

**Informed consent: A study of the impact of relationships on women's decision-making  
regarding participating in HIV prevention vaccine trials in KwaZulu-Natal, South  
Africa.**

by

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Research thesis submitted in partial fulfilment of the requirements for the Master of Social Sciences (Research Psychology), School of Applied Human Sciences, College of Humanities at the University of KwaZulu-Natal, Pietermaritzburg.

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November 2020

## ACKNOWLEDGEMENTS

First and foremost, I would like to thank my sisters, Success Pfunzo Mashamba and Nthabiseng Mashamba for their unwavering support. Thank you for always being on standby to google the meaning of certain words, or to respond to hysterical emails with the subject line “Please help, crying in the library”.

I would also like to thank my grandmother for her endless prayers and for always believing in me.

I extend my sincere gratitude to Nkazimulo Ntanzu, for her translating services as well as her assistance during data collection.

I thank the Thousand Hills community helpers for their understanding, support and kindness, and for offering me a space to conduct my study

Lastly, I thank my supervisor Professor Doug Wassenaar for his support and guidance.

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## ABSTRACT

This study aimed to investigate the effect of relationships on women's decision-making with regard to participating in HIV/AIDS vaccine trials. The sample size was 103 and consisted of women aged between 18-60 years from Inchanga, Pietermaritzburg. The majority of participants were aged between 18-30 ( $n=39$ ) followed by 28 participants aged between 41-50, while 23 were between 31-40 and 13 were between 51 and 60. Overall, the results showed that 59.2% of women could be regarded as autonomous because of their preparedness to act independently of their husbands' views in the context of participating in HIV preventive vaccine trials. Furthermore, 64.1% of women who participated in the study said they were prepared to act independently of their relatives' views in the context of participating in HIV preventive vaccine trials. Results also showed that there was an association between respondents' marital status and decision-making, as well as level of education and decision-making. Higher education was associated with greater willingness to participate in research against husbands' or relatives' differing views, while marital status was associated with lower willingness to participate in HIV prevention research as married women were not prepared to go against their husbands' or relatives' wishes. Furthermore, the results of the study showed that religious and cultural/ traditional beliefs as well as participants' fear of physical, emotional, and economic sanctions were associated with power imbalances in relationships.

*Keywords: Autonomy, Informed Consent, HIV/AIDS vaccine trials*

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## CHAPTER 1. INTRODUCTION AND RATIONALE

### 1.1. Introduction

Research has shown that women are three times more likely to be infected by HIV than men because of a combination of biological, economic and socio-economic factors (Christofides & Jewkes, 2010; Kayombo, 2010; UNAIDS, 2009). In sub-Saharan Africa, about 60% of people living with HIV are women, with South Africa counting for a third of all new HIV infections among women (Klaas et al., 2018). In 2018, Statistics South Africa reported that an estimated 7.52 million people were living with HIV in South Africa. Additionally, approximately one-fifth of South African women aged between 15-49 years were HIV positive (Stats SA, 2018).

Women's power inequalities render them especially vulnerable to HIV infection. According to a report by the United States Agency for International Development (USAID, 2013), gender inequalities and men's perceived sexual and economic superiority over women have significant health implications that are central to HIV infection. This is corroborated by Coovadia et al. (2009) as well as Jewkes and Morrel (2010) who stated that the link between HIV/AIDS and gender inequality lies in the patriarchal nature of society and the ideals of masculinity based on the control of women. Moreover, patriarchal culture views men as dominant both in the family and society at large. As such, this has overwhelming effects for women since they cannot protect themselves, particularly when it comes to HIV/AIDS (Klaas et al., 2018).

Considering the abovementioned, UNAIDS (2006) has stipulated that gender should be an important consideration in HIV related research. This means that HIV related research should focus on populations that are most at risk of HIV exposure namely women, who until recently have been underrepresented as participants in trials for all types of clinical interventions, including trials for HIV vaccines (UNAIDS, 2006). Furthermore, women are more likely to be infected by HIV because of their marginalised status. This translates to their social, economic or legal status, which can influence their willingness or ability to participate in trials. Moreover, participating in HIV/AIDS vaccine trials requires individual autonomous decision-making embedded in the principle of informed consent. This principle has been at the forefront of ethics research since the Nuremberg trials and it stipulates that individuals make voluntary informed decisions whether or not to participate in research (Nuremberg Code, 1947).

Ensuring truly informed voluntary consent may be difficult especially amongst women in resource-poor settings. Although O'Neil and Plank (2015), have argued that women around the world now have more influence over decisions that affect their lives and are now visible in public spaces than they have been at any point in modern history, other researchers believe that women in developing countries either make decisions collectively with their partners or are completely reliant on their male partners' decisions on issues that affect them (Bogale, Wandafrash, Tilahun & Girma, 2011). This can be attributed to religious, cultural and traditional practices that generally insist on the man being the head of the house, thus giving men the greatest control and decision-making power while shrinking women to the status of minors that cannot make decisions on their own (Braam & Hessini, 2004). Thus, women's decision-making is affected by cultural traditional or religious practices of their families or communities, and this often makes participation in clinical trials without spousal or family approval impossible (Molyneux, Wassenaar, Peshu & Marsh, 2005).

## **1.2 Study aims**

This study aimed to investigate the effect of relationships on women's decision-making with regard to participating in HIV/AIDS vaccine trials. Because research on women-centred prevention methods has increased dramatically over the past ten years, this study attempted a partial replication of a study conducted by Nyika (2005) and Nyika, Wassenaar and Mamotte, (2009) on a sample of 314 women in Zimbabwe to identify whether his Zimbabwean findings apply in KwaZulu-Natal, South Africa, more than ten years later.

The secondary aim of the study was to explore factors contributing to power imbalances in relationships. Lastly, the study sought to gain insights into participants' understanding of autonomy.

## **1.3 Structure of the report**

This report consists of six chapters as outlined below:

Chapter 1 introduces the study by outlining the background and aims of the study.

Chapter 2 reviews the literature as it pertains to the aims of the study. As a point of departure, a brief overview of HIV/AIDS vaccine trials is presented, followed by ethical considerations associated with HIV preventive vaccine trials. Informed consent as a cornerstone of research ethics is also explored. The literature review progresses to discuss the principles of voluntariness and autonomous decision-making in relation to research participation. In addition to the aforementioned, the literature review will further discuss the Theory of Gender and Power as well as Social Exchange Theory as they relate to power differentials in relationships and thus, autonomous decision-making. Lastly, factors associated with women's health-care decision-making autonomy will be highlighted.

Chapter 3 outlines the procedure followed when conducting this study. The aims and objectives of the study are presented, followed by a brief description of the research methodology and design. The study setting, sampling method and data collection instrument utilised in the study are also discussed. The chapter further describes the data collection process as well as the method of data analysis followed by a brief report on the validity and reliability of the study. The chapter concludes by outlining the ethical guidelines that were taken into consideration in this study.

Chapter 4 presents and describes the results of this study. As a point of departure, the sample is described. Findings on the influences of age, marital status, employment status and educational level on autonomous decision-making are also presented. Furthermore, findings on whom respondents are most likely to consult regarding participation in health research, why and the consequences thereof are also presented. Lastly, results on what participants think should be done by researchers to make it possible for women to make autonomous decisions whether or not to participate in health research are reported.

Chapter 5 discusses the findings of the study with reference to the literature review.

Chapter 6 provides a summary of the main findings and conclusions of the study. Lastly, the limitations of the study as well as recommendations for future research are outlined.

## CHAPTER 2. LITERATURE REVIEW

### **2.1 Introduction**

This chapter presents an overview of the literature on women's autonomous decision-making regarding participation in health research - particularly HIV/AIDS vaccine trials. As a point of departure, an overview of HIV/AIDS prevention trials is provided followed by ethical principles and guidelines associated with HIV prevention vaccine trials. Informed consent is also explored as a cornerstone of research ethics. The literature review progresses to discuss the principles of voluntariness and autonomous decision-making with regard to research participation. In addition, the literature review will further discuss the Theory of Gender and Power as well as the Social Exchange Theory as they relate to power differentials in relationships and thus, autonomous decision-making. Lastly, factors associated with women's health-care decision-making autonomy will be highlighted.

### **2.2 HIV preventive vaccine trials**

The Human Immunodeficiency Virus (HIV) is a virus that targets, and attacks cells of the immune system called CD4 cells, which help with the body's response to infections (WHO, 2017). The virus replicates and damages CD4 cells which in turn weakens the immune system to a point that it can no longer fight infections and other diseases (WHO, 2017). It is found in certain bodily fluids such as blood, breastmilk, semen, and vaginal fluids. Furthermore, it is transmitted by unprotected vaginal and anal sex with a person living with HIV, through blood transfusions of contaminated blood as well as by sharing needles, syringes, surgical equipment, other injecting equipment and sharp objects. It can also be transmitted from a mother living with HIV to her infant during pregnancy, childbirth or breastfeeding (UNAIDS, 2014; WHO, 2017).

According to the World Health Organisation (2020), immunodeficiency results in an increased susceptibility to a wide range of infections, cancers and other diseases that people with healthy immune systems can fight. This is referred to as Acquired Immunodeficiency Syndrome (AIDS). AIDS is the most advanced stage of HIV infection which is characterised by the development of certain cancers, infections or severe long term clinical manifestations such as Pneumonia, memory loss, depression and other neurologic disorders (WHO, 2017).

HIV continues to be a global public health issue. A report by UNAIDS (2019) estimated that 75.7 million people have been infected with the virus since the start of the epidemic, with about 33 million people dying from AIDS -related illnesses since the start of the epidemic. Currently, there is no cure for HIV. However, researchers have made significant progress towards reducing transmission of HIV since its peak. Interventions such as antiretroviral therapy (ART), treatment as prevention (TaSP), male and female condom use, pre-exposure prophylaxis (PrEP), HIV counselling and testing (HCT), voluntary male circumcision and the Prevention of Mother to Child Transmission (PMTCT) have contributed to the global decline of HIV infection and mortality rates (UNAIDS, 2019). Reports by UNAIDS (2019) and WHO (2017) detail that globally, HIV infections were reduced by 39% since its peak in 1998. Moreover, AIDS- related deaths declined by 51%, with 15.3 million lives saved due to the roll-out of ART (WHO, 2020).

Since there is currently no cure for HIV, the World Health Organization has recommended that all people living with HIV should be offered antiretroviral therapy (ART) as it reduces the risk of HIV transmission, the amount of HIV in the body and prevents HIV from advancing to AIDS (WHO, 2016). The main goal of ART is to reduce a person's viral load to an undetected level. Once a person's viral load is suppressed, they cannot transmit the virus to their uninfected sexual partners (Cohen et al., 2011 as cited in Harmon et al., 2016; WHO, 2016).

Antiretroviral therapy can also be used as an HIV prevention tool. The use of antiretroviral medication to prevent HIV infection by uninfected persons is referred to as Pre-exposure prophylaxis or PrEP. As part of comprehensive HIV prevention, WHO recommended that people at high risk of acquiring HIV infection should be offered PrEP as an additional preventive choice (WHO, 2015). Studies have demonstrated the effectiveness of PrEP in reducing HIV transmission among a range of populations including serodiscordant heterosexual couples, men who have sex with men, transgender women, high-risk heterosexual couples, and people who inject drugs (UNAIDS, WHO & AVAC 2015). Furthermore, WHO (2017) noted that the use of PrEP with other established HIV prevention strategies by pregnant and breastfeeding women could reduce HIV infections among women and transmission from mother to child in settings with high HIV incidence rates.

Post-exposure prophylaxis (PEP) is another ART based HIV prevention tool. PEP includes counselling, first aid care, HIV testing and administration of a 28-day course of antiretroviral

drugs with follow-up care (WHO, 2015). WHO recommends that PEP be used by individuals who have been exposed to HIV within 72 hours to prevent infection (WHO, 2015).

Other preventive methods that are of interest to researchers are microbicides and antibodies. Microbicides are substances used in the vagina or rectum to reduce the risk of HIV infection via sexual intercourse (Abdool Karim et al., 2011). Researchers believe that microbicides could fill an important HIV prevention gap especially for women who are unable to successfully negotiate mutual monogamy or condom use (Abdool Karim et al., 2011). Examples of microbicides being studied are gels, douches and the dapivirine vaginal ring. The dapivirine ring is being considered for licensure as it has shown to be effective in reducing HIV infections in women, evident in the ASPIRE study conducted by the Microbicides Trials Network (MTN), where the risk of HIV infection in women was reduced by 27% (MTN, 2016).

Each dapivirine ring contains 25mg of the ARV dapivirine, designed to offer potentially long-lasting protection against HIV (MTN, 2016). When inserted inside the vagina, the ring slowly releases the drug over the course of four weeks. Results from the ASPIRE study showed that the ring can deliver dapivirine to vaginal tissue for a month with minimal absorption in the body. The ring has also been shown to be safe and well tolerated by women (MTN, 2016).

With regard to antibodies, researchers believe that broadly neutralising antibodies or bNabs might be useful in HIV prevention, treatment and cure. By attaching themselves to certain parts of HIV's surface, antibodies can stop the virus from infecting healthy cells (AVAC, 2020). Furthermore, the antibodies can recognise and attach themselves to multiple HIV clades that exist around the world (AVAC, 2020). Antibody research...

Although access to evidence-based HIV prevention, diagnosis, treatment and care services has enabled people living with HIV to lead long and healthy lives (Dawson et al., 2018), researchers believe that a preventive HIV vaccine would be the most effective way to completely end new HIV infections (Hsu & O'Connell, 2017; WHO, 2015). The goal of a preventive HIV vaccine is to prepare the body's immune system to recognise, protect and effectively fight against infection in case of exposure to HIV in future (Kahn, 2005).

To speed up the development of preventive HIV vaccines, collaborative research networks such as the HIV Vaccine trials Network (HVTN), the HIV Prevention Trials network (HPTN),

the AIDS Vaccine Advocacy Coalition (AVAC) and the Microbicides trials network (MTN) have been established (Sista et al., 2011). The purpose of these networks is to evaluate the efficacy of interventions aimed at preventing HIV transmission between sexual partners, needle-sharing partners or from mother to child during pregnancy, child -birth or breastfeeding (Sista et al., 2011).

Vaccines are tested through clinical trials, conducted in three sequential phases to determine their safety and effectiveness (UNAIDS, 2000). In Phase I, a small number of volunteers at low risk of HIV infection are enrolled in the trials to assess safety and determine the immunogenicity of a vaccine- that is, the body's immune response to the vaccine (Horn & Zimba, 2014). Phase II trials are usually short and enrol a limited number of participants. The aim of this phase is to assess safety, establish associated therapeutic data and determine the appropriate dose of the vaccine or drug being tested (Horn & Zimba, 2014). The last phase of clinical trials is also referred to as efficacy trials. In this phase, several thousand volunteers are enrolled in the trials to statistically determine whether the vaccine works, that is, whether or not the vaccine protects from infection (Kahn, 2005; UNAIDS/WHO, 2012).

Examples of preventive HIV vaccine trials that have been conducted include:

- a) HPTN 071 (Pop ART study)- this trial investigated the impact of a combination prevention package on population-level HIV incidence in South Africa and Zambia. The study showed that delivery of an HIV prevention strategy that includes offering HIV testing to everyone with immediate referral to HIV care, and treatment for people living with HIV can substantially reduce new HIV infections (Hayes et al., 2019).
- b) HPTN043: This trial evaluated methods to increase HIV testing rates (Sista et al., 2011).
- c) HVTN705/HPX2008- also known as the Imbokodo study, the trial evaluated the safety and efficacy of an experimental regimen based on a mosaic vaccine designed to induce an immune response to the different types of HIV found across the world. This study enrolled 2600 women in 5 countries across sub-Saharan Africa (Barouch et al., 2018).
- d) HPX3002/HVTN706 Mosaico- a phase III trial that enrolled 3800 men who have sex with other men (MSM) and transgender individuals in Argentina, Brazil, Italy, Mexico, Peru, Poland, Spain and the United States (AVAC, 2020).

In relation to the aforementioned trials, the RV144 study conducted by the US Military HIV Research Program (MHRP), on more than 16 000 volunteers in Thailand showed efficacy in preventing new HIV infections (MHRP, 2009). The results showed that volunteers who got the test vaccine were 31% less likely to get HIV during the trial than those who got the placebo (MHRP, 2009). This provided researchers with critical evidence that a safe and effective vaccine against HIV is possible. Because of the results of the study, researchers made adjustments to the RV144 vaccine and adapted the vaccine for use in other parts of the world. One of the studies testing the adapted vaccine was the Uhambo trial (HVTN 702), a study that enrolled 5407 South African women to determine whether the vaccine can prevent Clade C HIV, the most common HIV subtype in South Africa. Regrettably, the trial was concluded early as the data showed that the vaccine was safe but not effective as it neither increased nor decreased the risk of acquiring HIV (AVAC, 2020).

