B comprises three manuscripts. Manuscript 1 is quantitative-based and provides a descriptive analysis of SBWMs' resilience scores. Manuscript 2 presents integrated findings using a mixed-method approach to describe and explain the contextual resilience resources of SBWMs. Thereafter, Manuscript 3 provides the authors' ethical reflections on using photo-elicitation virtually to engage SBWMs. Lastly, Section C provides conclusions and recommendations based on the results of the three manuscripts.

1. BACKGROUND TO THE STUDY AND RATIONALE

The world has seen rapid growth in the number of single mothers, or more specifically in this study's context, single working mothers (hereafter SWMs) solely supporting their children for several reasons, including changes in family patterns, cultural practices, and societal influences (Ali & Soomar, 2019; Zulu, 2017). Additionally, other reasons characterising modern society with single-parent families include divorce, separation of parents, death of a partner, unplanned pregnancy, and abandonment of parental

duties, among others (Golombok, Zadeh, Imrie, Smith, & Freeman, 2016; Stack & Meredith, 2017). Research shows that, globally, women are most often the heads of single-parent households (Hall & Mokomane, 2018; Stack & Meredith, 2017; United States Census Bureau, 2018; Van Lancker, Ghysels, & Cantillon, 2014). Shockingly, women head 86% of single-parent families (Nieuwenhuis & Maldonado, 2018).

Studies reveal that finding a balance between work and family life due to single motherhood is both challenging and overwhelming for some SWMs (Gingerbread, 2018; Kagendo, 2017; Van Gasse & Dimitri, 2019). While they have the challenging responsibility of responding to their children's needs without partners or co-parents, SWMs also experience stigma, loneliness, helplessness, a lack of confidence, failure to maintain child discipline, depression, and lack of emotional support (Kotwal & Prabhakar, 2009). Thus, the experience of such challenges has led to many of these mothers being at high risk for emotional distress (Bronimann, 2016; Taylor & Conger, 2014; Waldfogel, Craigie & Brooks-Gunn, 2010). Despite these adversities and risks, some SWMs do adjust well. These individuals can, therefore, be considered resilient (Borualogo & Jefferies, 2019; Liebenberg, 2017; Masten, 2015).

SWMs can rely on resilience resources, through which they can cope with their lives and improve their well-being. These resources include social support from family, friends and colleagues (Taylor & Conger, 2017). It has been discovered that some internal resources, including optimism, self-efficacy, and self-esteem, also support the well-being of SWMs. With the support of such resources, mothers may feel strong enough to face difficulties and rise above their challenges (Taylor & Conger, 2017). There are also non-governmental organisations (NGOs) resourceful for SWMs, offering support, skills and strategies to cope with their daily lives and develop resilience (Caragata, 2022). Due to their experiences, single mothers may become resourceful or a resource themselves, which can be helpful with problem-solving skills and situational adaptation. Such mothers tend to be better at time management, as well as managing their family and work duties (Bortolotto, 2008; Son & Bauer, 2010).

This study drew attention to adult resilience with a focus on SBWMs in South Africa. In many South African communities, mothers play a significant role in families, especially considering the numerous duties they perform for the benefit of not only children but other dependents. These responsibilities include providing an income, maintaining the home, offering emotional support, and rearing and protecting children, amongst others (Magwasa, 2010; Spjeldnaes, 2021). Single motherhood and female-headed

households are also on the rise in South Africa (Statistics South Africa [StatsSA], 2017); however, research on the resilience resources available to them is limited.

Currently, most studies conducted regarding SBWMs in South Africa, tend to focus more on the resilience of teenage mothers. For example, embracing motherhood as a process of resilience was highlighted in a qualitative study conducted on young women and teenage girls in South Africa who accessed residential care facilities (LoVette, Harrison, Mathews, Jonas, Operario, & Kuo., 2022). This means that although motherhood may be challenging, to some South African single mothers, it translates to a source of strength and resilience. According to a conceptual development study conducted in South Africa on single Black mothers among the socially and economically marginalised, collective mothering contributes greatly to resilience in family functioning (Spjeldnaes, 2021). The findings suggest that single mothers are there to help one another in raising their children, which also encourages them through their difficult times. Lastly, Raniga and Mthembu (2016) also discovered that single Black mothers residing in informal settlements of KwaZulu-Natal (KZN) in South Africa developed resilience because they were determined to survive their harsh economic conditions. Their determination was strengthened by their collectiveness as single mothers, due to established positive networks and social ties within and outside their communities (Raniga & Mthembu, 2016). While these findings highlight a picture of single mothers in some South African Black communities, these studies did not include single mothers who are i) adults and ii) working.

Researchers and theorists have often generalised findings that attempt to understand and explain problems experienced in human life. Understanding human challenges is vital but often insufficient, since it seldom leads to answers whilst missing the widely acknowledged truth that many individuals adjust well in life despite difficulty and struggle – thus, resilience (Masten, 2015). However, resilience as a construct has been heavily understood in the context of adolescents (Theron & Theron, 2010; Theron, Theron & Malindi, 2013; Ungar, 2005; 2015; Ungar, Ghazinour & Richter, 2013). In light of the above, risks can be dealt with by means of resources. Depending on the kind of risk, the amount of risk, and other , Joubert, & Foucault, 2017). The study used the Resilience Scale for Adults (RSA) developed by Friborg et al (2003) and focuses on the intra – inter personal skills. However, this was not in the context of working single mothers.

Therefore, this study sought to understand resilience in the context of SBWMs' vulnerability by identifying their prominent resilience factors as well as the contextual resources within these prominent factors, that help them do well as SWMs.

2. GENERAL LITERATURE OVERVIEW OF CORE CONCEPTS

To provide a greater understanding of the context in which the present study was positioned, the term 'single mother' is defined as operationalised in this study. The literature further explores the background of SBWMs, followed by the causes of the increasing number of single mothers among Black South Africans, as well as exploring the challenges of single motherhood both internationally and locally.

Given the multiple challenges single mothers must endure, the researcher tied these challenges to single mothers' ability to adjust well to their experiences using the concept of 'resilience'. The concept is defined and conceptualised for this study, and further broken down and explained employing its factors that often reflect the different types of social-ecological or contextual resources that are often present and utilised in the process of resilience and adversity. Lastly, the researcher will discuss and motivate the use of the Resilience Research Centre - Adult Resilience Measure (RRC-ARM).

2.1 Background to Black South African Single Working Mothers

According to Dlamini (2015; 2006), a single mother-family refers to a family consisting of a woman, not married nor cohabiting, who is the sole carer for at least one dependent child. This phenomenon among Black South African women took form during the apartheid era. This is due to a traditional family practice that saw women staying at home and taking care of the children while their male partners/spouses migrated to cities to join the formal work sector (Raniga & Mthembu, 2016). This led to a reduction in extended families and an increase in single-parent families, as some men eventually did not return home, leaving women to fend for their families alone (Raniga & Mthembu, 2016).

Women were not afforded an opportunity to join the labour force, nor access education during and early post-apartheid, impacting some SBWMs who had to transition to a single-parent role. The lack of access to education meant a lack of skills, forcing them to seek work in high-risk yet low-paying jobs, especially on farms so they could support their children (Mkhize & Msomi, 2016). While this may have been an

experience of the apartheid generation, similar hardships plague the lives of the current South African SBWMs, as they are still considered the most vulnerable (StatsSA, 2018; 2021; World Bank, 2022).

Although there has been a 44% increase in South African women entering the labour market post-apartheid, SBWMs are still associated with chronic poverty (StatsSA, 2018). When SBWMs do work, they often earn below minimum wage compared to other races and their male counterparts (StatsSA, 2018). Thus, they struggle to provide for their children, as some must live in areas that have no access to basic needs such as housing and security, clean water, and school infrastructures, among others (Hall & Richter, 2018; Makhumalo, 2015; StatsSA, 2021; Zulu, 2017).

2.2 Causes of increased single Black mothers in South Africa

In South Africa, over 40% of children are raised by single Black mothers (Raniga, Boecker & Mthembu, 2019). South Africa is also counted among the countries with the highest number of households headed by women in Sub-Saharan Africa (SSA), with high rates recorded among Black citizens with one or more child dependents (Hall & Mokomane, 2018; Ratele & Nduna, 2018; StatsSA, 2017). The cause of this high rate is informed by several reasons.

In modern South Africa, families might differ greatly from one another. These differences can be traced to the nation's diverse population of cultures, races, and ethnic groupings as well as its convoluted political history (Sooryamoorthy & Makhoba, 2016). Jewkes (2010) argues that, in Black society, due to the power disparity, males often have the right to completely control sexual interactions, including how and when sex occurs, and to employ coercion in the form of mental or physical pressure, or even violence, which frequently leads to unwanted pregnancy and ultimately separation when the mother is no longer comfortable with the partner. The evidence is supported by findings in studies conducted on the Xhosa and Zulu people, where it is reported that women are introduced into marriage at a young age and often not allowed to practice safe sex, which can also result in unplanned pregnancy (Cluver, Elkonin, & Young 2013; Sparks, 2006). According to the Xhosa tradition, some women are forcefully turned into mothers in the form of arranged marriage or abduction, wherein the woman's primary duty is to give birth, often at a very young age when they are not yet ready to be a parent (Sparks, 2006). When they opt out of these marriages, these mothers have no source of income to take care of their children because they have spent years as mothers dependent on their husbands (Sparks & Ward, 2014). Additionally, the Tswana people

are also governed by laws and customs that are discriminatory against women. Be it among the Barolong, Bakgatla or others, women are always regarded as inferior to and subservient to men in society (Nkomazana, 2008). As a result, these gender roles have seen them becoming mothers unwillingly (Nkomazana, 2008). It thus warrants mentioning that some African cultural practices possibly perpetuate the single motherhood debacle among the Black South African society, putting these single mothers and their children at risk as some women do not have opportunities to rise above poverty.

Beyond gender roles and cultural aspects, there are general causes of single motherhood in South Africa. These are outlined in the sub-sections below.

2.2.1 Death of a partner or children's father

Naturally, the loss of a partner is a significant event for the surviving parent, who is likewise more vulnerable to sadness and mortality (Shor, Roelfs, Bugyi, & Schwartz, 2012). Among the many emotions experienced during this period are anger, frustration, fear, shock, guilt, regret, relief, and hope (Meier Musick, Flood, & Dunifon, 2016). This may be because the surviving single mothers experience a sense of loss for the dreams and life they once shared with their children's late fathers (Meier et al., 2016).

The impact of the loss of a partner on the surviving parent could be detrimental as they may have to change their parenting style and their relationship with the child (Barclay & Hallsten, 2021). Even if there are plenty of compensating socioeconomic resources available to the surviving mother, the negative effects of grief over their partner's loss may be too great to handle and may require an enormous amount of resilience for successful single parenthood.

2.2.2 Increasing number of divorces and separations

Due to multiple reasons (violence, abuse, abandonment, lack of cooperation between partners, mistrust, and adultery, amongst others), marriages or relationships can sometimes come to an end (Ward, 2019). More recent statistics on divorce reveal that, of the divorces filed, the majority included partners with children under the age of 18 (StatsSA, 2019). The emotional and psychological reactions of children to divorce and/or separation can vary depending on their age, and this occurrence may be traumatising (Anderson, 2014). This, therefore, means that if the mother gets custody of the child(ren), she has the

responsibility to ensure that the children are emotionally and psychologically adapting well to the changes brought about by the divorce.

Mothers may also have a daunting task of ensuring that the children do not lose interest in the activities they were used to before divorce; that children have a smooth transition in terms of forming new friendships if the family relocates; that the children do not lose interest in their religious practices due to a new family setup; and that they don't become susceptible to anger and depression that could end in a child being rebellious (Braver & Lamb, 2018). Therefore, not only will the mothers have to go through the emotional roller coaster of divorce, they will have to go through it with their children and this may be a stressful task to achieve if carried out alone.

2.2.3 A father's exclusion in the child's life due to lack of financial support

Fathers who are not married can now engage in a parental rights agreement with the biological mothers of children, as per section 22 of the Children's Act of 2005. The Offices of the Family Advocate or the appropriate court must be satisfied that the agreement is in the best interests of children before it may be registered (S22(5) of Act 38 of 2005). Despite laws that give them equal rights, some fathers are still denied access to their children because of their inconsistency in fulfilling agreements or commitments.

2.2.4 Unplanned pregnancy

The patriarchal environment in South Africa, alongside gender-based violence (GBV), adds to unplanned pregnancy (Ajayi & Ezegebe, 2020). Researchers suggest that young girls are raped or taken advantage of as some cannot refuse unwanted sexual intercourse or advocate for themselves in terms of contraceptives (Jonas et al., 2020).

Some mothers conceive at an inopportune moment when neither of the partners is ready to parent (Singh, Sedgh & Hussain, 2010; StatsSA, 2020). In many parts of South Africa, the number of unintended pregnancies is rising, which has been correlated to the lack of knowledge regarding contraceptives and sexual abuse (Ajayi & Ezegebe, 2020; Davids, Kredo & Mathews, 2020; Jonas et al., 2020). Unplanned or unintended pregnancy, like any other pregnancy, requires emotional and financial support (Jacobs & Andrews, 2021). However, researchers discovered that while being a single mother is not always the

desired outcome for some women, co-residency with the biological father is not always what partners desire, especially in homes where fathers misuse drugs or instigate domestic abuse (Ratele & Nduna 2018).

According to the General Household Survey conducted in 2016, over 6,780,000 Black children between the ages of 0 – 7 live with their mothers only, the highest number when compared to other races (Ratele & Nduna, 2018; StatsSA, 2017). Researchers posit that it has become a norm that fathers in South African households are hardly present in their children's lives - whether the pregnancy was intended or not - and Black children are the most affected (Department of Social Development [DSD], 2021; Hall et al., 2018; Ratele & Nduna, 2018). Fathers are sometimes portrayed as uninterested in being active and present in their children's lives, both socially and financially (Okeke 2018).

Thus, as a result of absent fathers, many SBWMs have assumed the role of primary caregiver with many additional roles with little to no financial assistance (Jacobs & Andrews, 2021; Ratele & Nduna, 2018; StatsSA, 2017). Single mothers must learn to manage money, time, household tasks, parent-child relationships, and their personal lives all at once - true, tangible challenges (Birara, 2021). For example, with a single income, if their budget is lacking, their lifestyles may need to be altered, therefore altering their lives and challenging them.

In addition, they are faced with numerous conflicts each day, including stigma, societal expectations, and role conflict, which often leads to increased pressure (Talib, Mohamad, Ab Raji, Husain, Yusof, Ramley et al., 2020; Zakaria, Husain, Talib, Yusof, Ramley, Dagang et al., 2019). As mentioned, despite this enormous amount of pressure, some individuals still adjust well or are resilient to the exposure of these adversities (Liebenberg, 2017).

Literature reveals that resilience is an important resource in adjusting well, especially for families headed by single mothers; these resources assist both the mothers and those around them (Taruvunga & Nyapokoto, 2021). However, it is unclear what specific resilience resources are available to single mothers in the context of the Black South African population.

2.3 Resilience resources

Resilience involves transactional processes between individuals and their social ecologies that promote positive adjustment despite exposure to significant adversity (Liebenberg, 2017; Masten, 2014b, 2018;

Theron, 2016; Van Breda & Theron, 2018; Wright & Masten, 2006). However, there are diverse understanding of the term ‘resilience’ depending on researchers’ perspectives (Masik, 2022).

Often, adversity and risks with the potential to disrupt normal development within their given context and culture are considered significant in understanding resilience (Masten, 2014a). Such types of adversity/risks include chronic poverty, insufficient financial support (if any), lack of basic services, poor health care, debilitating illnesses and disabilities, sexual violence, traumatic experiences, and community violence, among others (Fourie & Theron, 2012; Masten, 2018; Theron, 2016; Ungar 2011; Wright, Masten & Narayan, 2012). Moreover, Rutter (2000, in Gilligan, 2008) argues that risk and adversity are most detrimental when they occur in different forms. Individuals enduring repeated adversities have a greater risk of experiencing major challenges as they progress along their developmental paths, as the cumulative negative impact tends to rise as adversities multiply. Additionally, biological risks may include genetic variables leading to the risk of mental illness development (Ratanatharathorn et al., 2022). Children raised by single mothers are also more likely to have health issues, such as poor physical and mental health, obesity, inadequate nutrition, and limited access to healthcare (Scharte & Bolte, 2012).

Additionally, there are also psychosocial risks that may affect individuals, especially single mothers. Families with single mothers frequently experience financial difficulties, which can result in problematic behaviour and psychological discomfort (Liang, Berger & Brand, 2019). The psychological context in which people are raised, developed, live, work, and grow older might influence their health outcomes and resilience (Taylor & Carr, 2021; Windle, Bennett & MacLead, 2020). Lastly, a person's social and psychological surroundings can promote unfavourable health outcomes and cause disease (Taylor & Carr, 2021; Windle et al., 2020).

In light of the above, risks can be dealt with by means of resources. Depending on the kind of risk, the amount of risk, and other sociodemographic characteristics, certain resources are considered more or less useful (Hopkins et al., 2014; Ungar, 2015; Wright et al., 2013). However, these resources depend on individuals’ navigation and negotiation, as described by the Socio-ecological Resilience Theory (SERT) (Garmezy, Masten, & Tellegen, 1984; Luthar, 1991; 2006; Luthar, Cicchetti, D, & Becker, 2000; Masten, 2001; Werner & Smith, 1992). Thus, the interest of this study was to identify resources that single mothers considered as more useful given their vulnerability. In this study, resilience was defined as what (resilience

resources) helps SBWMs in the process of facing adversity as primary caregivers, without any form of support from their children's fathers.

Social ecologies often offer various support options (for example, informal or formal resources); however how these resources are used by individuals varies, including the type of resources necessary to support resilience, and how resilience processes manifest in different contexts and cultures (Ungar, 2012). In the context of this study, informal resources included emotional, social, and financial support that single mothers could access from their family members or friends in times of need, while formal resources included public amenities such as government or NGO health profession services such as psychologists, religious structures, or programmes for single mothers (Antista, 2019; Endut et al., 2015).

Mandatory and voluntary resources can be found in formal social-ecological supports. Mandatory resources are official services that may be legally required to be used by single mothers. Such requirements are often linked with negative life circumstances/events (such as divorce, spousal death, and separation contexts). Voluntary resources, on the other hand, are those that single mothers may choose to employ to effectively deal with stressful life circumstances/events (such as a hotline or single mothers' support group programs) (Ungar et al., 2013). Informal supports are typically found in naturally existing connections, such as single mothers' interactions with their community, friends, family members, and culture (Sanders et al., 2015; Zautra, 2014).

In a study conducted by Greeff and Van der Merwe (2004), the availability of good relationships and the family's hardiness were the most important resilience resources observed in divorced and separated couples. In addition, the family's attitude towards the crisis; work and financial security; and religion were also found to be useful resilience resources.

In addition to resources, it is important to consider the context within which individuals use these resources to navigate the encountered risk. Context refers to the physical and social setting where the individual is placed (Gunnstedt, 2006). For this study, the focus was on single mothers based in the Gauteng Province (GP), where there are diverse job opportunities even though Black women are reportedly occupying low-paying jobs such as domestic workers, farm workers and clerks - positions that still classify them as living in poverty (StatsSA, 2021). The province is also dominated by both formal and informal urban areas; however, the informal settlements lack basic services (StatsSA, 2015). The cost of living in

this province is relatively high, which can make it more challenging for single mothers to survive if they must be the sole primary caregivers of their children (StatsSA, 2015).

In the context of resilience research, SWMs in South Africa - particularly those from Black communities, represent a demographic that has received little attention. It is imperative to investigate their resilience to have a more thorough understanding of the various demographic and socioeconomic elements that can impact it. While the findings from the adult population in Ireland indicate that the measurement was found to be valid and reliable in measuring resilience among adults, the researcher for the current study is of the view that the historical background, cultural settings, and other contextual factors of the South African single, Black working adult population would yield distinct outcomes on the measurement.

Moreover, the socioeconomic landscape of South Africa is more diverse, and SBWMs may face some specific challenges different from mothers who are not raising children alone. These unique challenges may involve the way the family is structured, historical injustices, and economic challenges. Although the impact may differ based on the severity of the adversity, exploring this cohort assisted in identifying the resilience elements unique to their situation. The study recognised that single parenting by fathers was equally risky as single parenting by mothers. However, other studies have shown that SBWMs tend to have more responsibilities and face economic risks as single fathers are often most likely to have a decent-paying job while single mothers must rely on other people such as relatives, friends or caregivers (Hilton, Desrochers, & Devall, 2011; StatsSA, 2018; 2021).

It is clear from the literature that a variety of pressures associated with balancing employment, childcare, and household chores are frequently experienced by SWMs. This population was an interesting subject for the ARM-R due to South Africa's distinct context related to social and economic circumstances, which includes problems with poverty, unemployment, and limited access to resources. All these issues could impose additional pressure on these mothers. Understanding how people adjust and flourish in the face of adversity is another goal of resilience research, in addition to identifying hardships. Thus, understanding resilience among working mothers who are single can provide insight into their capacity to preserve their mental, physical, and emotional health.

Resilience can also be greatly impacted by South Africa's complex cultural and societal background. This population's resilience can be shaped and manifested in different ways by factors such as cultural traditions, social support systems, and available community resources. By carrying out this study, SBWMs'

unique strengths and resilience were recognised. This, in turn, could be an empowering topic that honours their social contributions.

It should be noted that I searched the existing international and national literature, and could not find any existing, statistically significant interventions to promote resilience among this particular population. This indicates a large gap in resources and available support for SBWMs. The contribution this study makes, can serve as a starting point to first understand SBWM's experiences and resilience in order to develop interventions aimed at promoting their resilience.

2.4 Theoretical perspective

The researcher used the Social-Ecological Resilience Theory (SERT) to position the study, given the theory's perspective. Pioneered by Ungar (2012), the theory gives a perspective on how the human being and its social environment are interconnected and that human beings cannot develop independently from the social environment.

While resilience was once thought to be a fixed quality that resided within an individual, it is now more appropriately thought of as a changing attribute that results through frequent interactions between an individual and favourable aspects of their environment (Gilligan, 2004). It is now possible to say that a person's level of resilience in a certain situation is correlated with how many factors support that person's resilience. To conceptualise this ecological notion of resilience, it is necessary to take into consideration aspects of temporality, opportunity, and meaning (Ungar, 2011b).

Early researchers discussed this aspect of social-ecological resilience to prove that resilience is determined by a set of ecological factors that predict positive human development in comparison to specific personality traits as initially perceived (Garmezy et al., 1984; Luthar, 1991; 2006; Luthar et al, 2000; Masten, 2001; Werner & Smith, 1992). In addition, the authors further suggested that the type of challenges that an individual must confront, affect their ability to cope and the resources that are available to them. The theoretical argument builds on the resilience mechanisms whose proponents argue that if we are to examine the causes of effective coping with adversity, circumstances matter a lot more than previously believed, possibly even more than individual potential (Lerner, 2006; Rutter, 1987).

Ungar et al (2007) further highlighted the importance of understanding cultural and contextual nuances in resilience resources. Through acknowledgement and comprehension of these nuances, interventions and

support systems may be adapted to target the unique challenges and advantages of every cultural context, resulting in more useful and culturally responsive methods of fostering resilience.

Resilience is the ability of people to find the psychological, social, cultural, and physical resources that contribute to and maintain their well-being, as well as their individual and group capacity to negotiate for these resources to be made available and experienced in culturally significant ways (Ungar, 2011b). This ability is demonstrated in situations where people may be exposed to significant adversity.

It is imperative to have these two processes of navigation and negotiation. They underline that people act in ways that show resilience when they make the most of the possibilities they have and perform better when they exert control over the opportunities' nature and availability (Ungar, 2012). Although one's ability to find resources depends in part on their initiative, Ungar (2012) argues that it is also the responsibility of families, communities, and governments to make those resources accessible in ways that are culturally appropriate and consider the preferences of individuals who will use them. As a result, resilience is a shared trait of the individual and the individual's social ecology, with the social ecology potentially playing a larger role in recovery and long-term well-being for communities under stress than individual considerations (Ungar, 2012).

By studying humans and their environment as an integrated whole rather than as discrete components, the social-ecological resilience method seeks to understand how they may coexist (Folke et al., 2016). People, regardless of their social and cultural settings, coevolve with the environment, and convictions, perceptions, and decisions influence our behaviour and future in ways that are either sustainable or not (Folke et al. 2011; Leach et al. 2012). Family relationships, social structures, services (such as welfare, health, and education), and culture are emphasised as the fundamental and most potent Resilience resources within social ecologies of resilience (Bottrell, 2009). Thus, interventions that cultivate resilience ought to focus more on social context than the individual (Van Breda, 2018).

The social-ecological resilience approach indicates that humans and their well-being essentially depend on the environment's ability to support us, regardless of whether people are aware of this dependency or not (Folke et al., 2011). It also argues that whether sustainability is achieved by people in various circumstances and by humanity is all dependent on how we choose to see our relationship with the environment in the context of a globalised society and how we choose to behave. On the other hand, Ungar (2012) further argues that even though resilience is a combination of personal and environmental factors,

findings show that resilience is as much - if not more - dependent on an individual's capacity to maintain positive growth under stress as it is on the capability to exercise self-determination during recovery.

As there has not been much robust qualitative or quantitative research into culturally based outcomes that might be linked to resilience in non-Western cultures and contexts, nor has there been much cross-cultural validation of findings, the meaning of resilience for excluded groups and non-Western populations is not understood (Ungar, 2008). To support the above statement, to date, adult resilience in the context of Black South African adults is unknown. Thus, this study sought to understand what promotes their resilience. Although the theory was founded based on youth and adolescents' adversities, it accounts for the social-ecological contextual resources and in essence, supports the RRC-ARM questionnaire used in the current study for the adult sample.

3. PROBLEM STATEMENT

While the difficulties that Black single mothers in South Africa confront are widely acknowledged, there is still a significant knowledge scarce regarding the actual resources that support their ability to persevere in the face of adversity. The extant body of literature emphasises the structural obstacles, discrimination, and socioeconomic inequalities that this group faces, but it does not offer a thorough investigation into resilience of those who are working.

In addition, resilience analysts have globally utilised a collection of resilience instruments to obtain self-detailed records of health and social well-being without considering the challenges that come with SWMs' role transition, especially for Black adults (Kaunda-Khangamwa et al., 2020). Van Rensburg et al. (2017) highlighted that studies conducted on resilience have also been more towards adults and adolescents in regions of high-income earners, and there has been little work done that considered the resilience of working adults regardless of their income level.

Furthermore, although qualitative techniques like photo elicitation have been applied to record the actual experiences of marginalised communities, their use in the context of BSWMs in South Africa, is still limited. Visual communication and storytelling are deeply embedded practices in many African communities (Gordon & Kurzwelly, 2018). In keeping with these cultural conventions, photo elicitation offers participants a comfortable and culturally appropriate way to tell their stories. With a rich cultural legacy and a diverse population, South Africa is a multicultural nation (Motsei & Phindane, 2021).

By investigating the distinctive experiences and viewpoints of Black single mothers from various backgrounds and settings across the nation, photo elicitation can promote cross-cultural understanding. The use of this strategy, allows researchers to establish a friendly and inclusive setting where participants have the opportunity to participate in the study process in an authentic way (Cleland & MacLeod, 2021).

To close these gaps, this study followed a mixed-methods approach to investigate resilience among Black single mothers in South Africa. The findings from the photo elicitation were used to explain the quantitative findings.

Permission to use the RRC-ARM was sought from and granted by the RRC in 2020. It is worth noting that the original email with the permission sought was lost, however the link to the questionnaire is provided (<https://cyrm.resilienceresearch.org/>) (See Addendum I for example).

4. AIM OF THE STUDY

Through a sequential explanatory mixed-method approach, this study aimed to quantitatively investigate and describe SBWMs' resilience scores in the South African context. The study further used photo-elicitation and interviews to describe the quantitative results by explaining what specific resilience resources promoted their resilience and how these resources interplayed.

4.1 Main research question

The main research question that guided this research was *What promotes resilience among SBWMs in South Africa?*

4.2 Objectives of the study

The primary objective of this study was to investigate resilience among Black, South African single working mothers using a mixed-methods approach.

The specific objectives of the study are as follows:

- To provide a descriptive analysis of SBWM's resilience scores, in the South African context
- To describe and explain the contextual resilience resources of South African SBWMs by integrating the quantitative and qualitative data within a mixed-methods approach
- To provide ethical reflections on conducting photo-elicitation interviews virtually when engaging South African SBWMs.

5. BRIEF DESCRIPTION OF RESEARCH METHODOLOGY

This section describes the paradigm Manuscript 1 and 2 subscribed to. It further describes the approach and design followed during the process of research; how the sample was recruited for each phase; and how data was obtained and analysed.

5.1 Research paradigms

Two separate paradigms – positivism and social constructivism – were used in this study to address the first and second objectives and research questions of the broader study pertaining to SBWMs in the South African context. The positivist paradigm was applied in the first investigation. It puts more emphasis on quantifying data, empirical observation, and objectivity (Park, Konge, & Artino, 2020). In addition, This paradigm restricts the researcher's involvement to gathering and interpreting data; it also mandates that the researcher remain impartial and refrain from interacting with participants while gathering data (Junjie & Yingxin, 2022). The objective of the paradigm is to identify generalizability of findings and develop universal principles shaping phenomena, thus considered a good fit for this study.

The positivist paradigm was selected for this study in order to give a descriptive analysis of the resilience scores of SBWMs. Through the paradigm, the study was able to systematically investigate the resilience scores of SBWMs in the South African setting by using statistical analysis and standardised measurements. This method made it easier to provide insights that could be applied broadly to guide future conversation and initiatives meant to support SBWMs in comparable settings.

The social constructivist paradigm was used in the second study. Social constructivism places strong emphasis on how people interpret reality in their own ways, how social context shapes people's experiences, and how crucial qualitative data is to explaining complex problems (Phillips, 2023). It aims to investigate the significance that people give to their experiences in particular sociocultural contexts (Erciyes, 2020).

Through the integration of both quantitative and qualitative data, the study was able to present a more detailed and holistic understanding of the contextual factors influencing the resilience of SBWMs. The interviews and photo-elicitation helped delve into the experiences, viewpoints, and stories of SBWMs, revealing the distinctive resilience resources found in their social contexts.

