



**Exploring the Role of Service Delivery and its Impact on the Functionalities of Women in Njane and Ntshaseni Communities of the Ubuhlebezwe Local Municipality (ULM) in KwaZulu-Natal**

**By**

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## ABSTRACT

Service delivery in most South African rural areas is neither efficiently nor equitably distributed. This makes residents receive poor quality services which are often unavailable. Feminist geography is concerned, among other things, with how gender and geography determine the welfare of communities. This study looked at service delivery from a geographical dimension of rurality and remoteness and connected this to gender-based service perceptions. The first paper looked at service delivery ratings of men and women in two rural communities in the same municipality-the Ubuhlebezwe Local Municipality (ULM) in KwaZulu-Natal. These communities are remote in terms of distance from major urban centres. The study utilised a quantitative research approach, with a sample of 200 residents from Njane and Ntshaseni. The study was designed as a comparative descriptive study. The first objective of the study was to assess men and women's ratings on the provision of such services as road, healthcare, education, water and sanitation, and electricity. The second objective was to compare the relationship between water and energy services delivery and women's domestic workload (WDW) in the two communities. The second paper used a sample of 127 and used a descriptive approach to analyse data on water and sanitation and electricity and used secondary data that was collected in previous studies on the two communities and analysed this on SPSS and Microsoft Excel. The research findings have revealed that women rate service delivery quality and availability very lowly compared to men. Women's low ratings revealed that service delivery quality and availability affected them differently from men, with regards to healthcare, water and sanitation, and electricity services. The research findings have also revealed that women are heavily burdened by lack of water and electricity in Njane and Ntshaseni communities, leading to increased domestic workloads. The study recommends a nexus of geography and gender in dealing with service delivery challenges. Local governments need to provide gender-sensitive service delivery in remote communities. This approach would reduce geography and gender service delivery disparities, and relieve poor rural women from back-breaking domestic labour.

**Keywords:** Inequality; Rural areas; Women's domestic workload; Service delivery

## PREFACE

This thesis was conducted in the School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, Pietermaritzburg, from August 2018 to December 2021, under the supervision of Dr Shenelle and Dr Romano Lottering.

I, Wandile Noxolo Ngubo, declare that the work submitted in this thesis is my original work and has never been submitted for examination at any other university. Where the work of others has been used, I have duly acknowledged it in the text and reference sections of this thesis.

Wandile Noxolo Ngubo Signed:



Date: 21/12/2022

As the candidate's supervisor, I certify the above statements and have approved this thesis for submission.

Dr Romano Lottering Signed:



Date: 21/12/2022

As the candidate's co-supervisor, I certify the above statements and have approved this thesis for submission.

Dr Shenelle Lottering Signed:



## DECLARATION: PLAGIARISM

I, **Wandile Noxolo Ngubo**, declare that:

1. This research except where otherwise indicated is my original work.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other persons' data, pictures, graphs, or other information unless specifically acknowledged as being sourced from other persons.
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Signed:

A solid black rectangular box redacting the signature of the author.

Date: 21/12/2022

## DEDICATION

*This thesis is dedicated to myself; I have endured every obstacle in my way, I pushed through when a lot of situations tried to pull me down, so I deserve it.*

*And*

*To my lovely three inspiring ladies in my life, my granny (MaZondi), mother (Nokuthula Mbongwe) and my small mother (Nokuphiwa Khoza), thank you for all your support, prayer and patience throughout this journey, ngaphandle kwenu angiyilutho*

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## **ABBREVIATIONS**

<b>OECD</b>	Organization of Co-operation and Development
<b>SA</b>	South Africa
<b>SPSS</b>	Statistical Package for the Social Sciences
<b>SSA</b>	Sub-Saharan Africa
<b>STATS SA</b>	South African Statistics
<b>ULM</b>	Ubuhlebezwe Local Municipality
<b>UNDP</b>	United Nations Development Program
<b>WDW</b>	Women's Domestic Workload
<b>KZN</b>	KwaZulu-Natal

## CHAPTER 1

### GENERAL INTRODUCTION

#### 1.1 Background of the study

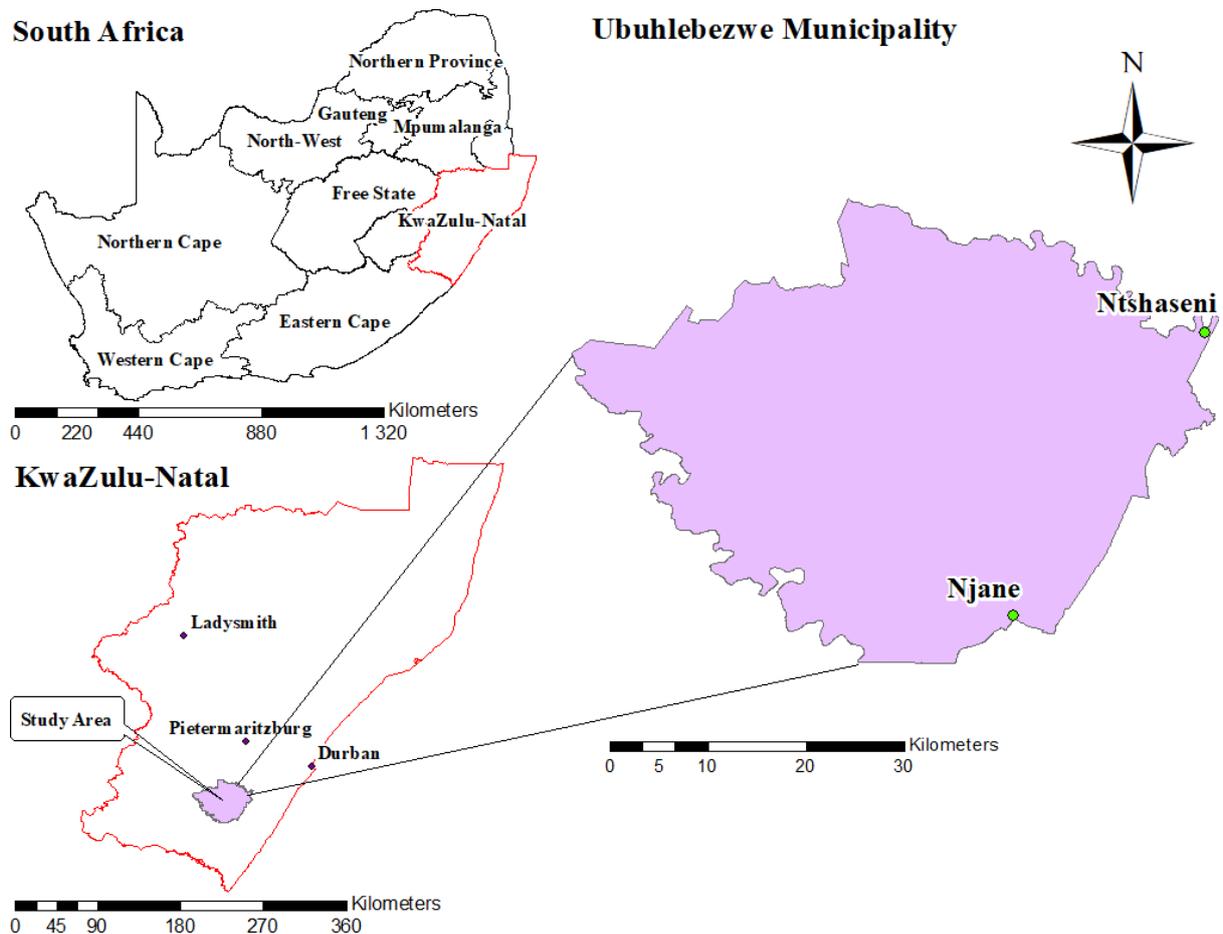
The word functionality refers to “*the quality of being suited to serve a purpose well*” (Oxford Dictionaries, 2022:1). In this study, women’s functionalities refer to their ability and capacity to carry out domestic work as a daily role. In South Africa, rural women carry a significant daily burden of domestic work, also called household work, as part of such functionalities (Amnesty International, 2021). This domestic work includes fetching water, cooking meals, accessing energy sources, cleaning, and shopping for food and household items, among many other daily chores. These chores share a direct nexus with service delivery (Amnesty International, 2021). For instance, lack of water in a household demands someone to fetch water on daily basis. This means that where municipalities fail to deliver water, extra workload is added to a woman who would shoulder it to compensate for this shortfall caused by the local government.

This study assessed the role of service delivery and its impact on functionalities of women, with special attention to water and energy services as the basic service requirements for households. It further looked at road and transportation, as well as healthcare services and their impact on women’s domestic workload (WDW). While water and energy are services provided within the household, road and transportation and healthcare services are outside the household, but they also affect WDW when needed. Since service delivery in rural South Africa considered poor (Hanyani and Naidoo, 2015; Ngcamu, 2019; Manqele, 2021), the researcher found it critical to assess the role of service delivery and its impact on functionalities of women, with two communities in the Ubuhlebezwe Local Municipality of the KwaZulu-Natal (KZN) province of South Africa as case studies.

#### 1.2 Description of the study area

Njane and Ntshaseni are very small, rural communities that are part of the Ubuhlebezwe Local Municipality (ULM). The ULM is part of the Harry Gwala District Municipality in the

KwaZulu-Natal province (Ubuhlebezwe Local Municipality, 2022). Figure 1.1 shows Njane and Ntshaseni relative to the ULM, the KZN province, and South Africa.



*Figure 1.1: The location of the Ntshaseni and Njane Communities*

According to Sewell et al.'s (2019) study, Njane and Ntshaseni are both poor local communities, with the latter relatively experiencing a dire poverty situation due to its remoteness.

The ULM had a total population of 118 380 in 2016 as compared to 101 629 in 2011 (ULM, 2021). Regarding gender distribution, 53% of people living in the ULM were female in 2016 and 47% were male (ULM, 2021). In terms of population distribution by age group, 40.4% of its population was below 14 years, 52.8% was between 15 and 59 years, and 6.8% was above 60 years (Statistics South Africa, 2016). According to Statistics South Africa (2016), ULM has 25 120 households, and 60% of these live in traditional houses, while 30.1% live in formal dwellings. In addition, 9.4% of the households live in informal structures. In terms of service

access, 52.3% of households had access to safe water, while 47.7% did not have. Also, 60% of the households had no access to electricity (Statistics South Africa, 2016).

As highlighted earlier, the Njane and Ntshaseni are significantly small and considerably remote, putting them at risk of neglect (Meyer, 2014). Njane, which is relatively less remote, has a total population of 674 and 155 households, with 56% female population, whilst Ntshaseni has a population of 256 people and 71 households, with 54% female population, according to 2011 national census (Statistics South Africa, 2011).

### **1.3 Problem statement**

Women's domestic burden has attracted much attention because of its associations with extensive gendered impoverishment, compromised health, and high mortality rates among women (Gruber and Szołtysek, 2016). Domestic burdens are seen as robbing women of other personal and career development opportunities, thus exposing them to severe poverty circles and generally challenging living circumstances. For working or professional women, domestic workload burdens present a new challenge of unfavourable work-life balances that leave women overworked, with less rest, and prone to severe psychological and physiological burdens (Seierstad and Kirton, 2015). Ceratto and Cifre (2018) regarded excessive domestic work as an occupational hazard, with physical and psychological effects on women's well-being and success in both family and professional life. Unbalanced domestic workloads are a function of common social problems that include patriarchy with its rigid role assignments (Gruber and Szołtysek, 2016; Adisa, Aiyenitaju and Adekoya, 2021).