According to Kahn (2005), HIV vaccine trials should be conducted in multiple populations to test the vaccine against the diverse HIV strains circulating in different regions of the world as there is no guarantee that a vaccine based on one HIV strain will protect against infection with other strains. Kahn (2005) further noted that it is important that HIV vaccine trials reflect the diversity of people who will be using the vaccine in future because one particular subgroup (i.e. racial group or gender group), might respond differently to a vaccine. If there are too few volunteers representing the subgroup, such trends cannot be detected. Moreover, the efficacy of the vaccine might be influenced by differences among populations, such as other pathogens they are exposed to, diseases they live with, and genetic differences that may influence how well the immune system responds to particular antigens (Kahn, 2005).

While it is undebatable that HIV vaccines should benefit everyone, it is important to ensure that they benefit populations with the highest risk of infection and that they are accessible, affordable and appropriate for use among such populations (Kahn, 2005; South African Medical Research Council [SAMRC], 2003, UNAIDS/WHO, 2012). This is because most HIV efficacy trials are conducted on high-risk populations in countries hardest hit by the epidemic, and groups that are often marginalised and discriminated against such as gay men, injecting drug users, and sex workers (Kahn, 2005). The potential to violate the rights of trial participants, particularly in vulnerable communities such as those mentioned above necessitates the need to design and conduct clinical trials in accordance with sound scientific, and ethical standards within the framework of good clinical practice (SAMRC, 2003;

UNAIDS, 2000). Maintaining ethical standards ensures that the rights, safety and wellbeing of trial participants are protected (International Conference on Harmonisation [ICH], 2016).

### **2.3 Ethical considerations in HIV preventive vaccine trials**

All ethical guidelines for the protection of people in research have been articulated in several internationally recognised codes of ethics including the Nuremberg Code (1947), The Declaration of Helsinki (2013), the Belmont Report (1979) and the CIOMS guidelines (2016). At the core of these guidelines are three main principles namely: autonomy, beneficence and justice. Autonomy requires that persons capable of deliberation about their own choices must be treated with respect and be permitted to exercise self-determination (Department of Health [DoH], 2015) whereas beneficence prohibits the deliberate infliction of harm on persons. It refers to the ethical obligation to maximise benefits and minimise harm and requires that the risks of harm posed by the research must be reasonable considering anticipated benefits (DoH, 2019). The principle of beneficence also implies that the research design must be sound and that competent researchers should carry out the proposed research activities (SAMRC, 2003). The principle of justice, on the other hand, advances the notion of equality within the research context. It states that there should be a fair balance of risks and benefits amongst all role-players involved in the research including participants, participating communities and sponsors of said research (Belmont Report, 1979).

HIV preventive vaccine trials are conducted in compliance with the aforementioned principles as well as *Ethical considerations for biomedical HIV prevention vaccine research* as stipulated by the Joint United Nations Programme on HIV/AIDS and the World Health Organisation (UNAIDS/WHO, 2012). Furthermore, trials are conducted in accordance with Good Participatory Practice (GPP) guidelines as stipulated by UNAIDS/AVAC (2011) as well as Good Clinical Practice guidelines (DoH, 2006; DoH, 2019; ICH, 2016).

Good Participatory Practice guidelines provide systematic guidance on how to effectively engage with stakeholders in the design and conduct of biomedical HIV prevention trials (UNAIDS/AVAC, 2011). Respect, mutual understanding, integrity, transparency and accountability, as well as community stakeholder autonomy are at the core of these guidelines (UNAIDS/AVAC, 2011). In addition to the abovementioned guidelines, the rights of trial

participants in South Africa are protected by the constitution, particularly section 12(2)(c) of the Bill of Rights which states that everyone has the right to bodily and psychological integrity which includes the right not to be subjected to medical or scientific experiments without their informed consent (Constitution of the Republic of South Africa, 1996). Research on HIV vaccines must also be compliant with the SA National ethics guidelines (DoH, 2015) and the South African Medical Research Council guidelines on ethics for medical research (SAMRC, 2003). Such guidelines are established and enforced in terms of the National Health Act no.61 of 2003 (DoH, 2006).

Additional ethical considerations for biomedical HIV prevention vaccine trials as stipulated by UNAIDS/WHO (2012) include the following:

*a) HIV vaccines development*

This guideline stipulates that the development of a safe and effective HIV vaccine requires intense international collaboration and coordination over time. This includes countries with scientific expertise and resources, and countries and communities where vaccines could be carried out but whose infrastructure, resources and ethical capacities may be insufficient (UNAIDS, 2000).

*b) Vaccine availability*

In terms of vaccine availability, UNAIDS/WHO (2012) notes that plans to ensure availability of a successful vaccine and other benefits resulting from the research should be developed in the initial stages of the vaccine development so that such a vaccine can benefit all participants who were involved in the trials as well as other populations at high risk of HIV infection.

*c) Capacity building*

According to UNAIDS/WHO (2012), strategies should be implemented to build capacity in communities where vaccine trials are conducted so that such communities can make meaningful decisions about HIV vaccine development and can ensure scientific and ethical conduct of vaccine development. Capacity building also ensures that countries and communities can function as equal partners with sponsors and others in a collaborative process (SAMRC, 2003; UNAIDS, 2000).

*d) Community participation*

Communities should be involved in the design, development, implementation and distribution of results of HIV vaccine research (UNAIDS/WHO, 2012). Furthermore, communities should be empowered to participate meaningfully in HIV vaccine development and research as this can offset the vulnerability of communities and promote their rights and welfare. Moreover, communities have the right and responsibility to take decisions regarding the nature of their participation in research (UNAIDS/AVAC, 2011).

*e) Research protocols and study populations*

Research protocols utilised in HIV vaccine trials should justify the fair selection of the research population from a scientific point of view, outline how the risks undertaken by the participants will be mitigated, and demonstrate how the vaccine being tested will be beneficial to the population in which it is being tested. This assists to ensure that the research is conducted in an ethical manner (UNAIDS/WHO, 2012).

*f) Scientific and ethics reviews*

HIV preventive vaccine trials should be carried out in countries with the capacity to conduct appropriate, competent and independent scientific and ethics review (Brown, Sugarman & the HPTN ethics working group, 2020, UNAIDS/WHO, 2012).

*g) Control group*

The use of placebos in HIV preventive vaccine trials is ethically acceptable provided that there is no known effective HIV preventive vaccine (UNAIDS/WHO, 2012).

*h) Vulnerable populations*

The social and legal marginalisation of groups from which trial participants might be drawn, and stigma or discrimination, as well as prevailing gender dynamics that may limit the ability to give free voluntary consent, may increase the vulnerability of trial participants. Therefore, HIV prevention researchers should assess such factors that may place participants at heightened risk for social harms (Brown et al., 2020). Sookan et al. (2019) note that social harms may arise in different HIV prevention trials including vaginal rings, microbicides, PrEP and vaccines. Trial-related social harms include vaccine-induced seropositivity, abandonment, abuse, gender inequality and intimate partner violence. Intimate partner violence has especially been reported in microbicides trials (Sookan et al., 2019).

UNAIDS (2000) as well as UNAIDS/WHO (2012) have stipulated that steps that will be taken to overcome such conditions of vulnerability and to protect the dignity, wellbeing and safety of participants must be detailed in the research protocol (UNAIDS, 2000; UNAIDS/WHO, 2012). Moreover, Sookan et al. (2019) stated that social harms resulting from trial participation should be reported to Research Ethics Committees/ Institutional Review Boards (RECs/IRBs) and Data Safety and Monitoring Boards (DSMBs) in writing as soon as possible or within 7 days of occurrence to ensure that new precautions are put in place as to prevent reoccurrence of harm to another participant.

*i) Clinical trial phases*

Phase I clinical trials to assess the safety immunogenicity of a candidate vaccine happen at a time when risks may not be well defined. Hence, specific infrastructure is required in order to ensure the safety and care of trial participants at this phase (UNAIDS/WHO, 2012). Clinical trials progress to Phase II and Phase III once the safety and immunogenicity of a vaccine has been determined. Phase II trials also provide an indication of the safety and immunogenicity of a biomedical HIV prevention product, whereas Phase III trials are large scale trials that assess the efficacy of an HIV prevention product in order to develop a usable and licensable product (UNAIDS/WHO, 2012).

The choice of study population in each phase of clinical trials should be scientifically and ethically justified in advance, regardless of where the study population is based. This is because clinical trial phases in the development of preventive HIV vaccines all have specific scientific requirements and ethical challenges (UNAIDS/WHO, 2012).

UNAIDS/WHO (2012) note that early clinical phases of biomedical HIV prevention research should be conducted in communities that are less vulnerable to harm, exploitation, or risk of HIV acquisition. However, countries may choose to conduct any trial phase within their populations if they are able to ensure sufficient scientific infrastructure and sufficient ethical safeguards. UNAIDS/WHO (2012) further note that conducting clinical trials in communities or countries vulnerable to harm or exploitation is ethically justifiable if:

- The country can develop or be provided with adequate, scientific and ethical capability as well as administrative and health infrastructure for the successful conduct of the proposed research,

- Community members, policy makers, investigators and ethicists in the country have determined that the population will be protected from harm and exploitation and that the biomedical HIV prevention product is necessary for, and responsive to the health needs and priorities in their country
- The product is a vaccine anticipated to be effective against a strain of HIV that is an important public health problem in the country and,  
All ethical considerations for biomedical HIV prevention as stipulated by UNAIDS/WHO (2012) are satisfied.

*j) Standard of prevention*

Reducing the risk of HIV infection among trial participants is an important ethical component of HIV preventive vaccine trials (SAMRC, 2003). Therefore, the most appropriate risk-reduction counselling and access to preventive methods should be provided to all trial participants with new methods being added as they are discovered and validated (UNAIDS, 2000, UNAIDS/WHO, 2012).

*k) Treatment and care*

Participants must be provided with treatment and care for HIV infection should they become infected during the course of an HIV preventive vaccine trial. Treatment and care may include: Ongoing counselling, screening, family planning, home-based care and ART, treatment of other diseases such as sexually transmitted infections, as well as tuberculosis prevention and treatment (UNAIDS, 2000). Additionally, the HPTN ethics guidance for research stipulates that researchers should facilitate continuity of prevention services and care for participants who still require it after research participation has ended (Brown et al., 2020).

*l) Women*

Research has indicated that in many countries, women are at high risk of HIV infection (Kayombo, 2010; WHO, 2015; UNAIDS, 2009) because of social inequalities, biological vulnerabilities, socio-cultural factors, unequal power dynamics, socio-economic status, economic dependence, violence against women, and gender insensitive laws (Wassenaar & Barsdorf, 2007). Therefore, UNAIDS/WHO (2012) have indicated that women, including women of child-bearing potential, pregnant women and breastfeeding women should be enrolled in HIV preventive vaccine trials to establish the safety, immunogenicity and efficacy

of candidate vaccines on women. In relation to the aforementioned, Wassenaar & Barsdorf (2007), stated that when including women in HIV vaccine trials, particular attention must be given to ethical issues because of women's infective and social vulnerability. Thus, gender-sensitive approaches should be implemented in the design of recruitment, consent, risk-reduction, and retention procedures in HIV vaccine efficacy trials (Wassenaar & Barsdorf, 2007).

*m) Children and adolescents*

Regarding children and adolescents, UNAIDS/WHO (2012) postulated that they should be included in clinical trials as they are recipients of future HIV preventive vaccines. However, specific scientific, ethical and legal considerations relevant to children should be addressed prior to developing HIV vaccines to ensure that their welfare is safeguarded and promoted (DoH, 2015; SAMRC, 2003).

*n) People who inject drugs*

It is imperative to include people who inject drugs in biomedical HIV prevention trials to verify the efficacy, safety and immunogenicity of the vaccine being tested (UNAIDS/WHO, 2012). Researchers and trial sponsors should engage meaningfully with people who inject drugs and other stakeholders to overcome the complex legal, ethical and regulatory challenges that may be posed due to participation in HIV prevention trials (UNAIDS/WHO, 2012). Furthermore, since people who inject drugs are one of the population groups at relatively higher risk of HIV infection, they should be provided with access to proven, effective HIV prevention interventions such as provision of condoms, counselling and access to educational information on safe-injecting practices as well as sterile injecting equipment (UNAIDS/WHO, 2012). In cases where barriers exist to ensuring access to sterile needles and syringes for all trial participants, HIV prevention trials among people who inject drugs should not proceed.

*o) Confidentiality*

Regarding confidentiality, UNAIDS/WHO (2012) state that researchers and research staff must ensure full respect for the entitlement of potential participants and trial participants to confidentiality of information disclosed or discovered during participant recruitment and informed consent processes, and during the conduct of the trial.

*p) Informed consent*

Informed consent is based on respect for prospective trial participants' autonomy and right to self-determination. In HIV preventive vaccine trials, consultation between community representatives, researchers, sponsors and regulatory bodies informs the design of an effective informed consent strategy (UNAIDS, 2000). During this consultative process, issues that may hinder free, voluntary consent such as illiteracy, language and cultural barriers, as well as diminished personal autonomy are addressed. Informed consent as a foundation of ethical research, and as it pertains to HIV preventive vaccine research, is discussed in section 2.4.

*q) Availability of outcomes*

Any biomedical HIV preventive intervention demonstrated to be safe and effective, along with other knowledge and benefits helping to strengthen HIV prevention should be available to all trial participants as well as other populations at higher risk of HIV exposure in the country (UNAIDS/WHO, 2012).

In addition to the aforementioned ethical considerations, the HIV Prevention Trials Network's ethics guidance document include the following guidelines for research (HPTN) has published the following guidelines for research:

*i) Independent data and safety monitoring*

This guideline proposes that HIV prevention researchers and sponsors should ensure that appropriate mechanisms for independent data and monitoring are in place in order to help ensure the safety of research participants, the integrity of the trial and attend to the interests of those outside the trial (Brown et al., 2020). Furthermore, data monitoring and safety committees consisting of clinicians who are knowledgeable about the diagnosis and treatment of the disease under study, biostatisticians, community representatives and ethicists should be included in late-stage multi-site clinical trials that involve significant risks. The role of such committees is to:

- Ensure data validity
- Assess emerging unanticipated safety issues, such as a significant number of serious unexpected adverse events that may be intervention-related and,
- Evaluate external information from other studies that may necessitate modification or termination of the study that is being monitored (Brown et al., 2020).

*ii) Disseminating research results*

HIV prevention results should be communicated to scientific audiences, trial participants, affected communities and other stakeholders in a manner that promotes understanding and trust (Brown et al., 2020). Additionally, Brown et al. (2020) notes that the dissemination of results should be part of a comprehensive communication plan that conveys how a tested efficacious intervention will fit with and strengthen existing HIV prevention strategies.

*iii) Sustaining capacity-strengthening and infrastructure*

This guideline stipulates that the capacity developed in the course of the design and implementation of HIV prevention research should ideally contribute to future research activities and public health and, continue to provide benefits and opportunities for local researchers and communities once research is completed (Brown et al., 2020).

*iv) Continuing care for research participants*

HIV prevention researchers should seek to facilitate continuity of prevention services and care for participants who still require it after research participation has ended.

*v) Post-trial access to effective interventions*

According to this guidance point, HIV prevention researchers must have a preliminary plan regarding post-trial access to interventions proven to be safe and effective, which offer meaningful benefit for research participants and their communities (Brown et al., 2020).

## **2.4 Informed consent**

Informed consent is a fundamental requirement of ethical research as articulated in the Declaration of Helsinki, the Belmont Report and the Guidelines of the Council for International Organizations of Medical Sciences (Ndebele, 2013; Nyika et al., 2009). It is a decision to participate in research taken by a competent individual who has received the necessary information, who has adequately understood that information, and who after considering the information, has arrived at a decision without having been subjected to coercion, undue influence, inducement or intimidation (CIOMS, 2016).

The consent process is seen as including the following elements:

### *i) Competence*

This serves as a guideline to identify from whom it is appropriate to obtain informed consent. Competence means that the person involved in research has the legal capacity to give consent and can exercise free power of choice without any force, duress, fraud or deceit. Allowing competent persons to give consent and not allowing incompetent persons to give consent is based on the principle of autonomy which states that autonomous persons are rightfully their own decision-makers (Faden & Beauchamp, 1986).