6. MANUSCRIPT 1

6.1 Objective of the study

This manuscript administered the RRC-ARM to SBWMs. This was done to provide a descriptive analysis of SBWMs' resilience scores, in the South African context.

6.2 Research questions

- What are the resilience scores for South African SBWMs?

6.3 Research design

The study employed a descriptive approach within a survey design. This approach allows the researcher to describe and evaluate an individual's current situation on a phenomenon of interest without modifying the conditions or settings (Mertler, 2014). The quantitative data collection in this instance was conducted to first ensure that the questionnaire was fit to be used in South Africa and further investigate SBWMs' resilience-prominent factors. The findings from this process were used to inform and formulate interview questions for the qualitative phase.

6.4 Study context

Data were collected in GP, targeting 400 SBWMs who completed the survey. These were adults holding any kind of job that brought them an income, be it working for someone else or self-employed. The province is mainly characterised by urban areas, with the presence of informal settlements where there is limited access to sanitation and high levels of overcrowding and mental health issues (Oksiutycs & Azionya, 2022; StatsSA, 2015). The residents further lack access to proper housing, proper school infrastructures, quality education and social services, as well as safety and security (Oksiutycs & Azionya, 2022; StatsSA, 2015; Zulch, Musefuwa & Yacim, 2023). Although the province is the economic hub of the country - with diverse job opportunities - residents are exposed to unstable jobs which deprive them of an opportunity to own property. This, in turn, makes women vulnerable to eviction while they have children to provide housing for, as they participate in informal economic activities that provide less job security or benefits (Oksiutycs & Azionya, 2022; Zulch et al., 2023). Therefore, such residents are forced to navigate their lives and adversities by relying on minimum State resources to help them rise above poverty, which

poses a challenge to individuals such as SBWMs (StatsSA, 2015). Thus, there is a need to consider such contextual factors when measuring adult resilience for this group.

Given the Coronavirus 2019 (COVID-19) pandemic, which prohibited human interactions, data were collected online. As a result of this online method, the study most likely could not include the views of SBWMs with no access to online social media platforms, as these platforms were used to gather data. Further details regarding the methods of data collection followed in each specific phase, are discussed in each manuscript, respectively.

6.5 Sampling

According to StatsSA's (2019) report, GP is the most populated province, with predominantly Black adult women who account for 26% of the entire country's population (StatsSA, 2019). The province is also one of the country's economic hubs, boasting 1.95 million people working in the formal sector (StatsSA, 2019). The province is further diversified in terms of urbanisation and cultures, comprising urban, peri-urban and rural areas, thus becoming an appropriate province to conduct the study within (Parker & Hamann, 2020).

Using convenience sampling, a survey was carried out with 400 SBWMs aged 23 years and above. This sample was informed by the scientific suggestion that for a population beyond 500,000, a sample of 384 is statistically sufficient to make inferences, test reliability and test significance if the exact population size is not explicitly known (Fox et al., 2007; Meyer, 1979). The study followed the following inclusion criteria:

- SBWMs who made income (employed/self-employed);
- Solely responsible for the needs of the child(ren);
- 23 years old and above;
- Resided in GP;
- Could read and understand English;
- Had access to either Facebook, Twitter (now rebranded as 'X'), or LinkedIn; and
- Consented to take part in the survey.

6.6 Methods of data collection

The survey data collection was achieved using a standardised RRC-ARM-28 questionnaire which is an adapted version of the CYRM-28 (RRC, 2018). The questionnaire has two versions, one with a five-point Likert scale as the CYRM-28 and the other with a three-point Likert-type scale with an easier reading level. For this study, the questionnaire was completed in English, thus data collected may have been more skewed towards single mothers who could read and understand English.

The questionnaire contained nine demographic questions and 28 statements on resilience (RRC, 2018). For the context of this study, the demographic questions were modified and four more questions relating to single mothers' relationship with their children were added. Another two questions were also added regarding employment status (See Annexure I).

The resilience measurement focused on the three scales (individual capabilities which contained three domains that mirror personal skills, peer support and social skills) with statements such as "*I am aware of my strengths; I feel supported by my friends; I have opportunities to apply my abilities in life*". The second scale tapped into personal relations with key individuals with more focus on the physical and psychological care domains: "*My family has supported me through life; I talk to my family about how I feel*". The third and last scale pointed out the contextual resilience clusters (for example, spiritual, education and cultural domains). These included statements such as "*Spiritual beliefs are a source of strength for me; Getting and improving qualifications or skills is important to me; I have people I can respect in my life*".

The questionnaire was scripted on Google Forms to create a survey link which was shared online using X and Facebook. The responses were measured using a three-point Likert-type scale (Yes, Sometimes, No) and scored by summing up responses to each item.

Following the RRC-ARM data analysis outcomes (which were unsatisfactory), the study eventually had two questionnaires as a result of having to fit data into the revised version (ARM-R) with 17 items (See Annexure II for the revised version). This revised version which was also adopted from the RRC-ARM with 28 items, was reduced to only two scales (personal and relational resilience), with the spiritual aspect removed from the questionnaire (RRC, 2022). It has been widely used by resilience researchers who measure adult resilience from a Socio-ecological perspective (Hatefipour, Maghami-Sharif, Farahani, & Aghebati, 2022).

Adults eighteen years of age or older can use this updated version of the Adult Resilience Measure. There are 17 items on the ARM-R, and the scores range from 3 to 5 on Likert scales. Positive wording in all of the measure items simplifies scoring by allowing scores to be simply added together. To find a person's overall resilience score, all categories need to be added up (minimum = 17, maximum = 85) (RRC, 2022). Additionally, the personal and relational subscales of resilience can be computed. Relational resilience refers to the qualities of significant connections with a partner, family, or primary carer. It is characterised by the following statements: “My family is supportive towards me”, “My family knows a lot about me”, “If I am hungry, I can usually get enough food to eat”, “I talk to my family about how I feel”, “My family stands by me when times are hard”, “I feel secure when I am with my family” and “I like my family’s culture and the way my family celebrates things”. Under the sub-scale of personal resilience are both intrapersonal and interpersonal challenges characterised by the following 10 statements: “I get along with people around me”, “Getting and improving qualifications or skills is important to me”, “I know how to behave in different social situations”, “people like to spend time with me”, “I feel supported by my friends”, “My friends care about me when times are hard”, “I am treated fairly in my community”, “I have opportunities to show others that I can act responsibly” and “I have opportunities to apply my abilities in life”. The two subscales are related since they both depend on an individual's social ecologies to support their resilience. High scores on the subscales as well as the overall test reflect traits associated to resilience (Hatefipour et al., 2022).

6.7 Recruitment

Recruitment took place via an advertisement that was posted on X and Facebook (Annexure II). The advertisement also contained a link to the survey that participants could click on, to proceed to the informed consent and screening page. Having met the inclusion criteria and clicked the “Agree” option, they could continue to complete the survey which took approximately 15 minutes to complete.

However, before the full survey roll-out, a link was shared on two platforms but limited to 15 volunteers who met the inclusion criteria. The aim was to pilot the questionnaire for ease of understanding and flow. At the bottom of the questionnaire, there was a “Comment” option where participants were asked if there were any difficulties experienced in completing the questionnaire, for example, language, wording and

length. The responses indicated no challenges experienced. This meant that the questionnaire could be administered to a larger intended sample.

Conducting the survey online ensured that no participant was placed at high risk of COVID-19 and allowed participants to complete the survey at a time most convenient to them. However, to ensure that recruitment for such a large sample did not take too long, the researcher made use of the three X influencers' services with a larger following. The services were provided at no cost.

The questionnaire was scripted using Google Forms. The questionnaire script contained a brief introduction which detailed the purpose of the study, the benefits of participation, the estimated duration of the survey and the voluntary participation disclosure. Participants were also requested to give consent to taking part in the second phase (qualitative) of the study. All consent forms were obtained by an independent mediator/assistant who is a trained researcher. Upon completion of the online survey, data was then transferred to NextCloud of the NWU for safe storage purposes.

6.8 Methods of data analysis

Firstly, the internal consistency of the RRC-ARM was tested using a reliability test in the form of Cronbach's alpha. Although the internal consistency showed acceptable results, upon exploring a construct validity using a confirmatory factor analysis (CFA) as the questionnaire is standardised, the outputs showed the model did not fit the data. An EFA was further carried out but still yielded unacceptable fit indices after multiple variations. As a result, data were then fitted into the revised version of the ARM, which was released in 2022, now called ARM-R with items reduced to 17 (Jefferies, McGarrigle, & Ungar, 2018; RRC, 2022).

A similar procedure was followed to test reliability and validity. Whilst construct validity could still not be established, reliability of the two-factor 17-item model was good; thus, these standardised factors were used for further analyses.

To first assess the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were used (Shrestha, 2021). The Statistical Package for Social Sciences (SPSSv27) software was used to further conduct descriptive statistics in the form of frequencies, mean, standard deviations, t-tests and correlations. The tests included a t-test for employment

status on resilience, analysis of variance (ANOVA) for the effect size of relationship status on resilience, and a correlation test.

7. MANUSCRIPT 2

7.1 Objective of the study

To describe and explain the contextual resilience resources of South African SBWMs by integrating the qualitative and quantitative data within a mixed-methods approach.

7.2 Research question

The research question that drove this manuscript was *What is the integrated description and explanation of the contextual resilience resources of South African SBWMs?*

7.3 Research design

The research comprised two phases that followed a mixed-method, sequential explanatory design. This design consists of first collecting quantitative data in numerical form and then collecting qualitative data to explain the findings from the quantitative data (Bullock, 2017; Egan & Gurhy, 2020; Subedi, 2016). Quantitative data were collected using an online survey of 400 SBWMs, while qualitative data were collected employing virtual photo-elicitation and recorded interviews to have a qualitative explanation of the quantitative results and an overall comprehensive understanding of resilience among SBWMs.

Firstly, in the quantitative phase, the research questions focused on which resilience resources supported single mothers more (scores) to adjust well. In the second phase (qualitative), purposefully selected single mothers from the survey, explained the results from the statistical tests in depth. The resources regarded relational and personal resilience. Therefore, in this manuscript, the overall findings were integrated, explained, and discussed (Almalki, 2016).

7.4 Sampling

In the survey completed with 400 single mothers aged 23 and above, participants left their contact details in the form of emails and cell phone numbers to be used for selection in the qualitative phase. However, those that had indicated that they would not want to be contacted for the qualitative phase, were removed from the participant list used for selection. In total, there were 392 contacts provided. Of these 392, only

334 were participants who preferred to be contacted via email, while 58 preferred to be contacted through cell phone numbers.

The study used a randomised system to select participants by selecting every 10th participant from the survey list to recruit respondents for the qualitative list. This allowed every participant a fair chance to take part in the qualitative phase. For those sampled and contacted, a secondary consent letter was shared, and participants were allowed a week to indicate if they were interested or not. Where there was no response, another randomised selection was applied.

7.5 Methods of data collection

Quantitative data were collected using an online survey (see a detailed ‘methods of data collection’ in the section 3 of Manuscript 1 for the quantitative phase). Secondly, qualitative data were collected using photo-elicitation, followed by in-depth interviews, all conducted virtually due to COVID-19. Photo-elicitation is a visual research method that involves respondents taking photographs of objects within their setting that best explain their unique experiences (Fawns, 2020). The method is a respondent-empowering tool that allows the respondent to lead the visual method process and use in-depth interviews to explain in detail, what the photographs mean according to them (Fawn, 2020).

In this study, respondents were requested to take photos of what helped them stay strong as single mothers by following this prompt: *“Please take a photo of what has helped you stay strong as a single mother”*. The prompt was informed by the high relational resilience scores from the quantitative data. To avoid leading participants in their responses and allow broader responses, the question was phrased to “what” instead of “who”.

Photographs were captured using respondents’ smartphones and each photograph was accompanied by a text explaining what the photo meant to them.

Ideally, in a sequential explanatory design, a researcher often connects the two stages while choosing the participants for the qualitative follow-up analysis based on the quantitative findings from the first phase (Creswell, 2014). Another point of connection may be the creation of the qualitative data collection protocols, which were built on the findings of the first phase's quantitative analysis and were used to further explore the findings of the second phase's qualitative data collection and analysis.

In this study, while choosing the respondents for the qualitative phase, the quantitative and qualitative phases were connected at the intermediate stage of the research process. The creation of interview questions for the qualitative data collection was based on the findings of the quantitative descriptive analysis in the quantitative phase. By adding both quantitative and qualitative research questions during the study design stage, quantitative and qualitative methodologies were blended. The outcomes of the combined study were then interpreted using information from both the quantitative and qualitative phases.

7.6 Data analysis

Refer to “methods of data analysis” in the section 3 of Manuscript 1 for the quantitative phase. Qualitative data analysis was conducted and steps to ensure trustworthiness were followed. Firstly, to ensure transparency, the study used Atlas.ti with adherence to the Braun and Clarke (2022) thematic analysis approach, where the visual data in the form of photographs and the textual data in transcripts were analysed inductively. Both authors independently analysed the participant-provided images and interview transcripts to ensure that bias was minimised.

For qualitative studies in social contexts, inductive thematic analysis is a popular and useful method. It offers a sequential six-step process for conducting thematic analysis, which includes understanding the data, developing codes, establishing themes, assessing possible themes, and naming and defining themes (Braun & Clarke, 2022; Kyngas, 2020). The final stage is creating the report. In addition, open coding was carried out to assign initial codes to different data segments, followed by axial coding which was used for finding codes that correlated among the first codes. These steps and principles were followed to ensure dependability.

To establish credibility and ensure that there were strong linkages between the analysed data and the original data, both authors repeatedly revisited the data to immerse or familiarise themselves with the entire data. To enhance confirmability, the procedure involved the use of questions derived from the survey results guiding the interview/prompts; however, the responses were interpreted from the participant's perspectives. The authors further improved and combined the emergent themes using focused coding.

Lastly, upon completing data analysis, member checking was performed by sharing the findings with the participants to solicit their feedback and ensuring that their information was not misinterpreted. Considering this, the qualitative data supported the quantitative data and shed light on how SBWMs'

resilience processes are influenced by context and culture. The visual data added depth and complexity that allowed a richer comprehension of resilience among the study participants, despite the relatively small and limited size of the qualitative sample.

7.7 Ethical considerations

7.7.1 Consent

Ethical approval (NWU-00252-21-S1) for the study was first sought from the Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-HREC). Permission was also obtained from respondents through the first study's online survey platform. The questionnaire had an option for volunteering participants to consent to participation in the survey. The procedure was detailed in the introduction letter included in the survey questionnaire. An independent mediator was available to respond to any queries arising from potential participants regarding the completion of the survey questionnaire.

7.7.2 Voluntary participation

Participants were not coerced to take part in the survey. The voluntary nature of participation was emphasised in the recruitment screener. The survey questionnaire was completed in English. During the survey, the questionnaire had a question that asked participants if they would be comfortable expressing themselves in English. Therefore, participants who were able to express themselves in English had an opportunity to participate.

7.7.3 Anonymity and confidentiality

Before collecting data, permission to take part in the study was requested from participants. During online survey data collection, no names were indicated in the questionnaire but rather, participants were assigned unique IDs from 1-400. Participants were made aware that their responses would be used to compile a report in the form of a journal article that was also potentially going to be presented at conferences, therefore the use of unique IDs worked as a form of confidentiality during this stage of dissemination. However, during the survey completion, contact details of participants willing to take part in the qualitative phase were requested. Participants were also reminded that the information would be

treated with confidentiality and an appeal was made to participants not to discuss the information outside the research context.

During photo-elicitation, respondents were requested to ensure that they not take photographs of other people without their consent. If they unintentionally photographed other people without consent, their faces were blurred. All photos shared via WhatsApp were also protected through end-to-end encryption.

7.7.4 Data storage

All data were encrypted and stored on the NWU's NextCloud and will be stored for five years, after which data will be destroyed. While stored, no names will be indicated on the quantitative data. Participants will be made aware of changes regarding the use of this data for another study. Given that all data were collected online, and the data were analysed using software analysis programs and not on paper, no hard copy data was kept. Only the research team (researcher, supervisor, co-supervisor, co-coder) has access to this encrypted data. When destroying data, a high-level overwriting that renders the data unrecoverable will be employed in the presence of all research team members.

7.7.5 Risks and benefits

For the survey, there were minimal risks. The benefit was that participant felt that their opinions were being valued.

7.7.6 Remuneration and costs

Participants were informed that no monetary incentives were to be offered to them for the survey completion. However, participants incurred costs for data bundles to download the questionnaire. The costs were less in this regard as participants were individuals conveniently accessing social media and google allows the surveys to be completed offline.

For the qualitative method, R100 was offered as a token of appreciation to single mothers who completed the photo-elicitation process. In the event where participants required a higher amount as a token of appreciation to take part in the photo- elicitation than what was approved by the ethics committee, such participants were excused. The token of appreciation was sent to the four participants via Cash Send, an application which allows for money to be sent directly to a cell phone number.. Data was also provided for

them to take photos and share them with the researcher. Participants had the right to terminate their participation or withdraw from the study when they felt the need to.

8. MANUSCRIPT 3

8.1 Research objective

To provide ethical reflections on conducting photo-elicitation interviews virtually when engaging South African SBWMs.

8.2 Research question

The research question in this manuscript was *What are the ethical lessons learned from conducting photo-elicitation virtually with South African SBWMs?*

8.3 Study context

Through the study and the challenges, I experienced as the first author with recruitment and participation, the critical reflections on these made a methodological contribution by unpacking how to conduct photo- elicitation online in ethically sensitive ways, with SBWMs. The study's focus was on the resilience of SBWMs who were 23 years of age or older and could communicate in English. This study was conducted in GP, a major economic centre that offers both local workers and labour migrants a wide range of employment options. Although women have made significant strides in the labour market and over 40% of them now hold professional positions, Black women still experience poverty because women are more likely than men to be exposed to lower-paying professions and work chances are not equally distributed between the two genders (StatsSA, 2021).

Although the province has also become more urbanised, those who live in informal settlements face health, social, and economic-related risks. According to Wang (2022), residents suffer from poor mental health, overcrowding, poor sanitation, and a lack of clean water (StatsSA, 2015). In addition, they deal with socioeconomic problems such as poor housing, unhealthy school facilities, restricted access to social services and education, and a general lack of safety and security (StatsSA, 2015; Wang, 2022; Zulch, 2023). Economically speaking, women are also less likely to have steady employment or own property, which

makes them susceptible to eviction, and to engage in informal economic activities, which offer less benefits or job stability (Wang, 2022; Zulch, 2023). Thus, they must make use of the resources that will enable them to escape poverty, which presents a difficulty for people like SBWMs – the study’s primary target (StatsSA, 2015).

The COVID-19 epidemic forced the study to be conducted online entirely. Recruitment was done through social media sites such as Facebook and X. Online surveys sometimes receive little response, therefore three X personalities with more than 200,000 followers each were asked to help with recruiting by disseminating the survey poster that included the survey link. These key figures also resided in GP. This procedure made it possible to ensure that the 400-participant target sample was reached on schedule. Therefore, throughout three weeks, quantitative data was collected.

The relationship statuses that were included were widowed, separated, divorced, single, and in a relationship but not living together.

8.4 Sampling

Purposively selected single mothers from the quantitative data were used in the qualitative study utilising photo-elicitation and conducting interviews virtually. There was a lag of more than six months between the time single mothers participated in the survey and the subsequent photo-elicitation study, as the qualitative study's selection was influenced by the quantitative results. The reflections were further based on the sampling as described in Section 7 of this chapter.

8.5 Methods of data collection

The methods of data collection for this manuscript were based on the two researchers’ critical reflections, peer debriefing sessions, participant emails and WhatsApp messages, and peer reflections. The collective insights offered a clear understanding of the difficulties faced during online photo-elicitation.

8.6 Methods of data analysis

We reflected on how conducting photo-elicitation online in an ethically sensitive way, with SBWMs situated in resource-constraint countries, contributes to the quality of qualitative methods researchers may need to apply in similar studies. These reflections are based on qualitative data generated during the research process of SBWM’s resilience in South Africa. They comprised of the first author’s field notes

of Photo-elicitation interview sessions; photographic records of photo- elicitation sessions; telephonic follow-up interviews, transcribed participants' reflections and debriefings.

The first author immersed herself in the data by reading and re-reading all notes, and transcripts to reflect on clues related to the possible benefits and limitations of using photo-elicitation interviews online to identify and explain resilience resources of SBWMs. segments of data that addressed benefits and limitations were grouped. Following Braun and Clarke (2022) inductive thematic content analysis to identify themes explaining the value and limitations of using photo- elicitation online to identify and explain resilience resources among single, Black working mothers, was then used. In this process, we were mindful of SERT and therefore paid attention to how SEs enabled or constrained this qualitative approach. In this sense, as Braun and Clarke (2022) observed elsewhere, there were deductive elements in the analysis. Both authors had lengthy discussions about the emerging themes, and revised initial themes, as Saldana (2009) advises, before reaching consensus.

9. STRUCTURE OF THE DOCUMENT

The figure below provides a visual representation of the flow of this study. Hereafter, Section B will begin, wherein Manuscripts 1, 2 and 3 are presented. In Section C, the research will be concluded and recommendations will be made.

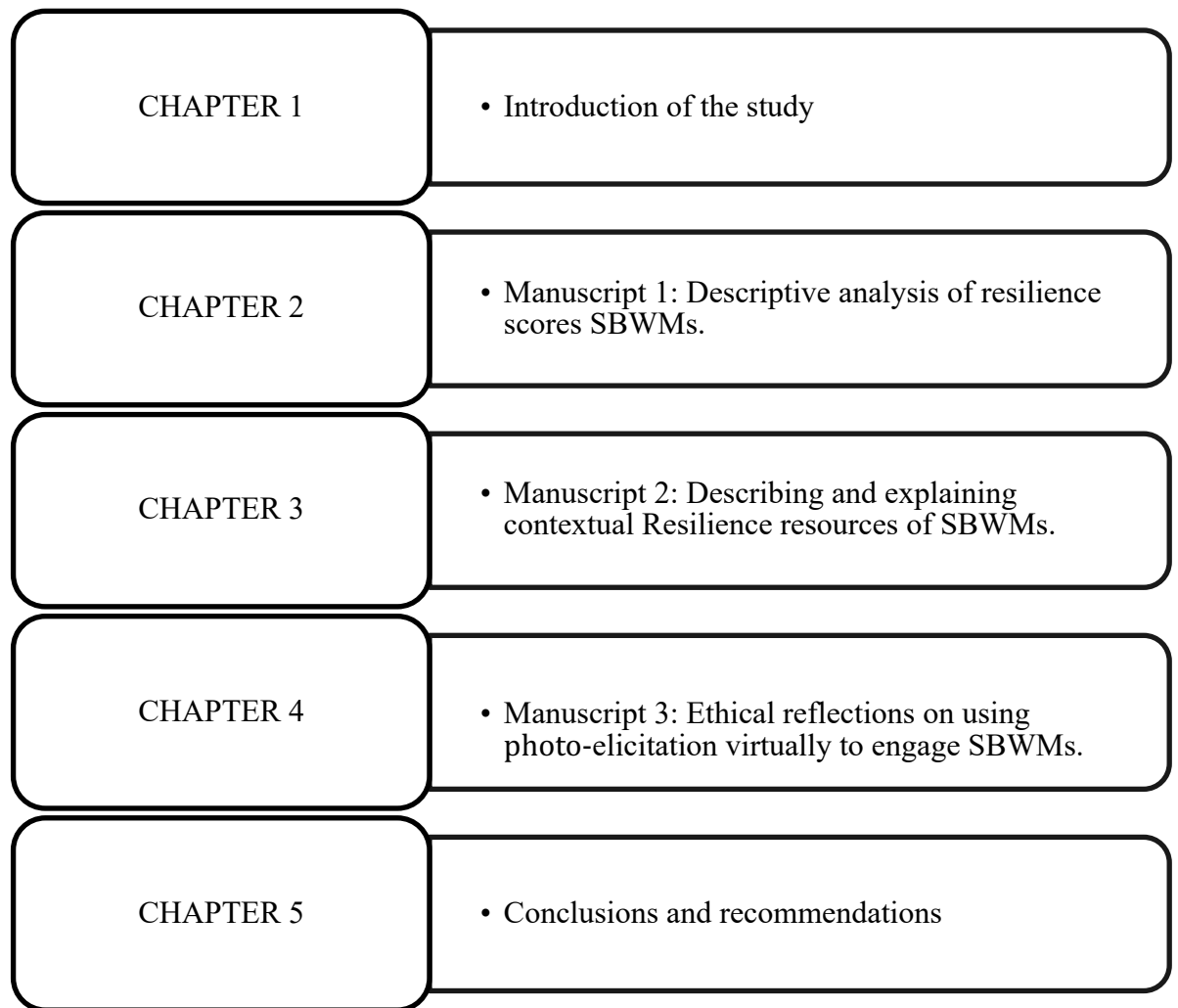


Figure 1: Structure of the study

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SECTION B: MANUSCRIPTS

This section comprises three articles in a manuscript format. Prior to reviewing these manuscripts, please consult the note addressed to examiners, as well as the list of acronyms which has been provided.

MANUSCRIPT 1: A DESCRIPTIVE ANALYSIS ON THE RESILIENCE SCORES OF SINGLE, BLACK WORKING MOTHERS IN SOUTH AFRICA

ABSTRACT

Background: Individuals who adjust well in life or do better than expected under the increased pressure, are often considered resilient. Those with better resilience scores are those capable of effectively navigating their environments, obtaining support, and adapting to disturbances that could threaten their normal function.

Aim: The primary aim of this study was to give a descriptive analysis of the resilience scores of SBWMs in South Africa.

Methods: A descriptive approach within a survey design was employed. The sample consisted of 400 single mothers who were employed/self-employed and resided in GP, aged 23 years and above. Data were collected online using the RRC-ARM.

Results: The mean personal resilience ratings of single mothers who were not cohabiting or in a relationship but not cohabiting were slightly higher ($M = 2.59$) than those of separated and divorced single mothers ($M = 2.31$ to 2.33). The mean score of widowed single mothers was the lowest ($M = 2.12$). Widowed SBWMs showed the biggest effect sizes compared to all other groups. The difference between widowed and SBWMs who are separated or divorced was small ($d = 0.48$ to 0.55).

Conclusion: The complexity and cultural relativity of resilience-promoting processes and resources among SBWMs, implied that it is influenced by an interconnected set of socioeconomic, relational, and individual factors.

Keywords

Single mothers; Black women; South Africa; Resilience; Descriptive analysis

1. INTRODUCTION

Resilience, or the capacity to adjust and do well in the face of adversity is an essential component of people's wellbeing, especially in times of difficulty (Masten, 2021). Resilience is crucial to a single mother's ability to successfully navigate the world around her, look for support, and cope with unexpected events that could compromise her normal functioning. Thus, investigating the degree of resilience exhibited by single mothers is vital in order to devise specialised interventions and support measures that improve their overall wellbeing.

This study's main objective was to conduct a descriptive analysis of South African single Black working mothers' (SBWMs') resilience scores. Given the unique difficulties that SBWMs encounter and the necessity of comprehending and fostering their resilience, this research is very significant.

1.1 RESILIENCE

Resilience can be defined as a combination of an individual's capacity to use psychological, social, cultural, and physical resources that sustain their well-being, and the ability to negotiate for those resources to be provided and accessed in a culturally meaningful way when facing adversity (Masten, Lucke, Nelson & Stallworthy, 2021; Theron, 2022). Resilience is not considered to be a personality trait, but rather a combination of personal strengths and resources within social ecologies (Masten, 2021; Masten et al., 2021). Additionally, the social ecologies in which individuals live must be responsive and provide meaningful resources to foster and sustain resilience (Ungar & Theron, 2020). Individuals who can successfully navigate their social ecologies, make meaningful use of resources, and adjust well are considered resilient (Ungar & Theron, 2020). Resources that cultivate resilience effectively must be meaningful within the specific context and culture in which people live, and within that context of risk, across multiple system levels (Ungar, 2013; Ungar & Theron, 2020).

Since single mothers are also at risk of financial constraints, Cheeseman (2010) argues that despite these financial challenges, some single mothers have been able to develop some level of resilience that empowers them. They develop protective factors that fit their individuality, context, and environment while managing or minimising risk factors (Cheeseman, 2010). In America, African-American single mothers exhibit resilience and maternal self-efficacy, navigating their children through adversities with the help of cultural understanding, parenting skills, and social support (Danielle, Beatrice, Massey, 2015). In another

example, single mothers in Western Australia face challenges but demonstrate resourcefulness and positive adaptation, leading to resilience (Cheeseman, Ferguson & Cohen, 2011). In Africa, single Black mothers demonstrate resilience in various ways. They adapt to adversity by creating new outcomes and constantly adapting to their circumstances (Caragata, Watters & Cumming, 2021). Research also shows that they demonstrate resilience through a positive perspective on life, a sense of purpose, and hope (Raniga & Mthembu, 2017). The cultivation of resilience-supporting mechanisms among Black women and girls in South Africa is facilitated by constructive relational contexts that provide emotional and pragmatic support (Jefferis & Theron, 2018). The acquisition of resilience among women was further linked with acquiring independence and taking care of others. The study further suggested that gender moderates resilience and that resilience processes may differ based on age and environment (LoVette, Harrison, Mathews, Jonas, Operario & Kuo, 2023).

Factors such as wanting to raise their children, trauma from divorce, understanding of religious thought, social prestige, social support from family members (parenting assistance from grandmothers and other extended relatives), and individual skills and abilities, all contribute to single mothers' resilience (Sabariman & Kholifah, 2020; Murry, Bynum, Brody, Willert & Stephens, 2001). Another study conducted earlier discovered that factors contributing to single mothers' resilience were divided into three levels, namely individual, family, and external. At the individual level, positive self-concept, coping skills, optimism, and personal growth played crucial roles. The family level also involved social support, positive parent-child relationships, communication skills, and shared responsibilities. Finally, at the external level, access to resources such as childcare, healthcare, financial assistance, employment opportunities, job security, housing, and supportive policies was significant for their resilience (Cheeseman, 2010).