At the same time, South Africa's local governments, which are mostly run by men, have a large bearing on WDW through inadequate service delivery. Many South African municipalities have inadequate service delivery due to corruption, maladministration, and poor community engagements (Ngcamu, 2019). Violent service delivery protests have become a norm, claiming both lives and properties. While these protests for basic service delivery express community anger over water and sanitation, electricity, housing, and road networks, among other service shortfalls, they have been rarely considered from a gendered perspective (Ngcamu, 2019). They are generally seen as community struggles affecting everyone (Hanyane and Naidoo, 2015). This generalised view of service delivery challenges conceals gendered struggles, precisely women's daily burdens that come with poor service delivery. Amnesty International's (2021:1) study on the workload and service delivery as a nexus from women's rights perspective, argues

that poor service delivery led to the violation of women and girls' rights to equality as "*Women and girls bear the brunt of poor access to service delivery, poverty and inequality.*"

This problem is critical in South Africa. While women's domestic burden is a global issue (Adisa, Aiyenitaju and Adekoya, 2021), the phenomenon has not been given due attention in rural communities of South African. There is limited research on the role of service delivery and its impact on functionalities of women in remote communities of South Africa. This lack of research poses the risk of over-generalisations of women's daily burdens. The risk of over-generalisation leads to the provision of blanket interventions that may not directly address the community's needs. The study, therefore, seeks to explore the link between service delivery and WDW in a world where WDW is not well understood, leading to generalisations of service delivery challenges in South African rural communities.

#### **1.4 Aim and objectives**

This research aims to assess the role of service delivery and its impact on functionalities of women, with two communities, Njane and Ntshaseni, in the Ubuhlebezwe Local Municipality of the KwaZulu-Natal (KZN) province of South Africa as case studies. The objectives of the study are as follows:

1. To examine the service delivery levels in Njane and Ntshaseni communities.
2. To determine the residents' perceptions of the provision of water, energy, healthcare, road, and transportation services in Njane and Ntshaseni communities.
3. To examine the relationship between water and energy services delivery and Women's Domestic Workload (WDW) in Njane and Ntshaseni communities.
4. To explore the impact of inadequate service delivery on women's daily functionalities in Njane and Ntshaseni communities.

#### **1.5 Research questions**

The main research questions for this study are as follows:

1. What are the service delivery levels in Njane and Ntshaseni communities?
2. What are the residents' perceptions of the provision of water, energy, healthcare, and road and transportation services in Njane and Ntshaseni communities?
3. What is the relationship between water and energy services delivery and Women's

Domestic Workload (WDW) in Njane and Ntshaseni communities?

4. What is impact of inadequate service delivery on women's daily functionalities in Njane and Ntshaseni communities?

### **1.6 The significance of the study**

The study is important to various stakeholders for several reasons. The study helps to identify and craft service delivery interventions that consider general community challenges, as well as gendered challenges, specifically relating to WDW. The recognition and realisation of gendered outcomes of service delivery inefficiencies and inadequacies would foster new perspectives on relieving women from water, energy, transportation and healthcare burdens. This would in turn support specialised rather than generalised interventions in service delivery. At the same time, similarities in WDW at community-level would help highlight commonalities that could require generic approaches to inadequate service delivery and its impact on WDW.

The focus of this research on remote communities is essential in redirecting future studies on such communities that are often victims of neglect (Meyer, 2014). Gender-related service delivery challenges in less vocal communities are less covered than similar problems in populated and easily accessible communities. Thus, this low research coverage of remote rural communities, as observed by Vergunst (2018), applies to many disciplinary areas, including health.

The study would also provide a body of knowledge on a less academically researched matter that has severe consequences on women as bearers of the domestic burden. Contemporary studies have investigated the effects of service delivery on rural societies, but there is limited research on the nexus between inadequate service delivery and WDW. In addition, none of these studies took a comparative approach to find differences and commonalities in the phenomenon. Therefore, this is the research gap that this study intends to fill.

### **1.7 Scope and limitations**

The study looked at the phenomenon of interest from the communal residents' perspectives and covered a wide range of services, including water, energy, road network and healthcare. However, the findings of this study have limited application as other local government services

were not included in the study. Therefore, the study findings apply to the sample communities and there are challenges in extrapolating them beyond the sampled communities.

## **1.8 Outline of the dissertation**

The study has five chapters which are as follows:

### **Chapter 1: General Introduction**

Chapter one of the study includes the background of the study, problem statement, objectives of the study, significance of the study, description of the study area, delimitations of the study, chapters layouts and the chapter summary.

### **Chapter 2: Literature Review**

Chapter two consists of literature review and includes introduction, review of the literature, theoretical framework and the chapter summary.

### **Chapter 3: Research methodology overview**

Chapter three consists of research methodology overview. This chapter includes introduction, overview of the methodology, research paradigm, research design, research instrument, data collection procedure, data analysis and the chapter summary.

### **Chapter 4: Data analysis and narrative analysis**

Chapter four consists of analysis and presentation of data. The chapter includes introduction, findings and the chapter summary.

### **Chapter 5: Discussion, interpretation, recommendations and conclusion**

The last chapter of the study consists of summary, implications and outcomes. It also includes discussion, interpretation, recommendations and conclusion.

## **1.9 Summary**

This chapter presented the background of the study, the statement of the problem, and the research objectives and research questions that the study aims to achieve. The chapter also outlined the significance of the study, the description of the study are, the study delimitation and limitations, as well as the chapters layouts. Lastly, the chapter summary is presented.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviewed the literature pertaining to the role of service delivery and its impact on functionalities of women in Njane and Ntshaseni rural communities of the Ubuhlebezwe Local Municipality (ULM) in the KwaZulu-Natal, with special attention to water and energy services as the basic service requirements for households. The study further looked at road and transportation, as well as healthcare services and their impact on women's domestic workload (WDW). The chapter also presented the feminist theoretical framework guiding this study

#### 2.2 Service delivery levels in South Africa

In South Africa, there are three main levels of service delivery: national, provincial, and local. Each level of government is responsible for providing different services to citizens. At the national level, policies, regulations, and standards for service delivery are established across the country (Manyaka, 2014). Additionally, the national government is responsible for providing essential services such as healthcare, education, and social security. As per the South African Constitution, the national government is accountable for providing services that cannot be provided by provinces or municipalities alone (Ngumbela, 2021).

At the provincial level, the responsibility lies in implementing national policies and delivering services within their respective provinces (Manyaka, 2014). This includes services such as healthcare, education, housing, and infrastructure. The provincial government is also accountable for promoting economic development within their provinces. Provinces are mandated to provide services that have been assigned to them by national legislation (Khambule, 2018). At the local level, the responsibility lies in delivering basic services such as water and sanitation, waste removal, and maintenance of roads and public facilities within their municipalities. Local government is also responsible for promoting local economic and social development. South Africa has three types of municipalities: metropolitan, district, and local municipalities (Manyaka, 2014). Each type of municipality has different duties and powers, but all have the responsibility of providing basic services to their communities.

Despite efforts to improve service delivery in South Africa, there are still significant challenges facing the country. These challenges include inadequate infrastructure, a shortage of skilled

personnel, corruption, and political instability (Khambule, 2018). To address these challenges, the government has launched several initiatives such as the National Development Plan, which aims to eradicate poverty and reduce inequality by 2030 (Ngumbela, 2021).

### **2.3 The scope of service delivery in rural communities of South Africa**

Poor service delivery is a commonly discussed construct in South African public administration and developmental studies literature. Poor service delivery is significantly worsened by rurality, remoteness, and marginality in South Africa (Mabizela and Matsiliza, 2020). This study assessed the role of service delivery and its impact on functionalities of women in Njane and Ntshaseni rural communities of the Ubhulebezwe Local Municipality (ULM) in the KwaZulu-Natal. These communities are remote with regards to their distance from major urban centres and bad road networks (Sewell et al., 2019). They are rural communities where traditional gender roles are still well-defined and therefore assessing gendered ratings on service delivery is vital for several reasons. First, in an environment that highly lacks gender equality and where gender streaming attempts and calls are prevalent (Ramparsad, 2019), gender ratings serve as public-driven monitoring mechanisms that help bring the attention of relevant stakeholders to existing gendered differences (UNDP, 2009). Second, such evaluations support the formulation and implementation of interventions, in order to correct the lack of gender sensitivity in service delivery, which is a major problem in South Africa and most parts of Sub-Saharan Africa (UNDP, 2009). The study, therefore, takes an outcome-based approach and the services of interest in this paper are road, healthcare, education, water and sanitation, and electricity.

#### **2.3.1 Poor service delivery in rural communities**

Poor service delivery in rural communities is often lowly rated (Masiya, David and Mangai, 2019). Poor service delivery affects women more than men (Transparency International, 2010). Transparency international asserts that poor service delivery is associated with corruption and women participated less in corrupt activities, thus creating a dilemma in which they found themselves as recipients of poor, inadequate or no services at all. Women are less eager to pay bribes for services, while some did not afford bribes because of low incomes and poverty (Transparency International, 2010). Corruption and nepotism alongside maladministration also affects the availability of services at a jurisdictional level. Municipalities where resources are

misallocated and where public works are corrupt often fail to provide adequate service coverage to rural communities (Nefale, 2018).

According to Kosec and Wantchekon (2020), rural communities, especially remote ones, can experience neglect and marginalisation in the provision of public services. In addition, limited connectedness with the broader political systems and information deprivation disempowers rural communities from protesting for services. This lack of a voice promotes service delivery challenges in comparison to more connected urban areas (Kosec and Wantchekon, 2020). Transparency International (2010) further notes that in rural areas, women's voices are less heard and less considered. This severely curtails women's participation in service delivery forums (Transparency International, 2010). Nefale's (2018) study in Limpopo also noted that females who made up 63% of her sample complained about their low engagement and participation in service delivery affairs. The sampled respondents strongly associated such low participatory approaches with low service delivery quality in their rural localities (Nefale, 2018). Masiya, Davids and Mangai (2018) also assert that the perception of being marginalised and being unfairly subjected to inequality affects residents' ratings of public services. The likelihood of rating services as poor, substandard or inadequate, increases as one's perception of being neglected increases.

Compared to urban municipalities, rural municipalities struggle to raise adequate revenue to support comparative service delivery qualities (Makale, 2015). Financial resources issues are also associated with such administrative challenges as poor financial planning and management (Mabizela and Matsiliza, 2020). At the same time, rural municipalities face more risks of non-payment levy compared to urban areas, which puts a challenge on their ability to fund public services (Makale, 2015; Mabizela and Matsiliza, 2020).

### **2.3.2 Service delivery areas**

The services considered in this study include road infrastructure, healthcare, education, water and sanitation and electricity services. These affect the daily lives of both men and women in rural communities.

#### **(i) Roads and other public access infrastructure**

Road quality and accessibility of road networks are major differentiators of rural economic development (Sewell and Desai, 2016). Road networks facilitate access to economic and social

opportunities, thus unlocking poverty reduction and income generation potential in remote communities (Sewell and Desai, 2016). Kosec and Wantchekon (2020) also note that, in addition, road networks determine the community welfare quality. In South African communities, especially those in rural areas, poor road networks are a major concern for residents who often find themselves cut off from social and economic opportunities (Nefale, 2018). In a service delivery community perception study, Nefale (2018) found that the majority of respondents (66%) were dissatisfied or very dissatisfied with the quality and stretch of the locality's road network. These views are not peculiar to Makhado in Limpopo. Sewell et al. (2019) also highlighted related poor ratings on rural road networks in South Africa.

## **(ii) Healthcare services**

Local governments provide minimal healthcare services in the form of clinics. Major healthcare facilities fall under provincial governments. These services too are generally poorly rated in South Africa. According to Maphumulo and Bhengu (2019), poor healthcare services are associated with delays in assisting patients, low responsiveness to community health challenges, poor staffing capacities and high incidents of medical errors. Naher et al. (2020) found the major reasons for poor healthcare facility performance to be poor facility governance and less motivated staff, in addition to poor funding. In some communities, residents shunned such facilities as they fail to meet their minimum needs (Nahir et al., 2020).