### *ii) Disclosure*

Disclosure entails communication of all relevant information about the research (Lindegger & Richter, 2000; Nyika et al., 2009). It refers to the delivery of information to a patient or research participant and forms the basis for the participant's decision. Researchers are obliged to disclose information including those facts that participants usually consider important in deciding whether to refuse or consent to the research, information believed to be significant by the researcher, the purpose of seeking consent as well as the nature and limitations of consent (Wendler & Grady, 2008). In research, disclosure of information covers the aim, methods of research, benefits, and risks as well as any anticipated inconvenience or discomfort. Disclosure of information also covers the participants' rights to withdraw from the research without any consequences (Beauchamp & Childress, 2001).

### *iii) Understanding*

According to Brody, McCullough and Sharp (2005), the consent process should not only consist of information disclosure to research participants, but it should also facilitate participants' understanding of the research project and the voluntary nature of their decision to participate. Understanding is thus essential in the consent process as it ensures that participants make a knowledgeable decision.

HIV vaccine trials must communicate complex concepts such as vaccine induced seropositivity, actual versus perceived protective effect of HIV vaccination, as well as methodological considerations such as randomization, blinding and placebo groups to trial

participants (Lewis et al., 2014, Lindegger et al., 2006). Furthermore, trial aims, eligibility to participate, compensation for research-related injury and the right to withdraw should be understood by participants (Lewis et al., 2014; Lindegger et al., 2006) Therefore, due to the complex nature of these concepts, it is necessary to develop valid, reliable, culturally sensitive and appropriate measures of assessing understanding (Lindegger et al., 2006).

Previous studies assessing understanding for HIV vaccine trial participation have noted that person-to-person extended discussions and multiple choice questions (Lewis et al., 2014) as well as standard checklists, and open-ended techniques may enhance comprehension, thus adding value to trial participants (Lindegger et al., 2006). However, despite the aforementioned techniques and some researchers' efforts to enhance participants' understanding through the use of audiotapes, pictures, instructional and educational videos (Hills, McLaughlin & Prictor, 2008 as cited in Lewis et al., 2014), the general consensus is that more effective methods of improving understanding are needed and should be tailored to participants' learning style and cultural persuasion (Lewis et al., 2014).

#### *iv) Voluntariness*

Voluntariness is an important element of informed consent, given priority in all national and international research ethics codes, guidelines and regulations (Mamotte & Wassenaar, 2015). It implies that the research participant decides whether or not to participate in research without any element of force, duress, deceit, or other ulterior forms of constraints or coercion (Appelbaum, Lidz & Klitzman, 2009; Stanley & Guido, 1996). For Barsdorf and Wassenaar (2005), voluntariness is a situation-specific experience of willed action with freedom from coercion or control by others in decision-making, whereas Beauchamp and Childress (2009) state that one acts voluntarily if they are not under the control of another's influence when taking an action.

#### *v) Consent*

Consent refers to an individual's actual choices and not a presumption about the choices the individual would or should make (Adewale, Rossouw & Schoeman, 2016). It is clearly and

unmistakably stated and can either be expressed in a verbal, non-verbal or written form (Beauchamp & Childress, 2001). The signing of a consent document begins a process of deliberation between the research team and the participants, which enables them to decide whether to continue in the research study or not. The Council for International Organizations for Medical Sciences (CIOMS) stated that this process ensures that participants have an opportunity to ask questions and raise concerns before, during and even after the study and a right to be updated if any new information concerning the study surfaces. The process is therefore continuous and interactive, rather than a once-off information session (CIOMS, 2016).

In HIV preventive vaccine trials, informed consent is required at several stages namely: during the screening process, HIV status testing and once a person is judged eligible for enrolment in the trial (UNAIDS/WHO, 2012). During the screening process, potential trial participants should receive all information regarding the screening process itself as well as an outline of the vaccine trial they are invited to enrol in. Consent should also be obtained prior to HIV testing and this process should be accompanied by pre-and post-test counselling as well as referral to clinical and social support services should the person test positive. Once an individual is found eligible for enrolment in the trial, they should be given full information regarding the nature and length of participation in the trial (UNAIDS, 2000). Potential risks and benefits of participating in the trial should also be communicated so they can give consent to participate. Furthermore, throughout the trials, researchers should ensure that participation is always based on informed voluntary consent and an understanding of what is happening (UNAIDS/WHO, 2012).

In addition to the abovementioned, UNAIDS (2000) stipulates that trial participants must be informed, using appropriate language and technique of the following specific details:

- i) That they are being considered to participate in phase II and III trials because they are at a relatively high risk of HIV infection.
- ii) Risk reduction measures put in place to reduce their risk of infection, and that despite these risk reduction efforts, some participants may become infected, especially in phase III trials where many participants at high risk of infection are enrolled. Prospective participants should also be informed that they will receive counselling during the course of the trials.

- iii) Potential participants should also be informed that some of them will receive a placebo instead of the experimental vaccine as it is currently not known whether an experimental vaccine will prevent HIV infection.
- iv) Lastly, participants should be informed of the nature and duration of care and treatment services available as well as how they can access such services if they become infected with HIV during the course of the trial (UNAIDS, 2000).

Researchers should also take special measures to protect people who may be limited in their freedom to make independent choices (SAMRC, 2003). This includes people who are subordinates in hierarchical structures such as students, refugees and prisoners, people who are dependent on welfare, and women who are vulnerable to influence and coercion from male partners, family or community members as they live in cultures where their autonomy as individuals is not sufficiently recognised (SA DoH, 2015; SAMRC, 2003; UNAIDS, 2000).

The importance of obtaining voluntary informed consent is embedded in the ethical principle of autonomy (Beauchamp & Childress, 2009). According to scholars, to respect an autonomous person is to recognise with due appreciation the person's capacities and perspectives, including his or her right to hold certain views, to make certain choices, and to take certain actions based on personal beliefs and values (Faden & Beauchamp, 1986). As such, this necessitates professionals conducting research involving humans to disclose information, probe for and ensure understanding as well as voluntariness in order to foster adequate decision-making (Beauchamp & Childress, 2001).

Respect for autonomy involves acknowledging the value and decision-making of an autonomous person. Informed consent is, therefore, a matter of protecting and enabling autonomous or self-determining choice of patients and participants. This involves acknowledging that the final authority for making decisions about medical treatment or research participation rests solely with patients and research participants and not with physicians or researchers (Faden & Beauchamp, 1986).

According to Lindegger and Richter (2000), informed consent is the basis for all clinical trials and is a requirement for participation in studies to test HIV/AIDS vaccines. However, ensuring informed consent during clinical trials is especially difficult in resource-poor settings because communities in resource-poor settings are often characterised by high illiteracy levels, which makes it difficult to understand some of the research concepts used (Mystakidou et al., 2009)

and their decision-making styles are often different from those of Western communities from where most research protocols emanate (Ruzariro, 2012). As such, obtaining informed consent in such settings also raises questions about voluntariness (Joubert, Steinberg, van der Reyst & Chikobvu, 2003) and comprehension (Fitzgerald et al., 2002; Mamotte & Wassenaar, 2015; Molyneux, Peshu & Marsh, 2004).

In relation to the above, literature has postulated that conditions such as poverty, limited access to health care, culture and socio-economic status may negatively affect voluntariness (Abdool Karim, Abdool Karim, Coovadia & Susser, 1998; Joubert et al., 2003). Therefore, the researcher should ensure that participants understand what the study they intend to join is all about and to create conditions that enable participants to make free and voluntary decisions.

Adewale et al. (2016) assert that voluntariness and understanding are the two most important aspects of informed consent. Volunteers competent to consent should be provided with accurate information, understand the information and then make a voluntary decision about participation (Emanuel et al., 2004). Marshall (2006) concurs with the aforesaid by stating that the provision of information, comprehension of that information and voluntary participation are foundational in the consent process. Obtaining consent from research participants is based on the moral requirement of respects for persons, rooted in the principle of autonomy (Beauchamp & Childress, 2009). Respect for autonomy involves acknowledging the value and decision-making of an autonomous person. Such a decision is free from any influence or coercion. It is, therefore, a prerogative that all participants should be allowed to either give informed consent or refuse their consent should they wish to do so (Beauchamp & Childress, 2009).

## **2.5 Autonomy**

Studies have shown that there is a relationship between autonomy and women's decision-making (Becker et al., 2006; Nigatu et al., 2016; Osamor & Grady, 2016). As stated by Beauchamp and Childress (2013), respect for autonomy is one of the most important guidelines of clinical practice and research in many parts of the world. This principle has its roots in the idea of self-governance and self-determination, an idea that theorists have explained in a variety of ways. Dyson and Moore (1983) defined autonomy as the ability to obtain information and make decisions about one's own concerns whereas Mason (1995) defined autonomy as a

person's ability to make and execute independent decisions pertaining to personal matters of importance to their lives and families. For Dixon (1978), autonomy facilitates access to material resources such as food, land, and income as well as other forms of wealth and social resources such as knowledge, power, and prestige within the family and community. Simply put, autonomy is the capacity and freedom to act independently (Basu, 1992).

The principle of autonomy was raised as a pillar in clinical research ethics beginning in the mid-20th century as a response to the atrocities of Nazi Germany. It is reflected in the Nuremberg Code and has since been documented in other ethical guidelines such as the Belmont Report and the Declaration of Helsinki. Beauchamp (2008) stated that to respect an autonomous person means giving weight to the autonomous person's considerations, options, and choices while refraining from obstructing his/ her actions. Generally speaking, an autonomous person behaves and lives her life per values and commitments that are in some important sense her own (Friedman, 2006).

Dyson and Moore (1983) noted the importance of better understanding the determinants of women's decision-making autonomy since women have little autonomy in many cultures. Osamor and Grady (2016) concur with the above mentioned by stating that the status of women in many societies often limits their autonomy and ability to make decisions about many aspects of their lives. They further note that such societies still have strong social structures that rigidly define the roles of men and women, usually entrenched in religious, tribal and social traditions (Osamor & Grady, 2016). Haque et al. (2012) expressed the notion that because women are governed by social norms of female seclusion, they may need help and agreement from other family members, particularly their husbands or mothers in law even in instances where they wish to make decisions regarding their health care.

In relation to the above-mentioned, Friedman (2006), noted that processes of gender socialisation and political suppression unfairly deny autonomy to women. Feminist ethicists hold the same views (Benson, 2005). They postulate that the oppression of women has often denied them opportunities to shape their lives in accordance with their reflective considerations about how best to live-grounded in an understanding of their needs and values (Benson, 2005). As subordinates in nearly all social institutions, women's own points of view about important cultural matters have been historically disregarded and systematically suppressed. This has been particularly reflected in the domestic realm which has traditionally been the domain of women but now, women have been subordinates to male authority and are expected to centre

their lives around the needs and concerns of particular others to whom they are related. Furthermore, the emotional nurturance and ego support that women have traditionally been expected to provide for men promotes in women a tendency to identify with the standpoints of their beloved and to suspend their moral evaluations (Benson, 2005).

Previous studies on women's autonomy have measured autonomy across different dimensions such as financial autonomy, movement autonomy, freedom from violence or intimidation by husbands and decision-making autonomy (Bloom et al., 2001; Mistry et al., 2009; Sen & Batliwala, 2000; Thapa & Niehof, 2013). Regarding decision-making autonomy, studies have examined the influences of age, education, socioeconomic status and cultural factors on women's decision-making autonomy. A study in South Asia reported that women's autonomy and decision-making were determined by social and cultural factors and in some cases, legal constructs and practices, as well as perceived beliefs about illnesses (Senarath & Gunawardena, 2009) whereas Kabeer (2002), reported that women's autonomy in decision-making is associated with ethnicity, deprivation level, urban/rural classification, education level and number of living children. Additionally, findings from an Ethiopian study reported that women who have primary, secondary, and postsecondary education were more likely to have autonomy compared to women with no formal education (Nigatu et al., 2014). Similar results were reported by Archarya et al. (2010) who found that increased age, paid employment, and education level were all positively associated with women's autonomy in decision-making. However, a study in Tajikistan conducted by Kamiya (2011) reported no statistically significant relationship between women's autonomy and their educational attainment.

Research on women's autonomous decision-making has shown that cultural beliefs and behaviour patterns may influence the process of obtaining informed consent from women since male supremacy and control often result in women having limited flexibility as well as less input and power in decision-making (Conroy et al., 2016; Nyika et al., 2009). As such, autonomy may be interpreted differently from culture to culture (Hyder & Wali, 2006) as research participants may have different cultural beliefs, different health conditions or unique family histories that may warrant different informational bases (Beauchamp & Childress, 2009).

## 2.6 Culture

Medical and health-related research is increasingly becoming cross-cultural and cross-national (Kayombo, 2010). Therefore, it is important to consider the local cultures, religions and behavioural patterns of people involved in the research if ethical studies are to be successfully conducted without complications or conflict (Shapiro & Meslin, 2001; Varmus & Satcher, 1997). Culture refers to the totality of the pattern of behaviour of a particular group of people. It includes everything that makes them distinct from any other group of people such as their greeting habits, dressing, social norms and taboos, food, songs, and dance patterns, as well as rites of passage, religious and philosophical beliefs (Aziza, 2001, as cited in Idang, 2015). Masetywa (2009) describes culture as customary beliefs and values that ethnic, religious and social groups transmit from generation to generation. As such, culture has the power to shape our everyday behaviours, influencing important decisions we make in life (O'Neil & Plank, 2015). It also plays a major role in maintaining male supremacy, as well as strengthening ideas of female subordination and male dominance, sanctions and reinforces violence against women (Mabena, 2002). Stoppard (2000) writes that women lead their lives in conformity with prevailing cultural beliefs about what are appropriate life activities for women while avoiding activities considered culturally inappropriate. Thus, women who attempt to pursue non-traditional lifestyles are likely to face challenges which some may find too daunting or difficult to overcome (Stoppard, 2000).

According to Harway, O'Neil and Biden (1999), traditional patriarchal values in culture are reflected in organisational and institutional structures such as family. Hence, unequal power relations assert and allow control over the 'weaker' party. Volgeman and Eagle (1999) affirm this by pointing out that power imbalances are inherent within patriarchal relations and are reflected in family relations. Historically, the socialisation process located women as males' responsibility and property rather than as equal partners (Ho & Venus, 1995). This socialisation is saturated with the out-dated values of a man commanding unchallenged obedience from his family and as a proud, fearless respected force within the wider community (Campbell, 2002).

In some African communities, there is still the common tradition of lobola exchange during marriages. It is about paying respect to elders, the family and the community and is a significant element of marriage among many tribes (Heeren et al., 2011). This process is negotiated by men around women's values as properties to the family and may have negative effects on how a husband perceives or treats his wife (Ramphela, 1989). This is also emphasised when the

question, "who gives away this woman?" is asked during the marriage ceremony. In a practical sense, lobola is associated with children and family lineage and as such, directly influences decisions about family planning and safer sex practices (Heeren et al., 2011). Kambarami (2006) as cited in Chireshe and Chireshe (2010), noted that lobola is an instrument of patriarchy that perpetuates the subordination of women because it places the husbands' control over his wife's sexuality and gives men all rights whilst women are stripped of all freedom and rights.

African culture is also characterised by the different roles played by men and women (Nyika, 2005). Generally, the traditional roles of women have been in the domestic domain whereas those of men have been in the public domain. This patriarchal system leaves men being responsible for making important decisions on behalf of their family and tends to leave no room for women to express themselves even on personal matters they ought to be in control of (Cook et al., 2003). Women are therefore not treated as ends in themselves but as a means for men to be able to play their role of being head of the family. This practice could be viewed as violating women's rights to self-determination, thus preventing them from making decisions on matters that affect them personally (Nyika, 2005).

Wood (2017) states that traditional and cultural practices can be harmful to women's health because they create a dire situation of women being available for the benefit of men and create stereotypical masculine and feminine roles that hamper women's equal rights. Patriarchy is, therefore, one of the main factors that prevent women from being fully equal to men in their own right. Patriarchy refers to economic, political, social and religious ideologies that have enforced the domination of women (Jones, 2000). It is a system in which men dominate, oppress and exploit women that sweeps across national and cultural boundaries and extends beyond the household to society in general (Laurien, 2004; Maseno & Kilonzo, 2011). As an institution of domination and exploitation, patriarchy is generally associated with higher levels of gender inequality and male dominance which affects women's position in society (De Moor et al., 2010; Fredrick, 1982). This means that men uphold the greatest power and authority in decision-making while women's decision-making power in areas such as education, household finances, child-rearing, and fertility control as well as land ownership becomes limited to the patriarchal ideology (Sultana, 2011).