Several studies have also linked resilience with spirituality as an important component that contributes to one's well-being. People who have gone through traumatic experiences can use spirituality as a part of their resilience to help them find meaning again and slow the onset of PTSD (e.g., Aten et al., 2019; Fernando & Ferrari, 2011; Hayes et al., 2017; Park et al., 2017; Stephens et al., 2013). A study conducted among psychiatric patients discovered that religious beliefs assist and provide a sense of meaning and purpose during difficult life circumstances and during the process of psychological integration (Koenig, 2009). The author further notes that having religious beliefs can help foster hope and a positive outlook on life in addition to providing a community of social support that embraces both the

divine and human. Furthermore, a number of studies have demonstrated that engaging in activities that help with spiritual relaxation like meditation and repetitious prayer may also assist lower high stress arousal (Burnett et al., 2019).

1.2. SOUTH AFRICAN SINGLE, BLACK WORKING MOTHERS' CONTEXT

This study has shown interest in adult resilience, particularly in South Africa given their vulnerability and lack of research attention given to this vulnerability. Resilience studies conducted among the Black population in South Africa mainly focused on adolescents and teenage mothers rather than adults (Groves et al., 2021; Jefferis & Theron, 2018; Singh & Naicker, 2019; Theron & Theron, 2014). Therefore, not much is known about the resilience of SBWMs in South Africa.

SSA is a context that is rife with adversity (Bissoon, 2017). Single motherhood is widespread in SSA, with up to 50% of women becoming single mothers due to divorce or widowhood (Adedini, Somefun, Odimegwu & Ntoimo, 2020; Odimegwu, Akinyemi & De Wet, 2017; Shelley, Clark, Dana, Hamplová, 2013). Recently in Africa, over 22% of women aged 20-49 years were identified as unmarried mothers raising children alone (Lorretta, Ntoimo, Nyasha & Mutanda, 2020). Specifically, the prevalence of single motherhood in South Africa has increased to over 44% since 2002 (Hall, 2020). A recent report by the Human Sciences Research Council (HSRC) (2019) indicates that single motherhood figures are increasing, with 60% of Black South African children having absent fathers and 40% of households headed by single mothers (HSRC, 2019). For South African families, the absence of fathers in their children's lives has become a norm and continues at an alarming rate (Hall et al., 2018; Ratele & Nduna, 2018; Shung-King, 2019).

Single motherhood among Black women in South Africa affects both social and household dynamics. According to studies, a significant portion of women in Africa are single mothers, with 'never-married' mothers being the group most at risk for multifaceted deprivation (De Wet-Billings, 2022). Lack of psychological or mental maturity, unwanted pregnancies, absent fathers and high rates of violence against Black South African women and girls, are among the reasons why SBWMs are raising their children without their fathers (Davids et al., 2020; Ntoimo & Mutanda, 2020; Padi et al., 2014; StatsSA, 2020). The high rates of violence against this population have also had an impact on how involved and effective these women are as parents (Ntoimo & Mutanda, 2020).

Another contributing factor to Black, single motherhood in South Africa is the cultural practices that confine a woman's life within the household boundaries, which have forced some women out of an ideal family setting, to become single mothers (Sparks, 2006). Additionally, in too many instances, GBV incidents contribute towards single motherhood. South Africa has one of the highest GBV rates against women in the world (Enaifoghe, Dlelana, Durokifa, & Dlamini, 2021). GBV can take various forms but it is almost always sexual, and it is generally motivated by the perpetrator's idea of socially acceptable male and female behaviour, particularly conventional gender roles per one's culture (Leach, 2002). Statistics in South Africa show that many (40%) of divorced/separated women have reported experiences of physical violence, and a further 16% have experienced sexual violence from their then-partners (StatsSA, 2020). This includes the increasing rate of bride abduction known as *Ukuthwala* (Rice, 2018). Of these types of GBVs, many of its victims' educational level ranges between 'No education' and 'Incomplete secondary' (StatsSA, 2020). As seen in the stats, this causes women (mothers) to separate or even divorce their partners, when possible, to seek a violence-free environment that can positively benefit their children as well (Sparks, 2006).

Attitudes towards mothering practice in South Africa are influenced by cultural and historical contexts. For example, the 'intensive mothering' ideology positions the mother as solely responsible for the emotional and physical nurture of her child and is more prevalent among White women, however, support for collective mothering is expected among Black cultures due to the tradition of extended family formation (Mkhize & Msomi, 2016). SBWMs in South Africa face intersectional injustices in terms of race, inequality, and patriarchy but have shown resilience and strength in creating a new narrative for themselves by engaging in positive human capital development, building social capital, and tapping into multiple income streams for economic security (Raniga, Boecker & Mthembu, 2019). Unfortunately, some single mothers are being negatively affected by the financial demands that come with their dual role, despite being employed. A study conducted in a South African province, KZN, on SBWMs, found that they struggled financially to meet their household expenses every month (Raniga et al., 2019).

Since single parenting has financial implications, research shows that accessibility to higher education by SBWMs has helped them rise above poverty (Greenberg & Shenaar-Golan, 2020). However, the interaction of race, gender, and organisational culture prevents Black women professionals from moving up in the workplace (Goodrum et al., 2019). They continue to encounter structural obstacles in workplaces,

including networking opportunities, glass ceilings, and glass cliffs (Greenberg & Shenaar-Golan, 2020). Despite this, some single mothers have been able to do well or may be considered resilient. It is against these highlighted challenges faced by Single mothers in South Africa, that this study seeks to answer the research question, *What are the resilience scores for South African SBWMs?*

3. METHODOLOGY

3.1 Research paradigm and design

The study was conducted within the pragmatic paradigm of a broader study. The pragmatic paradigm is in favour of studies that aim to promote action-based change (Alghamdi & Li, 2013). To find useful techniques that can help improve the resilience of this group of mothers, this study employed a pragmatic paradigm to analyse their scores, experiences, difficulties, and strengths in the face of adversity. Researchers who follow the pragmatic paradigm are more likely to employ the mixed-methods approach, integrating qualitative and quantitative techniques to gain a thorough understanding of the subject (Molina-Azorin, 2016). Although both techniques were used in the broader study, this manuscript reporting is only based on the quantitative results.

The study also employed a descriptive approach within a survey design. The purpose of a descriptive approach was to characterise the present state of SBWMs' resilience to give detailed information on the context (Jongbo, 2014). A survey design was deemed to be the most effective for achieving the objective of this study, since it enabled data collection from many participants, allowing for a broader understanding of the experiences and characteristics associated with the target group's resilience (Bihu, 2021). When researching a particular population (such as SBWMs) this is advantageous because it enables the collection of various kinds of perceptions and experiences.

The survey results included numerical data about numerous aspects of these mothers' resilience. It allowed the researcher to note trends, patterns, and connections between data variables. Through a descriptive approach, the reliability and validity of the ARM-R were first established, followed by the identification and description of SBWMs' resilience scores.

3.2 Participants and sampling procedure

Due to labour migration, more than 26% of South Africa's population resides in GP, despite the province being the smallest in the country (South African Government, 2022). Its population is also predominantly Black and comprises more women than men (StatsSA, 2018). As of 2019, the province had over five million employed individuals in both the formal and informal sectors (StatsSA, 2019). It is also one of the leading provinces in terms of households headed by SBWMs (StatsSA, 2018), thus it was chosen for this study.

The sample consisted of 400 single mothers who were employed/self-employed and resided in GP, aged 23 years and above. These were mothers who raised their biological children on their own without support from their children's fathers or any partner if they were in a relationship. Participants had to be in no form of cohabitation during the process of data collection. Therefore, the study sampled Black mothers who were single and had single-handedly taken care of their biological child(ren)'s daily needs.

Table 1: Characteristics of participants

Item	Category	<i>n</i>	%
Age	25 years and younger	49	12
	26-30 years	98	24
	31-36 years	95	24
	37-42 years	72	18
	43-48 years	37	9
	49-55 years	43	11
	56 years and older	6	2
Marital status	Single (no partner, not cohabiting)	237	59
	In a relationship (not cohabiting)	71	18
	Separated	45	11
	Widowed	16	4
	Divorced	31	8
Number of children raised and living with	1	181	45
	2	115	29
	3	46	12
	4	45	11
	5	10	2
	6	3	1
Employment status	Employee	277	70
	Self-employed	123	30
Household income	R 1 - R 19 200	112	28
	R 19 201 - R 30 000	106	27
	R 30 201 +	182	45

Highest level of education completed	Secondary school	15	4
	High school	61	15
	Certificate	49	12
	Diploma	81	20
	Undergraduate	85	21
	Postgraduate	109	28

Due to COVID-19 human interaction restrictions, data were obtained online using a convenience sampling technique (Etikan, Musa & Alkassim, 2015). Using the online method's convenience sampling was appropriate to reach out to the conveniently available target sample faster, as most adults are reportedly accessing social media platforms (Facebook and X) daily (Statista, 2021).

Thus, participants were recruited online via Facebook and X. A recruitment poster was created, specifying the target sample and selection criteria for the survey. The poster also contained a questionnaire link. The questionnaire link first took participants to the information page where the objectives of this study were detailed. Once they read and decided to take part in the study, they had to click "Continue". For participants who did not wish to take part in the study, there was an option to "Discontinue". Data was subsequently uploaded to NextCloud at the NWU for secure storage after the online survey had been completed.

Contact details of the gatekeeper were also added to the poster and their role at this stage, was to respond to any arising questions from participants and provide guidance on completion of the questionnaire where necessary.

3.3 Instrument

As stated earlier, data were initially collected using the RRC-ARM with 28 items (Jefferies, McGarrigle, & Ungar, 2018; RRC, 2018). However, at the stage of data analysis, the instrument did not provide satisfactory results. Since the revised ARM-R with 17 items had been made available for use in 2022, during the data analysis process, the researchers had to fit the data to the revised version and permission was granted by the RRC in 2023. This revised version is an adult-adopted version of the CYRM scale that was created in response to a need for a more comprehensive knowledge of resilience across cultures and contexts (Jefferies, McGarrigle, & Ungar, 2018; RRC, 2022; Ungar & Liebenberg, 2011). Both questionnaires used have been provided for reference in Annexure I and II.

Given the circumstances under which the ARM-R had to be used, from here on, the study reports on the ARM-R with 17 items. The questionnaire consists of statements reflecting personal and relational resilience. Each statement was rated on a three-point (1 to 3) Likert-type scale, with a high score (3) indicating a 'Yes' response to the statement. The overall resilience and sub-scales of resilience (personal and relational) were scored by summing up answers to each item responded to.

4. DATA ANALYSIS

A reliability test in the form of Cronbach's alpha was also used to test the internal consistency of the questionnaire. As this is a standardised questionnaire, construct validity was explored by the CFA. After the results were unsatisfactory, an EFA was also conducted. To assess the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were used (Shrestha, 2021). Additionally, SPSS was used to conduct further descriptive statistics in the form of frequencies, mean, standard deviations, t-tests and correlations.

5. ETHICAL CONSIDERATIONS

The study was approved by the NWU-HREC with the identifying number "NWU-00252-21-A1". A signed consent form was also sought from the volunteering participants. The questionnaire had an option for volunteering participants to consent to participation in the survey. The study also followed the HREC and international ethics guidelines in conducting the research.

The procedure for participation was detailed in the introduction letter which was included in the survey questionnaire. A mediator was available to respond to any queries arising from potential participants regarding the completion of the survey questionnaire.

6. RESULTS

Participants mainly fell in the youth categories, with 24% aged between 26-30 years and 31-36 years, respectively. A small percentage (2%) made up the elderly participants from the age of 65 years and above. Over 59% of participants held a single status with no partner or cohabiting, while only 4% were widowed and 8% divorced. There were also more participants in the employee category than in the self-employed category. Almost half of the participants have a small family, ranging between one child (45%) and two children (29%) to take care of.

7. RELIABILITY AND VALIDITY

The Mean inter-item correlation (MIIC) was relatively moderate for all items of the ARM-R 17 items at 0.204 (See Table 2 for reliability). The two subscales, personal resilience and relational resilience showed MIIC of 0.179 and 0.332, respectively. Additionally, Cronbach's alpha was calculated and found to be 0.81 for the ARM-R with 17 items. Relational resilience sub-scale also indicated a very good internal consistency with a Cronbach alpha of 0.77, while the personal resilience sub-scale showed a relatively acceptable Cronbach alpha of 0.69.

Table 2: Descriptive statistics (reliability, MIIC, Mean, Standard Deviation)

	α	MIIC	Min	Max	M	SD
ARM-R 17 item	0.815	0.204	1.35	3.00	2.56	0.32
Personal resilience sub-scale	0.694	0.179	1.50	3.00	2.52	0.33
Relational resilience sub-scale	0.776	0.332	1.14	3.00	2.62	0.41

7.1 Confirmatory Factor Analysis

To establish construct validity, the CFA was used with the original two-factor structure. However, the factor analysis did not yield an acceptable goodness of fit (CMIN/DF= 7.850; CFI=0.63; RMSEA = 0.13 with 90% CI of [0.123; 0.139]). A further depiction can be seen in Table 3 with CFA regression weights below. The model does not, in general, fit the data, according to the CMIN/DF and CFI values; nevertheless, the RMSEA value shows a reasonable fit with the potential for improvement. As a result, more model adjustments were required to enhance the model's fit to the data.

Table 3: CFA standardised regression weights

	Est.	SE	CR	P- value
Personal resilience - 16	2.598	.034	76,459	.010
Personal resilience - 14	2.888	.021	139,953	.026
Personal resilience - 12	2.185	.039	56,077	.001
Personal resilience -13	2.378	.032	73,280	.002
Personal resilience - 10	2.470	.037	66,887	.004
Personal resilience - 9	2.103	.040	52,415	.001
Personal resilience - 7	2.328	.036	64,769	.002
Personal resilience - 2	2.640	.034	76,888	.007

Personal resilience - 3	2.770	.021	131,479	.027
Personal resilience - 1	2.800	.022	126,656	
Relational resilience - 4	2.620	.031	83,207	
Relational resilience - 5	2.488	.038	65,822	***
Relational resilience - 6	2.763	.024	117,355	***
Relational resilience - 8	2.408	.035	69,670	***
Relational resilience - 11	2.715	.029	93,871	***
Relational resilience - 15	2.755	.027	100,477	***
Relational resilience - 17	2.608	.034	77,348	***

7.2 Exploratory Factor Analysis

When the fit indices were not good, the researchers used an EFA to attempt better results. The results of the EFA suggested another two-factor loading structure. However, none could fit the model. Given all the variations tried (including EFA), the study could not establish construct validity. However, as the reliability of the two-factor 17-item model was good, the researcher used these standardised factors for further analyses.

Table 4: T-test of resilience of employment

Variable	Employment category	N	M	SD	P-value	Cohen's d
Personal resilience	Employee	277	2.55	0.32	0.001	0.36
	Self-employed	123	2.43	0.35		
Relational resilience	Employee	277	2.64	0.38	0.266	0.13
	Self-employed	123	2.59	0.46		
ARM-R	Employee	277	2.59	0.31	0.011	0.29
	Self-employed	123	2.50	0.35		

The statistics provided above were compared between two groups based on employment status (employees and the self-employed) in terms of personal resilience sub-scale, relational resilience sub-scale, and overall resilience scores (ARM-R). For the employee group, the mean score for personal resilience is 2.55, whereas for the self-employed group, it is 2.43. According to these statistics, on average, those who are employed typically score slightly higher on personal resilience than single mothers who are self-employed. Additionally, the Standard Deviation (SD) for the employee group is 0.32 and for the self-

employed group is 0.35, indicating that the employee group's personal resilience ratings varied less than those of the self-employed group. The difference in the two groups' resilience scores is statistically significant ($P < 0.001$), but the impact size is not very large ($d = 0.36$).

While the employee group typically has slightly higher average scores, the relational resilience statistics indicate that there may not be a statistically significant difference in relational resilience scores between the employee category and the self-employed single mothers ($M = 2.64$ vs. 2.59 ; $SD = 0.38$ vs. 0.46 ; $P < 0.266$; $d = 0.13$). The difference in scores between the two groups may not be practically significant because of a very small impact size.

Lastly, the comparison of the total ARM-R scores by employment status ($M = 2.59$ vs. 2.50 ; $SD = 0.31$ vs. 0.35 ; $P < 0.011$; $d = 0.29$), reveals a statistically significant difference between the group of employees and the self-employed single mothers. Those working for other companies have generally slightly higher resilience scores. The effect size, meanwhile, is not particularly noticeable.

Using ANOVA, the mean scores of personal resilience, relational resilience, and the total ARM-R for single mothers were compared across five different relationship statuses, namely single, in a relationship (but not cohabiting), separated, divorced, and widowed. The results are shown in Table 5 below.

Table 5: ANOVA (resilience by relationship status)

Scale	Variable	N	M	SD	Cohen's d				P-value
					with 1	with 2	with 3	with 4	
Personal resilience	1. Single	228	2.59	0.28					0.000
	2. In a relationship (not cohabiting)	76	2.59	0.30	0.03				
	3. Separated	45	2.33	0.38	0.68	0.70			
	4. Divorce	34	2.31	0.38	0.72	0.75	0.06		
	5. Widow	17	2.72	0.27	1.63	1.55	0.55	0.48	
Relational resilience	1. Single	228	2.67	0.34					0.000
	2. In a relationship (not cohabiting)	76	2.61	0.35	0.17				

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Relational resilience	3. Separated	45	2.58	0.50	0.19	0.07		
	4. Divorce	34	2.45	0.65	0.35	0.25	0.20	
	5. Widow	17	2.41	0.55	0.48	0.37	0.31	0.06
ARM -R	1.Single	228	2.62	0.26				
	2. In a relationship (not cohabiting)	76	2.60	0.31	0.06			0.000
	3. Separated	45	2.43	0.35	0.53	0.48		
	4. Divorced	34	2.37	0.44	0.58	0.53	0.15	
	5. Widowed	17	2.24	0.38	0.99	0.94	0.50	0.28

The mean personal resilience ratings of single mothers who are not cohabiting or in a relationship but not cohabiting are slightly higher ($M = 2.59$) than those of separated and divorced single mothers ($M = 2.31$ to 2.33). The mean score of widowed single mothers is the lowest ($M = 2.12$). Widowed SWMs show the biggest effect sizes compared to all other groups. The difference between widowed and SWMs who are separated or divorced is small ($d = 0.48$ to 0.55), whereas the difference between widowed and single mothers who are in a relationship but are not cohabiting is substantial ($d = 1.55$). Except for the impact size between separated single mothers and those in a relationship but not cohabiting, which is small ($d = 0.03$), the effect sizes between separated single mothers and all other groups are moderate to substantial. Accordingly, the findings imply that SWMs who took part in this study who are not divorced, widowed, or separated have higher levels of personal resilience than those who are.

Looking further at the effect sizes for relational resilience, we can see that the largest effect sizes are observed between widowed SWMs and all other groups. The difference in effect sizes between widowed and SWMs who are separated ($d = 0.31$), divorced ($d = 0.06$), and in a relationship but not cohabiting ($d = 0.48$) is all moderate. Along with being moderate ($d = 0.25$ and $d = 0.20$, respectively), the effect sizes for single mothers who have been divorced, are in a relationship but are not cohabiting, and are separated are also similar.

When compared to other groups, SWMs who are in a relationship but not cohabiting have small to negligible effect sizes on overall resilience. However, compared to all other groups, separated SWMs have

small to moderate effect sizes. Particularly, the findings show that SWMs who are separated or divorced have much worse overall resilience than SWMs who do not have these relationship statuses. These differences have Cohen's *d* values ranging from 0.53 to 0.99, with effect sizes ranging from relatively small to large.

A moderate effect size of 0.58 indicates that widowed single mothers are less resilient overall than single mothers who are not widowed. Although the effect sizes range from low to high (0.06 to 0.94), SWMs who are in a relationship but not cohabiting also exhibit worse overall resilience than single mothers who are not in this relationship status. The *t*-test result shows that the *P* - value is 0.000 for all groups, which means that the difference between the mean scores of personal, relational and overall resilience across all five groups is statistically significant.

Table 6: Correlations (N=400)

Variable	Age	No children living with	No of years stayed with children	Level of education	No of times moved homes	Monthly income
Personal resilience	-.125*	-.241**	-0.056	.304**	0.064	.124*
Relational resilience	0.089	0.071	.180**	.103*	-0.048	.225**
ARM-R	-0.060	-.146**	0.031	.295**	0.021	.180**

***.* correlation is significant at the 0.01 level (2- tailed)

**.* correlation is significant at the 0.05 level (2- tailed)

The degree to which the following factors were correlated with resilience included age, the number of children, the number of years stayed with the child(ren), the highest level of education, the number of times moved home in the last five years, and monthly income (Table 6). Age may correlate differently with various measures of resilience, according to the correlation analysis between age and resilience. Age and personal resilience have a substantial negative relationship ($r = -0.125$, $P < 0.01$), which suggests that personal resilience tends to decline as single mothers grow older. On the other hand, relational resilience exhibits a positive association with age that is not statistically significant ($r = 0.089$, $P < 0.07$), indicating a weaker tendency for relational resilience to increase with age. Age and overall resilience are correlated but the relationship is considerably less and not statistically significant ($r = -0.060$, $P < 0.23$), suggesting that there may not be a strong correlation between the two. Thus, these data imply that while relational resilience

and overall resilience measures may not be strongly influenced by age, older single mothers may have lower levels of personal resilience than younger ones.

In terms of the relationship between resilience and the number of children raised, the findings imply that the number of children raised by a single mother may have various correlations with various resilience measures. The coefficient $r = -.241$, $P < 0.00$ shows that as the number of children raised by a single mother grows, personal resilience tends to decline. The number of children raised by a single mother and relational resilience both have a weak and non-significant link ($r = 0.071$, $P < 0.15$). The strong negative correlation ($r = -.146$, $P < 0.00$) between the total number of children raised by a single mother and overall resilience shows that single mothers with more children may have lower levels of these characteristics.

The number of years a single mother stayed with her children is slightly and negatively correlated with personal resilience ($r = -0.056$, $P < 0.26$), although this correlation is not statistically significant. Conversely, there is a statistically significant association between relational resilience and the number of years single mothers stayed with their children ($r = .182$, $P < 0.00$). This implies that for single mothers who have stayed with children for a longer amount of time, this may have helped them develop relational resilience. However, there is a very weak and non-significant correlation ($r = 0.031$, $P = 0.53$), between overall resilience and the amount of years single mothers have stayed with their children.

Single mothers with lower levels of education tend to have higher levels of personal resilience, according to a somewhat negative relationship between personal resilience and the highest level of education reached ($r = .304$, $P < 0.00$). This finding might imply that less educated single mothers experience more adversity which might show a need for more resilience. On the other hand, relational resilience is weakly and favourably correlated with the highest level of education ($r = .103$, $P < 0.040$). As a result, single mothers who have completed more formal schooling tend to be more relationally resilient. The highest degree of education acquired is slightly and positively correlated with overall resilience ($r = .295$, $P < 0.00$), suggesting that single mothers with higher levels of education may be more resilient.

The findings on resilience and the frequency of single mothers moving into new homes in the last five years indicate that there is no strong correlation between any type of resilience and the frequency of single mothers moving into new homes in the last five years, and any correlations that may be weak and not statistically significant.

Finally, the link between resilience and monthly income suggests that personal resilience may be weakly associated with single mothers' monthly income, $r = .124$, $P < 0.013$, with more resilient mothers possibly earning somewhat more income. However, it appears that relational resilience ($r = .225$, $P < 0.00$) and overall resilience ($r = .180$, $P < 0.00$) are more strongly correlated with income. This implies that single mothers who have solid interpersonal ties, most likely earn a higher income.

8. DISCUSSION

The study investigated the resilience of SBWMs guided by the question *What are the resilience scores for South African SBWMs?* According to the results, SBWMs demonstrated a modest level of overall resilience scores, with a more significant emphasis on relational resilience across all the tests carried out (i.e., reliability test, t-test by employment status and relationship status). The relational resilience mean scores on a t-test by employment ($M = 2.64$ vs 2.59); by relationship status (single: $M = 2.67$, in a relationship – not cohabiting: $M = 2.61$; separated: $M = 2.58$, divorced: $M = 2.45$ and widowed: $M = 2.41$) were slightly higher than personal resilience scores. This would suggest that SBWMs' social networks and support structures are critical in facilitating their positive adjustment to difficulties associated with single motherhood and that resilience is not only a trait but rather a dynamic process (Anstey & Dixon, 2021; Kuldas & Foody, 2021).

The correlational results between relational resilience and number of years single mothers stayed with their children ($r = .182$, $P < 0.00$); education ($r = .103$, $P < .040$) and income level ($r = .225$, $P < .001$) further confirms Jordan's (2013) theory on relational resilience, which asserts that relationships are key to women's resilience, especially for women who have experienced adversity (including economic/financial), poverty and inequality. Relational resilience is the capacity for connection that lies not in the individual but rather in the potential to create bonds that promote growth (Jordan, 2013). Empathy, empowerment, and the fostering of courage are the foundational elements of relational resilience. Jordan contends that psychological growth takes place in these connections or relationships.

The results indicate that women can navigate economic and financial challenges through their relationships or networks. This also highlights how relationships open doors for single mothers' entrepreneurial opportunities as well as the emotional and practical support they need to experience mastery when they demonstrate agency.

Not only is their ability to overcome adversities promoted by social connections but also somewhat influenced by their employment status. In keeping with the adult resilience theory stance, since adults are more independent than adolescents and encounter stressors associated with financial responsibilities, employment is expected to be one of the influential factors towards adult resilience (ARM-R, 2022; Xiao & Kumar, 2023). A similar study was conducted on single mothers' resilience which looked at how employment can be a protective factor by offering financial security, social support, and personal contentment. Results from the current study highlight how employment status improves single mothers' well-being, self-esteem, and capacity for effectively dealing with problems as also highlighted by Hall (2023). While employment appears to be influential to the resilience of single mothers in general, it is important to note that separation or widowhood negatively affects the capacity for this resilience among SBWMs since it is an adjustment moving from having a partner, to not having one (Anderson, Bennett, Van Vuuren & Soulsby, 2023; Jopp et al., 2023; King, 2023). Results from this study indicate that the effect size of this impact on the overall resilience of the widowed and separated SWMs ranges from 0.53 to 0.99 compared to SWMs of other relationship statuses. Therefore, this emphasises the importance of relationships for women's resilience, which further confirms Jordan's (2013) theory again.

The findings of this study add to the understanding of the dynamics of adult resilience among SBWMs and shed light on how employment and relationship status may affect the resilience level or scores of these mothers. The effect sizes tend to be minor, indicating that variables other than employment and relationship status may also influence resilience for this sample. As a result, it is necessary to take relationship status into account when analysing adult resilience for Black women. These dynamics further suggest that age, the number of children, education, the number of years single mothers stayed with their children, and income level are all important variables and circumstances to consider when analysing adult resilience among SBWMs.

Considering the intersectionality of various factors that place SBWMs at risk, it is difficult to pinpoint a single factor that promotes SBWMs' resilience. This confirms the complexity of resilience as a construct as has been highlighted by previous studies (Prince-Embury, 2013; Southwick et al., 2014; Taormina, 2015). Furthermore, the complexity and cultural relativity of resilience-promoting processes and resources among SBWMs implies that it is influenced by an interconnected set of socioeconomic, relational, and individual factors. This confirms the suggestion of the social-ecological theory of resilience, which views

resilience as multidimensional when viewed as a process, therefore, the interplay of the three protective factors has helped the current sample of interest navigate through their adversity (Luthar, Cicchetti & Becker, 2000; Masten & Reed, 2002; RRC, 2018; Rutter, 2012; Southwick, Bonanno, Masten, Panter-Brick & Yehuda, 2014).

Over and above these viewpoints, it is worth noting that spirituality also came out strongly as a protective factor for the SBWMs from the data collected through the RRC-ARM, before fitting that data into the ARM-R - which does not consider spirituality as an important aspect of adult resilience. However, other resilience studies have proven that, for most of the adult population, spirituality is important (Hu, Chung, Zhang, Gan & Hu, 2020; Manning, Ferris, Rosario, Prues & Bouchard, 2019; Nelson-Becker & Thomas, 2020). The current study population also confirms that spirituality has an influence on adult resilience among SBWMs. This not only applies to the adult population but also cuts across Black South African adolescents (Lawrance, Makhonza & Mngomezulu, 2022; Vahakangas, Hankela, Leroux & Orsmond, 2022; Van Rensburg, Theron & Ungar, 2019). It, thus, becomes important to revisit the ARM-R and consider the inclusion of spirituality in the context of the Black South African population.

9. CONCLUSION

This study investigated the resilience of SBWMs in South Africa, concluding with an emphasis on the interplay of several factors, especially employment status and relational resilience. According to Jordan's (2013) theory of relational resilience, the results emphasised the value of relationships, stressing the critical role that social networks and support systems play in helping women successfully navigate the difficulties of being a single mother. These connections make it easier to overcome financial and economic obstacles, showing that resilience is a dynamic process that is influenced by the strength of connections rather than just a trait.

The research emphasised how important work status is for improving the well-being, sense of worth and problem-solving skills of single mothers. It also acknowledged the complex effects of widowhood or separation on resilience, which supports the notion that relationships are essential to women's resilience. It is understood that resilience is a complicated construct and that factors other than the ones measured in this study have an impact on the resilience of SBWMs.

In keeping with the SERT, the study also highlighted the cultural relativity and multifaceted nature of resilience among SBWMs. The study's emphasis on the interrelatedness of socioeconomic, relational, and personal factors highlighted the necessity for a thorough understanding of resilience that considers the complex interactions between these protective factors.

Lastly, based on the concluding findings the study makes several recommendations. These include:

- Integrate spirituality into resilience measurements: In contrast to certain current resilience models, the study highlighted the role that spirituality plays as a protective factor towards SBWMs. As a result, it is suggested that resilience researchers reconsider revising the current resilience assessment instruments, such as the ARM-R, to incorporate spirituality as a crucial component of adult resilience, especially considering the Black South African population;
- Considering the complex resilience exhibited by SBWMs, a comprehensive approach should be taken in future studies and interventions. A more comprehensive understanding of resilience dynamics in this population requires consideration of several characteristics, such as age, education, and other demographic variables, in addition to relationship status, employment, and spirituality;
- Supportive interventions: Improving social networks and support structures should be the main goal of interventions meant to assist SBWMs, as relationships play a crucial role in building resilience. Their psychological development and resilience can be enhanced by programs that foster courage, empowerment, and empathy in these interactions; and
- It is also important for legislators to understand how work can strengthen a single mother's resilience. SBWMs can benefit from the development of supporting policies that promote career and job opportunities, financial security, and social support.