Mji et al. (2017) link low access to healthcare services to other public service challenges that include bad road networks that may in turn result in high transportation costs. Hausken and Mthuli (2017) also link poor healthcare systems to capacity challenges posed by poverty. Healthcare employees in poor regions attempted to enhance their financial capacity through other means and this limited their time commitment to patients. Healthcare challenges could therefore be viewed as systemic as they came from several components of the social, economic and governance systems (Mji et al., 2017). Maphumulo and Bhengu (2019) and Naher et al. (2020) assert that different communities received different qualities and quantities of healthcare due to systematic differences. Williams and Brysiewicz (2018) suggest that women's birth-related challenges played a great part in determining their perception of public health systems. In a Durban study, it emerged that women felt neglected and poorly supported by the healthcare systems in pre- and post-natal stages (Williams and Brysiewicz 2018). Men did not directly experience such situations.

### **(iii) Education**

Like most healthcare services, education is a provincial government responsibility. du Plessis and Mestry (2019) believe that one of the major reasons why rural education is lowly rated is because of teacher shortages. The available teachers, as du Plessis and Mestry (2019) further notes, are subjected to large multi-grade classroom environments that tend to reduce teacher and learner focus on content. They further link road and infrastructural challenges and electricity access issues to poor educational service provision. Burlakanti, Kumar and Srinivas (2014) believe that residents rate the quality of educational institutions based on available infrastructure, perceived teacher competence, the general quality of teaching and learning, and the relevance of schools to development. Khumal and Mji (2014) also found quality infrastructure as a major determinant of the quality of educational facilities. They also found qualified staff and information and communication advancement as important educational service provision indicators in rural schools.

### **(iv) Water and sanitation**

Local governments in South Africa are responsible for providing water and sanitation services at household and community levels, including rural areas. Water and sanitation services are also poorly rated among many service recipients (Nefale, 2018). Hope et al. (2020) observes that rural water provision economics were complicated by random settlement patterns. Moreover, in rural areas, communities took more accountability for household provisions, including the sinking of their own boreholes and digging their own wells. This tended to reduce local government accountability for water provision inadequacies despite various mandates that specifically assign this role to them (Hope et al., 2018). Also, some rural communities have the advantage of multiple water sources as compared to urban areas (Hope et al., 2020). Mayosi et al. (2012) assert that water accessibility is a major differentiator of the quality of life in rural communities.

The World Bank (2018) however notes that the water availability challenge is not only a rural problem but affects urban residents too. Pouramin, Nagabhatla and Miletto (2020) assert that gender ratings on water quality could differ as women were closer to the water problem. The same study also covered women and girls who had unique water and sanitation needs that were often neglected by water and sanitation health systems (Pouramin, Nagabhatla and Miletto, 2020). Failures of service delivery systems to meet water adequacy, facilities privacy and

security, and water cleanliness as demanded by female hygienic needs attracted more negative ratings from women than men (Pouramin, Nagabhatla and Miletto, 2020).

### **(vii) Electricity**

The concept of energy poverty is strongly related to gender poverty (Longe, 2020). This is because women bear the burden of energy poverty as they have to look for alternative and cheaper sources of fuel for domestic lighting and heating (Longe, 2020). This enhances the likelihood of women rating electricity provision lowly than men. Electricity is rated for its availability, affordability as well as accessibility (Nefale, 2018). While South Africa has comparatively wider rural electricity coverage of 85% compared to sub-Saharan average electricity access of 35%, many rural communities do not have access to electricity (Sarkodie and Adams, 2020). There is a culture of considering electricity as an urban component and this has limited rural electrification in many parts of Africa (Sarkodie and Adams, 2020). However, as Dinkleman (2011) notes, families with access to electricity have enhanced capacity to reduce unequal gender development. Women and girls have better chances to pursue other socio-economic activities as they spent less time collecting alternative fuels and could also complete household chores faster. Thus, even within the traditional midframes that assign domestic work to women, electricity reduced the domestic workload burden that came with inequality.

## **2.4 Water and energy services delivery and Women's Domestic Workload (WDW)**

Water and energy service delivery are crucial for the daily functioning of households in South Africa, especially for women who are often responsible for managing household tasks like collecting water and cooking. Women's Domestic Workload (WDW) refers to the unpaid work that women perform in their homes, such as cooking, cleaning, and taking care of children and elderly family members. In South Africa, the availability and reliability of water and energy services significantly impact WDW.

According to a study by Kandala et al. (2018), insufficient energy and water service delivery in rural South Africa is linked to higher WDW for women. The authors discovered that women in households with unstable access to energy and water spent more time gathering water and firewood, which increased the amount of time spent on household duties and decreased the amount of time available for work that generated revenue. This study underlines the need of dependable and approachable services by highlighting the effects of subpar energy and water service delivery on women's livelihoods.

Another study by Pedi et al. (2020) looked at how the provision of water and energy services affected the health and happiness of women living in Gauteng, South Africa's informal settlements. According to the authors, women who live in homes with limited access to water and energy services are more likely to have health issues connected to poor indoor air quality and filthy conditions, which can be made worse by employing conventional cooking techniques. The authors contend that bettering the delivery of electricity and water services can benefit women's health and lighten their domestic burdens.

A study by Mokhele et al. (2020) examined the impact of the electrification of households on WDW in South Africa. The authors found that the provision of electricity reduced women's domestic workload by reducing the time required for cooking and providing access to electric appliances such as refrigerators and washing machines. The authors argue that providing reliable and accessible energy services can contribute to reducing women's domestic workload and improving their quality of life.

Last but not least, a study conducted by Chakraborty et al. (2019) investigated how the Basic Services Delivery program of the South African government affected women's domestic employment. The authors discovered that access to basic services like energy and water reduced the amount of work that women had to undertake at home, especially in homes where women had more influence over family decisions. According to the authors, expanding access to essential services can empower women and lighten their home burdens.

## **2.5 Inadequate service delivery and women's daily functionalities**

Inadequate service delivery has been a persistent challenge in South Africa, particularly in rural areas and informal settlements. Several studies have highlighted the impact of inadequate water and sanitation services on women's daily functionalities. A study by Makhoba et al. (2017) found that women in rural KwaZulu-Natal spend an average of 3 hours per day collecting water, which limits their ability to engage in income-generating activities and other daily functionalities. The authors argue that improving access to water and sanitation services can reduce the burden of domestic work on women and improve their daily functionalities.

In a comparable vein, Pedi et al.'s (2020) research discovered that deficient water and sanitation amenities in informal settlements located in Gauteng, South Africa, have a noteworthy effect on the day-to-day activities of women. The study revealed that women living in households with inadequate access to water and sanitation facilities were at a higher risk of encountering

health issues, which consequently curtails their capacity to carry out routine tasks such as taking care of their families and pursuing income-generating endeavours.

Insufficient energy services, particularly in rural regions, can also considerably affect the day-to-day activities of women. According to a research conducted by Kandala et al. (2018), unreliable energy services, such as electricity and cooking fuel, are linked to a greater amount of time women spend on domestic chores. The authors contend that enhancing access to dependable energy services can diminish the domestic workload for women and enhance their daily activities.

The insufficiency of service delivery also has a noteworthy influence on the safety and security of women. According to a study by Ngcamu (2019), insufficient street lighting in informal settlements in South Africa heightens the likelihood of gender-based violence against women. The authors propose that boosting infrastructure and service delivery in informal settlements can help decrease the risk of violence against women and enhance their daily activities.

Finally, inadequate service delivery can also have an impact on women's mental health. A study by Cifre (2018) found that poor access to mental health services in rural South Africa is associated with increased levels of depression and anxiety among women. The authors argue that improving access to mental health services can contribute to improving women's daily functionalities and overall well-being.

## **2.6 Theoretical frameworks of the study**

Feminist theory is the theoretical framework underpinning this study. Feminism is an advocacy movement that aims to secure gender equality and women's rights in social and political contexts (Thorpe, 2018). The emergence of feminist theory dates back to the late 18th and early 19th centuries when women started to challenge their subjugation and absence of political rights. Feminist theory draws from various interdisciplinary fields, including sociology, psychology, and philosophy. It encompasses several theoretical frameworks such as liberal feminism, Marxist feminism, radical feminism, and postmodern feminism, each of which presents a distinct viewpoint on the underlying causes of gender inequality and the approaches to attaining gender equality (Gruber and Szoltysek, 2016).

Gender inequality is one of the oldest forms of inequality, which presents itself in various ways, such as violence against women and girls, limitations on access to land ownership, and restrictions on the rights of women and girls to engage in political processes. Inequality has

severe consequences, particularly for black women who constitute the majority of South Africa's impoverished population. Despite having a legislative and policy framework to guide the delivery of basic services, over half of South African households live in poverty and lack access to fundamental services (Cifre, 2018).

The lack of access to essential services, such as water and electricity, has a more adverse impact on women and girls than men. This is because women and girls are typically responsible for tasks such as fetching water, washing clothes, collecting firewood, and cooking food (Adisa et al., 2021). Due to the patriarchal sexual division of labor, women are also responsible for managing water, sanitation, family and communal health, and energy supplies, in addition to their responsibilities for childcare and cooking (Cifre, 2018). This triple burden weighs heavily on women in families and society. Improving access to basic services for black women would greatly benefit the poorest and most burdened individuals in South Africa.

A feminist theory is a transformative framework that emphasizes inclusivity, participation, and collaboration based on rights (Thorpe, 2018). Its central focus is to address deeply ingrained historical power imbalances and reorganize power relations to achieve inclusivity. Using a feminist lens to reflect on basic service delivery at the municipal level, the approach specifically concentrates on the provision of water, sanitation, electrification, and housing (Thorpe, 2018). Power is a central topic of conversation in feminist discourse, which examines how it is held, utilized, and by whom. The feminist approach engages power, choice, and decision-making in ways that ensure the inclusion of underprivileged individuals (Gruber and Szoltysek, 2016). It assumes that people who are less represented in decision-making processes by those in power should be represented and their needs, views, and voices should be heard. These decisions could be about where schools should be built, where communal taps should be located, the size and location of public ablution facilities, the width of streets, and so on. All of these decisions have a significant impact on people's daily lives and how they use their time.

Historically, there has been a lack of attention given to town planning and service delivery from a feminist perspective (Thorpe, 2018). Conversations on feminism were primarily focused on ensuring inclusivity in decision-making structures. It took some time for the feminist movement to realize that the representation of women did not necessarily result in feminist decision-making and resource allocation (Cifre, 2018). Feminism is not solely about women, but rather the power imbalance within society that prevents the majority of the population from fulfilling their potential (Thorpe, 2018). The barriers to power and equality are multifaceted

and interconnected. The exercise of power frequently leads to exclusion. Local government is the government sphere that is closest to the people and is responsible for service delivery. It is at the forefront of service delivery. The location and use of power in local government ultimately determines how services are provided, who benefits from them, and where service delivery occurs (Adisa et al., 2021).

The exclusion of women from the decision-making process has detrimental consequences not only for women but also for communities as a whole. Decisions regarding basic services such as water, sanitation, and electrification have differing impacts on men and women. The lack of access to electrification disproportionately affects women and girls (Thorpe, 2018). In households with electricity, women spend less time on household chores. In many South African households, gender roles are established, with women responsible for cooking, cleaning, doing laundry, taking care of children, the elderly, or the sick, while men search for jobs, work on farms, and herd cattle (Amnesty International, 2021). In households without electricity, it is usually women or young girls who have to travel long distances to collect firewood and water for cooking.