In a setting where women do not assert power over their own lives, research participation may be impossible without spousal or family approval (Braam & Hessini, 2004). A study examining factors that affect autonomous decision-making in research participation amongst Yoruba

women reported that culture plays a major role in limiting women's autonomy because it emphasises that women should respect and submit to their husbands as well as family heads in all aspects. Furthermore, the study reported that mothers-in-law and husband's family members interfere in the couple's decisions and how they live (Princewill et al., 2017).

Requesting permission before participating in research was demonstrated in several studies. For instance, Loue, Okello & Kawuna (1996) reported that women would not make decisions regarding their participation in health research without their partner's approval. In an Ethiopian study, most married women who participated indicated that they required permission from their husbands to visit a health facility no matter how close it is to their homes (Berhane, Gossaye, Emmelin & Hogberg, 2001). Being prevented from deciding on matters that affect their own lives not only hinders their participation in research but may also affect their economic well-being. Hence, autonomy should not be viewed in isolation, as it appears to be dependent on other factors that may affect the individual, the community or the researchers themselves.

Chukwuneke, Umeora, Maduabuchi and Egbunike (2014) state that bioethics cannot function independently of culture since culture influences people's beliefs, behaviour, and understanding of circumstances around them, including illnesses and diseases. Cultural perceptions of personhood also influence the decision-making process (Wasunna et al., 2014). Several scholars have noted that in African contexts, decision-making is characterised by communal or social autonomy as opposed to individual autonomy (Jegade, 2009; Ogunrin et al., 2018). Jegede (2009) and Tangwa (2000) note that while health care decision-making and consent for research participation in western cultures is characterised by individualism, decision-making in African societies often involves consultations with family or community members. Therefore, it is a cultural norm in African societies for individuals to make decisions that are not only based on personal preferences but also on due considerations of family members, community norms and cultural beliefs (Ogunrin et al., 2018). Moreover, since decisions and knowledge within African communities are constructed socially and communally through negotiation (Mkhize, 2006), it is also a norm for community leaders to take decisions on behalf of the community (Ogunrin et al., 2018).

While Mkhize (2006) believes that the informed consent process is a semiotic process by which various stakeholders negotiate the processes and procedures to be followed in order to obtain

consent in a particular cultural setting, Chukwuneke and colleagues believe that cultural beliefs and behaviour patterns impact on the process of obtaining informed consent from women (Chukwuneke et al., 2014). Nyika (2005) affirms this by stating that in patriarchal societies, the violation of women's right to self-determination makes it difficult for them to give truly informed and truly voluntary consent. Therefore, to ensure meaningful informed consent, researchers should understand the beliefs of the communities from which they will recruit participants (Mkhize, 2006). Furthermore, to enrol and retain women in clinical studies, researchers need to consider societal definitions of what women can and cannot do (Kayombo, 2010).

## **2.7 Socio-economic status**

Closely related to autonomy and women's decision-making is socio-economic status. Literature has argued that women's decision-making power is positively associated with their educational level, employment, income and other socio-economic variables (Muzamil, 2008; Osamor & Grady, 2018). A study in a rural area in Ethiopia, indicated that poverty, traditional practices, poor social status and decision-making capacity, poor education, and heavy workload affect women's health (Berhane et al., 2001). In a study conducted with a sample of women in Zimbabwe, it was reported that women who were employed and better educated were more likely to act independently of their husbands' and relatives' opinions than those who were unemployed (Nyika et al., 2009).

With regard to HIV, several studies have demonstrated that having lower income enhances women's exposure to HIV (Abramsky, Watts, Garcia-Moreno, Devries, Kiss, Ellsberg, Jansen & Heise, 2011; Conroy, 2014; Jewkes, Dunkle, Nduna, Levin, Jama, Khuzwayo & Duwury, 2006; Wingood & DiClemente, 2000). This is because women living in poverty may not be able to afford HIV prevention materials, increasing their exposure to HIV (Wingood & DiClemente, 2000). Furthermore, being less educated may limit women's comprehension of printed HIV prevention material or restrict their access to HIV prevention programmes, decreasing their ability to engage in safer sex. In relation to the above, Barnighausen et al. (2007, as cited in Bunyasi & Coetzee, 2017) reported that additional year of formal education reduced women's risk of acquiring HIV by 7%. This is because unlike their uneducated counterparts, women with higher educational attainment are more likely to have better

knowledge of HIV prevention, negotiate safe sex and seek or receive healthcare (Bunyasi & Coetzee, 2017).

Closely related to women's educational level is their employment status. Women who are underemployed/unemployed may have to rely on their male partners economically. As a result, these women are at higher risk of HIV infection since they cannot negotiate condom use with their partners due to being financially dependent on them. Studies on the relationship between socioeconomic inequality and HIV in South Africa showed that HIV prevalence was highest amongst women in the poorest quartile of the socioeconomic index because of risky sexual behaviours such as transactional sex and reduced ability to negotiate safe sex due to economic dependency (Bunyasi & Coetzee, 2017; Wabiri & Taffa, 2013).

## **2.8 Theory of gender and power**

The theory of gender and power allows for an understanding of the complex interplay between gender and power beyond the individual perspective. Proposed by Connell (1987), this theory states that the analysis of gender involves a three-part structural model involving the sexual division of labour (e.g. Economic inequality), the sexual division of power (e.g. Authority and control in relationships) and the structure of affective attachment (e.g. Social norms related to gender roles). The three structures are described below:

### *i) The sexual division of labour*

The sexual division of labour refers to the allocation of men and women to certain occupations. Women are often assigned different unequal positions relative to men as they are often delegated the responsibility of 'women's work' such as domestic chores (Wingood & DiClemente, 2000). This results in an economic imbalance where women must rely on men financially (Blanc, 2001). Therefore, as the economic inequality between men and women increases and favours men, women will be more likely to experience adverse health outcomes (Conroy, 2014).

According to Kahn and Motsoeneng (2014), gender inequality has been propagated by cultures where women are considered the 'weaker sex' and men being viewed as the head of the family. Therefore, the role of women being predominantly to run the home, bear children and care for

them predisposes women to certain career capital development and choice of profession (Nadler & Stockdale, 2012, as cited in Adelekan & Bussin, 2018). As such, because of these gender roles, women seek employment based on proximity and convenience, resulting in women accepting low paying jobs and their inability to negotiate an optimum salary (Kahn & Motsoeneng, 2014).

Bosch (2015) and Bussin and Nienaber (2015) assert that in instances where some women have the same level of education or perform work the same value as men, their pay remains less than that of men. Therefore, the gender pay gap impacts negatively on women's ability to live decent lives and provide for their families (Witkowska, 2013 as cited in Adelekan & Bussin, 2018), thus explaining why some women are submissive to, and dependent on men.

*ii) The sexual division of power*

Jewkes et al. (2006) state that power differentials exist at many levels of society and are key to understanding women's risk for several negative health outcomes. Wingood and DiClemente (2000) write that the sexual division of power is maintained by social mechanisms such as abuse of authority and control in relationships. As such, power differentials are reflected in women's intimate relationships and sexual behaviour. Thus, women in power imbalanced relationships tend to be dependent on their male partners since men usually bring more financial assets to the relationship (Jewkes et al., 2010).

*iii) Structure of cathexis*

The structure of cathexis can also be referred to as the structure of affective attachment and social norms (Connell, 1987). This structure constrains the expectations that society has about women regarding their sexuality and consequently shapes perceptions of selves and others and limits experiences of reality (Wingood & DiClemente, 2000). According to this structure, women who are more accepting of social norms and beliefs will be more likely to experience adverse health outcomes.

These structures exist at both the societal and institutional levels (Raj, Silverman, Wingood & DiClemente, 1999). They are rooted in society through numerous abstracts, historical and socio-political forces that consistently segregate power and ascribe social norms based on gender determined roles (Wingood & DiClemente, 2000). Therefore, the societal level is the highest level at which the three structures are embedded (Wingood & DiClemente, 2000). As

society slowly changes, these structures remain largely intact at the societal level over a long period.

At the institutional level, these structures are evident in schools, worksites, families, relationships, religious institutions, the medical system and the media (Raj et al., 1999) and are maintained within institutions through social mechanisms such as unequal pay, discriminating practices at school and work as well as the imbalance of control within relationships. Additionally, Wingood and DiClemente (2000) state that the presence of these and other social mechanisms restrict women's daily lifestyle practices since they produce gender-based inequalities in women's economic potential, women's control of resources and gender-based expectations of women's role in society.

Gender-based power imbalances influence women's access to and use of essential health services through male control over women's mobility and access to financial resources (Jasiniski & Williams, 1998). This is because gender role socialisation promotes the transmission of cultural values of patriarchy including male entitlement, privilege, and dominance (Harway et al., 1999). Jasiniski and Williams (1998) state that women are usually the ones who carry the burden of fulfilling socialised subjugated roles. Furthermore, the masculine gender role, which is not tied to a specific role context, includes agentic qualities of leadership, power, and control (Jasiniski & Williams, 1998). According to Jewkes et al. (2010), the risk of HIV infection can be linked to inequalities including gender, social class, and race/ethnicity. In sum, the theory of gender and power states that gender-based inequalities are universal societal characteristics that result in men's unequal power in society and their control over the decision-making in many areas (Mabena, 2002).

## **2.9 The social exchange theory**

Several studies posit that power differentials in relationships have dire consequences for women's health since they influence women's decision-making autonomy. These studies refer to power differentials between men and women using a variety of terms such as gender inequity, gender inequality, unequal status, or women's lack of autonomy (Blanc, 2001; Conroy, 2014; Jewkes et al., 2010). The empowerment literature defines power as having the ability to act or change in the desired direction (Abramsky et al., 2011) whereas social psychology scholars have defined power in terms of three categories namely: power as

influence, power as potential influence and power as outcome control. Power as influence has been described by Fiske and Berdahl (2007), as person A having power over person B because they cause or influence person B to behave in a certain way, while power as potential influence is defined by Weber (1914/1978 p.152) as “the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance.” Lastly, power as outcome control was defined by Keltner and colleagues (2003, p.265) as “an individual’s relative capacity to modify others’ states by providing or withholding resources or administering punishments.”

After assessing the abovementioned categories of power, Fiske and Berdahl (2007) state that power is a structural property of social relations that derives from relative control over physical, economic and social outcomes.

Power differentials in relationships have also been explained using the social exchange theory. The social exchange theory is a psychosocial theory built around an interpersonal definition of relationship power. Emerson (1981, p. 30) defines power as “the amount of resistance on the part of one individual that can potentially be overcome by another”. Relationship power is expressed via decision-making dominance, the ability to engage in behaviours against a partner's wishes or the ability to control a partner's actions (Emerson, 1981, p. 30). This theory holds that power is based upon several factors including the dependence of one partner on the other, the amount of valued resources (e.g., economic, financial) one partner possesses compared to the other and whether potential alternatives to the current relationship are perceived to exist. Therefore, greater power is held by the member of the couple who maintains control over the decision-making in the relationship, has control over both their own and their partner's actions, possesses more resources and is less dependent on the relationship since they are perceived to have alternatives to the current relationship.

## **2.10 Summary**

Informed consent has been described as the 'bedrock' of all clinical trials or research involving humans as stipulated in the Belmont Report (1979), the Council for International Organizations of Medical Sciences [CIOMS] (2016), the Declaration of Helsinki (2013) and the Nuremberg Code (1947). At its core is the principle of autonomy. Autonomy is rooted in the idea of self-governance and self-determination. It entails the capacity and freedom to act independently (Basu, 1992). This chapter presented a review of the literature pertaining to the effect of

relationships on women's decision-making regarding participation in HIV prevention trials. The notion of informed consent as it relates to women's autonomous decision-making was discussed. Furthermore, factors that may impede women's autonomous and voluntary decision-making such as culture, patriarchy and socio-economic status were presented. The literature review also included an overview of HIV prevention trials as well as ethical principles and guidelines that should be considered in HIV prevention vaccine trials. Lastly, power differentials in relationships and their effect on women's autonomous decision-making were explained using the Theory of Gender and Power as well as the Social Exchange Theory. The methodological steps taken to conduct this study including, the research design, sampling method, data collection and analysis are described in the chapter that follows.

## CHAPTER 3. METHODOLOGY

### **3.1 Introduction**

This chapter outlines the procedures followed for conducting the present study. As a point of departure, the study aims and objectives will be given, followed by a brief description of the research methodology and design. Additionally, the study setting, the sampling method, and the data collection instrument utilised in this study will be presented. The chapter further describes the data collection process and the method of data analysis, as well as the reliability and validity of the study. Lastly, the ethics considerations of the study will be provided.

### **3.2 Study aims**

Overall, this study aimed at investigating the effects of relationships on women's decision-making with regard to participating in HIV prevention vaccine trials. Furthermore, the study looked at factors contributing to power imbalances in relationships as well as participants' understanding of autonomy.

### **3.3 Objectives of the study**

3.3.1 To investigate the effect of relationships on women's decision-making with regard to participating in HIV /AIDS prevention vaccine trials

3.3.2 To explore different factors contributing to power imbalances in relationships

3.3.3 To gain insight into participants' understanding of autonomy.

### **3.4 Research questions**

The following research questions were explored:

3.4.1 What is the effect of relationships on women's decision-making and participation in HIV/AIDS prevention vaccine trials?

3.4.2 What factors contribute to power imbalances in relationships?

3.4.3 How do participants conceptualise autonomy within relationships?

### **3.5 Research methodology**

The research methodology includes the procedures by which researchers go about their work of collecting data, analysing, describing and explaining phenomena (Creswell et al., 2016). Hesse-Biber and Leavy (2011) describe research methodology as the bridge that brings philosophical standpoints and methods together. It is guided by the theoretical framework that informs comprehension, interpretation, choice of literature and research practices on a given topic of study, as well as by the philosophical beliefs about the nature of reality, knowledge, and values- known as a research paradigm.

Creswell and colleagues (2016) define a paradigm as a set of assumptions or beliefs about a fundamental aspect of reality that gives rise to a particular worldview, whereas Schwartz and Ogilvy (1979) assert that paradigms enable researchers to tell a coherent story by depicting a world that is not only culturally subjective, but also meaningful and functional. They are informed by philosophical assumptions about the nature of social reality (ontology), ways of knowing (epistemology), along with ethics and value systems (axiology) (Patton, 2002).

Ontology relates to whether we believe there is one verifiable reality or whether there exist multiple, socially constructed realities (Patton, 2002), whereas epistemology deals with the nature of knowledge and truth. Together, these paradigmatic aspects help to determine the assumptions and beliefs that frame a researcher's view of a research problem, as well as how the researcher goes about investigating the problem and the methods, he/she uses to answer the research question (Patton, 2002).

This study was guided by the post-positivism paradigm because it makes use of deductive logic and quantitative research methods. Post-positivism posits that the social world is patterned and causal relationships can be discovered and tested through reliable strategies (Hesse-Biber & Leavy, 2011). It also assumes that reality is multifaceted, and does not exist in a vacuum, but is influenced by context such as culture, gender and race (Nieuwenhuis, 2016). As such, the post-positivist paradigm was deemed useful in the present study because it assumes that

women's autonomous decision-making does not exist in a vacuum, but is instead influenced by their relationships, and that power imbalances resulting from culture, socio-economic status and religion have an impact on women's decision-making. Additionally, the data collection instrument utilised in the study embraced the postpositivist approach by seeking answers to theory-driven questions (Creswell & Tashakkori, 2007).

### **3.6 Research design**

Stangor (2015) defines research design as the specific method a researcher uses to collect, analyse and interpret data, whereas Macmillan and Schumacher (2001) define it as a plan for selecting subjects, research sites and data collection procedures to answer the research question(s). For Nieuwenhuis (2007), the research design is a plan or strategy moving from underlying philosophical assumptions to specifying the selection of respondents, the data gathering techniques to be used and the data analysis to be done. In this study, a quantitative research design was employed.

The purpose of quantitative research is to describe, compare and to attribute casualty (Stainback & Stainback, 1988). Strategies such as questionnaires, surveys, and experiments are utilised to gather data that can be characterised by using statistical analysis (Creswell, 2003; Hittleman & Simon, 1997). Furthermore, quantitative researchers test theories about reality, look for a probable cause and effect, and use quantitative measures to gather data to test hypotheses or answer research questions (Creswell et al., 2016). Simply put, the goal of quantitative research is to describe trends or explain the relationships between variables.