Future studies could make use of longitudinal studies to have a more thorough knowledge of the dynamics of resilience. It would be beneficial to monitor how resilience scores vary over time and investigate the long-term effects of different factors on resilience, to gain important insights for future study and practical applications.

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MANUSCRIPT 2: USING MIXED-METHODS TO DESCRIBE AND EXPLAIN CONTEXTUAL RESILIENCE RESOURCES OF SOUTH AFRICAN SINGLE, BLACK WORKING MOTHERS

ABSTRACT

Background: This article presented the findings of a mixed-method study that described and explained the resilience resources of South African SBWMs.

Methods: The questionnaire was completed by 400 SBWMs residing in GP, aged 23 years and above. The photo-elicitation and in-depth interviews provided specific resilience resources that helped single mothers stay strong and further explained how the two resilience factors (personal and relational) were interrelated. Quantitative data were analysed using the descriptive test, t-test and correlation. The textual and visual data were analysed using inductive thematic analysis.

Findings: Overall, single mothers who are not cohabiting and those in a relationship but not cohabiting showed a better degree of overall resilience compared to single mothers of other relationship statuses, and the most negatively affected were the widowed and divorced. The specific contextual resilience resources identified through thematic analysis were i) Agency and mastery; ii) Community of caring women; iii) Caring women offer and reciprocate practical support; iv) Caring relationships are characterised by open communication and reciprocity; and v) Community of women provide spiritual support.

Conclusion and recommendation: A holistic approach that recognises the interaction of personal, relational, and overall resilience factors is needed to better understand and promote resilience among SBWMs who work in South Africa.

Keywords

Resilience, Single mothers, South Africa, Explanatory method

1. INTRODUCTIONS

This resilience study presents the findings of a sequential explanatory mixed-method study that describes and explains the resilience resources of South African SBWMs. By combining quantitative and qualitative methods, this study clarifies the complex network of resources supporting resilience in this population, as well as their unique strengths. This study took place at a time when the world is experiencing a dramatic increase of single mothers and mothers breaking through the labour force, which has sparked discussions, studies, and debates regarding the effects this has on families and the difficulties in striking a work-life balance (Cochran, 2021). It was also a period of difficulty as our global society was undergoing broader structural changes that have an impact on people's daily lives, and the COVID-19 epidemic was contributing to these changes. Our society has undergone broader structural changes that have an impact on people's daily lives, and the COVID-19 epidemic has contributed to these changes. This has limited the planned and ongoing research projects, according to researchers (Sah, Singh, & Sah, 2020).

In order to protect and support researchers and participants from COVID-19, universities and research institutions worldwide were compelled to reconsider their research strategies, particularly with regard to fieldwork, due to national and local lockdowns, social isolation, and travel limitations. While some organisations encouraged researchers to use virtual communication tools to conclude data collection, others contended that it might not be the ideal option due to the difficulties and drawbacks of conducting virtual interviews (Sah et al., 2020).

This study was also not short of challenges during the process of collecting data online with single, working mothers in South Africa. This is a group of individuals exposed to a variety of difficulties on a daily basis. They regularly have to navigate complex socioeconomic contexts while playing several roles in their families and communities (StatsSA, 2021). SBWMs' ability to persevere in the face of hardship is evidence of their resilience and resourcefulness. To improve their well-being, particular interventions and support networks must be developed, which requires employing more than a single method of data collection to understand the contextual resources that contribute to their resilience. In this study, quantitative data was obtained by means of online survey. The results from this data were used to inform the qualitative research questions. The qualitative data was obtained through online photo-elicitation

interviews. Qualitative data was used to describe and explain the contextual resilience resources of SBWMs found in their quantitative resilience scores.

1.1 SINGLE BLACK WORKING MOTHERS IN SOUTH AFRICA

Globally, single-parent households have risen dramatically since the mid-1980s, with more mothers solely taking responsibility for their children's upbringing (Dor, 2021). This problem is a source of concern the world over, including South Africa as one of the leading SSA countries that is experiencing a rising number of single mothers, particularly among Black communities (Hall & Makoma, 2018; StatsSA, 2019). Currently, over 40% of children below the age of 18 years in South Africa are raised by single mothers (StatsSA, 2021a).

With single motherhood comes more responsibilities that require financial stability to enhance good parenting; however, many vulnerable families such as those headed by single mothers in South Africa are not receiving sufficient support (StatsSA, 2021). It is believed that the South African DSD must ensure that vulnerable families are supported, both financially and with regard to basic needs to ensure a smooth parenting role (DSD, 2021). However, the DSD has highlighted that such resources are limited and insufficient to fulfil their obligation (DSD, 2021; StatsSA, 2021). This means that there is no safety net for vulnerable families, such as those confronted with the adversity of single motherhood.

Studies show that single parenting among South African Black society has had a negative impact on child welfare and development; the majority of single mothers are not able to provide for their children's basic needs, including education, food supply, housing and security (Ahiaku & Ajani, 2022). SBWMs reportedly have greater obligations and incur economic difficulties that do not match their income, as they earn below their male counterparts (StatsSA, 2018; 2021).

Multiple factors contribute to this growing phenomenon of single mothers and the fading of an ideal family structure, particularly among Black women in South Africa. As Black South Africans are traditionally accustomed to the practice of customary marriage (a type of marriage where marriage is negotiated among two families and concluded by means of Indigenous African customary law which often breeds GBV), most of these marriages have resulted in divorce and single motherhood (Enaifoghe, Dlelana, Durokifa, & Dlamini, 2021). South African Black women and young girls are reportedly experiencing high

rates of intimate partner violence which includes physical, sexual and emotional abuse (Goodrum, Felix, Self-Brown, De Veause-Brown & Armistead, 2019).

Customarily, young women are often forced into arranged marriages with the sole purpose of childrearing while not afforded opportunities to advance their knowledge in the form of education or employment to earn income. As a result, some experience unwanted pregnancy, leading to single motherhood when they leave their marriage (Iyu, Brittain, Phillips, Le Roux, McIntyre, Zerbe, Petro, Abrahams, & Myer, 2018). At the time of leaving their marriage, they face financial challenges because opportunities for them to independently rise above poverty were missed during their matrimonial period.

One cannot discuss strategies applied by SBWMs without taking into consideration the cultural and historical factors that have an impact on how they practice parenting. Although White single mothers are most likely to subscribe to the intensive mothering ideology (which holds the mother solely responsible for the emotional and physical upbringing of her children), SBWMs are most likely to support collective mothering due to the custom of creating extended families (Mkhize & Msomi, 2016). Thus, although SBWMs are exposed to cross-cultural injustices related to race, inequality and patriarchy, they have demonstrated strength and resilience in changing the narrative by investing in their human capital, fostering strong social networks and utilising sources of income to ensure their financial security (Raniga, Boecker, & Mthembu, 2019). However, when they have job opportunities, single mothers still suffer financial burdens; for example, some single mothers have indicated that they struggle to cover their monthly living expenditures (Raniga et al., 2019). However, research found that despite adversities, some single mothers can develop some degree of resilience that equips them to deal with such difficulties (Cheeseman, 2010). As they manage or reduce risk factors, they establish protective factors that are appropriate for their unique context and environments (Cheeseman, 2010).

1.2 RESILIENCE

Resilience has gained a lot of popularity in health science during the past 20 years. Whenever people require a positive adaptation method to deal with complex, challenging, and often dismal conditions, it appears to be the conceptual golden place (Stainton et al., 2019). The journey of being an adult also brings about these complex challenges that require resilience (.). The developmental stage of emerging adulthood has been linked to particular responsibilities, such as pursuing higher education or training, establishing a

career, committing to a long-term relationship, and achieving functional independence (Theron et al., 2023). Psychological discomfort arises instantly and the unfavourable effects compound over time when emerging adult developmental activities are not completed (Theron et al., 2023). This equally applies to single mothers who are working because they need to find means of rising above poverty. In this section, we address resilience resources required by SBWMs to stay strong.

Research shows that, for SBWMs, resilience can be developed by developing new solutions and continuously changing their environments (Caragata, Walters, & Cumming, 2021). They may also achieve resilience by having a positive outlook on life and a feeling of purpose (Raniga & Mthembu, 2017). They rely on positive relational environments that offer them both practical and emotional support as a coping mechanism (Jefferis & Theron, 2018). This is said to be influenced by gender, which is linked to the role of caregiving often played by women depending on their age (LoVette, Harrison, Mathews, Jonas, Operario, & Kuo, 2023). All these tools may be referred to as resilience resources for the context of this study.

The term ‘resource’ places the idea in a broader ecological framework by highlighting the function of the social environment in developing resilience (Nadat & Jacobs, 2021). To lessen the risk of a bad outcome when faced with adversity, environmental, social, and individual factors interact to create resilience (Zimmerman, Stoddard, Eisman, Caldwell, Aiyer & Miller, 2013). Therefore, this study identifies and explains the contextual resilience resources that were found within the resilience factors (personal and relational) of SBWMs.

Numerous studies on single mothers have focused specifically on the negative implications of single motherhood (Boecker, Raniga & Mthembu, 2021). However, there is a need to depict the resilience resources that help them prevail over their exposure to vulnerability as working adults, which is often referred to as adult resilience (Theron, Levine & Ungar, 2020). Research clearly shows that SBWMs are exposed to hardships that put them at risk, however, their resilience resources as adults have been under-researched. While the goal of resilience research is to learn from people who have overcome hardship so that we may lessen the impact of adversity on others (Hart et al., 2016), South African resilience studies have richly explored this construct in the context of adolescents and youths’ vulnerability (Theron & Theron, 2010; Theron, Theron, & Malindi, 2013).

To better understand resilience in the context of SBWMs, there is a need to identify specific resources that exist within their resilience process. Therefore, this study uses the qualitative method to describe the personal and relational resilience resources of single mothers identified in the quantitative findings. This was achieved by integrating the quantitative and qualitative data within a mixed-methods approach.

2. METHODOLOGY

2.1 Context of the study

This study took place in GP, where there are diverse job opportunities. However, whilst the province presents diverse job opportunities for its residents and labour migrants, Black women are reportedly occupying low-paying jobs such as domestic workers, farm workers and clerks, positions that still classify them as living in poverty (StatsSA, 2021). GP comprises both formal and informal urban areas; however, the informal settlements lack basic services (StatsSA, 2015). The ability to live in this province comes at a high cost, presenting a challenge for single mothers when they are the sole primary caregivers of their children (StatsSA, 2015).

In 2018, 54% of all Black South African households were headed by women (Hall & Mokomane, 2018). South African women experience high rates of unemployment and a disproportionate income compared to men. In addition to this, women are most often the sole carers for children which leads to a gendered burden of care (Berry & Malek, 2017; Casale, Wild, Cluver, & Kuo, 2015; Hall & Mokomane, 2018). Fortunately, Black girls are raised to value education for a better future, and advancement of the collective in alignment with *Ubuntu*, a traditional African value (Phasha, 2010). *Ubuntu* shares roots in traditional African culture and encompasses acts that contribute towards society (the collective) and embraces values of forgiveness, interconnectedness, and empathy (Mhkize, Mathe & Buthelezi, 2014; Munyaka & Motlhabi, 2009; Nicolaides, 2015). Not only are people interconnected to one another but also to spiritual beings, primarily the Christian God (Mbiti, 2015; Murove, 2009; Nicolaides, 2015).

2.2 Research paradigm and design

To better understand SBWMs' resilience resources, this study subscribed to the social constructivist paradigm, using a variety of methods rather than a single methodological approach to investigate a social problem or phenomenon (Phillips, 2023). The paradigm of social constructivism places great emphasis on

the significance of interpersonal interactions, social environment, and the process of constructing meaning through interaction (Landi, 2023). Therefore, the study's methodology, context, and conclusions are consistent with social constructivism in a number of ways. Firstly, According to social constructivism, people's experiences are influenced by the larger social context in which they live (Landi, 2023; Phillips, 2023). The study recognises the importance of social factors in shaping resilience by studying the resilience of SBWMs in this particular social setting.

Secondly, the paradigm acknowledges the multiple factors of reality require the use of more than a single data collection method. Using more than one methodological approach allows for a deeper understanding of the phenomenon being studied, instead of adhering strictly to the philosophical assumptions of a particular paradigm (Vear & Gillam, 2022). For this study, the social constructivist paradigm was most appropriate to explore the resilience of SBWMs using quantitative and visual methods to provide a detailed description and understanding of their resilience. Lastly, consistent with the fundamentals of social constructivism, inductive thematic analysis is employed to analyse the textual and visual data (Treagust & Won, 2023). Through the use of thematic analysis, researchers can find themes and patterns in the data, which can then be interpreted in light of a wider sociocultural perspective. This method emphasises how meaning is constructed through social interactions and interpretations, which is in line with the social constructivist viewpoint.

The integration of mixed-method approaches takes place when a researcher deliberately combines quantitative and qualitative methods in a study (Fetters, Curry & Creswell, 2013). Integration at the level of study design refers to how a study is conceptualised and what kind of design is used to investigate the research issue. Following Edmonds and Kennedy (2017), this study was conducted using an explanatory sequential mixed-methods design (Quan → Qual). First, using a questionnaire and written responses, this methodology allowed the study to quantitatively investigate and describe single mothers' resilience scores. Additionally, it allowed the researcher to conduct interviews and analyse the qualitative data to determine specific relational and personal resilience resources that were available for the group of single mothers studied.

An explanatory sequential design follows a two-phase process. The first phase involves collecting and analysing data quantitatively. In this study, quantitative data was achieved through online survey completion, using the RRC-ARM-28 questionnaire. However, as data did not fit the original structural

model and all the EFA attempts did not work, the revised ARM-R (2022) with 17 items was used for data analysis which yielded better results.

In the second phase, the study used purposive sampling criteria to identify and approach single mothers to participate in photo-elicitation and in-depth interviews. The two qualitative methods were used to explain the quantitative results. Firstly, photo-elicitation was carried out, allowing single mothers to capture specific objects that helped them remain positive and resilient. Thereafter, in-depth interviews were conducted to explain the photos captured by participants. These two phases provided specific explanations of resilience resources and how the two resilience factors (personal and relational) were interrelated. The textual and visual data were analysed using inductive thematic analysis.

3. SAMPLING

3.1 Quantitative sample

The questionnaire was completed by 400 SBWMs residing in GP, aged 23 years and above. Their characteristics are shown below.

Table 7: Characteristics of the survey participants

Item	Category	N=400	%
Age	25 years and younger	49	12
	26-30 years	98	24
	31-36 years	95	24
	37-42 years	72	18
	43-48 years	37	9
	49-55 years	43	11
	56 years and older	6	2
Marital status	Single (no partner, not cohabiting)	237	59
	In a relationship (not cohabiting)	71	18
	Separated	45	11
	Widowed	16	4
	Divorced	31	8
Number of children - raising and living with	1	181	45
	2	115	29
	3	46	12
	4	45	11
	5	10	2
	6	3	1
Employment status	Employee	277	70
	Self-employed	123	30

These mothers were either single and not cohabiting, separated, divorced, or widowed and did not receive any form of financial support from their children's fathers or any partner if they were single mothers but in a relationship. In South Africa, it is commonplace for biological parents to live apart from their children for a variety of reasons, including educational and employment opportunities, segregation under the apartheid aftereffects that controlled where populations were located, labour migration, and low marriage and co-habitation rates, to name a few (Hall & Sambu, 2019). Thus, it was crucial to screen participants to ensure that they were in fact single mothers, as parental absence does not necessarily equal parental abandonment.

3.2 Qualitative sample

Purposive sampling was employed in this phase, with only four single mothers volunteering to take part in the study. The technique allows researchers to choose participants who share common characteristics and better understand the phenomenon being studied (Gill, 2020).

Table 8: Characteristics of participants

Participant No:	Age	Marital status	Employment status	No of children raising and living with	Occupation
1	43 – 48 years	Separated	Employee	1	HR Manager
2	43 – 48 years	Divorced	Employee	1	Snr. bursary officer
3	31 – 36 years	Single	Employee	3	Social worker
4	31 – 36 years	Single	Employee	2	Social worker

It is worth noting that the sample size was affected by issues related to a constant load shedding experienced nationally. This affected the communication between the recruiter and participants. Additionally, there was an ethical dilemma relating to the demand for high monetary incentives by some participants. The REC had approved R100 as a token of appreciation for the photo -elicitation interviews, however, some single mother recruits expressed their dissatisfaction with the amount and requested an amount that would meet the amount of work and time required from their participation. These recruits were excused.

3.3 Recruitment

Recruitment for the first phase of the study (quantitative) was done through online social media platforms, Facebook and X. A poster was created with a survey link that contained the RRC-ARM-28 and a consent form. Prior to completing the survey, participants had the option to press “Agree” to take part in

the study and then proceed to complete the survey. The introduction section of the survey contained details of the aim of the study, the nature of participation, and what would be expected of participants. During this phase, participants were asked to indicate their willingness to participate in the qualitative phase involving photo-elicitation. To determine the sample, a randomised selection process was conducted to select participants for the qualitative phase.

A total of 400 participants has completed the survey. Only 58 (15%) provided their contact numbers with only 38 (10%) of these contact numbers being reachable. This, as a result of some contacts being invalid and some ringing unanswered despite several attempts made to reach them. Therefore, of the 38 that could be reached, 12 (3%) indicated that they would participate, however, only one participant took part in the study from this group.

The other 334 (84%) shared their email addresses. However, 28 (7%) of them bounced back, suggesting that some email addresses provided were not meticulously typed in by the participants. Therefore, only 306 (77%) contactable emails were used to recruit for the qualitative study, with just over 30 having reverted with interest. No email responses of refusal were received.

In each week, over 20 email were sent out with a one-week waiting period for the responses, and this process took place over a period of 14 weeks. Some participants were contacted through a voice call with three attempts made before excluding them. A follow-up contact was made with participants who had indicated interest in the study, however, they still did not submit the photos as agreed. Such participants were excluded from the study. In the end, only four (1%) single mothers took part in the photo-elicitation. An independent gatekeeper played the role of sending out invites to volunteering participants to avoid researcher's bias in the study. To further ensure transparency, the researcher (first author), gatekeeper and supervisor (second author) maintained documentation of all communication throughout the research process (see Johnson, Adkins, & Chauvin, 2020 for guidelines).

The recruitment process screened participants to ensure they were still single mothers who had not received any form of support from their children's fathers or any partner if they were in a relationship. The researcher communicated with participants who consented to take part in the qualitative study to re-establish the research process.

4. DATA COLLECTION

4.1 Quantitative data collection

The RRC-ARM, which has 28 items, was used to collect the data (RRC, 2018). However, the instrument did not produce satisfying results when the data were analysed. The new ARM-R with 17 items was made available for use in 2022, thus the researchers decided to fit the data to the revised version throughout the data analysis process, with permission received from RRC in 2023. In response to the need for a more thorough understanding of resilience across cultures and circumstances, an adult-adopted version of the CYRM scale was developed (RRC, 2022). The questionnaire consists of two resilience sub-scales (personal and relational) with statements scored on a three-point Likert-type scale. The overall resilience and sub-scales of resilience (personal and relational) were scored by summing up answers to each item responded to.

4.2 Qualitative data collection

As indicated, the study made use of the photo-elicitation research method; this included in-depth interviews. Photo-elicitation as part of the qualitative research method is often used in Social Science studies. It uses visual imagery such as photos, to improve data collection and provide new insights (Thomas, 2023). The benefits of photo-elicitation include understanding participants' underlying perceptions of social occurrences and unearthing potentially undiscovered meanings attached to the visuals (Thomas, 2023). Moreover, photo-elicitation can promote self-reflection, bring about discussions, and generate different types of data (Crook, 2023). Some studies on vulnerable people have highlighted how this method is also user-friendly for participants at different literacy levels (Thomas, 2023).

Since the social constructivist paradigm and the use of qualitative interviews are complementary, researchers may gain insight into the complexity of the participants' lives and the social factors that support their resilience through interviews with the participants (Pilarska, 2021). This study obtained qualitative data by means of photo-elicitation and follow-up in-depth interviews. The approach allowed the study to tap into participants' real world and better understand the quantitative data (LaMarre & Chamberlain, 2022).

Firstly, participants were requested to spend seven days taking photos of what helped them stay strong as single mothers during that period. Each participant was provided with guiding categories on which their photos should be focused. This was based on the findings from the quantitative results. Due to a national crisis related to loadshedding, participants encountered challenges with the photo – elicitation method. Firstly, some participants’ either forgot to take the photos or lacked access to their smartphones due to low battery power that resulted from lack of access to electricity. Secondly, some photos were submitted later than seven days. Submission of photos was done through emails and WhatsApp. Each photo was accompanied by a brief write-up that explained what was happening when the photos were taken. Some participants shared photos of events taken prior to data collection as they considered them meaningful and relevant to the study.

Thereafter, the researcher performed in-depth interviews, wherein probing was done on each photo to better understand what they meant to single mothers. Interviews were conducted via Zoom and WhatsApp and audio recorded with permission from participants. Permission to use some of the visuals when disseminating the findings was also granted by the participants.

5. MIXED-METHOD ANALYSIS

In the quantitative study, a t-test was used to compare single mothers’ resilience, mean scores based on employment status and Cohen’s *d* to determine the effect size employment status has on single mothers’ resilience, be it personal, relational or overall resilience. Another t-test was carried out using ANOVA to compare single mothers’ resilience mean scores based on their relationship status. Lastly, to determine how these resilience factors significantly interconnect with other demographic factors, a correlation test was performed. Analysis was carried out using SPSS v27. The results from these tests were then used to inform the qualitative research prompt “*please take a photo of what helps you stay strong as a single mother*”. The qualitative data was in a form of visuals (photos) and text (transcripts).

The focus of the qualitative data analysis phase was on using systematic approaches to ensure trustworthiness. At first, thematic analysis approach proposed by Braun and Clarke (2022) was used in conjunction with Atlas.ti software to prioritise transparency. This technique was inductive in nature, with both authors independently analysing the textual data from interview transcripts and the visual data from participant-provided images in order to reduce bias.

Johnson, Adkins, & Chauvin (2020), argue that in the early phases of a study, reflexivity—the notion that a researcher's assumptions and biases can affect choices and behaviours throughout qualitative research activities—is a crucial component of rigour. Any step of the research, from selecting which particular subject to investigate to deciding how to present the results, can be influenced by the background, beliefs, and experiences of the researcher. Therefore, it is important to recognise and take ethical issues and the possible impact of researcher bias into account, even at this early stage. That is, what impact will the question have on the study design and how will it affect participants' life, how the researcher will be positioned in relation to others, and what special techniques will be needed to address potential areas of research bias and ethical considerations?

Though the first author was also a single, Black mother, careful consideration was made on ensuring that her personal experience and opinions don't shape the responses from participants. This was achieved by arguing the purpose of this study based on existing literature. Qualitative questions were informed by the quantitative results that emanated from the 400 respondents that were only in contact with the gatekeeper. Data analysis was also conducted by both first and second author for common themes.

The study used a sequential six-step procedure that was guided by inductive thematic analysis, which is acknowledged as an effective and widely used technique for qualitative studies in social contexts. Understanding the data, creating codes, identifying themes, evaluating possible themes, and naming and characterising themes were all included in these processes. Data segments were first given preliminary codes using open coding, and then correlations between the initial codes were found using axial coding. These methodological procedures helped with ensuring the analytical process's dependability. Both authors regularly came back to the data to fully immerse themselves in order to support credibility and keep strong links between the analysed and original sources. By basing interview questions on survey results and making sure that responses were comprehended from the viewpoints of the participants, confirmability was strengthened. Focused coding helped to develop and solidify emerging themes. Member checking was then carried out, which involved presenting the results (via email) to participants in order to get their input and confirm that the interpretations were accurate. Robustness and reliability in the study's conclusions had been ensured by this integrated method to data processing.

To this end, the qualitative data confirmed the quantitative data and provided insights into how context and culture shape resilience processes for SBWMs. Although the qualitative sample was small and limited,

the visual data added depth and richness that provided a deeper understanding of resilience among the participants.

6. ETHICAL CONSIDERATIONS

The study was conducted with the approval of the NWU-HREC with the identifying number “NWU-00252-21-A1”. The procedure for participation was detailed in the introduction letter which was included in the survey questionnaire. A mediator was available to respond to any queries arising from potential participants regarding the completion of the survey questionnaire. Participants were first requested to give written consent before taking part in the study. The study also followed HREC and international ethics guidelines in conducting the research.

For the qualitative study, permission to record interviews was sought from participants. Participants were also requested not to take photographs of other people without their consent (bystander consent); however, if they did, the faces of those people would not be published. Participants also permitted some of their photos to be used in the study. This online study did have minor cost implications. Photos were saved online instead of being printed and interviews were conducted telephonically, via WhatsApp or Zoom depending on participants' preferred platform. Additionally, participants were given a token of appreciation of R100 each for taking part in the study. Ethical challenges that affected the sample size included participants who, upon being contacted to take part in the study, mentioned remuneration as a condition to take part in the study. This affected the sample size for this study as potential participants were not willing to take part in the study, citing the amount of time required to complete the tasks.

7. RESULTS

To better describe the specific relational and personal resilience resources that mirror these quantitative results, the qualitative findings are integrated in this section. The qualitative findings emerging from this study provide depth and insight into how the personal and relational resilience factors measured through the ARM-R play out in cultural and contextually sensitive ways.

The participants who took part in the qualitative study were single mothers raising teenagers, stating that the absence of their children's fathers had a psychological impact on their children. This is due to the disappointments children experience from their fathers that require mitigation from the mother whenever

they occur, such as when the mother must stand in for the fathers at school activities dedicated to fathers. Other challenges include being unable to communicate certain things with the child because the mother is unable to relate to the needs of a teenage child of the opposite gender.

The findings presented below are discussed under two main categories, namely personal resilience and relational resilience. In this section, attention is placed on how personal and relational resilience are interrelated and foster one another through positive attachments. Furthermore, how these processes are shaped within the South African context is discussed.

7.1 PERSONAL RESILIENCE

The ARM-R measured personal resilience by measuring individual personal and social skills, and individual peer support. Individual personal skills included problem-solving skills, agency, cooperating with others, and self-awareness of strengths. Individual social skills focused on making good use of opportunities within the community and knowing where to reach out for help. Individual peer support measured how supported participants felt by friends. The mean scores and main themes explaining these scores that emerged from the qualitative data are discussed below.

Table 9: Mean scores for personal resilience and a qualitative theme

Variable	Category	N	M	SD	Qualitative theme
Personal resilience	Employee	277	2.55	0.32	Agency and mastery
	Self-employed	123	2.43	0.35	
	Single	228	2.59	0.28	
	In a relationship (not cohabiting)	76	2.59	0.30	
	Separated	45	2.33	0.38	
	Divorced	34	2.31	0.38	
	Widowed	17	2.72	0.27	

The results from the t-test used to compare resilience mean scores based on employment status indicate that single mothers who are employed tend to show, on average, slightly higher levels of personal resilience compared to the self-employed ($M = 2.55$ vs 2.43). The SD is 0.32 vs 0.35 , which further indicates that the variation among the two groups is low, including the effect size $d = 0.36$. Through a qualitative data analysis, it was further discovered that within the person resilience of SWMs, lies agency and mastery as their

resilience resource. The findings below further indicate how this specific resilience resource is used by SWMs.

Agency and mastery

Single mothers demonstrated agency by making good use of educational opportunities that lead to gainful employment. In addition to this, single mothers continued to show a desire to further their studies for a better future and gainful opportunities. This finding mirrors other studies conducted with youth in South Africa that show how important educational progress is for resilience within the South African context (see Casale, 2015; Phasha, 2010). Investing in education allowed single mothers to search for employment opportunities that would support them in caring for and providing for their children. They took constructive action to find employment to provide for their children because they did not receive any financial support (such as child maintenance) from their children's fathers:

"It's very important because it gives you a chance to be...I don't know how to put it but when you are with people who are less educated, you can see. Some of the people cannot think out of the box. We still have some of those people who are educated but they cannot think out of the box, especially when it comes to their kids. But personally, education has helped me to think out of the box and to open my mind to any opportunity give out there. So, education plays a major role and why do I say this? Because some people, when it comes to their level of reasoning and understanding, its limited. But if you have education to that level of...you are still studying, you can think about anything" [P2: Interview]

"Education is very important that one must upgrade themselves to improve their chances of success and earning better income to run the household" [P1: Interview]

In this study, the single mothers not only actively invested in their education but used their education and work experience to 'give knowledge back' to their communities. One single mother who is a practising social worker availed herself to her community members to give advice and educate her community:

"I am originally from a rural area in a community characterised by respect and peace. Most of our community members are unemployed with limited resources but understand that I am a social worker. Whenever they experience challenges, they ask for my mobile number and we talk telephonically, or they visit me when I am home during holidays or when I am on leave whereby, I give them information and advise them to check opportunities

that could enhance their social functioning. I also link them with necessary support systems” (P3: Photo-elicitation)

Another participant mentioned that through her workplace, she was able to organise a community drive where the Higher Education and Training HIV/AIDS Programme (HEAIDS) came to teach various students about human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and male circumcision. Mobile clinics also came to her community to provide information regarding prevention and self-care (Figures 4 and 5):

“In the picture below, shows one of the goals I had reached whereby I organised a health organisation called HEAIDS to come teach the college students more about HIV and AIDS and they were advised to take tests and make appointments for male circumcision. And as you can also see, in the second picture below that there was a mobile clinic made available in case learners wanted more information about how to prevent themselves” [P2: Photo-elicitation].