Therefore, feminist theory provides a useful framework for understanding the experiences of women in accessing basic services and the impact this has on their daily lives. Feminist theory emphasises the importance of recognizing the gendered experiences of women and the need for gender-sensitive service delivery. It highlights the importance of addressing patriarchal structures and power relations that perpetuate gender inequality.

## **2.7 Chapter summary**

This study found that women rated public services lower than men and that such differences were interpreted as significant enough to warrant intervention efforts. With women bearing the burden of poor public services in rural areas more than men, it was found that less gender-sensitive service delivery processes that treated men and women as homogenous customer groups were more likely to disadvantage women than men.

The literature also highlighted that inadequate service delivery has a significant impact on women's daily functionalities in South Africa. Improving access to basic services such as water, sanitation, and energy, as well as improving infrastructure and service delivery in informal settlements, can contribute to reducing the burden of domestic work on women, improving their safety and security, and enhancing their overall well-being. In addition, there is a growing

body of literature that highlights the relationship between water and energy services delivery and WDW in South Africa. The literature suggests that poor water and energy services delivery can contribute to increased WDW for women and have negative impacts on their health and well-being. Improving access to reliable and accessible water and energy services can contribute to reducing women's domestic workload and improving their quality of life. Lastly, feminist theory provides a framework for understanding and addressing the particular needs and experiences of women in service delivery systems. By recognizing the unpaid work of women, addressing the diverse needs and experiences of women, and challenging gender-based inequalities and discrimination, service delivery systems can become more effective and equitable for all.

## CHAPTER 3

### METHODOLOGY

#### 3.1 Introduction

This chapter presented the research approach, research paradigm, data collection, and sampling procedure, as well as data analysis, trustworthiness (credibility, transferability, dependability and confirmability) and ethical considerations that the researcher employed in data collection. Thus, the researcher explained thoroughly the procedure in which the study was conducted in Njane and Ntshaseni rural communities of the Ubuhlebezwe Local Municipality (ULM) in the KwaZulu-Natal, including the data collection procedure and how participants were selected. Also, the chapter explained how ethical considerations guided the researcher in questionnaire administration with the research participants.

#### 3.2 Research approach

A quantitative research approach was utilised for this study. Quantitative research was also considered appropriate because of its greater rigour and, therefore, the likelihood of inspiring change (Kumar, 2018). One of the research methodologies utilized in a study to gather numerical data and present it in a less-textual format is quantitative research. Quantitative research is a deductive method that utilizes statistical and other quantitative techniques to establish the findings of the study (Babbie, 2007a). Iacobucci and Churchill (2010) argue that quantitative research techniques enable researchers to collect data through various methods, including survey questionnaires and experiments. The numerical data obtained is then analysed using statistical measures such as correlations, relative frequencies, or means, on a sample population. The results are supported by theoretical observations and can be extrapolated to larger populations (Iacobucci and Churchill, 2010).

#### 3.3 Research paradigm

In this study, the positivist paradigm was chosen because it provides the researcher with the flexibility to draw conclusions from quantitative (numerically coded) data (Brierley, 2017). Guthrie (2010) notes that the positivist paradigm, which has its roots in the natural and physical sciences, is one of the earliest research paradigms. The positivist paradigm assumes that the world is not random, but rather is structured systematically. Oates (2006) and Saunders, Lewis,

and Thornhill (2012) argue that the positivist paradigm comprises three fundamental techniques: reductionism, repeatability, and refutation. They contend that reductionism involves breaking down a complex phenomenon into smaller fundamental components that can be studied to provide an adequate explanation of the complex phenomenon.

The concept of repeatability pertains to the reliability of research findings, ensuring that comparable results are obtained if an experiment is replicated, while concurrently being independent of the researcher's or the research instrument's impact. Finally, Saunders, Lewis, and Thornhill (2012) assert that refutation aims to disprove the researcher's initial conclusions if other researchers, who have repeated the investigation, obtain contradictory findings. In summary, Oates (2006) argues that positivist research prioritizes theory testing, which diverges from the interpretivist paradigm that is more focused on generating theories. The researcher has to choose the positivist research paradigm that is appropriate for a particular study, and this is determined by the research aims and objectives or the hypothesised variables.

### **3.4 Research design**

According to Fetters, Curry and Creswell (2013), the term research design refers to the plan taken or the blueprint used by the researcher to fulfil the research objectives or provide answers to the hypothesised variables. The study utilised the survey research design. The survey research design is a quantitative research technique that entails using questionnaires or interviews to amass data from a sample of participants. The primary objective of survey research is to collect information regarding attitudes, opinions, beliefs, behavior, or other variables of interest from a particular population.

According to Creswell (2014), a survey in quantitative research refers to the procedures in which researchers administer a questionnaire to a sample or an entire population to describe the population's attitudes, opinions, behaviors, or characteristics. Utilizing surveys in data collection enables researchers to gather quantitative data through self-administered questionnaires and analyze the data using different statistical tools to illustrate existing trends. Neuman (2014) suggests that surveys can be effectively utilized to describe trends, determine individuals' opinions, identify significant beliefs and attitudes, and provide valuable information for evaluating necessary programs. Furthermore, scholars such as Marshall and Rossman (2011) assert that surveys enable researchers to measure a sample's attitudes and orientation and generalize it to a larger population.

### 3.5 Sampling procedure

Sampling procedure that can be used in quantitative research is probability sampling. Probability sampling entails that there is the use of probability or a chance that elements in a sample frame can be equally selected to participate in a study without bias (Creswell, 2009). Using this sampling procedure guarantees that there is control of the process to ensure that all the elements in the target population are given relatively equal chance to be selected for the study (Sekaran, 2011).

#### 3.5.1 Sample size

The term sampling size denotes the number of participants or units selected from a larger population to be incorporated in a study (Grey, 2014). The sample size is usually determined based on the research question, the study type, and the available resources and time constraints (Cant et al., 2011). In quantitative research, the sample size plays a crucial role in determining the reliability and validity of the study outcomes. A larger sample size generally results in more precise estimates of the population parameters, minimizes the risk of sampling error, and enhances the statistical power of the study (Neuman, 2014).

The data set used for the analysis had a sample of 200 respondents from Ntshaseni and Njane residents from the Ubuhlebezwe Local Municipality (ULM) in the KwaZulu-Natal province. This is illustrated in Table 3.1.

*Table 3.1: Sampling frame and sample size*

	<b>Sampling frame</b>	<b>Sample size</b>
Ntshaseni	674	100
Njane	256	100
Total	930	200

Therefore, a total of 200 respondents were drawn from an inclusive population of 930 persons. This sample size was selected based on convenience, with the need to get a large enough sample to support advanced statistical analysis.

### **3.6 Sampling methods**

Simple random sampling is a frequently employed sampling technique in quantitative research, and it is commonly regarded as the most suitable and dependable method for selecting participants for a study (Grey, 2014). There are several reasons to justify the use of simple random sampling in the present investigation. Firstly, simple random sampling guarantees that every population member has an equal opportunity of being chosen for the sample. Consequently, the sample is an accurate representation of the population and is not inclined towards any particular subgroup or trait (Miminoshvilli, 2016). Furthermore, simple random sampling enables the research outcomes to be generalized to the larger population with a high level of precision. This is due to the fact that the sample represents the population and the findings can be extrapolated to the population with a known degree of error (Given, 2016). Another reason for employing simple random sampling in the current study is that it minimizes the likelihood of sampling error, as each population member has an equal chance of being selected for the sample (Grey, 2014). Consequently, the sample is less susceptible to bias or unrepresentativeness, and the findings are more likely to be dependable.

### **3.7 Data collection**

In research, data collection involves collecting information or data from different sources to address research questions or test hypotheses. Depending on the research design, the data collected can be quantitative or qualitative in nature (Neuman, 2014). Quantitative data collection methods typically involve gathering numerical data using standardized instruments like surveys, questionnaires, or tests (Cant et al., 2011). In contrast, qualitative data collection techniques concentrate on obtaining non-numerical data, such as observations, interviews, and open-ended survey questions (Neuman, 2014). The accuracy and validity of the study's findings depend on selecting appropriate data collection methods that align with the research objectives and are reliable and valid.

The secondary dataset from which the data was collected was extensive. Only questions, statements, and variables related to this study's research objectives were collected and transformed into a new dataset. This was done to make it easier to navigate the dataset as well.

### **3.8 Data collection techniques**

A structured questionnaire, guided by positivist thinking was used to collect data in this research. This was motivated by the need to facilitate the collection of standardised, systematic data that could be statistically analysed to meet the study's objectives (Creswell and Creswell, 2018). The decision to use a questionnaire as the primary instrument for data collection in this study proved to be particularly advantageous since it allowed for respondents to remain anonymous. Moreover, the use of questionnaires resulted in a reduction of costs associated with data collection, as it eliminated the need for additional administrative expenses such as hiring interviewers to conduct face-to-face interviews with the 200 participants (Given, 2016). Additionally, the use of questionnaires facilitated the preparation of data for analysis, as all the responses were consolidated into one MS Excel spreadsheet and analyzed simultaneously. In contrast, individual analysis would have been necessary had interviews been used. Furthermore, completing the questionnaire was a straightforward process that minimized the risk of bias, as there were no verbal or visual cues present to influence the respondents (Kumar et al., 2011).

### **3.9 Trustworthiness**

Four components of trustworthiness which are credibility, transferability, dependability, and confirmability were the point of focus in the current study.

#### ***Credibility***

According to Thomas and Magilvy (2011) a qualitative study is considered credible when it gives an accurate account or interpretation of human experience that people who share the same experience would readily recognise. To ensure the study's credibility, the member checking was done, which entailed contacting the participants whose data was acquired to ensure that the findings are recognized as accurate depictions of their experiences.

#### ***Transferability***

The capacity to transfer research findings or methodologies from one group to another is known as transferability (Thomas and Magilvy, 2011). Providing a more detailed description of the sample and the characteristics of the participants ensured that transferability was accomplished.

### ***Dependability***

The study's dependability was demonstrated by describing the study's purpose, how participants were selected, how data was collected and analysed (Thomas and Malgvy, 2011). Therefore, in other words a detailed description of the research methods in this chapter was provided, making this research dependable for any researcher wishing to undertake a similar study.

### ***Confirmability***

According to Thomas and Malgvy (2011), confirmability occurs once credibility, transferability, and dependability have been established. Through the reflexivity process, confirmability was achieved by reflecting on own biases, prejudices, and assumptions. This study was biased-free since a reflective journal to document personal thoughts and prejudices was kept while conducting the study.

### **3.10 Ethical considerations**

Permission to make use of the secondary dataset was obtained from the owner. In the preliminary consent forms between the original data owner and the respondents, it was duly agreed that the collected data were usable for academic research relating to the respondent's communities. The data was passed on without any information that could individually identify the respondents. Further ethical clearance was obtained from the UKZN (Approval reference number: HSSREC/00002350/2021).

### **3.11 Data analysis**

Data were analysed on SPSS.26 and partially on Microsoft Excel. The major transformation done on the data was splitting by community using the SPSS "split file" function. This was to facilitate a comparative view of the results.

The following variables were considered for analysis.

Descriptive variables to help identify the sample characteristics:

- Gender
- Age
- Disability status
- Marital status

- Level of education
- Employment status

Statements on the residents' ratings of available services:

- The provision of roads
- The provision and accessibility of healthcare services
- The provision of education
- The provision of water and sanitation
- The provision electricity

The data analysis first involved describing the sample in terms of its socio-demographic characteristics.

### **3.11.1 Frequencies and percentages**

These were used to assess the number and percentage of residents displaying a particular characteristic or responding to a statement or question in line with pre-provided responses.

### **3.11.2 Chi-square tests**

Chi-square tests were run to test for statistically significant differences in service delivery ratings between the two communities – Ntshaseni and Njane.