A quantitative research design was utilised in this study to determine systematically whether relationships have an impact on women's decision-making and to ensure that findings are based on objective, empirical data (Stangor, 2015).

### **3.7 Study setting**

The study was conducted in Inchanga, a village outside Pietermaritzburg, KwaZulu-Natal. Census (2011) data reported the population to be 1008 of which 52.28% were female whereas 47.72% were male. Census 2011 statistics as cited in Krämer (2019), showed that Inchanga is characterized by chronic instability and insecurity resulting from several factors such as

recurring violence, crime, poverty and a high unemployment rate. About 46% of people were not economically active, and the average annual household income was R14,600. Furthermore, in terms of education, only 32.9% of individuals in this area had completed matric and 1% had university education.

Participants were recruited at 1000 hills community helpers, a Non-profit Organisation (NPO) whose vision is to improve the lives of HIV/AIDS infected and affected children and adults through treatment, clinics, feeding schemes, counselling, home-based care, creches, and support groups.

### **3.8 Sampling**

Sampling refers to the selection of people to participate in a research project usually with the goal of using data about these people to make inferences about larger groups of individuals (Stangor, 2015). Participants in this study were selected using non-probability sampling, particularly convenience sampling. In convenience sampling, people that are easy to reach, convenient or readily available are recruited to participate in research (Neuman, 2014).

The sample consisted of 103 female participants aged between 18-60 years. Participants had to be in a relationship/have previously been in a relationship to be included in the study. In conducting the research, it was assumed that participants from this community were from a lower socioeconomic status, unemployed or likely dropped out of school because of poverty or other factors and are therefore in power imbalanced relationships. Furthermore, it was presumed that participants would be more likely vulnerable to domestic abuse and sexual violence, teenage pregnancy, HIV/AIDS, STDS as well as other sexually transmitted infections. This assertion is supported by Steinert et al. (2016) who found an association between relative household poverty and a higher likelihood of HIV among socioeconomically deprived individuals in rural KwaZulu-Natal. Consequently, participants from this community may provide useful information regarding relationships and decision-making since studies of this kind have never been conducted there before. Such participants are typically included in HIV prevention studies because of their relatively high risk of acquiring HIV.

### **3.9 Data collection**

#### *3.9.1 Data collection instrument*

A questionnaire developed by Nyika (2005) was administered. This questionnaire was deemed suitable for use in the study because it was utilized in a similar study investigating the effects of relationships on women's autonomous decision-making, and it had an internal reliability of 0.7669 (Nyika, 2005). Furthermore, the questionnaire was translated using forward-translation designs from the original language source to the target language (Foxcroft & Roodt, 2013). This means that the questionnaire was translated from English to IsiZulu by a bilingual translator.

The questionnaire aimed to gauge participants' level of autonomy in the context of deciding to participate in HIV prevention research. It consists of demographic questions such as participants' age, level of education, employment status and marital status as well as questions on participants' preparedness to act against their husbands or relatives' views, their reasons for doing so and the consequences thereof. It also contains an open-ended question based on what participants think should be done to create an environment conducive to the free and voluntary participation of women in health research (See Appendix D)

The scoring procedure proposed by Nyika (2005) was utilised in this study. According to this scoring method, autonomy is defined as preparedness to act against the views of others. Therefore, the preparedness of participants to act against their spouses or relatives' views indicate their level of autonomous decision-making in the context of participating in health research. For instance, an autonomous participant will be prepared to act against both their relatives and husband's views, whereas a partially autonomous participant would be prepared to act against their husband's views but not their relatives' views, and vice versa. A non-autonomous participant, on the other hand, would not be prepared to act against both their relatives and/or husband's views.

#### *3.9.2 Data collection process*

Data collection was carried out on Tuesdays over a period of 4 weeks at 1000 hills community helpers because the gatekeeper noted Tuesday as the day most women were at the centre. Initially, a sample size of 200 participants ( $N=200$ ) was expected but the researcher ended up with 103 participants because some were not interested in filling the questionnaire, others had

already participated in the study the previous days, whereas some participants withdrew from the study having only filled in the demographic section of the questionnaire. Furthermore, the data collection tool was intended to be a self-administered questionnaire but the researcher had to read out the questions to some participants as some women had brought their infants with them, and couldn't fill it in themselves, whereas others just preferred for the researcher to read out the questions/options to them. As such, the researcher was allocated an empty room to carry out the data collection process from there. The researcher explained the questionnaire in detail and offered clarity on how it was supposed to be completed to the participants that were completing it by themselves.

Prior to data collection, informed consent was obtained from the participants. Participants were also given an information sheet detailing the purpose of the study, how long the study would take as well as issues of confidentiality and privacy.

### **3.10 Ethical considerations**

Research ethics is a vital component of ethical research. This research was informed and guided by Emanuel et al.'s (2004) principles and benchmarks of ethical research, adapted for social science research by Wassenaar and Mamotte (2012). These principles are summarised briefly below.

#### *3.10.1 Collaborative partnership*

This principle is premised on the notion that meaningful involvement and partnerships with relevant community representatives should be a part of the research study at all stages. This study was conducted in collaboration with the community of Inchanga, Pietermaritzburg. Studies have shown that about 17.3% of adults in KwaZulu-Natal are living with HIV. This province also has a high rate of HIV infections in South Africa (Statistics South Africa, 2018). Permission was sought from the CEO of 1000 hills community helpers before data collection, to show respect to the community organisation and because their facilities were utilised during that process.

#### *3.10.2 Social value*

According to this principle, research should address questions that are of value to society or particular communities in society (Emanuel et al., 2004). The study may be of social value because it may help shed light on how relationships affect women's decision-making and the consequences on their health. The data generated from the study may add to the knowledge about willingness to participate in HIV/AIDS vaccine trials and may help inform interventions aimed at empowering women to become more autonomous.

### *3.10.3 Scientific validity*

This principle suggests that research should be premised on a sound, valid and reliable research designs and proven scientific methods of gathering data. This means that the design, sample, method and analysis of the study should be rigorous, justifiable, feasible, and lead to valid answers to the research question (Emanuel et al., 2008). A quantitative research methodology was utilised in the study to ensure that findings are based on empirical objective data. Moreover, the measuring instrument that was used had an internal reliability of 0.7669 amongst female participants in Harare, Zimbabwe (Nyika et al., 2009).

### *3.10.4 Fair selection of participants*

According to this principle, the study population should be selected in a way that ensures scientific validity and the population selected for the study should be those to whom the research question applies (Emanuel et al., 2004; Emanuel et al., 2008). Females were selected for participation in the study because the study aimed to investigate how relationships affect their decision-making processes.

### *3.10.5 Favourable risk/benefit ratio*

Researchers should identify the risks and benefits associated with research. This study adhered to the principle of beneficence and non-maleficence i.e. maximising benefits while minimising risks. Foreseeable risks for participating in the study included emotional and psychological distress. Prior arrangements were made with a psychologist at 1000 hills community helpers to offer psychological services to anyone who may need debriefing sessions after participating in the study. However, this was a minimal risk study. There were no direct benefits to participants.

### *3.10.6 Independent ethics review*

An independent and competent Research Ethics Committee should subject all proposals to independent ethics review prior to commencement of data collection to maximise the protection of participants, enhance the quality of the research and ensure public accountability (Emanuel et al., 2004). This study was reviewed and approved by the University of KwaZulu-Natal's Social Sciences and Humanities Research Ethics Committee (HSS/1232/018M, see Appendix A).

### *3.10.7 Informed consent*

As outlined in the literature review (section 2.4), informed consent aims to honour the autonomy of individuals and demands that research information is disseminated and disclosed in a culturally and linguistically suitable way (Emanuel et al., 2004; UNAIDS/WHO, 2012). This principle entails providing participants with clear, detailed, and factual information about the study, its methods, its risks, and benefits along with assurances of the voluntary nature of the participation and freedom to refuse or withdraw from the study without any consequences. Informed consent was obtained prior to data collection. Participants were assured that participation in the study was voluntary and that they may withdraw from the study at any time without facing any dire consequences. Additionally, participants were given an information sheet that explained the nature and goals of the research, what was expected of them as well as any foreseeable risks or benefits of participating in the study. This information sheet was also translated to isiZulu to ensure that participants fully understand what is expected of them in the research process (See Appendix C).

### *3.10.8 Ongoing respect for participants and study community*

This principle is premised on the ethical principle of beneficence, non-maleficence, and autonomy (Emanuel et al., 2004). Participants must be treated with respect during and after a study and this is achieved by allowing participants to withdraw from the study at any stage, providing participants with any new information that may arise during the course of the study, monitoring participants' well-being throughout the study and respecting participants' privacy by maintaining confidentiality and anonymity.

To maintain ongoing respect for participants, no coercion or deception was used in the study as this would have suggested that participants are incapable of making decisions on their own

without the influence of external stimuli. Furthermore, participants' privacy was protected by conducting the study confidentially and anonymously. However, participants' permission to report the data anonymously was obtained and the research findings will be made available to them should they be interested.

### **3.11 Data analysis**

In analysing the data, the Statistical Package for the Social Sciences (SPSS), version.25 by IBM Corporation (2017) was utilised. Descriptive statistics, Cross-tabulations, and the Pearson chi-square test were used to determine whether there was an association between relationships and decision-making. In doing so, the data was analysed to determine whether participants' age, marital status, employment status and level of education have an influence on their autonomous decision-making in the context of participating in health research. Furthermore, the open-ended question on participants' perception of autonomy was analysed verbatim, with responses being grouped according to the most recurring themes.

### **3.12 Reliability and Validity**

#### *3.12.1 Reliability*

In quantitative studies, the concept of reliability is tied up with the repeatability and reproducibility of any assessment (Coaley, 2010). For a measure to be useful, it needs to have consistency so that it produces the same results for a person each time it is used. Thus, the reliability of a measure refers to the consistency with which it measures whatever it measures (Foxcroft & Roodt, 2013). High reliability means a measure gives similar results on different occasions (Coaley, 2010). In the original study, the reliability of the questionnaire was calculated as  $\alpha=0.7669$  (Nyika et al., 2009), whereas in this study, the questionnaire produced an internal consistency of  $\alpha=0.601$ . This is considered moderate reliability since research indicates that the reliability of a questionnaire must be .70 and above for research purposes (Madan & Kensinger, 2017). Moreover, this reliability is lower than that obtained in the original study and this can be attributed to the fact that the current study didn't have sufficient power as the sample size was small.

### *3.12.2 Validity*

Validity refers to the extent to which an instrument measures what it is supposed to measure (Stangor, 2015). It is always the interaction of both the purpose of the instrument and the sample (Foxcroft & Roodt, 2013). In the original study (Nyika, 2005), cognitive pre-testing and professional advice from independent social scientists was sought to improve the quality of the questionnaire. To determine the validity of the measuring instrument in this study, construct validity was assessed using Factorial analysis to determine the extent to which it measures the theoretical construct (autonomous decision-making) it is supposed to measure (Foxcroft & Roodt, 2013). Furthermore, the validity and reliability of the study were ensured by translating the questionnaire, using forward translation from the original language (English), to the target language (isiZulu) by a bilingual translator to better reflect the nuances of the target language. This was done to ensure that participants understood the content of the questionnaire and to eliminate the effect of language barriers on participants' responses.

### **3.13 Summary**

This chapter addressed the procedures used in conducting this study. A brief description of the research methodology and design was given, followed by the sampling methods, data collection, and analysis, the validity and reliability of the study as well as ethics procedures adhered to in the study. The results of the study are presented in the subsequent chapter.

## CHAPTER 4. RESULTS

### 4.1 Introduction

This chapter presents and describes the results of this study in relation to the objectives and research questions presented in sections 3.3 and 3.4 respectively. The chapter is divided into 4 sections. The first section gives a synopsis of the participants' demographic information. The second section presents findings on the effect of relationships on women's decision-making with regard to participating in HIV prevention trials. In this section, results on whether or not participants would consult their relatives or spouses regarding their participation in research, as well as their preparedness to act independently of their relatives or spouses' views are presented. In the third section, results on factors that contribute to power differentials in intimate and familial relationships are given. As such, participants' reasons why they would/wouldn't consult their relatives and/or spouses prior to research participation, and the consequences thereof are presented. Furthermore, the influence of sociodemographic factors on women's autonomous decision-making is highlighted. Lastly, the fourth section reports on the open-ended question which asked what participants thought should be done by researchers to make it possible for women to make autonomous decisions whether or not to participate in health research, thus assessing participants' understanding of the term '*autonomy*' in the context of their relationships and how they influence research participation.

### 4.2 Demographic information

The following section presents respondents' demographic information analysed through descriptive statistical analysis in SPSS. The tables and figures below represent frequencies and percentage distributions of participants' age, employment status, and marital status, as well as respondents' level of education.

#### 4.2.1 Age

The majority of respondents (37.9%) were aged between 18-30, followed by respondents aged between 41-50 years (27.2%), while only 12.6% of respondents were aged between 51-60 years, as shown in Table 1.

Table 1

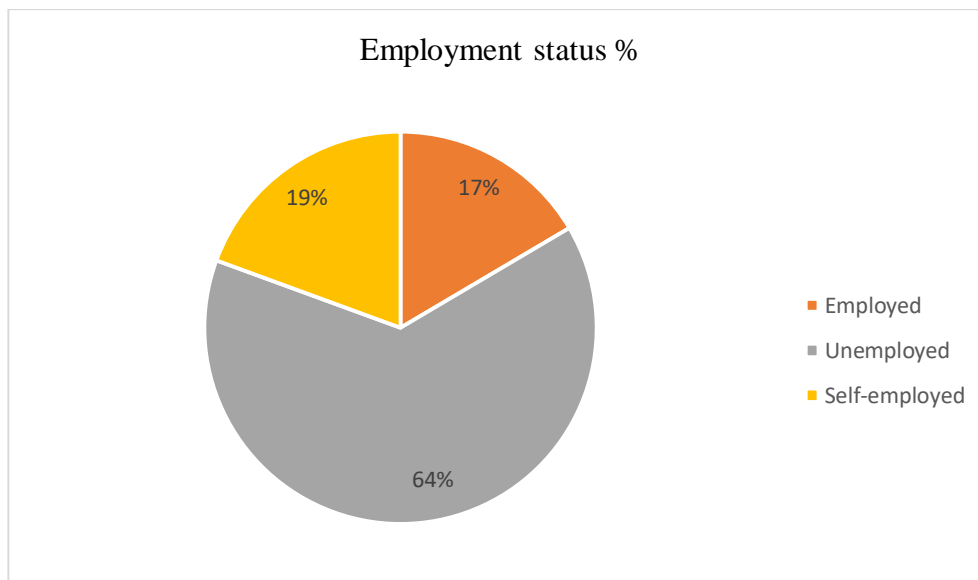
*Respondents' Age*

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
18-30	39	37.9
31-40	23	22.3
41-50	28	27.2
51-60	13	12.6
<b>Total</b>	<b>103</b>	<b>100.0</b>

*4.2.2 Employment status*

In terms of employment status, 64.1% of respondents reported that they were unemployed, whereas 19.4% stated that they were self-employed, while only 16.5% of respondents were employed. This is illustrated in Figure 1 below.

Figure 1

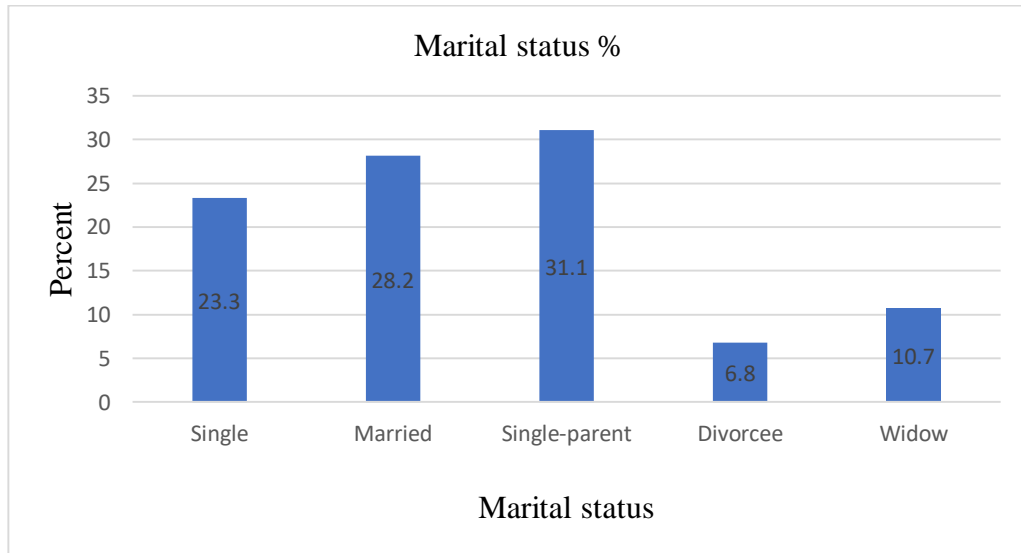


*Employment status*

*4.2.3 Marital status*

Figure 2 below shows respondents' marital status. About 23% of respondents were single, 28.2% were married, whereas 31.1% reported that they were single parents. Only 6.8% and 10.7% stated that they were divorcées or widows, respectively.