Figure 2: Community drive on HIV/AIDS



Figure 3: Mobile clinic

Giving back to communities is one of the most significant cultural practices among Black cultures and is actively encouraged from one generation to the next (Dale & Safren, 2018; Logan & Freeman, 2000). *Ubuntu* (I am because we are), a traditional African philosophy involving acts that contribute towards society and advance the collective (Mkhize, Mathe, & Buthelezi, 2014), is demonstrated through the interconnectedness of African communities and the action taken to advancing the collective through education and access to information and health resources:

“Last year at work I managed to arrange [an event] in August for Women’s Day. We received a lot of assistance from the Department of Health, they sent in their nurses to come and speak to our ladies, whoever felt like they are drowning in their marriage or a relationship or they are not coping with work, so I think that I am at an advantage because I know [have access to] the resources. So, it’s not a matter of me having to rely much on the community for help because I am more active at work in terms of employee fitness, mental health and all those things.” [P1: Interview]

It is however, worth noting that, although we were unable to interview any of the widowed single mothers, the absence of a child’s father tends to strengthen the personal resilience of widowed single mothers ($M=2.72$) more than single mothers of other statuses. Single mothers who are not cohabiting and those in a relationship but not cohabiting, also tend to display better and similar personal resilience scores ($M=2.59$), respectively. However, the most negatively affected are the divorced ($M=2.31$) and the separated ($M=2.33$).

7.2 RELATIONAL RESILIENCE

The ARM-R measured relational resilience by focusing on both physical and psychological caregiving in people’s lives. The physical aspects involved measuring access to and use of tangible resources such as food and practical support from others. The psychological aspects focused on measuring emotional security, feeling supported by others, closeness, and feeling secure within relationships. While the quantitative data provided evidence that relational resilience is critical for overall adult resilience among single mothers, the qualitative data shed light on how these factors play out in the lives of SBWMs living in GP, in culturally and contextually sensitive ways. Under relational resilience, the following four themes are discussed: i) Community of caring women; ii) Caring women offer and reciprocate practical support;

iii) Caring relationships are characterised by openness and reciprocity, and iv) Community of caring women provide spiritual support.

Table 10: Mean scores for relational resilience and qualitative themes

Variable	Employment category	N	M	SD	Qualitative themes
Relational resilience	Employee	277	2.64	0.38	1. Community of caring women
	Self-employed	123	2.59	0.46	2. Caring women offer and reciprocate practical support
	Single	228	2.67	0.28	
	In a relationship (not cohabiting)	76	2.61	0.30	
	Separated	45	2.58	0.38	3. Caring relationships that are characterized by openness and reciprocity
	Divorced	34	2.45	0.38	
	Widowed	17	2.41	0.27	4. Community of caring women provide spiritual support

The widowed single mothers' relational resilience appears to be the most negatively affected. This may be attributed to the absence of their children's fathers as they score low on average ($M=2.41$), followed by the divorced single mothers ($M=2.45$). However, single mothers who are not cohabiting and those in a relationship and not cohabiting, tend to score averagely higher on relational resilience ($M=2.67$ and $M=2.61$), respectively. This is attributed to a community of caring women they have created positive relations with. This community of caring women is mainly found within their families as explained below.

Community of caring women

The relationships that women reported were characterised by reciprocity, open communication, emotional support, and spiritual support. The women who participated in this study all reported secure

relationships within the family, church, and workplace. These relationships consisted almost exclusively of other women (mothers, sisters, female church friends, and other single mothers in the workplace). Only one participant mentioned a supportive father. In South Africa, men and fathers are often absent whether due to migration for work, death, illness, or abandonment of responsibilities (Bennett et al., 2015; Casale, 2010). As a result of this, relational resources and support are often facilitated by women who are available and present:

“Okay, a lot of support I’m receiving from my mother. My mother helps with...obviously I could say that she is someone I share parenting roles with...yes, when I am not around, she is there for my kids and all those motherly things” [P3: Interview]

“Every milestone that Siyabonga went through, my sister was there. She trained him on lots and lots of things. Even now, because he is attending at [inaudible name of college], my sister is there with him. She helps with washing clothes, ironing them. He attends school, you know...he doesn’t [have to] do any extra things [chores]. she is acting like a mother [to him], obviously she’s like another mother to my son” [P2: Interview]

The context in which the participants live shaped the relational resources present in the systems within which they live. As men were often unavailable, relational support was most often found from other women.

Theron (2015) noted that when South African fathers are present in their children’s lives, the main type of support reported by adolescents involved offering support and encouragement of educational progress and/or opportunities. This has been referred to as the “valorisation of education” and is regarded as a priority of *Ubuntu* (Malindi, 2014; Phasha, 2010; Theron, 2015, p. 10; Wilson & Williams, 2013). Investment in education is not only valued for individual success but is also seen as the family’s and community’s success. A participant specifically mentioned how her father had supported her throughout her son’s life and insisted on being there to offer practical support to celebrate educational milestones:

“And the other thing that my dad [did], I think he did it twice. When [my son] went to his farewell [Matric dance], he came specially. They didn’t even tell me they were coming; they came. Because I was running around looking for a car because I was stressed! Because his dad was not even involved. You know...the suit...I don’t know any colours [for men], the shoes... and he told me that: I’m not going to wear this. When we were [arguing] and that time my dad was there, he was very silent. But on that day, he came...he came in the morning saying I had to be here. I’ve been here since this child was born. So, I had to be here. When we received his Grade 12 results, you

know...my dad called me, and I was in tears. The things he told me: I knew you were going to make this [make it through with the son].” [P2: Interview]

Caring women offer and reciprocate practical support

The relationships single mothers had with the caring women in their lives were characterised by mutual respect and reciprocity. The mothers' burden of juggling work and other obligations was lifted by their parents or their children's grandparents' active assistance with parental duties. The partnership offered childcare when the mother was unavailable, fostering a stable environment for the children's wellbeing. Some single mothers were able to complete their academic objectives through this relationship, enabling them to find professional jobs:

“There was a time I left my daughter with them. Her and my sister took care of her. I had to go and work. So, she was basically at home with them. I took her back to come and stay with me full time when she was in Grade 4, going to Grade 5. All this time, she was with them, taking care of her right through. So, she has been there in terms of ‘backup’. She made sure that she eats, sleeps... all these hints that needed to happen, it [they] happened under their watch. So, it's my eldest sister and my mom who were her caretakers fully” [P1: Interview]

“I had my first born at the age of 18 years while I was a first-year student at university. A week after giving birth, I left my child with my mother who raised her with love. I finished my studies then got employed, then later got blessed with other two children and my mother raised them as well until I took them to stay with me to give them better education in town” [P4: Photo-elicitation]

The childcare support they also received from mothers and sisters seemed to foster agency and mastery. Quantitative results show that employed single mothers exhibit slightly higher average on relational resilience ($M=2.64$) than those self-employed ($M= 2.59$). Additionally, data further revealed that single mothers with high educational levels that include tertiary qualifications, tend to have increasing levels of relational resilience ($r= .295$; $P< 0.00$). This is because access to academic opportunities opens doors to new networks, thereby facilitating and fostering relational resilience.

Therefore, support and security for both mothers and children provided mothers not just with opportunities to further their education but also to find gainful employment. This allowed single mothers to be released

from some parental responsibilities and any other obstacles that may prevent them from honouring their other commitments:

“I don’t think if I had the opportunity to look after my child, it would have been easy. It wouldn’t have been easy because now you have to leave your child with a stranger, you have to leave your child at creche and all those things. So, fortunately with me, I didn’t have to go through those [things] because she [my sister] was available”
[P1: Interview]

The supportive relationships in these mothers’ lives reinforced their agency by encouraging and celebrating educational achievements and milestones. This is crucial for the resilience of SBWMs who need practical support with child-care responsibilities, especially considering the costs involved in paying professionals - which is often unaffordable for Black women due to the legacy of apartheid and the unequal burden of care (Casale et al., 2015; Schatz et al., 2014).

Additionally, when single mothers found work and were able to provide for their children, they also provided for their family members who supported them. Data revealed that higher income associates positively and significantly with single mothers’ relational resilience ($r = .225$; $P < 0.00$), as well as their overall resilience ($r = .180$; $P < 0.00$). This demonstrates how single mothers with positive relations, tend to earn more, which may be due to holding a stable job compared to self-employed single mothers who may be primarily exposed to informal job opportunities, especially in GP where those living in informal settlements face job insecurities (StatsSA, 2015; Wang, 2022).

A participant mentioned how her mother had made a choice not to adhere to cultural expectations to stay at home and not work after the death of her husband (the participant’s father) but to support the participant and her sister financially to pursue their education. Once the participant and her sister were qualified and employed, they supported their mother financially as a means of reciprocating the support they had received from her:

“We are four (4) siblings. My brother passed away and my father passed away in 1995. From after that... obviously with the father passing away, with the tradition [practice] that a woman has to stay at home and take care of the children...She chose not to but went chose to go and work so that she can be able to push us to go to school, me and my other sister. Because we were the youngest then. So, she didn’t stay at home as the community would normally expect her to stay at home, taking care of children and not going to work. Instead, she did it the other way around. She went to work, and the sad part is that where she was working, they were underpaying her,

in a sense that she was working five days, but she was only paid for four days because the other 1 day salary was used to pay for her accommodation because she was staying in the residential area of those people [employers]. So, that didn't discourage her. Myself and my sister, the one I come after, we finished our bachelor's degrees. We were both attending at University of the North and obviously with the funds she received from my father's policies, she was able to push us through up until a certain level. And on our last year for both myself and my sister, there were no funds available, and we had to apply for...a government bursary. And then after we completed [studying], we had to face the reality of having to be in the [job] market and now we have to get ourselves employment and she [mother] was still working with the same employer...she was a domestic worker. Then in 2004, we moved out of my mom's place. Then in 2004, I gave birth, then that's when single parenting started. My partner was available for few years, I think the first and second year, then after that, he was not available. Then I had to woman-up and take care of everything all by myself. Fortunately, I was working then, and it was a full time employment. So, I was able to provide for us and still [provide for] the family. Because in 2007, my mom...we told her to stop working, she is at home even now. She is not working because we are taking care of her financially." [P1: Interview]

Beyond childcare support, sisters (children's aunts) were actively involved in the children's lives. Sisters supported children's development by teaching, helping with household duties, and even serving as a second mother figure. This emphasises the bigger role that family might play in both psychological and practical support in the absence of a child's father:

"Every milestone that [my son] went through, my sister was there. She trained him on lots and lots of things. Even now, because he is attending at [college], my sister is there with him. She helps with washing clothes, ironing them. He attends school, you know...he doesn't [have to] do any extra things [chores]. she is acting like a mother [to him], obviously she's like another mother to my son" [P2: Interview]

"She raised all our children basically...she takes care of children and ensures that they've had their meal and all those things. All this time, she was with them, taking care of her right through. So, she has been there in terms of "backup ". She made sure that she eats, sleeps... all these things that needed to happen, it [they] happened under their watch. So, it's my eldest sister and my mom who were her caretakers fully" [P1: Interview]

Thus, a caring family illustrates the principles of Traditional African Culture through an emphasis on the interconnectedness within the families that helped raise single mothers' children. A participant shared a photograph of her (mostly) female family to show their closeness (Figure 6).



Figure 4: Supportive family of women

Caring relationships are characterised by open communication and reciprocity

Families are actively encouraged to have open and transparent communication within their relationships with one another. The family's openness, transparency, and appreciation for one another boosted mothers' confidence and morale through emphasis being placed on their strengths and encouragement to achieve their aspirations:

"My family is characterised by transparency and openness. They know what I am going through and are also able to encourage me especially with furthering my studies as I am doing honours in counselling psychology" [P4: Photo-elicitation]

"Even my dad, when I am not okay, about work...about everything, because at work sometimes we get frustrated by so many things. And my dad was a teacher, he was in the management side, so he knows these things. He knows about everyone at work, so he would call me during the day to ask: "baby girl are you okay?". And I would ask him: "Yes, but why?" and he would say that he felt in him that let me call and check up on you" [P2: Interview]

Not only is an SBWM's resilience promoted by family members but their children's resilience is too. The openness and appreciation for one another that is fostered through family members is adopted by mothers and implemented in their relationships with their children. SBWMs' relationship with their

children is a display of a collaborative and supportive dynamic. Their combined dedication to learning and evolving together deepens their relationship and supports their academic success:

“Some [of the] things that on a normal day she wouldn’t talk about, but in a relaxed atmosphere you are able to say:” Yoh! There’s a boy...this and that” (laughs). So, we talk about a lot of things in a relaxed environment. And then, towards the end of last year I introduced her to the thing [idea] that if you can’t talk or you feel like it’s something you are shameful to talk about, write me a letter or send me a WhatsApp message. The letters have been working so far” [P1: Interview]

“So, I will tell him that this is how the world is, this is how things are happening out there, so be free: ‘Let’s talk about this...what’s happening at your school? Tell me’. I would even ask him: ‘do you smoke? no Khosi, I don’t smoke...do you drink? Just be open. And he said ‘yoh [sic]! At this rate, you are going to kill me!’ ‘Yes, maybe I will try to kill you but at least tell me, let me know what’s happening in your life. I don’t want any surprises’. Because being a teenager, you can have many phases. You can have a normal phase when you are with me, but at school you are something else because I have experienced it. So just talk to me” [P2: Interview]

“It [family gatherings] helps a lot on that issue of communication because at least when we go out, we are able to interact with other family members. On our way back, we will be talking about the journey [trip], and where I can, I will just throw in about two topics to say “hey! Do you see that it is not a good idea to be involved with boys at this age because I am expecting a lot from you. You see that I am trying [to provide for you]. So at least if you could focus on your education, you guys will be able to do better and find opportunities in international countries or go wherever you would want to take yourselves” [P3: Interview]

Community of women provide spiritual support

Spirituality, or faith in the Christian God specifically, emerged as one of the resilience themes for participants in this study. This finding was only present in the qualitative findings of this study; it was an element that was missing in the quantitative measurement used. Participants reported that spirituality in the form of prayer, reading Bible verses and church peer relations helped them cope well with their daily lives. They believed that had it not been for the spiritual aspect of their lives, they would not have fared well in their dual role.

Along their spiritual journey, they formed relationships that benefited them spiritually. They reported that they have influential women of the same religion that they often turn to for spiritual upliftment during difficult times. To encourage them, these women would quote Bible verses for participants to read:

“Sister T from Centurion. I knew that lady from back when I was still staying at [name]. She’s a very strong woman when it comes to Christianity. She’s one person that even if you were to contact now and tell her that ‘I don’t feel very well about this thing that happened at my workplace’, she would quote the Bible verse and say ‘go back to the roots, read about what God is saying about yourself as a person’. So, those are the kind of people that when you have them around [you], you don’t fall easily” [P1: Interview]

At times, participants would religiously read Bible verses as a form of coping mechanism. This helped them remember who they are as individuals who have a relationship with God:

“Reading the bible, praying...I am one person who reads the bible and pray a lot. Uh...like I said earlier before that the books I read, if you check them well, they are more on growing my spiritual well-being...honestly speaking, I wouldn’t be coping, mm... I wouldn’t be coping. There are a lot of social problems, a lot of social challenges. So, if you really have nothing to rely on, which when you look at you can be able to say: “My sauce [sic] of hope comes from here”, I don’t know where would I be, really” [P3: Interview]

“She would quote the Bible verse and say “go back to the roots, read about what God is saying about yourself as a person” [P1: Interview]

The church also had its role to play in the lives of participants. They perceived the church as an asset in developing them into the human beings and mothers they are today. The church taught them principles and values that shaped their conduct and helped them maintain dignity in everyday life amidst challenges. The church also provided emotional stability so that they could function well, socially. The church practices were also supported by a strong presence of prayer:

“...praying...I am one person who reads the bible and pray a lot. And also [help with] maintaining my dignity and integrity. These are some of the things I learn a lot from the church I attend” [P3: Interview]

“I believe that when praying alone as well with my other church members, [it] helps me to understand myself better. I am affiliated to a church that helps me [to] be emotionally strong to cope well with my everyday life or social functioning” [P4: Photo-elicitation]

8. DISCUSSION

The results of the mixed-methods study, which are discussed hereafter, provide insight into the variables influencing the relational and personal resilience of SBWMs in South Africa. These results are further clarified by qualitative evidence that gives a more complete understanding of the real-life experiences of

these single mothers, offering insightful information on how different demographic and contextual factors shape their resilience.

8.1 Personal resilience

It is clear from the evidence that although hardships - such as single motherhood - may be difficult to overcome, they in turn, become a driving force for some single mothers to discover their underlying personal strengths. The absence of children's fathers for widowed and divorced single mothers meant that single mothers had to develop personal resilience by adapting to their new circumstances, which may have propelled them to concentrate on their own strengths and develop some coping mechanisms and a positive support structure. This appears to be a common finding among widowed single mothers from other studies despite contextual backgrounds. A resilience study conducted with widowed single mothers also discovered that their personal resilience was strengthened by the support system around them, finding new ways of living with their reality and developing coping skills (Karim, Mahmud & Sumari, 2019).

Additionally, one would expect single mothers' low levels of education to correlate with low levels of personal resilience because low education attainment often leads to more financial strain, which can cause stress and leave them with fewer coping resources when facing adversities (Sattor, Lange & Troster, 2023). Recent studies conducted on resilience among single mothers with tertiary qualifications in Canada and Indiana revealed that tertiary-going single mothers demonstrated higher levels of resilience facilitated by the power they hold through their mentality (Jones, 2022). However, single mothers in this study challenged these expectations and proved that SBWMs with low levels of education exhibit higher personal resilience. Tertiary knowledge holds less power in how their personal resilience is developed. Rather, it is through facing hardships that single mothers tend to develop better ways through their own thinking, to help them navigate through life. This can be seen through the narratives shared by participants who mentioned that they needed to "woman-up" (P1: Interview), and face their challenges, and another participant who mentioned that she had to take care of her child because the child is her responsibility even though she has parents who help her.

8.2 Relational resilience

While education may not be such a significant contributing factor to SBWMs' personal resilience, it appeared to greatly influence their relational resilience. This was further explained by the amount of support received by single mothers from their mothers, sisters and aunts, highlighting the type of gender and support system surrounding and facilitating caregiving support to SBWMs whilst they sought an education. A recent study also found that single mothers who had completed tertiary studies in Canada reported having more supportive friends which improved their relational resilience (Zhou & Taylor, 2022). Therefore, this would mean that across different cultures, education plays an important role in promoting single mothers' resilience as it exposes them to positive social networks that foster their relational resilience.

Not only does it expose them to forming positive networks but also exposes them to job opportunities that are secure and have the potential of easing their economic burden by paying them a better salary. Stable, well-paying jobs and positive networks can foster a supportive atmosphere that enhances the emotional and financial resilience of single mothers and helps them overcome their adversities. Studies show that social support networks can improve low-income earning mothers' chances of securing steady employment and minimise work-family conflict (Johnson, Honnold & Threlfall, 2011).

Furthermore, it is also important to note the significant gap left by the children's fathers in the lives of single mothers. The findings suggested that widowed, divorced and separated single mothers seemed to lack relational resilience because of the noted absence. This could mean that some women in this group may have been struggling to come to terms with their spousal loss or being separated from their partners due to parental care responsibilities they used to share. As a result, they may lack social support and sufficient income to carry the responsibilities since high income is associated with high relational resilience.

However, spending more years raising children had a positive impact on the relational resilience of single mothers, even though the relationship may get weaker with time. The positive contribution may have been because of single mothers developing better parenting skills with time. The decline in this relationship, however, highlights the complexity of resilience as a construct and suggests that there may be other factors beyond relations that may be contributing to their resilience.

Lastly, spirituality also presented strongly as a resilience resource; however, this is not measured by the ARM-R. This draws attention to the need for further development of the ARM-R to be adapted to the South

African context. In its current state, the ARM-R fails to measure spirituality as an important resilience-promoting resource within the African context (see RRC, 2018 for the manual).

8.3 Overall resilience

Education exposes single mothers to employment opportunities. In this study, employed single mothers demonstrated a high level of overall resilience compared to those holding a self-employed status. This may be attributed to the fact that formal employment can offer greater security and resources to single mothers, thereby strengthening their resilience (Raniga et al., 2019). Single mothers interviewed in this study also supported this evidence, citing a better job and income as some of the benefits of furthering their studies. Not only did they want this achievement for themselves, but they were also supporting and encouraging their children to follow in their footsteps and use education as a tool to become better people in the future.

Though they strived to be better parents and to secure a better future for their children, single mothers who were widowed and divorced seemed to require more support than others, as their overall resilience was very low. This shows how complex the resilience of widowed and divorced single mothers is, which may require a unique study that focuses on them to better understand factors that may positively contribute to their resilience apart from the ones in the current study.

9. CONCLUSION

In conclusion, a holistic approach that recognises the interaction of personal, relational, and overall resilience factors is needed to better understand and promote resilience among SBWMs who work in South Africa. Interventions that are specifically designed to meet the needs of various subgroups within this population will improve support networks and, in turn, improve the well-being of those involved.

9.1 Personal resilience

The study highlighted the importance of personal resilience in overcoming the challenges that accompany being a single mother, particularly for mothers who have been widowed or divorced. The results refuted the notion that having less education would be associated with a lower level of personal resilience. The results also showed that facing difficulties directly contributed to the development of personal resilience, with a focus on personal strengths and coping mechanisms. The study recommends a focused support programme that acknowledges and capitalises on the personal resilience of single mothers,

emphasising coping skills, positive thinking, and self-empowerment, while also recognising that personal resilience can be developed through lived experiences.

9.2 Relational resilience

Education was a key factor in forming relational resilience, although it may not have had a major effect on personal resilience. In addition to offering SBWMs critical support through friends and family, the study emphasised the significance of social networks made possible through education. In addition to building relational resilience, this support helps women find stable jobs, improving their emotional and financial well-being. It is recommended that community-based programmes be implemented to support single mothers' pursuit of education and skills development. These programmes can improve relational and economic resilience by making stable jobs and positive social networks accessible.

9.3 Overall resilience

The study showed that educational opportunities and overall resilience are correlated and that employed single mothers have stronger resilience than their self-employed counterparts. Nonetheless, widowed and divorced single mothers (who generally have less resilience) face specific challenges that must be acknowledged. This necessitates focused research to learn more about the contextual factors affecting their resilience. The study recommends programmes that foster resilience to meet their unique needs depending on the work status and marital history of single mothers.

9.4 Spirituality

Although not sufficiently quantified in the current evaluation tool, the study highlighted spirituality as a crucial resilience resource. It is suggested that resilience assessment questionnaires, such as the ARM-R, be updated and modified to include the spirituality dimension, given its significance for the resilience of SBWMs.

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MANUSCRIPT 3: ETHICAL REFLECTIONS ON USING PHOTO-ELICITATION VIRTUALLY TO ENGAGE SOUTH AFRICAN SINGLE, BLACK WORKING MOTHERS

ABSTRACT

This study critically reflected on the qualitative research process used in the mixed-methods study which preceded this article. The data for this current study consisted of the critical reflections of the first author, critical reflective discussions between both authors, peer debriefing sessions, as well as email and WhatsApp responses from participants. All the reflections together provided insight into the challenges encountered when conducting photo-elicitation online.

The study was fully online due to the COVID-19 pandemic. Recruitment of 400 survey participants was conducted through social media platforms X and Facebook. Quantitative data collection took place over three weeks. From the quantitative data, four single mothers identified with high and low resilience scores were purposively selected to take part in the qualitative study that used visual online photo-elicitation and in-depth interviews.

The four participants ranged in age from 35–43 years old and originally resided in GP but some had moved at the time photo-elicitation data were being generated. One participant held a ‘divorced’ status, one ‘separated’, and the other two participants were ‘single and not cohabiting’. A total of 59 photos were received from all four participants. Upon receiving all photos from each participant, an in-depth follow-up interview was conducted virtually.

The reflective discussions focused on i) ethical issues surrounding the online recruitment process, ii) limitations of online recruitment and participation and, iii) ethical challenges on privacy and confidentiality for online survey and photo-elicitation participation. These three points were elaborated on in detail with a focus on other sub-points.

Keywords: Reflections, Ethics, Virtual, Photo-elicitation, single mothers

1. INTRODUCTION

The global adoption of remote data collection was sparked by the COVID-19 pandemic. Telephone interviews (Adom, Osei, & Adu-Agyem, 2020; Hall, Gaved, & Sargent, 2021), email interviews (Amri, Angelakis, & Logan, 2021), instant messaging interviews (Hinkes, 2020), and video interviews (Dodds & Hess, 2020) are all common methods used in recent qualitative research. Given its greater potential for simulating natural conversation (Nehls, Smith, & Schneider, 2015) and building rapport above other virtual approaches (Archibald et al., 2019; Sy et al., 2020), synchronous video interviewing—where participants and researchers interact in real time—has attracted particular interest (Lobe, Morgan, & Hoffman, 2020; Roberts, Paylakis, 2021; Teti et al., 2020). Digitalization has penetrated both our personal and professional relationships, and COVID-19 contributed to the digital transformation of qualitative interviewing techniques. In this study, we focus on one of the forms of qualitative data collection technique that sought to elicit information from participants, the photo-elicitation.

Photo-elicitation is a visual research method used in studies aimed at empowering marginalised groups by helping them to share their experiences on a particular phenomenon by taking photographs of meaningful objects within their environments (Fawns, 2020). The photographs are used to understand, in detail, the meaning of what has been captured by the participant based on their personal experience. This method has been widely used in clinical, educational, psychological, tourism and ageing studies (Dresler, 2023; Eliopoulus, 2022; Kyololo, Stevens & Songok, 2023; Liebenberg, Didkowsky & Ungar, 2012).

However, there continues to be a challenge with researchers responding to how visual methods, such as photo-elicitation, should be applied from an ethical perspective (Holtby, Klein, Cook & Travers, 2015). Studies have found that photo-elicitation interviews have practical challenges due to a lack of ethical guidance in using the method (Anderson, Elder-Robinson, Howard & Garvey, 2023; Mooney & Bhui, 2023). In addition, using photo-elicitation virtually in a post-COVID-19 world brings its' own unique challenges that include limited interaction between researchers and their participants, as well as technical issues in using virtual platforms (Kyololo et al., 2023; Zoltie et al., 2020). The purpose of this study is to critically reflect on the ethical challenges that the first and second authors experienced while conducting photo-elicitation, virtually.

1.1 A brief history of photo-elicitation

John Collier Jr. is recognised as the inventor of photo-elicitation, which has been applied in social research since the middle of the 1950s (Mott, Tummons, Simonsen & Vandermau, 2020; Xu, 2023). Collier discovered that viewing photographs during interviews improved recall memory, eliminated incorrect assumptions, and resulted in longer, more in-depth discussions (Copes, Tchoula, Brookman & Ragland, 2018). The value of photo-elicitation for anthropologists was emphasised by John Collier and Malcolm Collier in 1986. They expressed that sharing and viewing photographs fosters instant access and inspires interviewees to lead inquiries (Lauck, Oliffe, Stephenson & Adhami, 2021). Recent years have seen a rise in the use of photo-elicitation, especially in health research where it has been demonstrated to strengthen relationships with participants and enable them to express verbally challenging thoughts and viewpoints (Mannik, 2011).

The use of photo-elicitation varies across areas of the discipline. With photo-elicitation in Social Science and health-related studies, participants are provided with photography resources (a camera) when necessary and asked to take photographs of objects in their environment that relate to the research question. This process is then followed by an interview through which the researcher asks participants to explain the meaning behind their photographs (Copes, Tchoula, Brookman & Ragland, 2018; Eliopoulos, 2022; Indrowati, 2023).

Research on vulnerable populations has revealed that photo-elicitation has proven to be helpful, as it can elicit detailed narratives of events from a variety of participant groups with varying degrees of literacy (Thomas, 2023). It is advantageous for traditionally positivist subjects such as healthcare education research, since it also promotes self-reflection, leads to discussion, and produces alternative variations of data (Kyololo et al., 2023).

1.2 Current use of photo-elicitation

Recently, countries have been hit by the COVID-19 pandemic, which resulted in research being affected due to restrictions on participant access and communication (Omary, Eswaraka, Kimball, Moghe, Panettieri, & Scotto, 2020). Traditional face-to-face qualitative research was especially impacted as governments around the world implemented strict measures, such as travel restrictions and lockdowns, to increase social distance and decrease COVID-19 transmission (Putra, Lee & Kemper, 2023). The

effectiveness of standard qualitative research operations was significantly impacted by remote work, which also slowed down research unrelated to COVID-19. However, the pandemic also offered previously unexplored possibilities for creative qualitative research, with the introduction of virtual technology being an important step forward (Dodds & Hess, 2021; Pocock, Smith & Wiles, 2021; Witell, Holmlund & Gustafsson, 2020).

The most popular research techniques during the lockdown were online focus groups and interviews, including photo-elicitation carried out through video conferencing platforms such as Zoom, Microsoft Teams, Google Meet and Skype (Dodds & Hess, 2021; Lobe et al., 2020; Pocock et al., 2021). However, researchers and participants experienced fatigue and despondency as a result of the overuse of video conferencing platforms during the lockdown (Bailenson, 2021; Wiederhold, 2020). This lack of enthusiasm to actively participate in the research may affect the quality of the data generated.

Although multiple studies resorted to conducting photo-elicitation online during the COVID-19 pandemic, these studies were conducted in developed countries. These countries have unlimited access to the Internet, electricity and technological resources that enable participants to engage online without difficulties (Alwan, Azizah & Rimuna, 2022; Houston, Rae & Brewster, 2020; Tatar, Muceldili & Erdil, 2023). Moreover, the above-mentioned studies were conducted in a medical field where some participants were young and able to navigate online platforms with ease, and some participants received support from staff members during the photography process and interviews.

Having noted the observed amount of studies that employed the photo-elicitation research method, it is also worth noting these did not include adult resilience studies. Studies conducted on resilience using photo-elicitation were mainly conducted among the youth population and not facilitated online, including those conducted during the COVID-19 pandemic (Dworkin et al., 2021; Liebenberg, Ungar & Theron, 2014).

The shift from a traditional photo-elicitation process to a more technologically advanced process (online), has posed more challenges and limitations to participants in marginalised groups living in structurally disadvantaged countries where there is limited-to-no access to Internet and inter-generational differences (Bolin, Figueiras & Kalmus, 2023; Li, Soma, Springle & Shulman, 2023). The online platforms utilised also limit participation to only those with access to these platforms and exclude the experiences of participants who do not have access to the online platforms, which can lead to researchers representing stories that are not a complete reflection of the entire target population (Gorm & Shklovski, 2017).