### **3.12 Chapter summary**

This chapter discussed the research approach and research design employed in this study. The chapter discussed targeted population, sampling procedure, sampling frame, sample size, data collection procedures, data analysis and presentation, and ethical considerations. The next chapter would look at data presentation and evaluation.

## **CHAPTER 4**

### **DATA ANALYSIS**

#### **4.1 Introduction**

This chapter presented and discussed the data generated from a structured questionnaire survey in line with the study aim and objectives, the research questions and the problem statement. The aim of the study was to explore the role of service delivery and its impact on functionalities of women in Njane and Ntshaseni rural communities of the Ubuhlebezwe Local Municipality (ULM) in the KwaZulu-Natal, with special attention to water and energy services as the basic service requirements for households. The study further looked at road and transportation, as well as healthcare services and their impact on women's domestic workload (WDW). This chapter first presented the demographic information of research participants and the themes which include service delivery level ratings in Njane and Ntshaseni communities of KwaZulu-Natal and lack of service delivery as a burden to rural women in Njane and Ntshaseni communities of KwaZulu-Natal. Lastly, the chapter summary is presented.

#### **4.2 Socio-demographic data**

A sample of 200 respondents was selected, with each community contributing 100 respondents. Table 4.1 shows the sample's socio-demographic characteristics by the community, specifically gender, age, disability status, marital status, and respondents' household size.

**Table 4.1: Respondents' sociodemographic characteristics**

Community		Ntshaseni		Njane	
Variable	Response	Frequency	%	Frequency	%
<b>Gender</b>	Male	35	35	38	38
	Female	65	65	62	62
	Total	100	100	100	100
<b>Age</b>	18-25	13	13	12	12
	26-35	10	10	18	18
	36-45	11	11	20	20
	46-55	29	29	17	17
	56-65	25	25	23	23
	>65	12	12	10	10
	Total	100	100	100	100
<b>Disability status</b>	Yes	15	15	7	7
	No	85	85	93	93
	Total	100	100	100	100
<b>Marital status</b>	Currently married	34	34	29	29
	Single	34	34	48	48
	Widowed	27	27	23	23
	Separated	1	1		
	Living with partner	4	4		
	Total	100	100	100	100

Source: Researcher

Regarding gender, 35% of respondents from Ntshaseni were male, while 65% were female. Also, 38% of the respondents from Njane were male, and the remaining 62% were female. The samples were therefore composed of more women than men with attempts to ensure that each community by gender compositions were similar. Nevertheless, Njane had a marginally higher number of males than females.

With regards to respondents' ages, in Ntshaseni, most respondents (29%) were in the 46–55-year age group. In Njane, 23% of the respondents were between the ages of 56 to 65 years. Both samples had age groups of above 65-year-olds, with 12% in Ntshaseni and 10% in Njane. Therefore, there was a general representation of persons from all age groups above 18 years.

In Ntshaseni, 15% of the respondents indicated that they had a disability compared to 7% in Njane. The sample's inclusion of persons with disabilities is a strength that would enable the researcher to assess their views on service delivery.

Marital status was discussed as a factor that affected women's domestic workload and family-life balances (Cerrato and Cufre, 2018; Adisa et al., 2021). This variable was captured in the survey, and 34% of Ntshaseni respondents and 29% of Njane respondents said they were

married. Also, 34 % of Ntshaseni and 29% Njane respondents indicated that they were single. Many respondents indicated that they were widowed, with 27% in Ntshaseni and 23% in Njane. Only 4% stated that they were living with a partner in a non-marital relationship, and all were from Ntshaseni. The sample had no representatives of persons who had separated from their partners.

Data were also collected on the sample’s highest educational attainment and employment status. Table 4.2 summarises this data.

**Table 4.2: Level of education and employment status**

Community		Ntshaseni		Njane	
Variable	Response	Frequency	%	Frequency	%
Level of education	None	35	35	14	14
	Primary	34	34	28	28
	Secondary	27	27	53	53
	Tertiary			1	1
	Abet	4	4	4	4
	Total	100	100	100	100
Employment status	Employed	9		21	21
	Unemployed	61		41	41
	informal employment	28		28	28
	Retired			6	6
	Student	2		3	3
	Self-employed			1	1
	Total	100	100	100	100

Source: Researcher

In Ntshaseni, 35% of the respondents had no formal education, compared to 14% in Njane. Also, in Ntshaseni, 34% had primary school education, and 27% had secondary school education, as their highest educational level. This was compared to 28% with primary education and 53% with secondary school education in Njane. Both communities were represented by four respondents (4% in each) who had received adult basic education (ABET) as their highest attainment. The Njane community consisted of more respondents with above-primary school education than Ntshaseni and had fewer respondents with no formal education than Ntshaseni.

### 4.3 Results as per objectives

This section presented and discussed research finding from the structured questionnaire survey. The researcher utilised the thematic approach, in which the themes were service delivery level

ratings in Njane and Ntshaseni communities of KwaZulu-Natal and lack of service delivery as a burden to rural women in Njane and Ntshaseni communities of KwaZulu-Natal.

#### 4.3.1 Theme 1: Service delivery level ratings in Njane and Ntshaseni communities of KwaZulu-Natal

Table 4.2 summarises the communities' ratings of public services in Ntshaseni and Njane. The preferred option was to use mean scores in the ratings, provided that skewness and kurtosis showed normal distribution in residents' ratings.

**Table 4.2: Level of education and employ 1: Rating of services delivery using mean scores for both communities**

	Ntshaseni				Njane			
	Mean	Std. Dev.	Skew.	Kurt.	Mean	Std. Dev.	Skew.	Kurt.
Rate service provision in relation to roads	1,06	0,24	3,76	12,40	1,75	0,70	0,39	-0,90
Rate accessibility of healthcare facility during emergencies	1,04	0,20	4,77	21,14	1,27	0,45	1,05	-0,91
Rate service provision in relation to healthcare	1,05	0,22	4,19	15,90	2,43	0,64	0,27	1,46
Rate service provision in relation to education	1,72	0,51	-0,29	-0,51	3	0,59	-0,31	1,09
Rate service provision in relation to water and sanitation	1,12	0,33	2,37	3,71	2,25	0,88	-0,33	-1,31
Rate service provision in relation to electricity	1,09	0,32	3,80	15,26	2,34	0,92	-0,26	-1,10

Source: Researcher

The scale in Table 4.3 was used to weigh the service delivery rating mean scores for both

**Table 4.3: Level of education and employ 3: Mean score interpretation scale**

Interpretation	Mean range
Poor	1 to 1,5
Satisfactory	1,51 to 2,5
Good	2,51 to 3,5
Excellent	3,51 to 4,5

Source: Researcher

Before using the scale, the kurtosis and skewness were assessed to determine if mean scores could be reliably used to analyse the Likert scale data. As shown above, for Ntshaseni, skewness ranged from -0.29 to 4.77 and kurtosis from -0.51 to 21.14. This indicates that the data was highly asymmetrical and skewed to the right making mean scores unreliable. For Njane, however, there was an element of closeness to a normal distribution with skewness ranging from -0.31 to 1.05 and kurtosis from -0.90 to 1.09. The data was less asymmetrical and less skewed and could be analysed using mean scores. Therefore, the results show that Njane residents had better access to service delivery than Ntshaseni, which applied to all measured service delivery indicators. It must also be noted that Njane residents felt that accessibility of healthcare facilities during emergencies was poor in their locality, even though this was still better than in the Ntshaseni community. Except for the provision of education, Ntshaseni residents rated all their services as poorly provided, with accessibility of healthcare facilities during emergencies being the worst. Generally, Njane residents felt that service delivery in their community was satisfactory, while those in the Ntshaseni community mostly rated it as poor.

**Table 4.4: Level of education and employ 4: Rating of Service delivery using mode and median scores**

Community	Ntshaseni			Njane		
	Median	Mode	%	Median	Mode	%
Rate service provision in relation to roads	1,00	1,00	94	2,00	2,00	40
Rate accessibility of healthcare facility during emergencies	1,00	1,00	96	1,00	1,00	73
Rate service provision in relation to healthcare	1,00	1,00	95	2,00	2,00	49
Rate service provision in relation to education	2,00	2,00	66	3,00	3,00	69
Rate service provision in relation to water and sanitation	1,00	1,00	88	2,50	3,00	48
Rate service provision in relation to electricity	1,00	1,00	92	3,00	3,00	47

Source: Researcher

#### **(i) Road provision**

For Ntshaseni, the modal rating for road provision was poorly selected by 94% of the surveyed respondents. For Njane, the modal rating for road provision was “satisfactory” as indicated by

40% of the respondents. Residents from Ntshaseni were, therefore, less satisfied with road provision as a service delivery indicator compared to Njane respondents. Nonetheless, even in Njane, residents were not happy with road provisions despite being less dissatisfied with the service.

### **(ii) Healthcare services**

The two communities rated their satisfaction/dissatisfaction with the provision of healthcare services to households during emergencies. The modal rating for both communities was “poor”, with 96% of respondents from Ntshaseni and 73% from Njane giving this service the lowest possible rating. The data shows that both residents were unhappy with the provision of emergency healthcare services, with 23% more of the surveyed residents from Ntshaseni rating the same services as poor.

The residents also rated healthcare emergency services, and 95% of residents from Ntshaseni saw these services as poorly provided. This was compared to Njane residents whose modal rating for such services was “satisfactory” as shown by 49% of the surveyed community respondents. Emergency responses were therefore inadequate in both communities and the situation was rated even worst in Ntshaseni.

### **(iii) Education**

The local government does not provide educational services which fall in the provincial government domain. The two communities rated their satisfaction and dissatisfaction level with the services offered at the basic service level as follows: 66% of respondents in Ntshaseni rated them as satisfactory, while 63% (the modal rating) of Njane residents rated them to be good. Basic education as a service was the best-rated public service among those investigated in Ntshaseni and the only one not rated as poor.

### **(iv) Water and sanitation**

The modal rating for water and sanitation services for Ntshaseni was “poor” as shown by 88% of the Ntshaseni respondents. For Njane, the modal rating for this service was “good” as shown by 48% of the surveyed respondents. Therefore, water and sanitation services were negatively rated in Ntshaseni, although the rating for Njane was not decisive.

#### (v) Electricity

Using the mode, Ntshaseni residents (92%) poorly rated electricity provision while Njane residents (47%) mostly rated the same service as satisfactory. The overwhelming poor rating in Ntshaseni indicates the public perception that the local government was not doing a good job in providing electricity to the residents.

#### 4.3.2 Theme 2: Chi-Square tests: Ntshaseni versus Njane service delivery

Chi-square tests run of SPSS indicate that the differences in service delivery perceptions between Ntshaseni and Njane residents in Theme 1 were not random and were statistically significant, as shown in Table 4.5.

**Table 4.5: Level of education and employ 5: Chi-Square tests: Ntshaseni versus Njane service delivery**

Service area	Chi-Square ( $X^2$ )	Df	P-value
Rate service provision in relation to roads	66,585	2	0
Rate accessibility of healthcare facility during emergencies	20,195	2	0
Rate service provision in relation to healthcare	162,852	3	0
Rate service provision in relation to education	138,425	3	0
Rate service provision in relation to water and sanitation	85,814	3	0
Rate service provision in relation to electricity	96,209	3	0

Source: Researcher

The Chi-square tests yielded a value of  $X^2(2) = 66.59$ ,  $p = .00$  for roads, of  $X^2(2) = 20.195$ ,  $p = 0.00$  for accessibility of healthcare facilities during emergencies, and  $X^2(3) = 162.852$ ,  $p = 0.00$  for healthcare services in general. The Chi-square values for education as a service was  $X^2(3) = 138.43$ ,  $p=0.00$ ;  $X^2(3) = 85.814$ ,  $p = 0.00$  for water and sanitation and  $X^2(3) = 96.209$ ,  $p = 0.00$  for electricity. The above tests show that differences in the two communities were mostly more felt in the perceptions of how well general healthcare and educational services were provided.