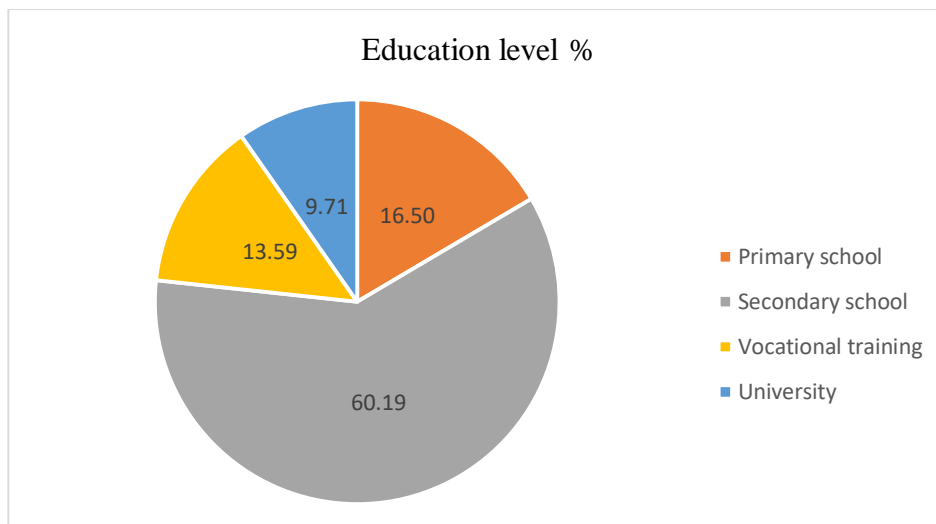
Figure 2



*Marital status*

#### 4.2.4. Level of education

Figure 3



*Level of education*

Lastly, as shown in Figure 3 above, most respondents (60.19%), reported that their highest level of education was Secondary school, followed by 16.50% whose highest level of education was Primary School. Only 13.59% of respondents stated that their highest level of education was vocational training, while 9.71% cited university as their highest level of education.

### **4.3 Results pertaining to the effect of relationships on women's decision-making**

This section presents findings on the effect of relationships on women's autonomous decision-making in the context of hypothetical participation in HIV preventive vaccine trials. The impact of relationships on women's decision-making was assessed in terms of both their spouses' and relatives' potential influence. As such, results on whether or not participants would consult their relatives and/or spouses about their participation in research as well as their preparedness to act independently of their spouses' or relatives' views are presented. The results were analysed through descriptive statistical analyses in SPSS, and are presented using frequencies and % distributions.

#### *4.3.1 Spouses' potential influence on women's decision-making*

Regarding whether or not participants would consult their spouses prior to research participation, 57/103 participants (55.3%) stated that they would not consult their spouses compared to 44.7% (N=46) of participants who said they would consult with their spouses regarding their participation in HIV prevention research. Furthermore, most participants (59.2%) indicated that they were prepared to act independently of their spouses' views.

Despite women's preparedness to act independently of their husbands' views, most women stated that if they participated in research against their husband's opinion, they would want their participation to be kept secret.

#### *4.3.2 Relatives' potential influence on women's decision-making*

In terms of relatives' influence on women's decision-making, 43.7% of participants said they would not consult any of their relatives prior to participating in HIV preventive vaccine trials, whereas 21.4% of participants stated that they considered their in-laws the most important to consult regarding their participation in research, followed by 15.5% of participants who mentioned that they would consult their parents. Furthermore, most participants (64%)

indicated that they would go ahead and participate in research despite their relatives' opposing views. Moreover, the majority (65%) of participants stated that they wouldn't want their participation to be kept secret from their relatives, whereas 12.6% and 11.7% mentioned that if they participated in research against their relatives' opinions, they would not want their in-laws or parents to know.

#### **4.4 Results pertaining to factors contributing to power differentials in relationships**

In this section findings on reasons why participants would/ would not consult their husbands or relatives about their participation in HIV prevention research and the consequences thereof are presented. Results of associations between autonomy to participate in research and sociodemographic factors are also presented.

##### *4.4.1 Reasons and consequences*

The majority (50.5%) of participants stated that they would not consult their spouses prior to participating in research and that they would be prepared to act independently of their spouses' views because of self-determination. However, about 20% of women said they would consult their spouses because of both religious and cultural beliefs. Economical punishment like withdrawal of financial support (19.4%) as well as emotional punishment like scolding (15.5%) and physical punishment (14.6%) were cited as possible consequences for going against spouses' views.

With regard to relatives, most participants stated they would not consult them, and would be prepared to participate in research despite their opposing views because of self-determination. However, 20.4% of women cited cultural/traditional beliefs as a reason they would consult their relatives and would not defy them. Furthermore, most women indicated that there would be no punishment for opposing their relatives, while 29% of women stated that a possible consequence of going against their relatives' opinions was emotional punishment.

##### *4.4.2 Relationship between sociodemographic factors and autonomy*

To further examine factors that contribute to power differentials in relationships, results of associations between autonomy to participate in research-particularly HIV/AIDS prevention

trials and sociodemographic factors are presented. The purpose of the analyses was to determine whether women's decision-making was influenced by their age, marital status, employment status and level of education. Therefore, results on whether or not participants would consult their relatives or spouses before participation in research, their preparedness to act against their views as well as the reasons and consequences thereof are presented in relation to age groups, marital status, employment status and education level.

The data were analysed using the chi-square test of independence in SPSS. This test is also known as the Pearson chi-square test and is represented by the symbol  $X^2$ . It is used to assess the degree of association between two categorical variables (Stangor, 2015). The main assumption of the chi-square test is that the expected frequency should be no less than 5 in at least 80% of the cells (Lachenicht, 2002).

#### *4.4.2.1 Age and decision-making*

In terms of age, the majority (74.4%) of participants aged between 18-30 stated that they would not consult their spouses before participating in research whereas 43.5% and 53.6% of those aged between 31-40 and 41-50 respectively, reported that they would consult their husbands. Additionally, the majority (84.6%) of respondents aged between 51-60 stated that they would consult their husbands before participating in health research, as compared to only 15.4% who said they wouldn't.

The overall trend in the results is that women in younger age groups were less likely to consult their husbands before participating in HIV prevention research compared to their older counterparts and they reported that they would go ahead and participate in HIV prevention research despite their husbands' differing views whereas those in older age groups stated otherwise. Additionally, 66.7% of respondents aged between 18-30 stated that they would go ahead and participate in research despite their spouses' opposing views whereas about half of those aged between 41-50 (53.6%) and 51-60 (53.8%) reported that they wouldn't. Furthermore, there was no statistically significant association between age and autonomous decision-making in the context of participating in health research  $X^2(3, N=103) = 4.731, p > .05$

Table 2

*Chi-Square Tests: Age*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.731 <sup>a</sup>	3	.193
Likelihood Ratio	4.730	3	.193
Linear-by-Linear Association	3.429	1	.064
N of Valid Cases	103		

With regard to which of their relatives participants would consult about their participation in research and their preparedness to act against their opposing views, 33.3% of women aged between 18-30 stated that they would consult their parents, and 43.6% said they were not prepared to act against their relatives' views, whereas 39.3% of those aged between 41-50 and 38.5% of those aged between 51-60 reported that they would consult their in-laws prior to participation in research. Most participants in the older age groups stated that they were prepared to act against their relatives' opposing views.

Self-determination (51.3%) was the most cited reason for not consulting spouses regarding participation in research by women aged between 18-30. Furthermore, 25% of women aged between 41-50 and 30.8% of women aged between 51-60 cited both religious and cultural/traditional beliefs as reasons for consulting their spouses. Moreover, the majority of women across all age groups stated that they wouldn't consult their relatives due to self-determination.

Twenty-eight percent of women aged between 18-30 believed that they would be economically punished for going against their spouses' views whereas 15.4% of women aged 51-60 cited divorce as a possible consequence of going against their spouses' views. Additionally, although most women across all age groups mentioned that they wouldn't be punished for opposing their

relatives' views, 38.5%, 32.1% and 23.1% of those aged between 18-30, 41-50 and 51-60 respectively, stated that they would be emotionally punished for going against their relatives.

#### *4.4.2.2 Marital status and decision-making*

In terms of marital status, 75.9% of married women reported that they would first consult their husbands if they were to participate in HIV prevention trials, and 69.0% stated that they would consult their in-laws about their participation in research. Furthermore, the majority of married women said they were not prepared to act against their husbands' views (62.1%) or relatives' opposing views (55.2%). Reasons cited by married women as to whether they would first consult their husbands and whether or not they were prepared to go against their opposing views were cultural or traditional beliefs (24.1%), both religious and cultural/traditional beliefs (20.7%) and self-determination (37.9%). Additionally, 34.5% of married women believed that they would be emotionally punished for going against their spouses' opinions, and 20.7% said they would be economically punished.

With regard to preparedness to act against relatives' opposing views, the majority of women who were either single (24.2%), single-parents (31.8%), divorced (9.1%) or widowed (15.2%) stated that they were prepared to go against their relatives' opposing views compared to 43.2% of married women who were not prepared to go against their relatives' opposing views. Furthermore, regardless of marital status, most women stated that they were prepared to act against their relatives' opposing views because of self-determination. However, 27.6% and 25% of women who were either married or single parents said they were not prepared to act against their relatives' opinions due to their cultural/traditional beliefs whereas 18.2% of widowed women stated that it was due to their religious beliefs. Women believed that there would be no punishment for opposing their relatives. But, 41.4% of married women, 33.3% of those that were single and 25% of single-parents believed that they would be emotionally punished for going against their relatives' opinions.

In addition to this, the results of the chi-square (Table 3) analysis show that there was a statistically significant association between marital status and autonomous decision-making,  $X^2(4, N=103)=10.068, p<.036$ . This means that being married was associated with being less autonomous as married women were not prepared to act independently of their husbands or relatives' views in the context of hypothetical participation in HIV prevention vaccine trials.

Table 3

*Chi-Square Test: Marital Status*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.068 <sup>a</sup>	4	.039
Likelihood Ratio	10.140	4	.038
Linear-by-Linear Association	.005	1	.944
N of Valid Cases	103		

*4.4.2.3 Employment status and decision-making*

With regard to employment status, 52.9% and 40 % of women who were either employed or self-employed reported that they would first consult their husbands if they were to participate in HIV/AIDS prevention trials, whereas 56.1% of unemployed women stated that they would not consult their husbands. Additionally, regardless of employment status, the majority (59.2%) of women stated that they were prepared to act against their husbands' views with regard to their participation in HIV/AIDS prevention trials, compared to 40.8% who reported that they weren't. Moreover, the chi-square analysis results (Table 4) were not statistically significant  $X^2(2, N=103)=1.771, p>.05$ , meaning there is no association between employment status and women's decision-making.

Table 4

*Chi-Square Test: Employment Status*

	<b>Value</b>	<b>df</b>	<b>Asymptotic Significance (2-sided)</b>
Pearson Chi-Square	1.771 <sup>a</sup>	2	.412
Likelihood Ratio	1.805	2	.406
Linear-by-Linear Association	.166	1	.683
N of Valid Cases	103		

In terms of reasons why women would consult/ not consult their husbands prior to participation in HIV/AIDS prevention research, and whether or not they would go ahead and do “what is right” despite their husbands’ differing views, 22.7% of unemployed women cited both religious and cultural beliefs, whereas women who were either employed (64.7%) or self-employed (60.0%) said it was due to their self-determination. Furthermore, about 27% of women who stated that they were unemployed reported that there would be economic punishment for going against their husbands’ views, whereas 58.8% of women who were employed believed there would be no punishment, and 20% of self-employed women stated that they would be emotionally punished for going against their husbands’ opposing views.

Regarding whether women would consult their relatives about their participation in HIV/AIDS prevention trials, 58.8% of women who were employed, 36.4% of those that were unemployed and 55% of self-employed women stated that they would not consult their relatives about their participation in research. Additionally, 70% of employed women, 59% of unemployed women and 75% of those that were self-employed said they were prepared to go against their relatives’ opinions with regard to their participation in research. Self-determination was the most cited reason for doing so. Moreover, women stated that they believed there would be no punishment for acting against their relatives’ opinion.

Compared to women who were employed or self-employed, the majority (60.6%) of women who were unemployed said they would like their participation to be kept a secret if they were to participate in health research despite their husbands' opposing views.

#### 4.4.2.4 Level of education and decision-making

There was a statistically significant association between level of education and decision-making  $X^2(3, N=103)=11.705, p<.008$ . The majority of women who stated that their highest level of education was either secondary school, vocational training or university stated that they were prepared to act against their husbands' views when it comes to participating in health research as opposed to those with primary school education (63.4%) as shown in Table 5.

Table 5

*Chi-Square Test: Level of Education*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.705 <sup>a</sup>	3	.008
Likelihood Ratio	15.195	3	.002
Linear-by-Linear Association	10.101	3	.001
N of Valid Cases	103		

Perceived consequences for acting against husbands' views ranged from physical punishment (22.7%, primary school), economical punishment (22.4%, Secondary school) to no punishment at all (60%, university). Furthermore, irrespective of their level of education, women were prepared to act against their relatives' views and believed that there would be no punishment at all for doing so.

Generally, women cited self-determination as a reason for their preparedness to act against their husbands or relatives' opinion. Women also stated that they wouldn't want their participation to be kept a secret from their relatives, however, 63.6% and 62% of those whose

highest level of education was either Primary school or Secondary school respectively, responded that they would like their participation to be kept a secret if they were to participate against their husbands' views.

#### **4.5 Results pertaining to participants' conceptualisation of autonomy**

Participants' understanding of autonomy within relationships was assessed in terms of their recommendations on how researchers can create an environment conducive to autonomous decision-making.

##### *4.5.1 Recommendations from participants*

*"I think they should call a meeting for woman and consult with them that it is important and not a bad thing as people think to participate in health."-Participant #14*

In terms of what can be done by researchers to make it possible for women to make autonomous decisions whether or not to participate in health research, one participant stated that most women are scared of their families and that they will be looked down on in the community if they violate expectations, so it is important for researchers to be more specific about what they are doing. Another pointed out the importance of research to women because they learn what they don't know. Other participants mentioned the importance of women supporting one another and doing things for themselves and recommended that researchers: i) encourage women to take part in such trials, ii) educate them about the research and explain everything accordingly and in detail, iii) call meetings with all the women and consult with them that it is important and not a bad thing to participate, iv) researcher should have an agreement with the woman on whether they'd like other people to know about their research and encourage women to know their rights, v) researchers should work with single people who will be able to make decisions on their own without the men in their lives intervening, and vi) talk to the families of the women.

#### **4.6 Summary**

This chapter presented the results of the study in relation to the research questions and objectives outlined in sections 3.3 and 3.4. Findings on the effect of relationships on women's

decision-making with regard to their participation in HIV prevention research were presented, followed by results on factors contributing to power differentials in relationships. Results on what participants think could be done by researchers to foster autonomous decision-making were also presented.

In terms of the first research question which asked “what is the effect of relationships on women’s decision-making with regard to participating in HIV/AIDS prevention trials?” the present study found that most women wouldn’t consult their spouses (55.3%) or relatives (43.7%) about their participation in HIV/AIDS prevention trials. Furthermore, women stated that they were prepared to act against their spouses’ and relatives’ views (59.2% and 64.1% respectively) and would participate in research despite these opposing views.

The second research question asked which factors contribute to power differentials in relationships. The results of the study showed that most women were prepared to act independently of their husbands or relatives’ views because of self-determination and they believed there would be no punishment for doing so. However, even though the majority of women believed they wouldn’t be punished for opposing their relatives or spouses’ views, some cited emotional punishment as a possible consequence for going against their relatives’ views, and economical punishment, physical punishment as well as emotional punishment as possible consequences of participating in research despite their spouses’ differing views. Furthermore, women who were not prepared to act against their husbands’ views said it was because of both religious and cultural beliefs whereas those that said they would not go against their relatives’ opposing views said it was because of cultural/traditional beliefs.