2. METHODOLOGY

2.1 Background to the study

This study aimed at reflecting on ethical issues related to photo-elicitation conducted virtually when engaging with SBWMs in South Africa. During the quantitative phase, the researchers measured adult resilience scores when COVID-19 restrictions were still active, prohibiting physical contact between researchers and participants. Therefore, data collection had to take place virtually for both the quantitative and qualitative phases. However, there were no challenges experienced at this stage. Challenges were experienced during the Photo elicitation stage as South Africa's load shedding crisis hindered data generation; electricity was only available for four to six hours a day cumulatively, for the households in GP. This was referred to as Stage 6 load shedding.

2.2 Current photo-elicitation study context

This study focused on the resilience of SBWMs aged 23 years and above who understood English. A token of appreciation for their participation (R100) was offered. The study took place in GP, an economic hub in South Africa; the province presents local citizens and labour migrants with several job opportunities. Despite these job opportunities and over 40% of women having had a breakthrough in the labour market, Black women continue to live in poverty due to gender inequality, as women are mainly exposed to lower-paying jobs (StatsSA, 2021). The province is also urbanised, however, the living conditions of those living in informal settlements expose them to health, social and economic risks. This means that the residents have inadequate sanitation, lack of clean water, overcrowding and mental health issues (StatsSA, 2015; Wang, 2022). Moreover, they experience social issues related to inadequate housing, indecent school infrastructures, limited access to education and social services, as well as lack of safety and security (StatsSA, 2015; Wang, 2022; Zulch, 2023). Economically, there is also a lack of stable jobs and a lack of property ownership, making women vulnerable to eviction. They also participate in informal economic activities that provide less job security or benefits (Wang, 2022; Zulch, 2023). As a result, they must navigate through the resources that will help them rise above poverty, which poses a challenge to individuals such as SBWMs, who are the focus of this study (StatsSA, 2015).

As mentioned, the study was performed wholly online due to COVID-19; recruitment was conducted through social media platforms X and Facebook. Due to online surveys often having a low response rate, three social media influencers with over 150 000 followers each, from X, were requested to assist with recruitment by sharing the survey poster which contained the survey link. These influencers were also based in GP. This process helped to ensure that the 400-target sample was met timeously. Therefore, quantitative data collection took place over three weeks.

Participants were recruited based on their experience of unique challenges in the absence of their children's fathers or spouses. The absence or lack of financial, emotional and physical support from their children's fathers/spouses requires strength and perseverance to navigate these challenges successfully. The relationship statuses included being single, in a relationship but not cohabiting, separated, divorced or widowed. From the quantitative data, single mothers identified with high and low resilience scores were purposively selected to take part in the qualitative study that used visual online photo-elicitation interviews. As the selection of the qualitative study was informed by the quantitative results, there was a waiting period of over six months between the time participants took part in the survey and then the photo-elicitation study. This, therefore, required screening of participants to determine if they still met the selection criteria, as well as re-consenting. The selection criteria for the photo-elicitation also included access to a smartphone for taking photos and Zoom/Skype/Google Meet platforms for conducting interviews online. This process was concluded by the gatekeeper.

Of the 400 participants who completed the quantitative survey, 58 provided their contact numbers. Of these 58 (15%) contact numbers, only 38 could be reached, while others were not reachable. This is due to some contacts being invalid and some ringing unanswered despite three attempts made. Therefore, of the 38 that could be reached, 12 (3%) indicated that they would participate, however, only one participant took part in the study from this group.

Additionally, the remaining 334 (84%) provided email addresses. Of these, 28 bounced back, which meant that some email addresses provided were not carefully typed by the participants. Since the email addresses were included at the end of the survey, the researcher and the gatekeeper had no control over the verification of the authenticity of the emails or contact numbers provided. Therefore, only 306 (77%) contactable emails could be used for the qualitative study, with just over 30 having reverted with interest. There were no emails of refusal received from those contacted.

A batch of 20 emails were sent each week over three months and two weeks. Those who emailed were allowed one week to respond. This allowed time to observe the number of responses before dispatching a new batch of emails the following week. Other participants were contacted through a voice call and three attempts were made for each of those that could not be found on the first attempt. A follow-up contact was made with participants who had indicated interest in the study, however, they still did not submit the photos as agreed. These participants were later excused. In the end, a total conversion of four (1%) single mothers took part in the photo-elicitation. The process of recruitment is summarised in the figure below.

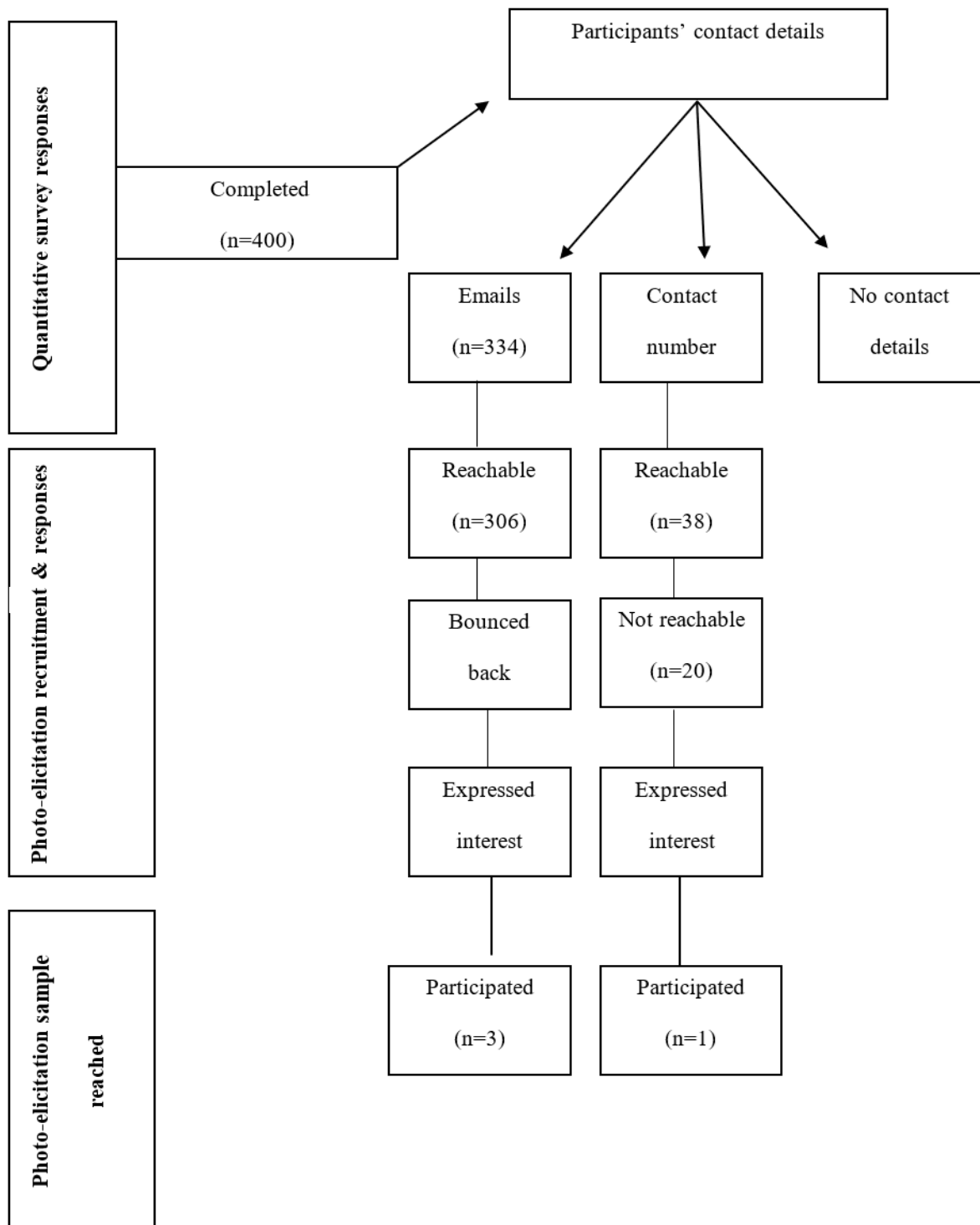


Figure 7: Recruitment flow chart (Quant & Qual)

Once participants were selected, the photo-elicitation method was thoroughly explained through an individual workshop that was conducted telephonically. A supplementary written guide on the steps to follow when taking photos was also shared with participants via email. Participants were requested to take photos every day for seven days through the following: “Please take a photo of what, or something representative of what has helped you stay strong as a single mother”. They would then insert the

photographic images onto a Word document, followed by a written explanation of what the photo meant in reflection of their own experience and understanding. Thereafter, the photos were shared via email and WhatsApp with the researcher who would conduct the interviews. Due to load shedding, this process was disrupted and participants were unable to stick to the number of days required to complete the task. Some participants took a month to complete the photo-elicitation with the help of constant reminders. The smartphones participants were using often did not have sufficient power to complete the tasks. For others, it was a challenge to capture photos daily as they would sometimes forget the task, given their overwhelming professional responsibilities.

In summary, the four participants ranged in age from 35–43 years old, with one residing in Mamelodi and three other participants having relocated outside the GP (Potchefstroom and Ditsobotla region) at the time photo-elicitation data were being generated. One participant held a ‘divorced’ status, one ‘separated’, and the other two participants were ‘single and not cohabiting’. A total of 59 photos were received from all four participants. Upon receiving all photos from each participant, an in-depth follow-up interview was conducted by the researcher to better understand the meaning of the photos shared and seek clarity on some written explanations if need be. Due to a lack of access to the initially proposed method of interaction (Zoom/Skype/Google Meet), the researcher had to use a different method of engagement and conduct interviews telephonically. Some participants preferred WhatsApp voice calls. It should be noted that adopting the WhatsApp voice call method was because the calls are end-to-end encrypted. The time for interviews was determined by the participants’ work schedules. Therefore, interviews could only be conducted in the evening once participants had left work. The length of interviews ranged between 45min - 1hr 20min. All interviews were audio recorded and transcribed verbatim and checked for accuracy. The photo-elicitation process, including interviews, was conducted from December 2022 through February 2023.

This study critically reflected on the qualitative research process used in the mixed-methods study which preceded this article. The data for this current study consisted of the critical reflections of the first author, critical reflective discussions between both authors, peer debriefing sessions, as well as email and WhatsApp responses from participants. All the reflections together provided insight into the challenges encountered when conducting photo-elicitation online. At the end of this study, the researchers propose

ways forward for researchers conducting visual methods online within resource-constrained contexts with vulnerable participants, like South Africa.

2.3 DATA ANALYSIS

To make a contribution to the online qualitative research methodologies employed in resource-constrained countries, and with vulnerable groups such as SBWMs, this reflective article delved into how researchers conducting photo-elicitation online in an ethically sensitive way. Data analysis comprised visual (photographic) data from photo-elicitation, first author's field notes from photo elicitation interviews, telephonic follow-up interviews, peer debriefing sessions, WhatsApp texts and e-mails generated during the research process of SBWM's resilience in South Africa.

The first author read and re-read all data to reflect on clues related to the possible benefits and limitations of using photo-elicitation interviews online to identify and explain resilience resources of SBWMs.

Segments of data that addressed benefits and limitations were grouped. Following Braun and Clarke (2022) inductive thematic content analysis to identify themes explaining the value and limitations of using photo- elicitation online to identify and explain resilience resources among single, Black working mothers, was then used. In this process, we were mindful of SERT and therefore paid attention to how SEs enabled or constrained this qualitative approach. In this sense, as Braun and Clarke (2022) observed elsewhere, there were deductive elements in the analysis. Both authors had lengthy discussions about the emerging themes, and revised initial themes, as Saldana (2009) advises, before reaching consensus.

The first author focused their reflective discussions on i) ethical issues surrounding the online recruitment process; ii) risks of researcher disclosure and, iii) ethical challenges on privacy and confidentiality for online survey and photo-elicitation participation. These three points are further elaborated in detail with the focus on other sub-points in the sections that follow. These themes relate to the token of appreciation, drop-outs/withdrawals, low response rate and mutual trust between researchers and participants. Illustrative evidence in the form of screenshots selected by the researcher, is further provided to contextualise themes as depicted in the figure below.

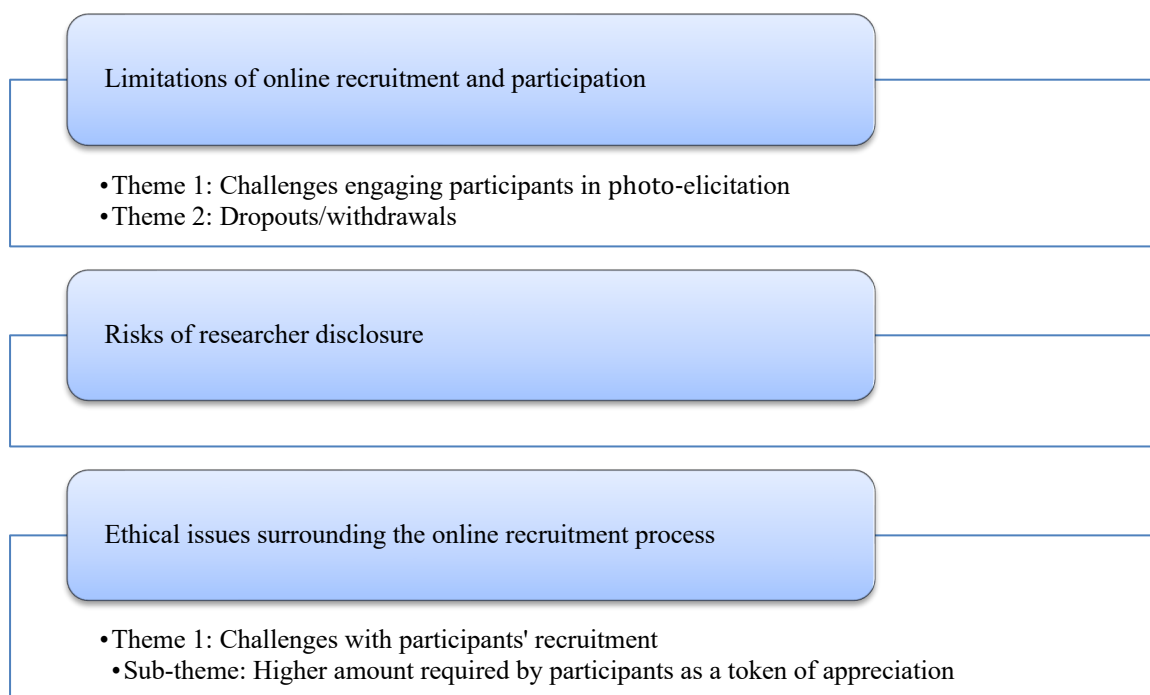


Figure 8: Summary of themes

3. ETHICAL CONSIDERATIONS

The research project was approved for execution by the NWU-HREC, which gave it the permission code "NWU-00252-21-A1". The introduction letter, which was a part of the survey questionnaire in the first phase, included specific instructions for participation in the second phase, as well as selection criteria. A mediator was available to answer any questions interested participants had about filling out the survey questionnaire. Before participating in the photo-elicitation method, participants were asked for their re-consent.

Additionally, the research was conducted according to the HREC's ethical standards. Additionally, participants were asked not to take pictures of other individuals without getting their permission (bystander consent); however, if they did, the faces of those persons would not be published or displayed. Furthermore, participants gave their consent for some of their photographs to be utilised in the study if necessary.

Since the study was conducted online, there were no major financial ramifications. The cost incurred by the researcher regarded data provided to each participant for the photo-elicitation research process. Interviews were performed over the phone using WhatsApp call and voice calls, depending on the participants' preferred platforms, and photos were preserved online rather than printed. In this way, neither the participants nor the researcher incurred any expenses. However, in lieu of data vouchers (at their own

request), each participant received R100 as a token of appreciation for their efforts and time in ensuring that data were obtained as planned.

4. FINDINGS

This section highlights critical lessons visual method researchers need to learn when engaging single mothers during photo-elicitation interviews online. The findings reflect insights into the researcher's process and further provide recommendations for how to uphold ethical standards.

4.1 Challenges with participant recruitment

Although the long-standing, well-established practise of paying research volunteers can be beneficial for recruitment (Grady, 2019), finding the ideal balance between providing fair remuneration to encourage participation and without overly influencing participants or affecting the validity of the research is still a challenge, as documented earlier by Flege, Thomsen, and Thomsen (2017). However, when drawing closer to the first author's experience regarding the recruitment process challenges in this study, there may have been some unintended exploitation of participants as a result of following the university's REC regarding acceptable amount as a token of appreciation.

There is a strong argument to respect the expertise the participants bring to the research process and that this be reflected in the way participants are reimbursed for their time and said expertise by considering the ways in which research participants are exploited in terms of their time and expertise that are used to support researchers in their own achievements for minimal reimbursement (Saleh et al., 2020).

In this study, a request from participants for a higher payment as a token of appreciation was made, warranted by the amount of time required of participants to complete the photo-elicitation. As a result, some single mothers opted out of the second phase of the study (qualitative) which was informed by the results of the first phase (quantitative) because they believed the token of appreciation (R100) was less than what other research companies offer to participants (citing R300 or more). The NWU-HREC approved R100 as a token of appreciation to avoid coercion and luring of participants with the intention of having genuinely volunteering participants willing to share their experiences in a manner outlined to them without expecting anything in return.

The demands made in this regard suggested that as visual methods researchers, we need to start weighing the demands that come with the requirements of achieving the objectives of our studies, ethically. Visual research has evolved into a very useful technique due to its novelty in providing insights into participants' experiences (Quinton, Gennari, & Dibeltulo; 2022; Weber, 2019). It also became clear that there was a need to rethink what an ethically appropriate token of appreciation is, particularly for vulnerable participants living in resource-constrained contexts. Therefore, the researchers asked themselves *What can visual method researchers consider as a fair token of appreciation in the context of SBWMs in South Africa?*

To answer this question, firstly, participants in this study were single mothers who rely on their income, and therefore, would rise to every opportunity that helps them financially, such as research participation. Therefore, the design of an appropriate token of appreciation needs to reflect on the type of participants targeted, the context within which the study is conducted and the culture of participants.

There also needs to be a fine line between coercion and appropriate tokens of appreciation. Achieving the proper balance is crucial for maintaining the principles of research ethics and guaranteeing the validity and integrity of research findings. It is important to ensure that incentives offered to research participants are neither so large that they become coercive nor sufficiently insignificant that they fail to acknowledge the value of participants' involvement. This recommendation requires an advisory panel to ensure that such issues are critically considered for the success of research studies.

Moreover, photographing one's experiences is one other form of elicitation, therefore, visual researchers may need to consider other elicitation option that will not be time-consuming for single mothers such as keeping a journal or diary, and drawings. These are some forms of elicitation that only require a pen/pencil and a paper, which are easily accessible.

The above highlights the need to revisit the remuneration plan, although academic budgets may restrict compensation. This may include alternative forms of rewards. Additionally, ethical guidelines should regularly be revisited by academic institutions to ensure that they reflect the changing nature of visual research and participants' expectations. It is our responsibility to ensure that participants do not feel undervalued and taken advantage of, in comparison to opportunities presented by other research firms.

4.2 Challenges engaging participants in photo-elicitation

4.2.1 Dropouts/withdrawals

There is no universal scientific term for participants who agreed to participate yet do not participate; however, for this study, they are referred to as ‘dropouts’. These are individuals who, upon meeting the selection criteria and agreeing to take part in the study, were excused due to non-submission of photographs as agreed, despite numerous reminders.

Lorenzo (2023) argues that planning for a research requires that researchers consider methodological processes and their interaction with the social and cultural setting of participants' everyday lives, and going beyond institutional compliance. Social vulnerability—such as poverty and low levels of education—is a key component of this planning especially in developing countries (Lorenzo, 2023). However, it is equally important to note that research does not always go as planned, despite efforts being made to ensure proper ethical research processes.

For this study, some single mothers' reasons for dropping out varied from work to family commitments:

“Sorry just knocked off now at 7 pm from work...and that's an everyday thing. When I get home is [I do] the cooking and homework, so I totally forgot, sorry. I barely have time for anything” (WhatsApp text from a recruit)

This is an indication that there must be a balance between the research goal and the well-being of those volunteering to participate. SBWMs are a vulnerable group whose additional caregiving responsibilities need to be considered when visual methods are being used as a form of data collection. Although their work and family commitments can significantly hinder the intended quality outcomes of the visual method, there must be more flexibility in the research process and other ethics committees should be more accommodating when the initial proposal does not work out as it was planned, such as when the visual method needs to be adapted during the research process. For this, visual researchers should educate ethics committees on the specific ethical considerations that apply (for example, limitations to anonymity because participants are in photographs), and assist in the review of visual methods studies to ensure the process is fully supported.

Researchers may also need to consider additional or alternative methods that can be utilised to achieve the objective(s) of the study without losing the quality and essence of the expected data. These may include

drawings, written narratives or existing photos that would still be relevant to the research question of interest.

4.2.2 Low response rate

Although several attempts were made to contact participants who originally agreed to take part in the photo-elicitation, it is important to note that there must be a balance between the research goal and respect for the privacy of participants. Participants may have agreed to the original survey on the condition that their contact details may be used for research purposes, however, re-establishing communication could potentially lead to questions related to informed consent since they have the right to withdraw at any stage of research.

Researchers also have the responsibility to maintain trust between themselves and the participants; however, this trust and confidence may be lost if participants are repeatedly contacted without success. This may also result in participants feeling uncomfortable and frustrated from the repeated calls or received emails. From the data quality perspective, unused contacts may potentially belong to participants whose information could be crucial to closing the gap in the single mothers' resilience study, which poses a potential threat to the comprehensiveness of the study. This means that researchers may need to seek supplementary data collection methods such as recruiting outside the initial survey participants' list. This will have to be done in agreement with the ethics committees and data must be collected from a population sharing similar characteristics.

4.2.3 Selecting elicitation techniques that are aligned with the context in which the research is being conducted

Just like any other method, interviews have their limits. Certain issues are difficult to describe only with words, hence it may be forced on participants to do so (Thille, Rotteau, & Webster, 2021). Interviews with people in particular contexts are the most useful for answering certain kinds of research questions. Additionally, power dynamics between participants and researchers are reflected in all research studies (Thille et al., 2021). The power imbalance between a researcher and a participant can be influenced by the way a researcher asks participants for their responses (Kvale & Brinkmann, 2009). Therefore, both the

setting in which an interview dialogue occurs and the techniques used to encourage discussion need to be carefully planned.

In this section, although photo – elicitation was adapted under unforeseen circumstances, we discuss the importance of selecting elicitation techniques that are appropriate for the context within which the study is taking place. Alternative elicitation methods are also suggested. Although they don't cover all elicitation methods available for critical research, they offer as exemplars to help with open creative thinking on how to generate data with the vulnerable participants.

For this study, the main challenge in relation to the elicitation method chosen was *loadshedding*. Figure 9 depicts a participant whose task was completed by writing down all her experiences about what helped her stay strong. The narrations were hand-written in detail as she was unavailable for the interview to explain the photos shared. She then took photos of her hand-written narrations and shared them through WhatsApp with the first author, who retyped them for data analysis purposes.

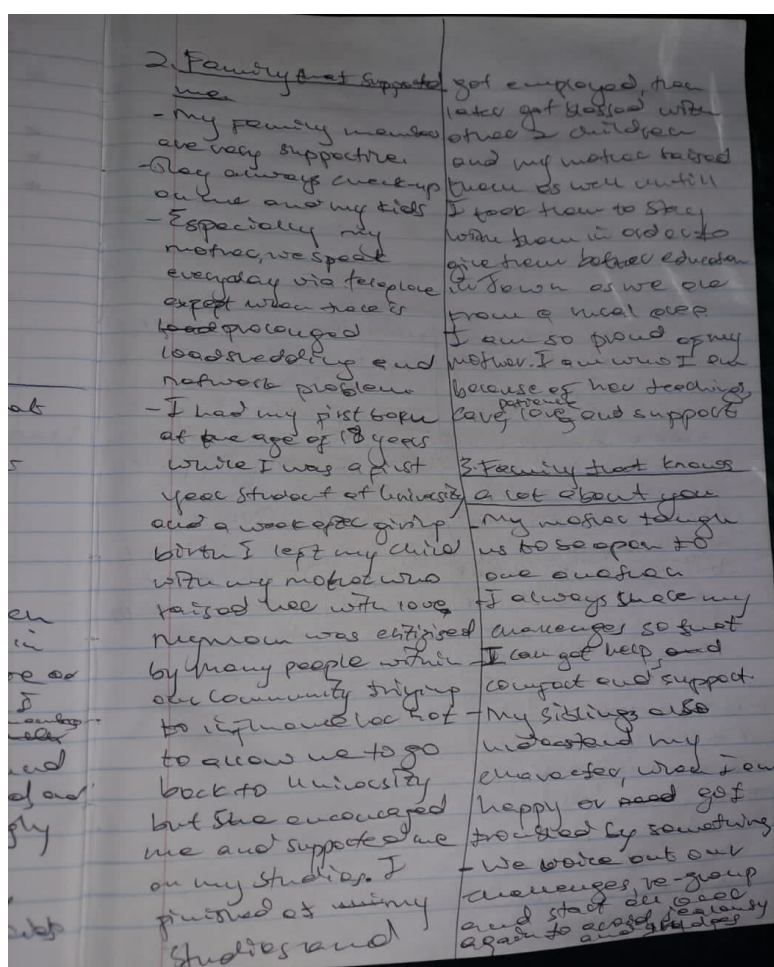


Figure 9: Participant's hand-written narrations

When re-typing the narrations, every word needed to be typed diligently and as authentically as possible to avoid misrepresentation of the participant's experiences. This would have had ethical implications on the quality of data presented.

While data may have been obtained, participant's efforts to narrate her experiences on paper created a burden on her as the lack of electricity meant unequal access to resources and time. This limitation highlights the importance of planning carefully, communicating clearly, and being committed to minimising potential risks and burdens while respecting participants' rights and experiences, as essential components of conducting ethical research with SBWMs under such living conditions. The limitation also confirms the argument that, research processes may be well planned, but may also not pan out as planned due to unforeseeable circumstances from both researchers' and participants' sides and may leave room for participants' unintended exploitation. This means that researchers conducting resilience studies using visual methods and virtual interviews with single mothers in South Africa may have to provide them with resources that do not depend on energy to successfully execute the photo-elicitation interviews online. However, this will require written consent by both the researcher and participants to ensure that the resources are not used incorrectly.

The use of environmental resources such as drawing something to stand in temporarily for a photo may be considered as they do not have cost implications on participants and are less burdensome. Additionally, participants may make use of photo journals with guided prompts for reflections. The photo journals may be created online and/or on paper, then later photographed.

4.3 Risks of researcher disclosure

Ethically, visual method researchers are expected to guard against participants' visuals being compromised as a result of increased visibility by carefully weighing consent and privacy when utilising photo-elicitation. In a turn of events the researcher did not expect, a participant requested a photograph of the researcher to feel more comfortable sharing her own. A concern regarding the researcher's privacy and confidentiality was thus raised.

The participant requested that the researcher share her photo with her so that she could "feel free and know her". Due to a need to reassure the participant that the researchers were indeed responsible and that

she could trust them, one researcher shared a photo. As a result, her response was accompanied by a celebration dance emoji, which the researcher took to mean that she had started to develop trust.

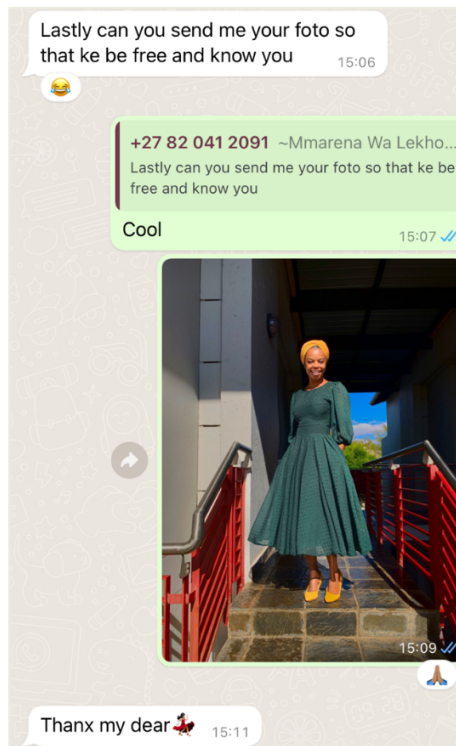


Figure 5: A photo shared with the participant by the researcher

What was deduced from this experience was i) the importance of how to establish rapport; ii) the importance of re-consent to make sure that participants understand the research process fully, and iii) ensuring that they understand how their data will be used. Moreover, the guidelines for conducting visual research are not meant to be prescriptive but rather more flexible and adaptable to each study's unique context. They are there to ensure that the data collection process is mutually beneficial and not exploitative. Sharing the photo with the participant was an attempt to reinforce the burgeoning trust relationship and strengthen the status of the participant as a co-producer of research knowledge, making the process mutual.

However, there is also a need to develop an ethical guideline that protects researchers from their privacy being potentially compromised due to the participants making their visuals available to the public. When photos are shared, individual's privacy may be at risk because their pictures could be seen by a larger audience (Black, Alun, Dalis & Chambers, 2018). Therefore, ensuring that participants are aware of the possible repercussions of increased visibility is an ethical aspect of photo-elicitation that requires more emphasis. This can be achieved by re-consenting, patience from researchers and additional ethical guidelines that consider researchers' risks.

5. CONCLUSION AND GUIDELINES FOR FUTURE RESEARCHERS

To conclude, this study's results highlighted crucial lessons for researchers who work with single, Black mothers who are employed, using visual approaches such as online photo-elicitation interviews. The barriers that have been observed, which range from problems with participant recruiting to privacy and confidentiality issues, offer insightful information for enhancing research procedures and maintaining ethical standards in visual research with SBWMs.

A crucial observation pertains to the matter of participants' token of appreciation. The research process in this study showed that, particularly in situations where SBWMs are structurally and economically disadvantaged, the usual approach of appreciating them might not be appropriate everywhere. A comprehensive approach to the token of appreciation is necessary, considering the unique qualities of the participant group, the cultural setting, and the dynamic nature of visual research. This is highlighted by the conflicts that exist between SBWMs' expectations and the ethical considerations of appropriate remuneration.