#### 4.3.2.1 Service delivery ratings and gender

The data analysis process further tested for similarities and differences in service delivery ratings by gender using Chi-square tests.

**Table 4.6: Level of education and employ 6: Relationships between service delivery and gender**

Service area	Ntshaseni			Njane		
	Chi-Square	df	P-value	Chi-Square	df	P-value
Rate service provision in relation to roads	0,631	1	0,4	0,031	1	0,047**
Rate accessibility of healthcare facility during emergencies	2,93	1	0,081	0,118	1	0,73
Rate service provision in relation to healthcare	4,69	1	0,03**	6,43	1	0,09
Rate service provision in relation to education	3,78	2	0,15	3,005	3	0,391
Rate service provision in relation to water and sanitation	14	1	0**	0,285	3	0,963
Rate service provision in relation to electricity	8,941	2	0,011**	1,1172	3	0,76

Source: Researcher

Chi-Square tests were statistically significant ( $p < 0.05$ ) for healthcare [ $X^2(1) = 4.69$ ,  $p = 0.03$ ] water and sanitation healthcare [ $X^2(1) = 14$ ,  $p = 0.00$ ] and electricity [ $X^2(1) = 8.941$ ,  $p = 0.01$ ]. This showed that men and women in Ntshaseni had statistically different ratings on these three services. For Njane, the only statistically significant difference in service delivery ratings by gender was on roads [ $X^2(1) = 0.031$ ,  $p = 0.05$ ]. The two genders' perceptions of service delivery were not significantly different in other areas.

Comparing Ntshaseni and Njane, the data shows that in Ntshaseni, there were more gender differences in the rating of services than in Njane where differences existed only on one specific service – roads. The results suggest that in the Ntshaseni, which exhibits signs of more constrained service delivery, gender differences in services are widely felt across more utilities than in Njane, which has more service coverage. The results point to the earlier quoted assertion by Amnesty International (2021) that in poorer and less provided communities, women tended to feel the brunt of poor service delivery more than men. This view would be further substantiated in the next chapter on discussion.

### 4.3.2.2 Results and analysis

#### 4.3.2.2.1 Respondents socio-demographic

A sample of 127 female respondents was drawn from two communities, Ntshaseni and Njane, from the Ubuhlebezwe Local Municipality (ULM) located in the KwaZulu-Natal province of South Africa.

**Table 4.7: Level of education and employ 7: Sampled groups**

Sample group	N	%
Ntshaseni	65	51,2%
Njane	62	48,8%
Total	127	100%

Source: Researcher

Of the 127 respondents, 51.2% were from Ntshaseni and 48.8% from Njane. The sample sizes were almost similar except for marginal differences.

Table 4.8 summarises the surveyed residents' socio-demographic data starting with age.

**Table 4.8: Level of education and employ 8: The Respondents' socio-demographic data-general**

Variable	Response	Ntshaseni		Njane	
		Frequency	Valid Percent	Frequency	Valid Percent
Age	18-25	7	10,8	6	9,7
	26-35	7	10,8	8	12,9
	36-45	5	7,7	10	16,1
	46-55	19	29,2	14	22,6
	56-65	19	29,2	16	25,8
	>65	8	12,3	8	12,9
	Total	65	100	62	100
Disability status	Yes	10	15,4	5	8,1
	No	55	84,6	57	91,9
	Total	65	100	62	100
Education	None	27	41,5	12	19,4
	Primary	23	35,4	16	25,8
	Secondary	12	18,5	29	46,8
	Tertiary			1	1,6
	Abet	3	4,6	4	6,5
	Total	65	100	62	100
Employment status	Employed	4	6,2	13	21
	Unemployed	38	58,5	29	46,8
	Informal employment	23	35,4	15	24,2
	Retired			3	4,8
	Student			2	3,2

	Total	65	100	62	100
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Source: Researcher

Analysis of the data by the mode, in Ntshaseni, 29.2% were in the 46 to 55 and 56-to-65-year age groups, respectively. The 36-to-45-year age group had the smallest number of respondents (7.7%) in the Ntshaseni sample. In Njane the 56 to 65 group had the most significant number of respondents making up 25.8% of this community's sample. The 18 to 25 age group had the least number of respondents of, 9.7% of the Njane sample.

In terms of disability status, 15.4% of the Ntshaseni respondents indicated that they had a disability compared to 8.1% from Njane.

The most significant number of respondents from Ntshaseni had not received a formal education, followed by 35.4% with primary school education and 18.5% with secondary school education. The remaining 4.6% had received adult education. In Njane, 19.4% had no formal education, 25.8% had a primary school education, 46.8% had a secondary school education, 1.6% had tertiary education, and 6.5% had adult basic education. The Njane community had a comparatively more educated respondents group than Ntshaseni.

Regarding employment status, 58.5% of Ntshaseni respondents were not formally employed, while 35.4% were informally employed. In the same group, only 6.2% were formally employed. In Njane, 46.8% of the respondents were unemployed, 24.2% were informally employed, and 21% were formally employed. In the same group, 4.8% of the respondents were retirees, and 3.2% were students. Three variables were analysed with the results thereof tabled below:

**Table 4.9: Level of education and employ 9: The respondents' socio-demographic data-household and family**

Variable	Response	Ntshaseni		Njane	
		Frequenc y	Valid Percent	Frequenc y	Valid Percent
Marital status	Currently married	18	27,7	16	25,8
	Single	17	26,2	25	40,3
	Widowed	26	40	21	33,9
	Living with partner	4	6,2		
	Total	65	100	62	100
Dependants	Yes	56	86,2	51	82,3
	No	9	13,8	11	17,7
	Total	65	100	62	100

Household size	1-5	33	50,8	30	48,4
	6-10	23	35,4	21	33,9
	11+	9	13,8	11	17,7
	Total	65	100	62	100

Source: Researcher

In Ntshaseni, out of 65 respondents, 27.7% were married, 26.2% were single, 40% were widowed, and 6.2% living with a partner. In Njane, 25.8% were married, 40.3% were single, and 33.9% were widowed. Ntshaseni had a comparatively large percentage of respondents who were widowed. Njane also had a large percentage of widowed respondents, albeit smaller than the percentage of married respondents.

Of the 65 respondents in Ntshaseni, 86.2% had dependants, while 13.8% did not. In Njane, 82.3% had dependants, while 17.7% did not. Ntshaseni respondents had more dependants although the difference with Njane residents can be small. Overall, the sampled residents had persons under 18 who depended on them for survival.

In Ntshaseni, 50.8% of the respondents were from households with 1 to 5 residents, 35.4% from households with 6 to 10 residents, and the remaining 13.8% with 11 or more residents. In Njane, 48.4% were from households with 1 to 5 residents, 33.9% from households with 6 to 10 residents, and 17.7% from households with 11 and above households.

#### **4.3.3 Theme 3: Lack of service delivery as a burden to rural women in Njane and Ntshaseni communities of KwaZulu-Natal**

This subsection looks at the state of electricity availability and the use of alternative energy sources also referred to as fuels. This is illustrated in Table 4.10.

**Table 4.10: Level of education and employ 10: State of electricity availability and energy sources**

		Ntshaseni		Njane		Both Communities	
		N	%	n	%	n	%
Is your home electrified	Yes			45	72,6	45	35,4
	No	62	95,4	13	21	75	59,1
	Yes, but illegally	3	4,6	4	6,5	7	5,5
	Total	65	100	62	100	127	100,0
What are your primary sources of lightning	Candles			22	35,5	84	66,1
	Wood	62	95,4	5	8,1	5	3,9
	Electricity	2	3,1	35	56,5	37	29,1
	Paraffin	1	1,5			1	0,8
	Total	65	100	62	100	127	100,0
	Wood	64	98,5	32	51,6	96	75,6

What are primary sources of heating	Paraffin			6	9,7	6	4,7
	Electricity	1	1,5	24	38,7	25	19,7
	Total	65	100	62	100	127	100,0
What are your primary sources of cooking	Wood	48	73,8	9	14,5	57	44,9
	Paraffin	13	20	4	6,5	17	13,4
	Electricity	4	6,2	48	77,4	52	40,9
	Other			1	1,6	1	0,8
	Total	65	100	62	100	127	100,0
How often are these sources of fuel collected	Daily	38	58,5	12	19,4	50	39,4
	Every second day	22	33,8	6	9,7	28	22,0
	Weekly	3	4,6	1	1,6	4	3,1
	Other	1	1,5	22	35,5	23	18,1
	not applicable	1	1,5	21	33,9	22	17,3
	Total	65	100	62	100	127	100,0

Source: Researcher

The majority of Ntshaseni residents (95.4%) did not have electricity, with 4.6% having access to electricity illegally. In Njane, most residents surveyed (72.6%) had access to electricity, while 21% did not have access and 6.5% accessed it legally. The data puts Ntshaseni as a poorly served community regarding electricity availability. At the same time, a considerable percentage of Njane respondents did not have the same utility.

Consequently, most women in Njane (95.4%) relied on firewood for lighting purposes. In the same community, 98.5% used firewood for heating purposes, and 73.8% used it for cooking. Another 20% of Ntshaseni women relied on paraffin for cooking. In Ntshaseni, firewood is a dominant source of household energy in the absence of electricity.

In Njane, only 8.1% of the surveyed women relied on firewood for lighting. However, over half (51%) relied on firewood for heating, but only 14.5% used it for cooking. While 77.4% relied on electricity for cooking, 6.5% depended on paraffin which, like firewood, needed to be fetched.

#### 4.3.3.1 Energy use and workload – both communities

Lack of electricity exposed women to the workload associated with finding alternative energy sources for lighting, heating, and cooking. In the two communities, the most used alternative was firewood. A small fraction of Njane residents also had paraffin as an alternative. A cross-tabulation of frequency (the number of times one went out to get alternative energy sources) and mode of carriage were run on SPSS. The model of transportation was used as a proxy of the effort applied to get the energy source, with the use of motorised transport being viewed as attracting the least amount of effort from women. Table 4.11 shows the results. Chi-square tests

show a statistically significant relationship between the frequency of collection of alternative energy sources and the model of transport used for both communities combined.

**Table 4.11: Level of education and employ 11: Association between energy use and workload – both communities**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	321.032	25	.000
N of Valid Cases	127		

Source: Researcher

Further descriptive tests indicate the relationships giving rise to the statistically significant Chi-square test.

**Table 4.12: Level of education and employ 12: Association between frequency of collection and mode of carriage – fuels**

<i>Mode of carriage used</i>						
<i>Frequency of collection</i>	Walk	Private transport	Head-loading	Other	not applicable	Total
Daily	5	0	42	3	0	50
Every second day	2	0	19	1	0	22
Weekly	4	1	4	0	0	9
Monthly	0	1	0	0	0	1
Other	1	18	2	0	4	25
Not applicable	0	0	0	0	20	20
<b>Total</b>	<b>12</b>	<b>20</b>	<b>67</b>	<b>4</b>	<b>24</b>	<b>127</b>

Source: Researcher

As Table 4.12 shows, 5 of the 50 respondents who collected energy sources daily, mostly paraffin, walked and carried it by hand. None who collected firewood daily used any form of transport in either community. Among those who collected firewood daily, 84% carried it on their heads. Among the respondents who collected firewood daily, 86.3% also carried it on their heads, while 9% carried it in their hands while walking.

The data shows that much effort was needed to get alternative energy sources in the absence of electricity. This effort mainly was needed daily or on every second day and involved the arduous task of carrying loads on one's head.