To further examine which factors contribute to power differentials in relationships, the influence of sociodemographic factors on women’s autonomous decision-making was also assessed. Overall, the results showed that women in older age groups, married women and those with lower levels of education would first consult their husbands about their participation in HIV prevention research. Furthermore, the results showed that there was a statistically significant association between women’s level of education and decision-making, as well as between their marital status and decision-making. This means women with lower levels of education and married women were not prepared to act independently of their husbands’ or relatives’ views regarding hypothetical participation in HIV prevention research.

Lastly, with regard to the third research question which asked what participants think researchers should do to create an environment conducive to autonomous decision-making, women expressed that being educated about the research process, encouragement from researchers and talking to their families amongst other things, could help foster autonomous decision-making. A discussion of the results in relation to the relevant literature on women's autonomous decision-making is presented in the chapter that follows.

## CHAPTER 5. DISCUSSION

### 5.1 Introduction

This chapter discusses the findings of this study in relation to the literature reviewed and theoretical frameworks presented in Chapter 2. The discussion in this chapter is focused on providing answers to the research questions of this study, which are: i) What is the effect of relationships on women's decision-making with regard to participating in HIV/AIDS prevention trials? ii) What factors contribute to power differentials in relationships? and iii) How do participants conceptualise autonomy within relationships?

Because research on women-centred HIV/AIDS prevention methods has increased dramatically over the past ten years, this study attempted a partial replication of a study conducted by Nyika (2005) on a sample of 314 women in Zimbabwe to identify whether his Zimbabwean findings apply in KwaZulu-Natal more than ten years later.

### 5.2 Discussion of the effect of relationships on women's decision-making

The majority of women in this study were rated as autonomous because of their preparedness to act independently of their husbands' or relatives' views when it comes to participating in HIV prevention trials. This means that most participants' decision-making was not influenced by their spouses' or relatives' opinions. This finding is contrary to previous studies which have suggested that most women rely on their husbands or partners for decisions regarding their own lives because of their limited autonomy (Alemayehu & Meskele, 2017; Kapoor, 2005; Osamor & Grady, 2018; Rwafa, Shamu & Christofides, 2019). Furthermore, findings from a Nigerian study on the challenges in enrolment and retention of women in trials showed that 80.2% of women required their husbands and relatives' consent before they could participate in trials. The results are consistent with Nyika (2005) and Nyika et al. (2009) who found that women's decision-making process involved consultation with their husbands or relatives.

Autonomy is an important factor in women's demographic, economic and health-related outcomes (Fikree & Pasha, 2004). Therefore, women who can exercise personal autonomy in terms of decision-making can improve and maintain their health and seek necessary health-

related resources (Fikree & Pasha, 2004). In terms of women's ability to participate in research, Chukwuneke, Ekwueme, Ezeonu, Onyire and Ifebunandu (2012) asserts that gender roles and power dynamics impede African women's full participation in clinical trials. As such, while men can make decisions freely, women may lack the decision-making freedom to participate in trials, especially ones that address sensitive issues such as sexual behaviour. Additionally, women may be burdened with domestic work, fulfilment of roles as mothers and caregivers as well as limited mobility which often affects their full participation in clinical trials (Connell, 1987; Chukwuneke et al., 2012).

### **5.3 Discussion pertaining to factors contributing to power imbalances in relationships**

This section is divided into 2 subsections. The first section discusses the overall findings on factors that contribute to power imbalances in relationships. The second section discusses findings on the influence of socio-demographic factors on women's autonomous decision-making.

#### *5.3.1 Factors contributing to power imbalances in relationships*

According to Nyika et al. (2009), prerequisites of informed consent characterised by power inequalities based on gender or race compromise the voluntariness of informed consent. Power is the ability to control a partner's actions or act independently, dominate decision-making or engage in behaviour against the partner's wish (Conroy, 2015). Power imbalances constrain women's ability to acquire health information, make decisions regarding their health and take relevant steps to improve their health (Blanc, 2001; Conroy et al., 2016). Furthermore, male dominance and control over women's mobility and access to financial resources can result in women having less participation and authority in decision-making, thus affecting their functional autonomy (Blanc, 2001; Conroy et al., 2016; Jeejeebhoy, 2000).

Self-determination is an important aspect of autonomy. In the present study, most women cited self-determination as a reason for their preparedness to act independently of their spouses' or relatives' views. These findings are consistent with findings by Nyika (2005) where women indicated that the right to self-determination was the reason they were prepared to act independently of their relatives or spouses' views in the context of participating in health research. However, even though women in the present study as well as in Nyika (2005) said

they were self-determined to do ‘what is right’ by participating in research despite their husbands or relatives differing views, some women in the current study mentioned that they would not defy their husbands because of both religious and cultural/ traditional beliefs, whereas women who participated in Nyika(2005)’s study mentioned that they wouldn’t participate in research against their husbands’ wishes because they were culturally expected to obey their spouses’ wishes. These results are consistent with those of Chukwuneke et al. (2012) who reported that women’s willingness to participate in clinical trials was constrained by fear of adverse effects (64%), gender inequalities and discrimination (72%), cultural barriers (56%), and religious beliefs (32%). Furthermore, Chukwuneke et al. (2012) noted that about 80% of women believed that their husbands and families must give consent before they could participate, due to cultural barriers. Moreover, married women believed there could be proxy consent because of the cultural norm that men can give consent or assent on behalf of their wives (Chukwuneke et al., 2012).

Woldemicael and Tenkorang (2010) stated that existing socio-cultural, religious, and tribal structures determine circumstances under which women would have autonomy in health-care decision-making. Furthermore, Madiba and Ngwenya (2017) postulate that some rural communities subscribe to strong cultural practices, beliefs and traditional laws which subordinate women. Therefore, cultural practices that maintain the subordination of women in society result in power imbalances which increase women’s vulnerability to diseases such as HIV since negotiation for safer sex or refusal may result in violence (Madiba & Ngwenya, 2017). Moreover, manifestations of power also extend to decision-making because factors that increase women’s vulnerability to HIV infection also affect their ability to participate in HIV prevention vaccine trials (UNAIDS/WHO, 2012).

In relation to the abovementioned, Nyika et al. (2009) stated that women’s participation in research may cause them psychological, social, physical or economic harm. Furthermore, their findings demonstrated that women who were not prepared to act against their husbands’ differing opinions feared punishment such as emotional, physical or financial harm (Nyika et al., 2009). Additionally, Nyika (2005) reported that women who made autonomous decisions that defied their relatives or spouses’ wishes risked emotional punishment as they would be looked down upon as disobedient women with loose morals. The results of the present study concur with the aforementioned in that women who were not prepared to act independently of

their spouses or relatives' opinions believed that there would be physical punishment, economical punishment or emotional punishment for doing so.

The impact of relationship power on women's decision-making can also be explained using the Theory of Gender and Power proposed by Connell (1987), which posits that economic inequalities created by the unequal division of labour results in women relying on men financially. Additionally, women in power imbalanced relationships often depend on their male partners for health care decision-making and those that are more accepting of social norms and beliefs are more likely to experience adverse health outcomes (Connell, 1987; Wingood & DiClemente, 2000). For instance, as demonstrated in the present study as well as by Nyika et al. (2009), unemployed women who are financially dependent on their partners will be less prepared to act against their partners' views compared to employed women. Furthermore, women who subscribe to traditional gender norms prescribed by certain cultural practices will be less likely to challenge their spouses' or relatives' views because of fear of being labelled as 'disobedient'. In contrast, evidence suggests that women's participation in income-generating activities increases their economic independence and challenges the traditional belief of male dominance in decision-making (Alemayehu & Meskele, 2017; Delbiso, 2014).

The Social Exchange Theory also postulates that power differentials in relationships influence women's decision-making. Relationship power is expressed as independent decision-making, and one's ability to engage behaviours against a partner's wish (Emerson, 1981). In relation to this study, women who said they were prepared to participate in HIV prevention research despite their husbands or relatives differing views were regarded autonomous because their spouses and relatives did not have the power to influence their decision-making. Relationship power can also be expressed as the ability to control a partner's decisions, exacerbated by the dependence of one partner on the other (Emerson, 1981). For instance, a study in Nigeria found that power differences in relationships were associated with financial inequality. This inequality results in women being more vulnerable than men as they must depend on men for financial support which in turn makes them vulnerable to HIV infection (Mbonu, Van den Borne & De Vries, 2010).

In sum, power differentials associated with harmful traditional practices, intimate partner violence and discriminatory laws have significant consequences for women's sexual, reproductive, physical and mental health (Blanc, 2001; Hatcher et al., 2012, Mc Mahon et al., 2015; Siedner et al., 2012). Power differentials in relationships also have significant

implications for HIV prevention in Sub-Saharan Africa because they limit women's choices, opportunities and access to information, education and employment as well as their ability to make decisions regarding their health (Conroy et al., 2016).

### *5.3.2 Relationship between Sociodemographic factors and autonomy*

Several studies on women's autonomous decision-making suggest that autonomy is closely related to sociodemographic characteristics such as age, employment status, and educational level. For instance, Singh et al. (2014) (as cited in Osamor & Grady, 2018) reported that highly educated women are more likely to be knowledgeable about their health, are self-confident and are more assertive compared to those with less or no education at all. Another study suggested that the older women get, the more likely they are to have negotiation skills and self-confidence, leading to decision-making autonomy (Kritz & Makinwa-Adebusoye, 1999). Additionally, a study in Northern Kenya reported that low levels of education, poverty, and distance to health care services intensified low levels of autonomy in women whereas Bloom et al. (2001), and Acharya et al. (2010), reported that employed women were more likely to participate in decision-making as opposed to those who are unemployed.

Similar to the aforementioned studies, the present study assessed sociodemographic factors such as age, employment status, level of education and marital status to determine their influence on women's decision-making. These factors have also been associated with power differentials and women's decision-making autonomy.

#### *5.3.2.1 Age and decision-making*

Several studies have demonstrated that there is an association between decision-making and women's age (Acharya et al., 2010; Haque et al., 2012). These findings have been corroborated by Nyika (2005) and Anum (2017), who reported statistically significant associations between age and autonomous decision-making in the context of health care or health research. Furthermore, Anum (2017) stated that age is an important demographic variable that predicts a woman's level of decision-making autonomy in health care. Thus, as a woman ages, she is more likely to participate in health-care decision-making. This is because women may gain authority as they age -making them more likely to participate in their health-care decision-making. Rwafa et al. (2019) corroborated the aforementioned as their study reported that older

women were less likely than the younger women to report psychological pressure because they have gained authority to participate in decision-making regarding their health.

Unlike the aforementioned studies, the results of the present study showed that there was no statistically significant association between age and women's autonomous decision-making with regard to participating in HIV prevention research. Furthermore, the results of the present study showed that younger women were less likely to consult their husbands about participating in research and were prepared to act against their husbands' opinions compared to their older counterparts, demonstrating that younger women were more autonomous than older women in the context of participating in health research. These findings are consistent with those reported by Nyika (2005), who attributed younger women's decision-making autonomy to their education level and employment status. Moreover, most women in the present study as well as in Nyika et al. (2009) cited self-determination as a reason for their preparedness to act against their husbands and/or relatives' opinions. This means that most women perceived themselves as autonomous, in the context of deciding to participate in health research because self-determination has been described as the bedrock of autonomy as an ethical principle (Beauchamp & Childress, 2013).

#### *5.3.2.2 Employment status and decision-making*

In terms of employment status, the findings of this study were inconsistent with those reported by Nyika (2005), who found a statistically significant association between employment status and decision-making. Nyika (2005) also reported that women who were employed and better educated were more likely to act independently of their husbands' and relatives' opinions than those who were unemployed. Irrespective of employment status, the majority of women in this study said they were prepared to act against their husbands and relatives' views because they were self-determined to do 'what's right'. The results of the present study support those reported by Osamor and Grady (2018) who found no statistically significant relationship between women's employment status and their decision-making. This means that women's employment status had no bearing on their health care decision-making.

Consistent with Nyika (2005)'s findings, other studies have also demonstrated the link between employment status and women's decision-making. For instance, a study in Ghana on

determinants of women's autonomy in health care decision-making reported that women who are employed were more likely to participate in health-care decision-making on their own or jointly with their husbands than those who were not employed (Anum, 2017). Furthermore, findings by Pambe, Gnuomou and Kabore (2018) indicated that employment is strongly associated with women's say in decision-making, whereas a study by Alemayehu and Meskele (2017) reported that working women were twice likely to participate in health-care decision-making than housewives.

#### *5.3.2.3 Level of education and decision-making*

The results regarding level of education and decision-making were consistent with those reported by Nyika (2005) and were statistically significant, demonstrating an association between women's level of education and autonomous decision-making. Financial autonomy and high levels of education greatly influence women's more autonomous participation in decision-making (Acharya et al., 2010; Boateng et al., 2012). In the present study, most women not educated beyond secondary school said they were not prepared to act against their husbands' opinions. Similar findings were reported by Anum (2017) who found that women with higher educational levels were 2.39 times more likely to be autonomous than their counterparts with no education. Furthermore, a study by Nigatu et al. (2014) on an Ethiopian population found that women who have primary, secondary or post-secondary education were more likely to have autonomy compared to women with no formal education. Moreover, these findings were corroborated by Acharya et al. (2010); Harque et al. (2012) as well as Osamor and Grady (2018) whose studies reported that women with higher education were more likely to be autonomous in health care decision-making. However, a study conducted by Kamiya (2011) in Tajikistan reported no statistically significant relationship between women's autonomy and their educational attainment.

As is already stated in section 5.3.1, the participation of women in health research can cause them physical, psychological, social or economic forms of harm (Nyika et al., 2009). This was also substantiated by Madiba and Ngwenya (2017), who reported that women fear physical violence or labelling, when negotiating condom use with their partners. In the present study, most women who were educated beyond secondary school said they were prepared to go against their husbands' or relatives' wishes because of self-determination whereas women whose level of education was primary school cited religious and cultural/traditional beliefs as

a reason for not going against their husbands' wishes. Furthermore, these women believed that they would either be physically or economically punished for opposing their husbands or relatives, whereas women who were educated beyond secondary school said they would be emotionally punished. Similar results were reported by Nyika (2005). Women with a lower education level said they were not prepared to act against their husbands' or relatives' wishes because of cultural beliefs and they believed that there would be emotional or economic consequences for doing so (Nyika, 2005).

#### *5.3.2.4 Marital status and decision-making*

The results of the study were consistent with those reported in the original study by Nyika (2005) in that there was a statistically significant association between marital status and women's decision-making. The results of his study also showed that all married women would first consult their husbands before participating in health research and only a few (46%) were prepared to act against their husbands' views. A similar trend was observed in the present study, where the majority of married women stated that they would first consult their husbands about their participation and indicated that they were not prepared to act independently of their husbands' opinions. Other studies have also demonstrated that women first consult or request permission from their husbands before participating in research. For instance, an Ethiopian study conducted by Berhane et al. (2001) indicated that most women request permission from their husbands to visit a health facility, no matter how close it is to their homes, whereas Anum (2017) showed that women who were currently married were more likely to make joint decisions with their husbands or may have to accept the final decisions of their husbands.

As is in this study, married women cited cultural or traditional beliefs as a reason for their preparedness to act against their husbands' views. Cultural or traditional beliefs have been described as limiting to women's autonomy because they emphasise women respecting and submitting to their husbands and family heads in all aspects (Princewill et al., 2017). This means that men become responsible for making important decisions on behalf of their family while leaving no room for women to express themselves even in personal matters they ought to be in control of (Cook et al., 2003). As stated in the literature, traditional and cultural beliefs can be harmful to women's health because they create stereotypical masculine and feminine roles that hamper women's equal rights (Wood, 2017). This, in turn, violates women's rights to

self-determination, thus preventing them from making decisions on matters that affect them personally (Nyika, 2005) such as their education, fertility control and child-rearing (Sultana, 2011).

Taking into consideration the aforementioned, Madiba and Ngwenya (2017) stated that societies characterised by male dominance and gender inequality create power imbalances within relationships. They further stated that while the man occupies a high social status in the marital relationship and society as a whole, the woman occupies a subordinate and inferior position and plays no part in decision-making, particularly as it pertains to sex. Moreover, the deeply entrenched beliefs about the role and position of women in society place marriage as an important risk factor for HIV infection on women (Duffy, 2005; Mkandawire-Valhmu, 2013; Nyamhanga & Frumence, 2014). This is because certain cultural or traditional beliefs perpetuate the idea that a woman is her husband's property, which in turn, plays a significant role in the use of condoms (Madiba & Ngwenya, 2017).