Researchers are exposed to potential exploitation when there are unclear ethical guidelines for non-clinical trial participants, as the South African context demonstrates. The analogy with market research practises highlights the significance of reviewing compensation plans, even when academic budgets are limited. Involving an advisory panel in decision-making processes regarding participant compensation can be a valuable step towards ensuring a fair and ethical approach. Flexibility in research methodology is essential, as evidenced by the difficulties in recruiting participants for photo-elicitation, such as low response rates, load shedding, and dropouts/withdrawals. To collect valuable data without unduly burdening participants, researchers must consider specific challenges encountered by vulnerable groups, such as SBWMs. They must additionally explore different techniques of generating qualitative data.

The research shows the fine line that exists in visual research between privacy concerns and reciprocal trust. The instance in which a participant asked to see the researcher's photo highlights how crucial it is to build rapport and how stringent ethical norms are needed to protect researchers' privacy. A more open and friendly research environment may result from the creation of such standards and re-consenting procedures.

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SECTION C: CRITICAL REFLECTIONS

1. INTRODUCTION

This final section contains a summary of the research process, main contributions of the study, as well as a critical analysis of how the aim and objectives of the study were achieved in relation to the research topic. Moreover, a critical discussion of the research process is included, along with an overview of the methodology used. Finally, the researcher's experience is shared, alongside limitations and recommendations.

2. RESEARCH PROBLEM

As discussed in the first chapter, the problem on which this research study was based, was identified around contextual resources that promote South African SBWMs' resilience. Adults are identified from the age of 18 years, however, single mothers can also be identified during adolescence. This study focused on single mothers who are adults because they face more responsibilities as they get older, responsibilities that include having to earn an income while giving care support to children in the absence of their fathers. South Africa is also faced with socio-economic issues that affect these single mothers due to gender inequalities in the labour market, placing them at risk of poverty. To rise above such adversities, they require a holistic state of well-being, which can be fostered through the contextual resources that enhance their resilience. Resilience is not only beneficial for single mothers but also for the children they are raising. However, while many studies have included single mothers, resilience studies have neglected explorations of the unique contextual and cultural resources that foster resilience among single mothers in South Africa. Thus, the researcher was interested in exploring and better understanding the resilience resources of this group.

3. RESEARCH QUESTION AND AIM

The main research question, *What promotes resilience among SBWMs in South Africa?* was formulated with the research problem in mind. The aim of the study, therefore, was to investigate resilience among Black, South African single working mothers using a mixed-methods approach.. Data were collected through an online survey, photo-elicitation and in-depth interviews. The photo-elicitation provided participants with the opportunity to reflect on their experiences and give their personal views regarding their single motherhood experience. The study was mixed-methods in nature and followed the descriptive

and explanatory approach, which made provision for photographing meaningful objects/things that helped single mothers stay strong.

However, the photo-elicitation method had its specific challenges due to the resources it required to be a success. The method, including individual interviews, was carried out virtually via emails, WhatsApp and Zoom. This was due to unforeseeable circumstances that required additional resources to achieve the objective of the study. The study took place during COVID-19 and an electricity crisis. Participants were resource-constrained; they relied on their smartphones which were constantly off due to a lack of electricity, therefore the time to capture what was required and submission dates were negatively affected. Although some participants made efforts to be resourceful, it put more strain on them as the approach they took was time-consuming, which could have alternatively been achieved through an interview. However, the interviews and textual explanations of the photos shared made it easier for the participants to feel comfortable and talk honestly and openly about their experiences.

4. RESEARCH PROCEDURE

As mentioned above, to achieve the aim of the research, the researcher made use of both quantitative and qualitative data-collection methods, which included an online survey, and photo-elicitation, followed by in-depth interviews. The quantitative data in the survey were collected through social media platforms (X and Facebook) as they were the most appropriate platforms under the unforeseeable circumstances of COVID-19. Additionally, the use of X influencers with a larger following enhanced the recruitment procedure to ensure that data were collected timeously. The data from the survey provided broader insight into adult resilience in terms of the scores among SBWMs.

The visual data in the photo-elicitation, though generated from a small sample, was rich in providing explanations for the quantitative findings, thus complementing the quantitative data. It also provided participants with the opportunity to reflect deeply on what specifically helped them as single mothers. Individual interviews were conducted with four respondents aged 35-45 years. These are single mothers who hold jobs in managerial positions (Human Resources and Student Bursaries) and two social workers. As a result, they experienced challenges with keeping photo-elicitation timelines due to the nature of their work and their family responsibilities. Single mothers' caregiving responsibilities also had an impact on photo-elicitation recruitment; some cited that they arrive home very late due to the absence of electricity

and must help their children with schoolwork. Therefore, this led to a low response rate, even by those who showed interest in participating. There were also challenges at the recruitment stage for photo-elicitation about participants demanding more than what was being offered as a token of appreciation, approved by the ethics committee. This also led to a low response rate to the method. As a result of these challenges, the research was prompted to provide a manuscript that reflects on these contextually based challenges and provides suggestions for future researchers intending to conduct similar studies in resource-constrained countries with vulnerable groups.

Each interview was recorded in a voice recorder and audio was transcribed verbatim. The researcher coded and re-coded the textual and visual data with the assistance of the supervisor. This also served as a way of ensuring trustworthiness in the study as bias was avoided. The researcher then made use of inductive thematic data analyses to analyse data and place participant quotes into themes. Several procedures were followed to ensure the trustworthiness of the data and findings, as described below.

To ensure *truthfulness*, data were cleaned to ensure the same participants did not complete the survey twice. This was done by checking the duplicated contact details provided. All in-depth interviews were recorded, and the researcher was part of the research team that transcribed all data. No information was changed, adapted or manipulated.

To prevent *researcher bias*, the survey recruitment process was handled by an independent gatekeeper who responded to participants' questions (if needed), and the researcher was not involved. The researcher did not contaminate qualitative data with their own opinions, preconceptions or perspectives and thus the supervisor who took part in the research process re-coded data independently to respect participants' personal opinions or perceptions. To guarantee that participant interactions were unaffected by the researcher's own viewpoints, views, or preconceptions, they removed themselves from the stage. Transparency and documentation were given top priority during the whole study process. Every step of the survey recruitment process was meticulously documented, including communications with participants and any queries answered by the gatekeeper. To establish accountability during the data analysis stage and increase transparency, the supervisor's re-coding procedure was also well documented (Johnson, Adkins, & Chauvin, 2020). Reflective methods were used by the researcher to identify and deal with any biases that might have developed during the course of the investigation. This required a critical assessment of oneself

as well as an awareness of the potential effects of one's own preconceptions or presumptions on the interpretation of evidence and a dedication to reducing these effects.

More than one *data-collection method* was used (online survey, photo-elicitation and in-depth interviews). This provided opportunities for data to be collected from more than one angle.

To *validate data and themes/codes*, quantitative data were validated using CFA and EFA, although the researchers were unable to establish construct validity after multiple attempts. The questionnaire, however, proved to be reliable. For the qualitative data, the research supervisor assisted in validating the themes by providing input. The reflections discussed in the third manuscript were from multiple meetings, journal keeping and discussions between the researcher and the supervisor.

5. RESEARCH SUMMARY

Data were analysed using the ARM-R that contains the two sub-scales, personal and relational resilience. It is clear from the quantitative results that single mothers with no partners at all and those with partners but are not cohabiting, showed a higher level of both personal and relational resilience than those who are separated, widowed or divorced although the difference was not largely significant. The level of education attained, employment status and income level, as well as the number of years spent raising children also played a significant contribution to the overall resilience of single mothers. The effect size did not show any significant variation by relationship status, the reason could be seen through similarities in codes and themes identified from the in-depth interview responses.

The qualitative findings highlighted how these two resilience factors come into play for these single mothers and it was clear that these factors are shaped by single mothers' culture. The findings revealed that single mothers' personal resilience was demonstrated by their agency and mastery in taking advantage of educational possibilities that resulted in job opportunities that pay well. This was evident in the quantitative results, where the level of income and employment status proved to enhance personal resilience. They persisted in demonstrating a desire to pursue their education to improve their future and obtain advantageous opportunities. By placing money into their education, single mothers were able to look for jobs that would help them take care of and support their children. Since their children's fathers did not provide them with any financial support, they took proactive steps to secure work. In addition to making a

concerted effort to further their education, single mothers used their educational experience and professional background to pass on their knowledge to their local communities.

Their relational resilience resources, which are centred around positive attachments formed within and outside their families and communities, were also critical for their overall resilience. The following four themes were covered in relational resilience in the study: i) Community of caring women; ii) Caring women offer and reciprocate practical support; iii) Caring relationships are characterised by openness and reciprocity; and iv) Community of caring women provide spiritual support. All single mothers who participated in the study reported having positive and stable relationships at work, in their churches, and with their families. Almost all single mothers in these relationships were mothers, sisters, female churchmates, and other single mothers who worked in similar organisations to the participants.

The study discovered that while Black South African fathers tend to be absent, women tend to be available and present by nurturing relationships and providing resources and support. The study also discovered that having family members assisting with childcare enabled single mothers to show their agency and take charge of their education and career aspirations. Mothers who otherwise would not have had access to child-care support were, therefore, able to take advantage of opportunities. Single mothers' agency was reinforced by the supportive relationships in their lives, which encouraged their academic milestones and accomplishments. The study also discovered that church peer relationships, prayer, and scripture reading were effective forms of spirituality in helping single mothers deal with their life challenges.

It was clear from the findings that despite all the challenges single mothers face, they are still able to maintain some level of psychosocial well-being through the positive relationships they establish. The findings suggested that understanding SBWMs' resilience requires understanding their cultural context. Spirituality was found to be one of their most valuable resilience resources, however, in the ARM-R, items relating to spirituality were removed and considered less significant to adult resilience.

6. MAIN CONTRIBUTIONS OF THE STUDY

6.1 Manuscript 1

The results of this manuscript shed light on several factors that affect and contribute to SBWMs' ability to adjust well to the difficulties of being a single mother, which greatly contributes to the understanding of their resilience in context. The following sub-sections summarise this manuscript's major contributions.

6.1.1 Emphasis on relational resilience

Among SBWMs, the study emphasised the significance of relational resilience. The moderate overall resilience scores indicated that social networks and support systems are crucial for enabling healthy adjustment to the difficulties of being a single mother. This confirmed the SERT, which emphasises the value of role negotiation, emotional intelligence, practical support, and ecological support for vulnerable groups.

6.1.2 Impact of employment status on resilience

An important factor affecting single mothers' resilience is their employment status. The study supported the adult resilience theory by emphasising the relationship between work and social support, financial security, and personal satisfaction. This offered a more complex outlook on how work might support single mothers' well-being, sense of self, and ability to solve problems.

6.1.3 Effect of relationship status

The study found that SBWMs' resilience may be impacted by their separation or widowhood, with non-widowed and non-separated mothers demonstrating higher levels of personal resilience. The discovery highlighted the need for further support systems or coping techniques for divorced or grieving single mothers, considering the unique stresses connected to partnership dissolution or death.

6.1.4 The complexity of adult resilience

The study acknowledged that SBWMs have complex resilience. It emphasised how important it is to consider factors such as age, the number of children, education, the number of years spent as a single

mother raising children, and income level when examining adult resilience. This called into question previous research studies that possibly ignored specific challenges encountered by SBWMs.

6.1.5 Role played by spirituality

The study's finding of spirituality as an influential protective factor among SBWMs was a noteworthy contribution. The findings continue to prove that spirituality is an important component of resilience and plays a significant role in shaping adult resilience as confirmed by other adult resilience measuring tools. The findings suggested integrating spirituality into the Black population's context, which challenges the current ARM-R which does not have the spiritual aspect.

6.2 Manuscript 2

This manuscript complemented the first manuscript and provided a complete explanation of the resilience of SBWMs. The study emphasised how crucial it is to use an in-depth approach that considers the complex interactions between personal, relational, and overall resilience factors to better understand and encourage resilience among SBWMs in South Africa. The presence of women (parents, siblings, relatives, colleagues, churchmates) in SBWMs' lives was the highlight of this manuscript, which revealed how the absence of Black fathers has been a generational practice. The results further bore noteworthy implications for the design of focused interventions and support networks that address the variety of needs of this specific group of people.

6.3 Manuscript 3

The manuscript contributed to the specific challenges experienced when collecting data virtually under unforeseeable circumstances such as COVID-19, with a marginalised group of people in resource-constrained countries. The reflections gathered are crucial for future researchers who intend to use qualitative methods virtually with the vulnerable.

The study highlighted the ethical limitations that come with certain REC decisions at universities. It further made suggestions as to how best research students and ethics committees can address qualitative data collection-related issues to the benefit of not just the researchers but also participants, as they contribute greatly to the body of knowledge. Without participants' shared experiences, the research goals

cannot be met. Therefore, the manuscript emphasised understanding the demands of participants versus what the ethics committees agree to.

7. CRITICAL REFLECTIONS ON THE EXPERIENCE OF THE RESEARCHER

7.1 Personal reflections

It has been enlightening and liberating to embark on a PhD journey that focuses on the resilience of SBWMs. My personal experience with the struggles encountered by the women I studied, especially the financial struggles, motivated me to do this research as a Black single mother. As I think back on this journey, I think it is important to discuss some of the major occurrences, difficulties, and realisations that moulded my growth both academically and personally.

One of my first assumptions was that women with backgrounds comparable to mine would be eager to participate in the study. However, when potential participants' financial concerns took precedence, I faced an unforeseen obstacle. It was disappointing to see financial incentives take precedence over the opportunity to add to the body of knowledge regarding the adversities SBWMs experience. Many single mothers who indicated their willingness to participate in the qualitative phase of this study withdrew or did not respond or requested a higher token of appreciation. This demonstrated how financial factors come into play when a researcher must engage mothers who are the sole providers of their children. This further sheds light on how critical it is for researchers to understand their participants and the contexts in which they live when choosing how to engage participants in research processes. In addition to being mindful of participants' contexts, researchers and ethics committees must also consider what is appropriate in terms of reimbursement and tokens of appreciation. These should be carefully considered so that they are meaningful to participants, but not considered to be coercive. For example, alternative means of tokens of appreciation could be considered for single mothers such as vouchers for groceries, school fees, prepaid electricity vouchers, transport vouchers, or vouchers for petrol, amongst others. These types of tokens of appreciation may be more appropriate for single mothers as this may contribute towards their livelihoods in a small but meaningful way.

In addition to the challenges around tokens of appreciation, the unexpected difficulty posed by COVID-19 forced a change in the study's methodology to an online version. Fearing that I would not be able to gain a significant sample size timeously, I came up with a creative plan to use X influencers. I approached

influencers and asked them to share the advert for my study on their pages for their followers to see. They graciously agreed and within three weeks I obtained a sample size of 400 for the quantitative phase of this study. This strategy paid off, since the target sample was large, and many people do not show interest in online surveys unless they are being paid to complete them. Online surveys are notorious for their low response rate and making use of social media influencers may be a resource for researchers to draw on when advertising online research studies. However, it is important to note that while social media influencers may reach large audiences, there are limitations in terms of the reachable audience. Participants with a wealth of knowledge and insight might be missed or excluded due to the inaccessibility of Internet services.

Unexpected difficulties arose during the quantitative data analysis stage. There was an eight-month-long period of non-productivity due to a statistician whose expertise I had to rely on. The statistician was unreliable and after eight months of waiting for results, my supervisor and I arranged for a different statistician to re-do the statistical analysis of my data. This was incredibly challenging for me as a SWM myself, completing a doctoral study without sufficient funding. My mental health suffered at this time, so I sought support from a counsellor. My mental and emotional resilience has grown significantly because of the counselling received, which proved essential in assisting me in accepting the aspects of life that are under my control and those that are not. This challenged me to reflect on my resilience and to intentionally find support and ways forward, despite the challenges I faced on my journey. Universities, supervisors, and funding agencies should take cognisance of the challenges that I, and many other students in my position, face and find alternative ways to support students to complete their master's and doctoral studies without them becoming over-indebted. While I did receive bursaries from NWU, which I am grateful for, the amounts are not enough to cover all the expenses of the degree and research process.

In addition to the financial challenges, access to electricity caused many difficulties during the qualitative phase of this study. Power outages due to poorly maintained infrastructure and load shedding prevented participants from engaging in the research process and submitting their photographs. This resulted in a very small sample size for the qualitative phase. However, despite the small sample size, the visual data added depth and richness, which led to meaningful insights into the resilience of SBWMs.

This path, despite the many challenges faced, has been crucial to my development as a single mother and researcher. Every obstacle served as an opportunity for learning and offered perspectives that went

beyond the academic space. An important lesson learned is that there are uncontrollable elements in research, as in life. It emphasised the value of flexibility, endurance, and resilience -qualities that are necessary in both the workplace and in one's personal life. I also want to share some words of wisdom with my fellow PhD students based on my personal experience:

- Accept adaptability: Be ready to adjust to unanticipated events and difficulties. When handling the unpredictable nature of research, flexibility is essential;
- Give mental health first priority: Recognise the toll that difficulties can have on your emotional well-being. Seeking guidance or assistance is a proactive move to preserve well-being rather than a display of weakness; and
- Take lessons from difficulties: Every challenge offers a chance to improve. Approach problems with an open mind, understanding that success in overcoming adversity is the foundation of resilience.

7.2 Methodological reflections

I was actively involved with the participants during the photo-elicitation method and interview processes. I had an opportunity to engage in a one-on-one level conversation with participants and felt that the participants were welcoming, open and honest about their experiences regarding single motherhood. From my observation, the interview questions were easy to understand because they were about each single mother's shared photos. The interviews also made them realise the depth of their challenges and gave them a platform to 'vent'. Therefore, the qualitative method employed was indirectly therapeutic.

Engaging with single mothers who allowed me into their daily life spaces, helped me better understand and value their time and knowledge when conducting research because of the unique challenges they face. Although they were keen to take part, security and trust were key to the participants. This was particularly noticeable when one of the mothers requested a photograph of me to ensure that I may be someone that she could trust, regardless of whether she knew if the photo shared with her was me or not. This reminded me of the importance of the human researcher in the research process. The participants needed reassurance that I was who I said I was and that I would use their information in the way I had said I would. This trust relationship is critical for the success of the research process. While methods must maintain scientific

integrity, the human element of connecting to participants is essential. Online research methods are effective but must ensure that the human element is at the centre of the process.

8. LIMITATIONS

While the findings of this study add to the literature on South African SBWMs' resilience, there were important limitations that impacted the generalisability and transferability of the results of this study to the participants' population. These include:

- All participants were purposely selected because they were in GP, which is the most populated, with diverse job opportunities, thus becoming an ideal region to focus on. The fact that the participants were all from GP is not technically a limitation, however, it does impact the generalisability and transferability of the results of the study to other populations in terms of the demographics used in the study. Future studies may want to focus on other additional demographic variables that mirror single mothers' challenges in other provinces;
- GP is also more urbanized. Since single mothers in rural or less urbanised areas may face different challenges and have different coping techniques, their experiences may not be adequately represented by this urban bias, therefore future studies may conduct a study comparing resources of those in the rural vs urban areas;
- The study was also limited to participants who could access social media platforms, therefore the findings may not be generalised to the entire population of this study sample because there was no opportunity for non-social media-based single mothers to participate. Additionally, SWMs who cannot afford smartphones, computers, or Internet access were not involved in this study. Future studies should include SWMs from a variety of circumstances to gain more insight into the unique contextual and cultural ways that their resilience can be fostered;
- In addition, the qualitative sample composition was also one of the factors that affected transferability. The sample was very small despite repeated attempts to encourage those who agreed to participate. This was mainly for two reasons, namely that i) potential participants requested more money in exchange for their participation, and ii) limited time considering all the responsibilities these single mothers have. Despite the small sample size, the generated data were

rich; yet, the transferability of the findings of this study may be limited. Further research should be conducted to expand on the insights learnt and presented in this study;

- Due to circumstances beyond the researcher's control, there was a waiting time of more than six months before the quantitative and qualitative stages were integrated. The participants' circumstances may have changed within this period, which would have reduced the qualitative phase's relevance to the preliminary quantitative findings, despite efforts made to re-consent and re-screen. Despite this time-lapse, the qualitative findings were rich and complemented the quantitative data and provided insight into the resilience of SBWMs and how their resilience is shaped by their culture and context;
- The photo-elicitation exercise was difficult to finish on time due to external factors including load shedding, participants' work duties and caregiving responsibilities. The consistency and quality of the data that were gathered may have been affected by these external factors as mothers may not have had sufficient time to reflect deeply;
- Due to participant choices or technological limitations, the inability to employ the first suggested methods of engagement (Zoom, Skype, Google Meet) may have an impact on the level of communication and rapport built during interviews. This was evident in the request for the researcher's photograph to be sent. When conducting qualitative research online, it is essential to ensure that interviews are done with video to establish rapport with participants to obtain an accurate and true reflection of their realities and experiences;
- Although useful, using telephone interviews may not be able to capture all the nonverbal cues and visual elements that may have been seen in video interviews; and
- Since the interview schedule was reliant on participants' work schedules, conducting interviews solely during the evening may have imposed time constraints, which could have had an impact on the interviews' duration and quality. Going forward, researchers should carefully plan and allow feedback from participants regarding the research process. There is a need for more flexibility during the research process, especially when conducting qualitative research because it is an emerging design.

9. RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the findings of this study, there are a few suggestions made for future research that could further our understanding of SBWMs' resilience. These suggestions include:

- As education is one of the environmental factors contributing to the overall resilience of single mothers, there is a need to encourage educational opportunities for single mothers by supporting them. By acknowledging the value of education in building single mothers' personal resilience and giving single mothers access to programs for education and job training will help them become more employable, gain economic independence and be better able to support their children. Intervention programs should focus on education and skills training for single mothers to find and create gainful employment opportunities. This in turn will foster resilience among their children by promoting access to educational and other resources that are important for their positive adjustment;
- Future studies could explore and evaluate intervention programs aimed at fostering and enhancing relationships within families, organisations, and the community. The findings of this study confirm the significance of constructive relationships for resilience, and how these relationships can be vehicles that foster strength and resilience. Future research studies should place more emphasis on single mothers maintaining strong and positive bonds or social networks and relationships that they established with their families/relatives/parents, colleagues and those sharing spiritual spaces with them; and
- Researchers need to pay critical attention to understanding how resilience is promoted within and between the various systems in which single mothers live and interact. Not only for single mothers but for single fathers, and parents and caregivers in general. There is a need for resilience programmes that are in alignment with cultural values and practices, which include spirituality. Future quantitative resilience studies conducted in South Africa could adapt the ARM-R to include spirituality as an important factor to fully measure resilience in the context of South Africa. In addition to this, future research should include steering committees in deciding what important factors should be measured that are not currently included in the ARM-R and other resilience measures.

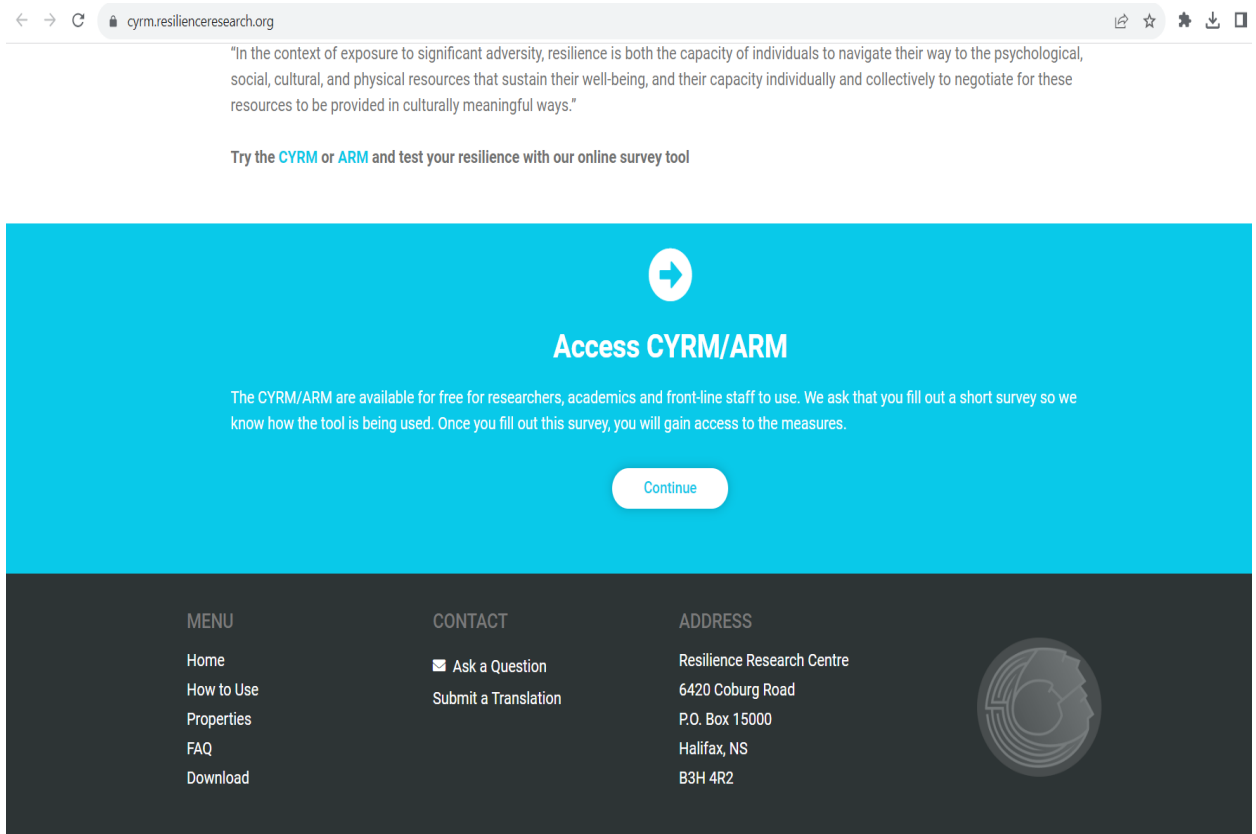
10. CONCLUSION AND CONTRIBUTION

As far as the researcher is aware, this study is the first to measure resilience using the ARM-R in the context of South African SBWMs. Previous resilience studies focused more on adolescents and youth. Furthermore, by exploring specific resilience resources and how the two factors of resilience are interrelated, this study provides an important addition to the literature as revealed by single mothers. The researcher hopes that this study will prompt future researchers to further explore adult resilience by also focusing on Black, single-father participants and perhaps comparing their levels of resilience drawn from a similar or larger sample through a quantitative study and photo-elicitation.

Such findings may assist in informing future resilience researchers who support the development of ARM-Rs to address SWMs' needs. The study also contributes towards informing the relevant people, such as work organisation managers and health professionals, about actions that could be taken in creating intervention techniques that help single mothers stay strong and feel supported. This will help them maintain their independence and well-being longer while promoting a quality life.

ADDENDUMS

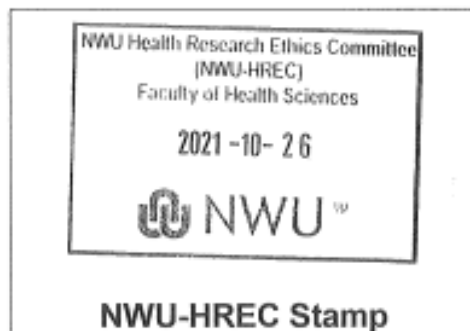
ADDENDUM 1: PERMISSION TO USE THE RRC-ARM QUESTIONNAIRE



ADDENDUM 2: INFORMED CONSENT FORM



Private Bag X1290, Potchefstroom
South Africa 2520
Tel: +2718 299-1111/2222
Fax: +2718 299-4910
Web: <http://www.nwu.ac.za>



**INFORMED CONSENT DOCUMENTATION FOR RESILIENCE
AMONG BLACK SOUTH AFRICAN SINGLE WORKING
MOTHERS: A MIXED METHODS STUDY**

TITLE OF THE RESEARCH STUDY: Resilience among Black South African single working mothers: A mixed methods study

ETHICS REFERENCE NUMBERS: NWU-00252-21-A1

PRINCIPAL INVESTIGATOR: Dr Tamlynn Jefferis

POST GRADUATE STUDENT: Ms Khumbudzo Leburu

ADDRESS: Jackal Creek, Roodepoort, Gauteng, 2169

CONTACT NUMBER: 079 097 3451

You are being invited to take part in a research study that forms part of a Doctoral study. Please take some time to read the information presented here, which will explain the details of this study. You may ask the research assistant (Ms. P Nongema) any questions about any part of this study that you do not fully understand (contact number provided). It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is entirely voluntary and you are free to say no to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part now. This study has been approved by the NWU-

Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00252-21-A1) and will be conducted according to the ethical guidelines and principles of Ethics in Health Research: Principles, Processes and Structures (DoH, 2015) and other international ethical guidelines applicable to this study. It might be necessary for the research ethics committee members or other relevant people to inspect the research records.

What is this research study all about?

We plan to: (1) first confirm that the questionnaire used for testing resilience (i.e., how you cope with daily life and what role do the people surrounding you play in how you deal with daily challenges) among adults, can also be used among the South African employed black adult population; (2) to identify black single working mothers with the high resilience scores and conduct a descriptive analysis on their resilience prominent domains; lastly, (3) to interview black single working mothers individually to try and understand what helps them do well in their role as single working mothers. This will involve taking photos of what helps them do well in their role, which will be followed-up by an interview to discuss these photos and other matters relating to their role.

Due to Covid-19, the survey of this study will be conducted online through social media platforms such as facebook, twitter and LinkedIn between 1 September – 31 October 2021. The survey is targeting 400 employed black single mothers aged 23 years and above, across the Gauteng province. The same individuals will be required to complete the same survey after a period of 3-weeks. Thereafter, individual interviews with single mothers willing to take part in the 2nd phase of the study will be scheduled and conducted privately via skype on suitable dates to be communicated with them and will be done by experienced health researcher trained in conducting in-depth interviews and collecting visual data in an ethical manner. Sixteen (16) single working mothers at most in the Gauteng province will be included in this study.

Why have you been invited to participate?