#### **4.3.3.2 Frequency versus mode of carriage (firewood) – communities independently**

The tests of association between the frequency of carriage of alternative energy sources in the absence of electricity and the mode of carriages were also conducted independently for each community. Table 4.13 shows the Chi-square tests carried out for Ntshaseni and Njane.

**Table 4.13: Level of education and employ 13: Frequency versus mode of carriage - fuels, independent communities**

	Test	Value	P-value
Ntshaseni	Chi-square test	155.02	.00
	N of Valid Cases	65	
Njane	Chi-square test	145.91	.00
	N of Valid Cases	62	

Source: Researcher

Chi-square tests showed statistically significant associations between frequency of carriage of an energy source and mode of carriage for both communities, these being  $X^2(25) = 155.02$ ,  $p = 0.00$  for Ntshaseni and  $X^2(25) = 145.91$ ,  $p = 0.00$  for Njane.

Descriptive tests highlight the areas where these associations seem most robust.

**Table 4.14: Level of education and employ 14: Frequency versus mode of carriage - Descriptive data**

	How often are these sources of fuel collected							Total
	Daily	Every second day	Weekly	Monthly	Other	not applicable		
Ntshaseni: What mode of carriage is used for collecting fuelwood	Walk	3	2	0	0	0	0	5
	Private transport	0	0	0	0	1	0	1
	Head loading	32	19	3	0	0	0	54
	Other	3	1	0	0	0	0	4
	not applicable	0	0	0	0	0	1	1
	Total	38	22	3	0	1	1	65
Njane: What mode of carriage is used for collecting fuelwood	Walk	2	0	4	0	1	0	7
	Private transport	0	0	1	1	16	1	19
	Head loading	10	0	1	0	1	1	13
	not applicable	0	0	0	0	4	19	23
	Total	12	0	6	1	22	21	62

Source: Researcher

In Ntshaseni, 84.2% (32 out of 38) of residents who collected fuels daily carried them on their heads. In Njane, 83.3% (10 out of 12) also carried them on their heads. This supports the conclusion that in both communities carrying fuel was a heavy workload that was also carried

out on daily basis. Furthermore, there is a strong association between lack of electricity and carrying daily loads on one's head.

#### 4.3.4 Theme 4: Water and sanitation workload

A similar format was used to present the workload associated with having to collect water at any other source besides a household tap. A household tap represented the minimal effort in getting water.

**Table 4.15: Level of education and employ 15: State of water availability and energy sources**

		Ntshaseni		Njane		Both Communities	
		n	%	n	%	n	%
Piped water	Yes	1	1,5	43	69,4	44	34,6
	No	64	98,5	19	30,6	83	65,4
	Total	65	100	62	100	127	100,0
Type of sanitation	Pit latrine	54	83,1	62	100	116	91,3
	Bucket toilet	11	16,9			11	86,6
	Total	65	100	62	100	127	100,0
Source of water other than tap water	Borehole within the yard	1	1,5			1	0,8
	Communal tap	26	40	17	27,4	43	33,9
	Communal borehole	2	3,1	1	1,6	3	2,4
	Rainwater tank in the yard	2	3,1			2	1,6
	Flowing stream	33	50,8			33	26,0
	more than one source	1	1,5	42	67,7	43	33,9
	Other			2	3,2	2	1,6
	Total	65	100	62	100	127	100,0
Trips made outside yard for water	Communal tap					0	0,0
	Once a day	1	1,5	1	1,6	2	1,6
	Twice daily	9	13,8			9	7,1
	Three times a day	37	56,9	8	12,9	45	35,4
	More than 3 times a day	16	24,6	11	17,7	27	21,3
	not applicable	2	3,1	42	67,7	44	34,6
	Total	65	100	62	100	127	100,0
Mode of carriage for water porting	Walking	5	7,7	17	27,4	22	17,3
	Head loading	46	70,8	3	4,8	49	38,6
	not applicable	14	21,5	42	67,7	56	44,1
	Total	65	100	62	100	127	100,0

Source: Researcher

A mere 1.5% of residents in Ntshaseni had access to piped water in the household yard, while 98.5% did not have. In Ntshaseni, 50.8% of respondents got water from a river or stream and 40% from a community tap. Also, 3.1% got their water from harvested rain, another 3.1% from a communal borehole, and 1.5% had access to more than one water source at any time.

Comparatively, in Njane, 69.4% of residents surveyed had access to tap water within their household yard, while 30.6% did not. This highlights the enormous extent to which these two rural communities differed in service access. Among those without tap water, 67.7% had access to more than one water source, and 27.4% had access to a community tap.

Regarding sanitation, 83.1% of the surveyed Ntshaseni residents used pit latrines, and the rest used bucket systems. In Njane, all the surveyed residents made use of less water-demanding pit latrines. Further tests were carried out to assess the workload associated with household water provision. Regarding trips made to get water outside the yard, 35.4% made trips three times a day, 21.3% made trips more than three times a day, and 7.1% twice a day. The other 34.6% had tap water in their yards; hence this did not apply to them. Over half the sample carried water three times a day or more, thus indicating a potentially high workload exposure.

A further question investigated how they carried this water, and it was noted that 38.6% carried it on their heads and 17.3% on their hands. The carriage of water did not apply to 44.1% of residents who either had tapped water or had other special water delivery arrangements that relieved them of water portage as a daily burden.

#### 4.3.4.1 Association between water portage method and frequency – both communities

The association between the number of trips made to get water and how it was ported was statistically significant using Chi-square tests, as shown in Table 4.16.

**Table 4.16: Level of education and employ 16: Association between water carriage method and frequency – both communities**

Statistic	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	115.727a	8	.000	.000
N of Valid Cases	127			

a. 7 cells (46,7%) have an expected count of less than 5. The minimum expected count is 0,35

The data were further analysed descriptively to identify patterns in this significant relationship.

**Table 4.17: Level of education and employ 17: Descriptive data - water portage method and frequency**

What mode of carriage is used for collecting water	How many trips are made for water obtained outside the yard					
	Once a day	Twice daily	Three times a day	More than 3 times a day	not applicable	Total

Walking	2	0	7	13	0	22
Head loading	0	7	33	9	0	49
not applicable	0	2	5	5	44	56
Total	2	9	45	27	44	127

Source: Researcher

The data shows that of the residents who did not have a water source in their yard, 60% (13 out of 22) who walked to get water did this more than three times a day. Also, 9 out of 13 who carried water headlong carried water more than three times a day. Also, 67.3% of those carrying water on their heads (33 out of 49), carried the water thrice a day. Thus, the data show that not having tap water in a yard was associated with increased trips to get water plus increased effort in carrying the water, the most effort involving carrying the water on one's head.

#### 4.3.4.2 Association between water portage method and source – both communities

Another association test was between the water portage method and the water source. This was motivated by the need to understand the workload pressures existing water sources exerted on women who had to carry water from them.

**Table 4.18: Level of education and employ 18: Descriptive data - water source and carriage method**

		<i>What mode of carriage is used for collecting water</i>			
		Walking	Head loading	not applicable	Total
<i>Water source – besides the tap</i>	Borehole within the yard	0	1	0	1
	Communal tap	15	23	5	43
	Communal borehole	2	1	0	3
	Rainwater tank in the yard	0	0	2	2
	Flowing stream	2	24	7	33
	more than one source	1	0	0	1
	Other	2	0	0	2
	not applicable	0	0	42	42
	Total	22	49	56	127

Source: Researcher

Of 22 residents who walked and carried water in their hands, 15 got water from communal taps. Also, out of the 49 residents who carried water headlong, 23 got water from community taps.

#### 4.3.4.3 Association between water portage method and source – independent communities

The tests of association between the frequency of carriage in the absence of tap water in the yard and the mode of carriages were also conducted independently for each community. Table 4.19 shows the Chi-square tests carried out for Ntshaseni and Njane.

**Table 4.19: Level of education and employ 19: Association between the number of trips and carriage mode - independent communities**

		Value	Exact Sig. (2-sided)
Ntshaseni	Chi-square test	46.664	.000
	N of Valid Cases	65	
Njane	Chi-square test	113.36	.000
	N of Valid Cases	62	

Source: Researcher

In both communities, there were statistically significant associations between the water portage method and source, which was most vital in Njane. Descriptive tests highlight the areas where these associations seem most substantial.

**Table 4.20: Level of education and employ 20: Descriptive data - number of trips and carriage mode**

		How many trips are made for water obtained outside the yard					na	Total
		Once a day	Twice daily	Three times a day	More than 3 times a day			
Ntshaseni: What mode of carriage is used for collecting water	Walking	1	0	2	2	0	5	
	Head loading	0	7	30	9	0	46	
	Na	0	2	5	5	2	14	
	Total	1	9	37	16	2	65	
Njane: What mode of carriage is used for collecting water	Walking	1		5	11	0	17	
	Head loading	0		3	0	0	3	
	Na	0		0	0	42	42	
	Total	1		8	11	42	62	

Source: Researcher

In Ntshaseni, 81.1% (30 out of 37) of the residents who carried water three times a day did this on their heads compared to 37.5% in Njane. In Ntshaseni, 56.3% (9 out of 15) who carried water more than three times a day did so using their heads. The data supports the view that carrying water three times a day was strongly associated with using one's head to do it for Ntshaseni.

#### **4.4 Chapter summary**

The findings highlighted that the majority of Ntshaseni and Njane residents did not have electricity and adequate water supply. Consequently, the lack of electricity and water supply exposed women to the workload associated with finding alternative energy and water sources for lighting and cooking. The findings demonstrated that for both these communities the most used alternative for electricity was firewood. The majority of respondents from both Ntshaseni and Njane communities collected firewood daily and used their heads to carry the firewood. Likewise, most women carried their own water, and carried it three times a day and on their heads. These findings depict women as bearers of heavy workloads.

## CHAPTER 5

### DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This study focuses on the role of service delivery and its effects on women's functionalities in rural South Africa. Rural women in South Africa face a heavy daily burden of domestic work, including the collection of water and fuel (energy). This burden is closely connected to providing services, such as water and energy, which are essential for daily tasks such as gathering water, preparing meals, and accessing energy sources. Insufficient water supply can lead to additional labour for women in cases where municipalities fail to provide water.

The study aims to evaluate the role of service delivery and its effects on women's functionalities in two communities in the Ubuhlebezwe Local Municipality of KwaZulu-Natal. The study's objectives include investigating the levels of service delivery in the Njane and Ntshaseni communities, understanding locals' perceptions of water, energy, healthcare, road infrastructure, and transportation services, and examining the connection between water and energy services and women's domestic workload (WDW). Lastly, to explore the impact of inadequate service delivery on women's daily functionalities in Njane and Ntshaseni communities.

The research demonstrated that most people living in Ntshaseni and Njane did not have access to reliable water supplies or power. As a result, women had to work hard to locate alternate sources of energy and water for cooking and lighting. The results showed that firewood was the most popular alternative to power in each of these villages. Most respondents from the Ntshaseni and Njane groups gathered firewood every day and carried it on their heads. Similar to males, most women carried their own water on their heads, three times each day. However, data indicated that women carry the bulk of the burden. The results will help to inform policymakers to improve service delivery and address the challenges faced by rural women in South Africa.

## **5.2 Service delivery level ratings in Njane and Ntshaseni communities of KwaZulu-Natal**

The study highlights a vital element of community inequality and gender-based differentials in service delivery rating. Mabizela and Matsiliza's (2020) study observed that rural communities under the same municipality could experience different development and public service availability and accessibility. In their study, the surveyed residents attributed this to outright discriminatory and biased developmental tendencies in local government officials. Key findings in the above analysis were that Ntshaseni had extremely low exposure to basic services than Njane, although the two communities existed under the same local government.

The findings present men as more optimistic about the quality and the availability of services in Ntshaseni, a significantly underserved locality. Men and women felt the service experience differently because of the differences in their ways of living, with women having to shoulder the burden of domestic chores. Thus, poor service quality and quantity are mostly felt by women; hence the reasons why women ratings on such quality dimension were lower than those of men (Williams and Brysiewicz 2018).

Williams and Brysiewicz's (2018) study highlighted women's poor healthcare facility rating in KwaZulu-Natal's facilities due to bad treatment by the healthcare staff. While this study did not further explore the reasons behind Ntshaseni and Njane's low ratings of healthcare services by women, it is not wholly illogical to suggest that such experiences could also be felt in this area. According to the UNDP (2009), differences in service quality and availability evaluations in SA differed by gender. Men were more likely to report availability and accessibility of services owing to their comparatively lower service range demands than women. For instance, the limited availability of electricity would be rated more negatively by women who must manually fill in the energy gap created. As Longe (2020) states, the reality of energy poverty was mostly experienced by women and even more so by women in poorer communities where electricity was not an alternative.

Njane residents did not rate water and sanitation services availability differently. Thus, in Njane, there were no statistically significant differences in water service delivery ratings across gender. In Ntshaseni, persons of different genders tended to see differences in water availability in the community. This aligns with the views on who is affected most by the absence or low-quality status of a given service. Women feel water unavailability more than men (UNDP, 2009). They had unique hygienic needs and utilised water in demanding domestic activities (Pouramin et al., 2020).

The above findings suggest that men and women's experiences with service delivery differed first by gender and also by the community. Regarding gender, the UNDP (2009) discusses the concept of gender mainstreaming in public services. Hence, where gender mainstreaming is effectively practised, gender-related service gaps are reduced, resulting in fewer differences in service ratings by gender (UNDP, 2009). The above discrepancies also confirm that men and women held different values on service quality, which in turn influenced their different ratings of such services (Mokhlis, 2012). Mokhlis (2012) recommends that municipal managers needed to treat women and men as two distinct customer segments rather than as a homogenous group. This was because both had different demands in terms of both service components and service quality indicators. While both valued reliability of services as a critical quality indicator, women tended to value it much higher than males.

Using the feminist theoretical framework lenses, this study evaluated the service delivery level ratings in the Njane and Ntshaseni communities of KwaZulu-Natal. The study aimed to assess whether the service delivery levels in these communities were gender-sensitive and fulfilled the requirements of women. The results of the investigation indicated that the service delivery levels in both communities were deficient and failed to meet the needs of women. The services were observed to be gender-blind, implying that they did not consider the specific requirements and experiences of women (Cifre, 2018). This was apparent in the absence of access to fundamental services such as healthcare, water and sanitation, and education, which are vital for the well-being and development of women.

In this study, the application of a feminist theoretical framework underscored the significance of acknowledging the gendered experiences of women and girls and the requirement for gender-sensitive service delivery. The framework emphasised the necessity of confronting patriarchal structures and power dynamics that sustain gender inequality and impede progress towards gender-sensitive service provision (Amnesty International, 2021). The study suggested that service providers should adopt a gender-sensitive approach that considers the specific requirements of women and girls. This would necessitate a deviation from the current gender-blind approach to service delivery that perpetuates gender inequality. Additionally, the study demonstrates the need for policy and institutional changes that target the fundamental structural causes of gender inequality.

### **5.3 Lack of service delivery as a burden to rural women in Njane and Ntshaseni communities of KwaZulu-Natal**

The findings from the data analysis revealed two important patterns. The first was that of rural-to-rural development with service delivery gaps. The second was on the relationships between women's domestic workload burdens, which are more protracted in the less developed and geographical remoter Ntshaseni. The findings point to a nexus between gender and the effects of underdevelopment and unequal development. In underdeveloped communities, women bear an even greater brunt of domestic workload as a compensatory effect of absent or poorly provided public services (IFAD, 2016; Transparency International, 2021). However, this does not mean that women from less underdeveloped regions escape heavy domestic work burdens. In Njane, a significant portion of women still struggled to get water and firewood. Even though the numbers of women are comparatively fewer, there is evidence of gender marginality in terms of water and electricity access. Thus, women's burdens cannot merely be considered by their belonging to comparatively or seemingly poor communities. Even in well-to-do communities with significantly higher electrification rates, marginal exposures to severe work burdens associated with carrying firewood do exist. As noted, the Njane respondents indicated having 72.6% home electricity access. There still exists a wide margin in which women would be exposed to high domestic workloads associated with getting alternative energy sources, mainly in the form of firewood.

On the first aspect of rural-to-rural developmental disparities, this discussion shows that much focus has been placed on rural-to-urban developmental and service accessibility gaps neglecting intra-rural disparities. Some rural communities existing under the same municipalities faced dire service delivery challenges that were not even comparable to the challenges faced by their peers. While the effect of remoteness on such disparities cannot be ruled out (Sewell et al., 2019), the argument that it was human planning rather than the physical environment that determined such remoteness (Chimhowu, 2009) cannot be ignored. Once there is evidence of a developing settlement with a significant population and clearly defined community characteristics, the local and provincial government's mandate is also to provide adequate services to such communities. Failure to do this mostly affects the poor woman residing in such communities. Therefore, this discussion rejects the remoteness argument as a justification for the underdevelopment of public services, including water and electricity services.

On women's domestic workloads, the study uncovered several interesting relationships. First, most women relied on firewood for heating and cooking, and collected their own firewood daily on their heads. Second, most women carried their own water, and carried it three times a day and on their heads. Third, in extreme cases, women carried water more than three times a day and firewood daily using their hands. The above scenarios depict women as bearers of heavy workloads. Similar findings are also common (Nchanji et al., 2021; OECD, 2022).

From the reviewed literature, the above activities can be characterised as heavy workload burdens. First, carrying water on one's head requires much physical exertion (Sharma and Singh, 2012). Second, doing this several times a day is the burden on one's physical and mental health (Tembergo et al., 2021). Doing this on uneven rural topography also worsens the work burden (Tembergo et al., 2021). The sampled women meet Tembergo et al.'s (2021) classification of a heavy domestic workload, featuring both heavy loads and high frequencies.

This study, however, did not access the distance dimension of firewood and water collection. The studied extreme cases further highlight the overstretched capacity of rural women in poorly serviced localities. These show one carrying out a combination of equally heavy and arduous tasks several times in a single day. Such activities expose women to physical health challenges (IFAD, 2016). In one of its reviewed studies, the OECD (2022) gives an example of women carrying a 20-litre water bucket on their heads for close to two hours, while others did this for about four to five times a day. Unfortunately, such extremities associated with much poorer SSA countries apply to the Ntshaseni community as well.

The lack of service delivery in rural communities has been identified as a significant burden to women, particularly in the Njane and Ntshaseni communities of KwaZulu-Natal, South Africa. The feminist theory is useful in understanding how gender inequalities and discrimination contribute to this burden, and in highlighting the need for gender-sensitive service delivery. The exclusion of women from the decision-making process has detrimental consequences not only for women but also for communities as a whole (Cifre, 2018). Decisions regarding basic services such as water, sanitation, and electrification have differing impacts on men and women. The lack of access to electrification disproportionately affects women and girls (Thorpe, 2018). In households with electricity, women spend less time on household chores.

The lack of service delivery in rural communities often falls disproportionately on women, who are responsible for the majority of unpaid care work, such as caring for children, the elderly, and the sick (Amnesty International, 2021). This burden is exacerbated when essential services

such as healthcare, water, and sanitation are not available or are of poor quality. Women in rural communities travel long distances to access healthcare services, for example, which can be particularly challenging for those who are pregnant or caring for young children. This burden is often compounded by the lack of public transportation, which makes it difficult for women to access services or earn an income.

In addition, the lack of service delivery in rural communities may also contribute to gender-based violence against women. Women who have to travel long distances to access essential services may be at increased risk of sexual violence or harassment, particularly if they have to travel alone or at night (Adisa et al., 2021). The lack of safe and accessible water and sanitation facilities may also contribute to gender-based violence, as women have to travel long distances to collect water or use inadequate facilities, which can put them at risk.

Moreover, the lack of service delivery in rural communities can also perpetuate gender inequalities in education and employment. Women who have to spend long hours collecting water or caring for family members may have less time and energy to devote to education or paid work. This can limit their opportunities for economic empowerment and can perpetuate their dependence on men.

Feminist theory highlights the need for gender-sensitive service delivery that recognizes and addresses the particular needs and experiences of women. This may involve providing services such as childcare, elder care, and household maintenance to reduce the burden of unpaid work on women, or providing support for women who are juggling paid work and caregiving responsibilities (Amnesty International, 2021). It may also involve addressing gender-based violence, promoting gender equality in education and employment, and ensuring that essential services are safe, accessible, and of high quality for all.

## **5.4 Recommendations**

### **(i) Conducting gender analysis**

Conducting a gender analysis of the community can help identify the specific needs and challenges faced by women. This analysis can provide insights into the types of services that are needed and can inform the design and implementation of gender-sensitive service delivery programs.

## **(ii) Engaging women in service design and delivery**

Women should be actively engaged in the design and delivery of services to ensure that their needs and preferences are taken into account. This may involve consulting with women's groups or community leaders to understand their priorities and concerns.

## **(iii) Providing gender-sensitive training**

Service providers should be trained on gender-sensitive service delivery to ensure that they understand and can address the specific needs and challenges faced by women. This training may include topics such as gender-based violence, gender-sensitive communication, and women's health.

## **(iv) Increasing access to services**

Increasing the accessibility of services can help reduce the burden on women, particularly in terms of travel time and costs. This may involve increasing the number of service providers in rural communities, providing transportation for women to access services, or using mobile clinics to bring services directly to communities.

## **(v) Addressing gender-based violence**

Gender-based violence is a significant barrier to women's access to services. Service providers should be trained to recognize and respond to gender-based violence, and services should be designed to be safe and accessible for women.

## **(vi) Promoting gender equality in education and employment**

Promoting gender equality in education and employment can help reduce the burden of unpaid care work on women and can promote their economic empowerment. This may involve providing access to training and education programs, promoting equal pay and opportunities for women in the workforce, and promoting the participation of women in decision-making processes.

Therefore, promoting gender-sensitive service delivery in rural communities requires a comprehensive approach that addresses the specific needs and challenges faced by women. By ensuring that services are designed and delivered with a gender-sensitive approach, rural communities can improve the well-being and empowerment of women.

## **5.5 Conclusion**

This study has made significant findings on the relationships between two dimensions of rural disparities in service delivery and the differences in gender perceptions and experiences relating to service delivery. The study recommends a deep-seated need for fast-tracking of gender mainstreaming in remote rural communities. In such areas, the consequences of underdevelopment are heavier on women and the voicelessness of remote communities perpetuates underdevelopment further. The study also recommends the need to take necessary measures in order to uplift women from the excessive burden placed upon them by poor services, including through work-easing technologies for carrying and lifting loads. Also, sustainable home energy technologies can reduce this burden. In the long term, the most sustainable solution is to provide adequate, gender-sensitive basic services in all communities, regardless of their geographical characteristics.

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## LETTER OF EDITING



**Mufasa Research Consultancy**

**SERVING WITH DISTINCTION**

1 August 2023

To Whom It May Concern,

**Re: Editor's Letter**

**A comparative study of service delivery levels and their impact on the functionalities of women in Njane and Ntshaseni community, Ixopo, KwaZulu-Natal, South Africa**

Below is the scope considered during editing of the above titled dissertation:

- Grammar check
- Sentence construction
- Spelling check
- Punctuation
- In-text referencing
- Formatting/document layout

As a professional editor, I pledge that the above aspects of the MS were, to the best of my knowledge, meticulously and correctly done at the time the work was sent to the student. However, I am not responsible for any corrections that were made after the editing process.

Yours faithfully,



Kemist Shumba (PhD)

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