You have been invited to be part of this research (survey) because you are an employed black single mother over the age of 23 years; and you reside in Gauteng province. For participants who are single mothers, you will further be invited for interviews individually because you are a single working mother and at the same time responsible for taking care of your biological child(ren) alone and all the responsibilities that come with parenting. You will unfortunately not be able to take part in the research survey if you are not employed/ do not reside in the Gauteng Province/ younger than 23 years and are of a race other than black. Some women will not be able to take part in the interviews phase if they are: married/cohabiting/have a partner assisting them with financial responsibilities; are not the biological mother of the child(ren); unemployed; not having/ no household member has a smartphone to take photos for a period of 7 days; not willing to discuss the photos taken; not familiar/no household member is familiar with skype;

What will be expected of you?

You will be expected to first complete a survey questionnaire that comprises 12 demographic questions and 28 questions on resilience (i.e., what helps you do well when faced with challenging situations) as an adult single mother. The time required to complete the questionnaire is approximately 20min. You will be required to complete the same survey again after 3 weeks of completing it for the first time. The same procedure will be followed for completing the questionnaire. To protect your identity, your names will not be used in the questionnaire but rather a unique ID will be allocated. The same identity protection procedure will apply during dissemination of findings. Upon completing the questionnaire, if you are a single working mother and have agreed to take part in the second phase of this study, you will be invited to take part in individual interviews that will start with taking a photo of what helps you to be resilient (i.e., what helps you face your

daily challenges) in your role. These photos will have to be taken every day for a period of 7-days and shared with the lead researcher involved in this study via email. You will not be forced to share them if you do not want to, however, you must be willing to discuss a few of them during a private interview. This session will take place via an online platform called Skype. You will be required to have access to a smart phone that can access these online platforms. You will be provided with internet data to help you connect to internet when sharing these photos via email and when attending these interviews. The photos you share will not be used for journal publications or presentations without your permission. The interview will take approximately 1-hour.

Will you gain anything from taking part in this research?

There will be no direct gains for you when you complete the survey, however, your responses will scientifically contribute to the resilience research knowledge, particularly the South African context of resilience. However, the interview session will be therapeutic and will empower single mothers with mechanisms to deeply explore experiences they may have taken for granted

Are there risks involved in you taking part in this research and what will be done to prevent them?

There are no risks associated with the survey to be completed. The risks to single mothers in the second phase of study are medium as there are participants whose emotions may be triggered by some of the questions asked, while some may not. Should that situation arise, you are allowed to withdraw from the study or alternatively, pause the interview to calm down until you feel ready to resume. Should you realise that you need to seek counselling, such arrangements will be made in consultation with the research interviewer. However, do note that there are more gains for you in joining this study than there are risks.

How will we protect your confidentiality and who will see your findings?

Anonymity of your findings will be protected by not showing your names on the questionnaire to be completed, a unique ID will be used in this regard. Neither will your names be shown when presenting and/or publishing the findings. Your results will be kept confidential and only the student researcher, principal researcher, statistician, co-coder and the study examiners will be able to look at your findings. Findings will be kept safe by storing all electronic data (completed questionnaires, photos shared, recorded interviews) in a password-protected NextCloud of the North West University. Data will be stored for 5 years and destroyed by means of overwriting once the period of keeping it is over.

What will happen with the findings ?

The sample of this study will only be analysed in South Africa and the findings will only be used for this study and no any other study.

How will you know about the results of this research?

We will give you the results of this research when the study has been completed. The findings will be shared via a preferred method of your choice (e.g., E-mail or virtual presentation). Two short PowerPoint presentations will be prepared, one for survey and one for interviews with single mothers. Each participant will receive the findings for what they participated for should they be interested. You will be informed of any new relevant findings by your preferred method of communication (e.g., E-mail/SMS).

Will you be paid to take part in this study and are there any costs for you?

Only single working mothers who will be participating in the second phase of the study (i.e., taking photos of what helps them do well in their role and individual interviews to discuss photos) will receive an incentive of R100 as a token of appreciation. This is due to the amount of time to be spent on all the activities to be completed. This incentive will only be paid to participants who would have completed all the activities required for the

success of this study. There are no travel expenses to be incurred as the study is conducted online. For single working mothers that will be taking part in online individual interviews, internet data will also be provided. There will thus be no costs involved for you, if you do take part in this study.

Is there anything else that you should know or do?

You can contact Ms. Pelisa Nongema on 072 373 5876 if you have any further questions or have any problems. You can also contact the NWU-Health Research Ethics Committee via Mrs Carolien van Zyl at 018 299 1206 or carolien.vanzyl@nwu.ac.za if you have any concerns that were not answered about the research or if you have complaints about the research. You may download a copy of this information and consent form for your own purposes.

Declaration by participant

By clicking below, I agree to take part in the research study titled:.....

I declare that:

- I have read this information/it is explained in a language with which I am fluent and comfortable.
- The research was clearly explained to me.
- I have had a chance to ask questions to the researcher and all my questions have been answered (If you needed to)
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be handled in a negative way if I do so.
- I may be asked to leave the study before it has finished, if the researcher feels it is in the best interest, or if I do not follow the study plan, as agreed to.

Signed at (place) on (date) 20....

(**click** to consent)

.....
Name and Surname of participant

Declaration by person obtaining consent

I (name) declare that:

- I clearly and in detail explained the information in this document to
.....
- I did/did not use an interpreter.
- I encouraged him/her to ask questions and took adequate time to answer them.

- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I gave him/her time to discuss it with others if he/she wished to do so.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

Declaration by researcher

I *Khumbudzo Leburu* declare that:

- The informed consent was obtained online.
- I did/did not use an interpreter
- I was available should they want to ask any further questions.
- I did not coerce anyone to take part in the study

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

Download consent form

Current details: (23239522) G:\My Drive\9. Research and Postgraduate Education\9.1.5.6 Forms\HREC\9.1.5.6_MWU\HREC_ICF_Template_Feb2019.docx
7 February 2019
File reference: 9.1.5.6

ANNEXURES**ANNEXURE I: RRC-ARM QUESTIONNAIRE**

Listed below are several questions about you, your family, your community, and your relationships with people. These questions are designed to help us better understand how you cope with daily life and what role the people around you play in how you deal with daily challenges as a single, working mother.

There are no right or wrong answers.

Unique ID:

Please complete the questions below

SECTION A**1. Age**

23– 25 years	1
26 – 30 years	2
31 – 36 years	3
37 – 42 years	4
43- 48 years	5
49 – 55 years	6
56 years and above	7

2. Race

Black	1
White	(Discontinue)
Asian	(Discontinue)
Indian	(Discontinue)
Coloured	(Discontinue)

3. Marital status

Single (no partner)	1
In a relationship (but not cohabiting)	2

Separated	3
Widowed	4
Divorced	5

4. Do you have a child or children you are currently raising alone, financially taking care of and living with in the same house?

•

Yes	1 (Cont...)
No	2 (Discontinue)

5. Please enter the number of children you are raising alone and living with in the same house

6. How long have you lived with the child(ren)?

Less than 6 months	1
1 year	2
2-4 years	3
5-7 years	4
8-10 years	5
More than 10 years	6

7. How would you describe your relation to your child(ren)?

Biological mother	1 (Cont...)
Guardian parent	2 (Discont...)
Foster parent	3 (Discont...)
Adoptive parent	4 (Discont...)

8. Please click one of the following employment statuses you consider more applicable to you.

Employee	1 (Cont...)
----------	-------------

Self-employed	2 (Cont...)
Not employed/self employed	3 (Discont...)

9. Please click one of the following monthly household incomes you consider more applicable to you.

SES- Monthly household income	
R30 201 and more	1
R19 201- R30 000	2
R1- R19 200	3

10. What is your highest level of education completed?

Completed Primary school	1
Completed Secondary school	2
Completed High school	3
Certificate	4
Diploma	5
Undergraduate	6
Postgraduate	7

11. How many times have you moved homes in the past 5 years?

12. Please describe who you consider to be your family

.....

SECTION B

To what extent do the sentences below describe you? Select one answer for each statement.

	N	Sometim	Y
	o	es	es

1. I have people in my life who I can respect			
2. I share/cooperate with people around me			
3. Getting and improving qualifications and skills is important to me			
4. I know how to behave in different social situations (such as at work, home, or other public places)			
5. My family is supportive towards me			
6. My family knows a lot about me (for example, who my friends are, what I like to do)			
7. If I am hungry, I can usually get enough food to eat			
8. I try to finish activities that I start			
9. Spiritual beliefs are a source of strength for me (for example, believing in God or Allah)			
10. I am proud of my ethnic background (for example, I am proud of where my family comes from or know a lot about my family's history)			
11. People think that I am fun to be with			
12. I talk to my family about how I feel (for example, when I am sad or concerned)			
13. When things don't go my way, I usually fix it without hurting myself or other people (e.g. without using drugs or being violent)			
14. I feel supported by my friends			
15. I know where to go if I need help			
16. I feel that I belong in my community			
17. My family cares about me when times are hard (for example, when I am ill or in trouble)			
18. My friends cares about me when times are hard (for example, when I am ill or in trouble)			
19. I am treated fairly			
20. I have opportunities to show others that I can act responsibly			

21. I know what I am good at			
22. I participate in religious activities (like going to church or mosque)			
23. I think it is important to help out in my community			
24. I feel secure when I am with my family			
25. I have opportunities to apply my abilities in life (like using skills, working at a job, or caring for others)			
26. I like my family's culture and the way my family celebrates things (e.g. holidays)			
27. I like my community's culture and the way my community celebrates things (e.g. holidays or festivals)			
28. I am proud to be a citizen of South Africa			

ANNEXURE II: ARM-R QUESTIONNAIRE

Resilience
Research
CentreDALHOUSIE
UNIVERSITY

Adult Resilience Measure-Revised (ARM-R)

ARM-R

To what extent do the following statements apply to you?
There are no right or wrong answers.

		Not at all [1]	A little [2]	Somewhat [3]	Quite a bit [4]	A lot [5]
1	I get along with people around me	1	2	3	4	5
2	Getting and improving qualifications or skills is important to me	1	2	3	4	5
3	I know how to behave in different social situations (such as at work, home, or other public places)	1	2	3	4	5
4	My family is supportive towards me	1	2	3	4	5
5	My family knows a lot about me (for example, who my friends are, what I like to do)	1	2	3	4	5
6	If I am hungry, I can usually get enough food to eat	1	2	3	4	5
7	People like to spend time with me	1	2	3	4	5
8	I talk to my family/partner about how I feel (for example, when I am sad or concerned)	1	2	3	4	5
9	I feel supported by my friends	1	2	3	4	5
10	I feel that I belong in my community	1	2	3	4	5
11	My family/partner stands by me when times are hard (for example, when I am ill or in trouble)	1	2	3	4	5
12	My friends care about me when times are hard (for example, when I am ill or in trouble)	1	2	3	4	5
13	I am treated fairly in my community	1	2	3	4	5
14	I have opportunities to show others that I can act responsibly	1	2	3	4	5
15	I feel secure when I am with my family/partner	1	2	3	4	5
16	I have opportunities to apply my abilities in life (like using skills, working at a job, or caring for others)	1	2	3	4	5
17	I like my family's/partner's culture and the way my family celebrates things (like holidays or learning about my culture)	1	2	3	4	5

For administration instructions and scoring, please refer to the accompanying manual.

When using the measure, please cite the following:

Resilience Research Centre. (2018). CYRM and ARM user manual. Halifax, NS: Resilience Research Centre, Dalhousie University. Retrieved from <http://www.resilienceresearch.org/>

Jefferies, P., McGarrigle, L., & Ungar, M. (2018). The CYRM-R: a Rasch-validated revision of the Child and Youth Resilience Measure. *Journal of Evidence-Informed Social Work*, 1-24. <https://doi.org/10.1080/23761407.2018.1548403>

ANNEXURE III: RECRUITMENT POSTER



WE ARE SEEKING PARTICIPANTS FOR A RESEARCH STUDY ON ADULT RESILIENCE

Are you a Black Employed South African Adult residing in the Gauteng Province?

We are currently conducting a research to better understand how you cope with daily life and what role the people around you play in how you deal with daily challenges

PARTICIPATION INVOLVES:

- Black employed adults
- Gauteng residents
- Consent form completion
- Online Survey questionnaire completion (+/- 15min)

See link for survey completion:



FOR MORE INFORMATION

Contact: 088 470 8915

... Are you also a Black single working mother residing in Gauteng?

We would also like to hear about your general experiences with your role as a single working mother.

YOU MAY QUALIFY IF YOU:

- First complete the online survey for Black employed adults
- Raise and support the child(ren) alone
- Have access to skype or live with a family member that has access to skype
- Are willing to engage privately in a discussion about your experience as a single mother

WHAT YOU GET:

- Internet data for the entire activities included
- R100 as a token of appreciation



ANNEXURE IV: CODING EXAMPLE FROM ATLAS.TI

◊ relationships

33 Quotations:

☺ 1:10 ¶ 63, she raised all our children basically. and she is that kind of a person who likes cleanliness
, she... in P1's transcript.docx

codes:

- childcare support from the sister

☺ 1:11 ¶ 71, i don't think if i had the opportunity to look after my child, it would have been easy. it
wouldn't... in P1's transcript.docx

codes:

- childcare support from the sister

☺ 1:12 ¶ 73, she took care of the child , then i didn't have to worry about taking my child to creche or
waking u... in P1's transcript.docx

codes:

- childcare support from the sister

☺ 1:35 ¶ 112, when i visit family, at least i would go home then we would do a lot of things t the same
time. we w... in P1's transcript.docx

codes:

- family support - problem-solving

☺ 1:56 ¶ 119, it was very easy because i'm studying and my daughter is also at school. then we set up
a time [tabl... in P1's transcript.docx

codes:

- mother and child supporting/helping each other grow

☺ 2:2 ¶ 6, y parents, have been my biggest support system throughout my entire life. they have been
there throu... in P2.docx

codes:

- family support - parents

☺ 2:4 ¶ 12, nly, my parents have been the ones who have been there and are practically they are the people who... in P2.docx

codes:

- family support - parents

☺ 2:9 ¶ 49, olleagues....people who are in my heart and life, each of them have played a very important role in my... in P2.docx

codes:

- family support - parents ○ supportive colleagues - contributing to personal growth

☺ 2:11 ¶ 89, thing because the support...especially as a single parent...luckily, the support is there but eish...emoti... in P2.docx

codes:

- family support - parents

☺ 2:21 ¶ 101, at siyabonga went through, my sister was there. she trained him on lots and lots of things. even now... in P2.docx

codes:

- childcare support from the sister

☺ 2:22 ¶ 103, ll you...i don't know how they do it but i remember there was this thing...during covid, it was a week b... in P2.docx

codes:

- family support - attentive and supportive parents

☺ 2:23 ¶ 104, i am not okay, about work...about everything, because at work sometimes we get frustrated by so many t... in P2.docx

codes:

- family support - attentive and supportive parents

☺ 2:24 ¶ 105, own things but when it comes to this thing...where they can feel that: “khosi is not okay”, they will... in P2.docx

codes:

- family support - attentive and supportive parents

☺ 2:25 ¶ 106, t to his farewell [matric dance], he came specially. they didn't even tell me they were coming, they... in P2.docx

codes:

- family support - problem-solving

☺ 2:26 ¶ 106, i don't know any colours [for men], the shoes... and he told me that :” i'm not going to wear this”. t... in P2.docx

codes:

- challenging father's absence
- family support - parents

☺ 2:27 ¶ 107, is grade 12 results, you know...my dad called me and i was in tears. the things he told me:” i knew yo... in P2.docx

codes:

- family support - attentive and supportive parents

☺ 2:28 ¶ 108, every age...when he turned 16, during his confirmation, my dad again came. my dad is in [his] 70s but... in P2.docx

codes:

- family support - parents

☺ 2:35 ¶ 127, odsent...they are just godsent. you know it's like...when you pray and you pray for peace at work, then... in P2.docx

codes:

- supportive colleagues - listeners

☺ 2:37 ¶ 131, arn to appreciate that myself and siyabonga, we are growing everyday. its like we are helping each o... in P2.docx

codes:

- mother and child supporting/helping each other grow

☺ 2:38 ¶ 131, p him. so, education pla in P2.docx

codes:

- mother and child supporting/helping each other grow

☺ 2:43 ¶ 137, e if there are other single mothers who have the same mindset as you, then you find yourselves talki... in P2.docx

codes:

- supportive colleagues - listeners

☺ 3:13 ¶ 51, okay, a lot of support i'm receiving from my mother and my ...i can say that she's my friend but actua... in P4's transcript.docx

codes:

- family support - parents
- family support - relatives

☺ 3:14 ¶ 53, my mother helps with...obviously i could say that she is someone i share parenting roles with...yes,... in P4's transcript.docx

codes:

- childcare support - mother

☺ 3:15 ¶ 54, and then zenele, yeah...she is someone i cry to with a lot of issues. i could say that she is more o... in P4's transcript.docx

codes:

- family support - relatives

☺ 4:3 ¶ 6, my family members are very supportive. they always check up on me and my kids, especially my mother. in P3's transcript.docx

codes:

- family support - parents

☺ 4:4 ¶ 8, had my first born at the age of 18 years while i was a first year student at university. a week afte... in P3's transcript.docx

codes:

- childcare support - mother

☺ 4:5 ¶ 8, ut she encouraged me and supported me in my studies. i finished my studies then got employed, then l... in P3's transcript.docx

codes:

- childcare support - mother

☺ 4:6 ¶ 9, am who i am because of her teachings, care , patience, love and support. in P3's transcript.docx

codes:

- family support - parents

☺ 4:7 ¶ 13, y mother taught us to be open to one another. i always share my challenges so that i can get

help, c... in P3's transcript.docx

codes:

- family support - problem-solving

☺ 4:8 ¶ 14, y siblings also understand my character, when i am happy or get troubled by something. we

voice out... in P3's transcript.docx

codes:

- family support - attentive and supportive siblings
- family support - problem-solving

☺ 4:10 ¶ 25, rently at work, i am most of the time discussing issues of staying strong as single parents

with my... in P3's transcript.docx

codes:

- supportive colleagues - listeners

☺ 4:11 ¶ 34, amily is characterised by transparency and openness. they know what i am going through

and are also... in P3's transcript.docx

codes:

- family support - attentive and supportive siblings

☺ 4:15 ¶ 46, other (mom), my pillar of strength. she allowed me the opportunity to become who i am

today. she alw... in P3's transcript.docx

Codes:

- Family Support - Parents

◀ Spirituality

10 Quotations:

☺ 1:38 ¶ 119, and it works easy when you pray as well, when you know that you go to church, when

you know that you... in P1's transcript.docx

codes:

- religion - coping mechanism through prayer

☺ 1:40 ¶ 118, and then i have a lady ...sister tebogo from centurion, i knew that lady from back when

i was still st... in P1's transcript.docx

codes:

- religion - influence of strong christian women

☺ 1:41 ¶ 118, sister jericca, she knew my mom at a time my mom was still working at vierapark, so when she came t... in P1's transcript.docx

codes:

- religion - influence of strong christian women

☺ 1:42 ¶ 118, she will tell you not to give up, look forward to this, read your bible, believe that you can do thi... in P1's transcript.docx

codes:

- religion - encouragement through bible verses

☺ 1:43 ¶ 118, she would quote the bible verse and say “go back to the roots, read about what god is saying about y... in P1's transcript.docx

codes:

- religion - encouragement through bible verses

☺ 1:45 ¶ 127, but other than that, if i was not the kind of person who surrounds herself with very spiritual ladie... in P1's transcript.docx

codes:

- religion - influence of strong christian women

☺ 1:46 ¶ 127, so i am surrounded by... one of the ladies is a pastor. she’s out there. she is one of those that run... in P1's transcript.docx

codes:

- religion - influence of strong christian women

☺ 2:1 ¶ 2, i was born methodist, but as time went by. my spiritual side had became stronger and emerged everyda... in P2.docx

codes:

- religion - strengthening spirituality

☺ 3:17 ¶ 67, reading the bible, praying...i am one person who reads the bible and pray a lot. uhh...like i said e... in P4's transcript.docx

codes:

- religion - encouragement through bible verses
- religion - strengthening spirituality

☺ 3:18 ¶ 67, eading the bible, praying...i am one person who reads the bible and pray a lot. in P4's

transcript.docx

codes:

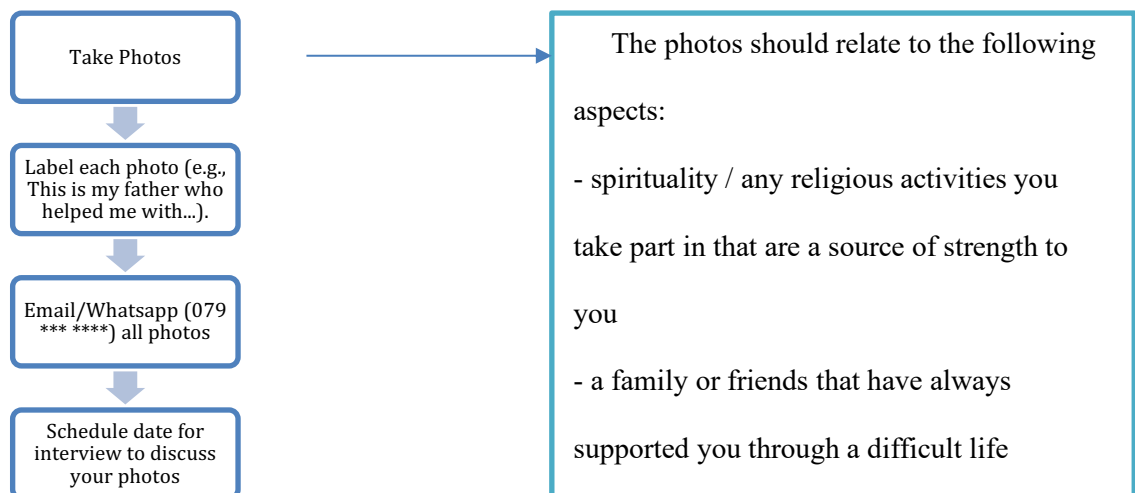
- religion - coping mechanism through prayer

ANNEXURE V: PHOTO-ELICITATION SUPPLEMENTARY GUIDE

Dear.....(participants' name)

Thank you once again for agreeing to take part in this study. As per our communication, kindly see the guiding steps below for the photo -elicitation process. Please remember to capture these photos for the next 7 days.

Instruction: Please take a photo of **what has helped you stay strong as a single mother**



ANNEXURE VI: PHOTO-ELICITATION SUPPLEMENTARY INTERVIEW GUIDE

Introduction

My name is Khumbudzo and I am a researcher. Today we will be discussing the photos you recently shared with me regarding what has helped you stay strong as a single mothers.

Please feel free to express yourself and share your experiences. There is no right or wrong answer, I respect your unique experience. Your information will also not be shared with anyone without your permission.

Please note that our discussion will be tape recorded for the purpose of data analysis and evidence that indeed an interview did take place but I can't record without your permission. Do you give me permission to record?

Thank you...do you have any clarity seeking questions before we can start?

Questions

1. Lets have a look at this very first photo. could you kindly take me through it? What was happening here?
2. How did (what is/who is in the photo) help you in this journey as a single mother?
3. Do you have anything else you would like to add before we discuss another photo?
4. Is there any other photo you feel you should have shared but you couldn't?

Thank you so much for your time and sharing your experience. We have reached the end of our interview. Results will be shared with you to confirm if the information you shared was reported accurately.

THE END

APPENDICES – GUIDELINES TO JOURNALS FOR PUBLICATION

1. Journal of Black Psychology

Manuscript Length

Full-Length

Manuscripts

Full-length manuscripts reporting results of a single **quantitative** study generally should not exceed 35 pages total (including cover page, abstract, text, references, tables, and figures), with margins of at least 1 inch on all sides and a standard font (e.g., Times New Roman) of 12 points (no smaller). The entire paper (text, references, tables, etc.) must be double spaced.

Reports of **qualitative** studies generally should not exceed 45 pages. For papers that exceed these page limits, authors must provide a rationale to justify the extended length in their cover letter (e.g., multiple studies are reported). Papers that do not conform to these guidelines may be returned with instructions to revise before a peer review is invited.

Literature reviews generally should not exceed 40 pages, including references.

Papers that do not conform to these guidelines may be returned with instructions to revise before a peer review is invited.

Brief

Reports

In addition to full-length manuscripts, the journal will consider brief reports. The brief reports format may be appropriate for empirically sound studies that are limited in scope, reports of preliminary findings that need further replication, or replications and extensions of prior published work.

Authors should indicate in the cover letter that they wish to have their manuscript considered as a brief report, and they must agree not to submit the full report to another journal. The brief report should give a clear, condensed summary of the procedure of the study and as full an account of the results as space permits.

Brief reports should not exceed 15 pages in total length (including cover page, abstract, text, references, tables, and figures) and must follow the same format requirements as full length manuscripts. Brief reports that exceed 15 pages will not be considered.

Manuscript Submission Instructions

Please submit electronic files using MS Word (Windows Vista users, please save your files as an earlier ".doc" filetype). Each submission should consist of a cover file and manuscript file. The cover file

should contain a request for review of the manuscript and a statement of the purpose and focus of the submitted paper. Cover files should also include the following information:

- manuscript title and all author names, affiliations, mailing addresses, and e-mail addresses
- short biographical paragraphs of each author and any acknowledgments
- manuscript submission date

Every effort should be made by the author to see that the manuscript file contains no clues as to the author's identity. Footnotes containing information pertaining to the identity of the author or institutional affiliation should be on separate pages. Manuscripts, including references, must be double spaced throughout and must conform to guidelines given in the [*Publication Manual of the American Psychological Association, 7th Edition*](#) (APA, 2019).

The manuscript file should begin with a title page, omitting the author's name and affiliation but including the title and the date submitted. Following the title page should be a 100-175 word abstract and 4-5 keywords. The introduction section should follow and precede, in order, the Method, Results, and Discussion sections for empirical reports. Following in order should be note pages, references (entries double spaced and alphabetically listed), appendixes, tables, and figures. Table and figure locations should be indicated in text by callouts (e.g., "[insert Table 1 here]") inserted after the respective paragraphs. Figures must be camera ready.

2. Women's studies International Forum

Article structure

Subdivision - unnumbered sections

Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Essential title page information

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights

Highlights are mandatory for this journal as they help increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the [example Highlights](#).

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abstract

A concise and factual abstract is required (not exceeding 150 words). This should appear on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, avoiding general and plural terms and multiple concepts (avoid, for example, "and", "of"). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Word limit

Submitted papers should be approximately 25-30 pages, double-spaced. The Editors are willing to be flexible on this, depending on the nature of the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Notes

Notes which refer to the text should be used only when absolutely necessary. If notes are used, they should be numbered consecutively and typed on a separate sheet at the end of manuscript. They will appear in an Endnotes section following the article. Notes of acknowledgement and author identification are not numbered and should appear on the title page.

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

Artwork

Electronic artwork

General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Indicate per figure if it is a single, 1.5 or 2-column fitting image.
- For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
- Please note that individual figure files larger than 10 MB must be provided in separate source files.

A detailed [guide on electronic artwork](#) is available.

You are urged to visit this site; some excerpts from the detailed information are given here.

Formats

Regardless of the application used, when your electronic artwork is finalized, please 'save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

EPS (or PDF): Vector drawings. Embed the font or save the text as 'graphics'.

TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.

TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.

TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
- Supply files that are too low in resolution.
- Submit graphics that are disproportionately large for the content.

Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. [Further information on the preparation of electronic artwork.](#)

Figure captions

Ensure that each illustration has a caption. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References***Citation in text***

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Web references

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and

global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

Preprint references

Where a preprint has subsequently become available as a peer-reviewed publication, the formal publication should be used as the reference. If there are preprints that are central to your work or that cover crucial developments in the topic, but are not yet formally published, these may be referenced. Preprints should be clearly marked as such, for example by including the word preprint, or the name of the preprint server, as part of the reference. The preprint DOI should also be provided.

References in a special issue

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support [Citation Style Language styles](#), such as [Mendeley](#). Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. [More information on how to remove field codes from different reference management software](#).

Reference formatting

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:

Style and Reference Examples

Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Fifth Edition, ISBN 1-55798-790-4, copies of which may be ordered from <http://www.apa.org/books/4200061.html> or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK. Details concerning this referencing style can also be found at <http://linguistics.byu.edu/faculty/henrichsenl/apa/apa01.html>

The reference section must be double-spaced, all works cited in the text must be listed and no references may be added for works not cited in the text. Use first names of authors in the reference list. Avoid abbreviations of journal titles and incomplete information.

3. International journal of qualitative methods

Submitting your manuscript

7.1 How to submit your manuscript

International Journal of Qualitative Methods – to **submit a new article**, please go to our new submission site, Sage Journals Submission: <https://sage.atyponrex.com/journal/amd>. From this site you can create submissions and revisions and track the status of your manuscripts. Please note, you will need to create a new CONNECT account on the Sage Journals Submission site the first time you use it, your Sage Track account will not work on this submission system.

IMPORTANT: To **submit a revision for a manuscript** that was submitted to *International Journal of Qualitative Methods* via Sage Track **prior to 17th October 2023**, please submit your revision in Sage Track, not via Sage Journals Submission. All transfers into *International Journal of Qualitative Methods* will also need to be submitted via Sage Track. Please reference the email you received after approving the transfer or reach out to our [Transfer Support Team](#) for assistance.

7.2 Title, keywords and abstracts

Please add a title page to your submission. This page will not be a part of the document sent out for peer review, but it is needed for Editorial purposes. The title page should include:

- a) Title
- b) List of authors, and their affiliations
- c) Corresponding author and their details
- d) Acknowledgement
- e) Funding Information
- f) Conflict of Interest.

Please supply a title, short title, an abstract and keywords to accompany your article. The title, keywords and abstract are key to ensuring readers find your article online through online search engines such as Google. Please refer to the information and guidance on how best to title your

article, write your abstract and select your keywords by visiting the Sage Journal Author Gateway for guidelines on [How to Help Readers Find Your Article Online](#).

7.3 Information required for completing your submission

Provide full contact details for the corresponding author including email, mailing address and telephone numbers. Academic affiliations are required for all co-authors. These details should be presented separately to the main text of the article to facilitate anonymous peer review.

You will be asked to provide contact details and academic affiliations for all co-authors via the submission system and identify who is to be the corresponding author. These details must match what appears on your manuscript. At this stage please ensure you have included all the required statements and declarations and uploaded any additional supplementary files (including reporting guidelines where relevant).

7.4 ORCID

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