The majority of women in this study stated that they would consult their in-laws about their participation in health research and only a few were prepared to go against their relatives' opinions. Although these results were not consistent with those reported by Nyika (2005), a study on factors affecting Yoruba women's autonomous decision-making in research participation found that mothers-in-law and husbands' family members tended to interfere in a couple's decision-making because culture dictates so (Princewill et al., 2017). Furthermore, although the majority of women in the study conducted by Nyika (2005) stated that they wouldn't want their participation to be kept a secret from their relatives or husbands, most married women in this study stated that they would want their participation to be kept a secret from their husbands. Additionally, similar to findings reported by Nyika (2005), women cited emotional punishment as a possible consequence for disobeying their husbands or relatives. This was corroborated by a study conducted in Ghana which showed that women feared the physical and emotional abuse from their husbands as well as the influences of the extended family on the husbands (Bawah, Akweongo, Simmons & Phillips, 1999).

#### **5.4 Discussion pertaining to participants' conceptualisation of autonomy within relationships**

Most women in this study were rated as autonomous because of their self-determination to participate in HIV prevention research despite their husbands' and relatives' opposing views. However, the present study also demonstrated that to some extent, relationships do impact women's decision-making. For instance, married women and women with lower levels of education said they would first consult their husbands and relatives prior to participating in research and expressed their unwillingness to participate in HIV prevention trials against their husbands' or relatives' wishes. This also shows that women's decision-making process involves consultation with their husbands and relatives as noted by Nyika (2005). As such, the present study assessed participants' conceptualisation of autonomy in terms of their recommendation on what might be done by researchers to create an environment conducive to autonomous decision-making.

UNAIDS/WHO (2012) posit that the selection and recruitment of communities and individuals for participation in vaccine trials must be fair, and researchers should create a research climate which shows respect for all persons. Participants in this study believed that encouraging women, educating them about vaccine trials, and consulting with them as well as talking to their families can create an environment conducive to autonomous decision-making with regard to potential participation in HIV vaccine trials. Similar recommendations were made by women who participated in Nyika (2005)'s study. They mentioned that researchers should sensitise their communities by giving information about the study in advance so that women are not burdened with breaking the news to their relatives and spouses. Participants also said that researchers should allow time for consultations and discussions (Nyika, 2005), which is consistent with local and international ethics guidance and UNAIDS/AVAC GPP (2011).

In this regard, UNAIDS/WHO (2012) have recommended measures that can be taken by researchers to minimise barriers that hinder women's participation in vaccine trials. These measures include developing educational materials, recruitment strategies and procedures for informed consent while being cognisant of factors which limit women's decision-making autonomy such as social marginalisation, cultural norms, economic dependence and political powerlessness (UNAIDS/WHO, 2012). Additionally, researchers should be aware that they may require authorisation of a third party such as a community leader or head of a family prior to entering the community or approaching individuals, as it is customary to do so in some

communities (UNAIDS/WHO, 2012). However, it is important to note that authorisation from third parties is not a substitute for individual informed consent and researchers must clearly stipulate that each individual has the right to make her own decision about participation (UNAIDS/WHO, 2012).

Women in the present study also mentioned that there should be an agreement between them and researchers regarding whether they would like other people to know about their participation in HIV prevention trials. UNAIDS/WHO (2012) stipulate that maintaining confidentiality is critical because any breach could have severe consequences for women in terms of stigma, blame, loss of economic support or violence.

## **5.5 Summary**

This chapter discussed the results of the study with respect to the literature reviewed. The discussion was presented in relation to the research questions of the study. As such, discussion about the effect of relationships on women's decision-making, and factors associated with power imbalances in relationships was presented. The chapter also discussed participants' conceptualisation of autonomy within relationships.

In terms of the first research question which asked: "What is the effect of relationships on women's decision-making with regard to participating in HIV prevention vaccine trials?", the majority of women in the study were rated as autonomous because of their preparedness to act independently of their spouses' or relatives' views. This means that relationships did not have an inhibiting effect on most women's decision-making in the context of participating in HIV prevention trials.

With regard to the question pertaining to factors contributing to power imbalances in relationships, the present study showed that religious beliefs, cultural or traditional practices and fear of punishment contribute to power differentials in relationships. Power imbalances within relationships were also discussed in relation to the Theory of Gender and Power as well as Social Exchange Theory. In addition, discussions on the influence of sociodemographic factors on women's autonomous decision-making were presented. Age and employment status were not significantly associated with decision-making, whereas marital status and level of education were significantly associated with women's decision-making process.

Lastly, the third research question asked participants' understanding of autonomy within relationships was assessed in terms of their recommendation on what can be done by researchers to create an environment conducive to autonomous decision-making. Participants mentioned that education and consultations, talking to families and encouragement from researchers can help foster autonomous decision-making. the study. A summary of the main findings will be presented in relation to the research questions of the study, and the limitations of the study as well as recommendations for future studies will be provided in the chapter that follows.

## CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

### 6.1 Introduction

This chapter concludes the study. A summary of the main findings of the study is presented followed by limitations of the study and recommendations for future research.

### 6.2 Summary of main findings

This study aimed to determine the impact of relationships on women's decision-making with regard to participating in HIV prevention trials. This section will provide an outline of how the research questions stated in Chapter 3 were answered. The objectives of the study were to: i) investigate the effect of relationships on women's decision-making with regard to participating in HIV prevention trials, ii) explore factors contributing to power imbalances in relationships and iii) gain insight into participants' understanding of autonomy. A summary of the main findings will be presented and deliberated with regard to the results of the original study by Nyika (2005) as well as other related literature on women's autonomous decision-making.

The sample consisted of 103 women aged between 18-60 years old from Inchanga in Pietermaritzburg. The majority of respondents were aged between 18-30 ( $n=39$ ), followed by 28 participants aged between 41-50 whereas participants between ages 31-40 and 51-60 were 23 and 13 respectively. Furthermore, sixty-six respondents were unemployed while only 17 were employed. With regard to marital status, the majority of women ( $n=32$ ) were single parents, followed by 29 participants who were married. Lastly, the highest level of education amongst women was secondary school ( $n=62$ ).

The data were collected using a questionnaire designed by Nyika (2005). The questionnaire included questions on whether women would consult their husbands or relatives before participating in health research, their preparedness to act against the aforementioned parties as well as their reasons and consequences of doing so. Preparedness to act independently of husbands' or relatives' views indicated whether participants were autonomous or not. The data was analysed using descriptive statistics, Pearson Chi-Square tests and crosstabulations in

SPSS. Chi-square tests were conducted to determine associations between sociodemographic factors (i.e. marital status, age, level of education, employment status) and decision-making.

### *6.2.1 What is the effect of relationships on women's decision-making with regard to participating in HIV/AIDS prevention trials?*

Most women reported that their husbands or relatives would not influence their decision-making when it comes to participating in HIV prevention research. This was demonstrated by the significant majority of women prepared to act independently of their husbands' or relatives' views. Fifty-nine percent of women expressed their willingness to participate in research despite their husbands' differing views, while 64.1% of women said they were prepared to go against their relatives' opinions. These findings were consistent with those reported by Nyika (2005) but contradicted other studies on women's decision-making, where it was shown that many women's decisions regarding their health were made by their husbands or partners because of their lack of autonomy (Osamor & Grady, 2018; Rwafa et al., 2019).

### *6.2.2 What factors contribute to power imbalances in relationships?*

Power imbalances in relationships were assessed in terms of participants' reasons for their preparedness to act independently of their husbands' or relatives' wishes and the consequences for doing so. Women who said they would not consult their husbands or relatives about their participation in HIV research, and those that were prepared to act independently of the views expressed by their husbands or relatives said it was because of self-determination. However, women who were not prepared to go against their husbands said it was due to religious and cultural/traditional beliefs, whereas those that were not prepared to act against their relatives said it was because of cultural/traditional beliefs. Scholars have noted that the voluntary participation of women in research may be compromised by cultural traditions where men have decision-making authority in relationships and by parental control of women and other forms of social subjugation and coercion (Chukwunke et al., 2012). Additionally, power differentials limit women's ability to acquire health information, make decisions regarding their health and take relevant steps to improve their health (Blanc, 2001; Conroy et al., 2016).

Women who were not prepared to go against their husbands believed that possible consequences for doing so would be physical punishment like beating (14.6%), emotional punishment like scolding (15.5%), and economic punishment like withdrawal of financial support (19.4%), while a possible consequence for going against relatives' wishes was emotional punishment (29%). These findings are consistent with those reported by Nyika (2005), where women who were not prepared to go against their husbands' or relatives' opposing views because of cultural/traditional beliefs believed they would be emotionally punished for doing so. Furthermore, women feared they would be labelled as 'disobedient with loose morals' (Nyika, 2005). Additionally, Nyika et al. (2009), reported that women risked physical, financial and emotional harm by participating in research against their husbands' views.

The impact of relationship power on women's decision-making was also explained using the Theory of Gender and Power and the Social Exchange Theory. According to the Theory of Gender and Power, women in power imbalanced relationships depend on their male partners for decision-making and those that are more accepting of social norms and beliefs will experience adverse health outcomes (Connell, 1987). Social exchange theory, on the other hand, postulates that relationship power is expressed via independent decision-making and the ability to engage behaviours against a partner's wishes (Emerson, 1981). Applied to the context of this study, women who subscribed to certain cultural/traditional beliefs were not prepared to act against their husbands' or relatives' views, whereas those that were prepared to participate in research despite their husbands' or relatives' wishes have power because their partners or relatives did not influence their decision-making.

The present study also assessed the influence of age, employment status, level of education and marital status on women's decision-making. The link between sociodemographic factors and women's autonomous decision-making has been investigated by several studies which reported that age, employment status and education level were significantly associated with decision-making (Alemayehu & Meskele, 2017; Acharya et al., 2010; Bloom et al., 2001; Singh et al., 2014, as cited in Osamor & Grady, 2018). In terms of age, the present study showed that younger women were more autonomous than their older counterparts. This was demonstrated by their preparedness to act independently of their husbands' or relatives' views. These findings are substantiated by Nyika (2005), who attributed younger women's autonomy to their

level of education or employment status. However, other studies reported that women gain decision-making power as they get older (Anum, 2017; Rwafa et al., 2019).

Regarding employment status, the results of this study were inconsistent with those reported by Nyika (2005), who found a statistically significant association between employment status and decision-making. Most women in this study said they were prepared to act against their husbands and relatives because of self-determination. An interesting finding, however, was that unemployed women reported that they were less likely to consult their husbands about their participation in research. These findings are in contrast with studies by Anum (2017) and Nyika et al. (2009), who found that women who were financially dependent on their husbands were less likely to make decisions on their own.

Women who were educated beyond primary school said they were prepared to go against their husbands' wishes when it comes to participating in HIV prevention research. Furthermore, women whose level of education was primary school believed they would be physically punished for disobeying their husbands, while women whose level of education was secondary school believed there would be economic punishment for going against their husbands' wishes. The results also showed that level of education and decision-making were significantly associated.

Lastly, the present study found a statistically significant association between marital status and decision-making. Seventy-five percent of married women said they would consult their husbands, and 69% said they would consult their in-laws about their participation in HIV prevention research. The majority of married women also said they were not prepared to act against their husbands' or relatives' views because of religious and cultural/traditional beliefs. Furthermore, married women said they would be emotionally punished for going against their husbands or relatives' wishes. These results are consistent with findings by Nyika (2005) who reported that married women would consult their husbands and wouldn't be prepared to go against them because of cultural/traditional beliefs. Findings also mirror those observed by Anum (2017) who reported that married women were more likely to make joint decisions with their husbands or accept the final decisions of their husbands.

### *6.2.3 How do participants conceptualise autonomy within relationships?*

Participants' understanding of autonomy within relationships was assessed in terms of their recommendations to researchers on what can be done to foster autonomous decision-making. These recommendations included: i) talking to women's families, ii) encouraging women to participate in research, and iii) consulting and educating women about the research. Women also mentioned that there should be an agreement between them and the researchers regarding whether they would like other people to know about their involvement in HIV prevention research. The recommendations made by participants echo those made in Nyika (2005) as well as by HIV vaccine advocacy groups and regulatory bodies guiding HIV prevention vaccine trials (Kahn, 2005; SAMRC, 2003; UNAIDS/AVAC, 2011; UNAIDS /WHO, 2012).

### **6.3 Limitations of the study**

The first limitation of the study is generalisability. The results of this study cannot be generalised to a larger population because participants were recruited from only one community in Inchanga. Furthermore, difficulty in recruiting participants for the study resulted in a small sample size which also affects the generalisability of the study. Additionally, the convenience sampling method used also means that the results cannot be generalised to a larger population.

The second limitation of the study was the language barrier. The researcher's home language differs from that of the participants and this made it difficult for the researcher to build a relationship with participants, which resulted in some difficulty recruiting participants for the study. Language differences also made it difficult for some participants to understand the questionnaire or what was expected of them. Despite the questionnaire, information sheet and the consent form being translated into isiZulu, some of the participants still did not understand some aspects of the questions and this was evident in their answers on the open-ended question of the questionnaire. The researcher attributed lack of understanding to the fact that even though the respondents spoke isiZulu, people's usage of the language varies depending on the communities they come from, that is, different regions have a different dialect (Kubeka, 1979; Magagula, 2009; Nortjé, 2014). Another limitation of the study is that the research did not adequately answer the research question pertaining to participants' conceptualisation of autonomy within relationships. This is because the data collection instrument (questionnaire) did not consist of a question directly asking participants to give their own definition of

autonomy. Rather, inferences were made based on participants' recommendations on what can be done to foster an environment conducive to autonomous decision-making.

## **6.4 Conclusion**

### *6.4.1 Conclusions of the effect of relationships on women's decision-making*

Overall, the results of the present study showed that relationships did not have an effect on most women's decision-making process in the context of participating in HIV prevention research. This was demonstrated by most women's preparedness to act independently of their husbands' or relatives' views. However, although most women in the study showed the potential for autonomous decision-making, it is important to note that some women were more likely to consult their husbands than their relatives about their participation in HIV prevention trials. Furthermore, women's preparedness to act against their husbands or relatives differed according to their age, employment status, level of education and marital status. Moreover, there was a statistically significant association between women's marital status and their decision-making, as well as between their level of education and decision-making. More specifically, married women were less prepared to act independently of their husbands' views in the context of hypothetical participation in HIV prevention research, and those with higher levels of education were more likely to act independently of their husbands' views regarding hypothetical participation in HIV prevention research.

### *6.4.2 Conclusions of factors contributing to power imbalances in relationships*

Results pertaining to factors that contribute to power differentials in relationships showed that women who would not participate in research against their husbands' or relatives' views said it was because of religious and cultural/traditional beliefs. Furthermore, these women feared consequences such as emotional punishment, physical punishment and economic punishment. Similar results were reported in the original study by Nyika (2005) and Nyika et al. (2009), where women reported that they feared emotional, physical and economic harm should they go against their husbands' wishes, and that they would be looked down as women with loose morals for disobeying their husbands or relatives.

The results of the present study are also consistent with the views of the literature. For instance, UNAIDS (2012) reported that women's voluntary participation in research may be compromised by factors such as social marginalisation, political powerlessness and economic dependence. Additionally, literature postulates that power imbalances created by harmful traditional practices, intimate partner violence and inequitable laws have significant consequences for women's sexual, reproductive, physical and mental health (Blanc, 2001; Hatcher et al., 2012, Mc Mahon et al., 2015; Siedner et al., 2012). Moreover, the consensus in the literature reviewed is that cultural/traditional norms of men having decision-making power results in women having less participation in and authority in decision-making. This affects women's functional autonomy and their voluntary participation in research (Blanc, 2001; Bogale et al., 2011; Conroy et al., 2016; Jeejeebhoy, 2000).

In addition, the present study explained the link between power imbalances and decision-making using the Theory of Gender and Power and the Social Exchange Theory. It was argued that women in power imbalanced relationships, those that are financially dependent on their partners as well as women who subscribe to traditional gender norms will be less prepared to act against their husbands' views whereas, women who were prepared to act against their husbands or relatives' views had power within their relationships because of their ability to make independent decisions and engage behaviours against their relatives' or partner's wishes.

The lack of a statistically significant association between age and decision-making and employment status and decision-making contrasted findings by Nyika (2005). However, marital status and level of education were significantly associated with decision-making just as in the original study. Women whose level of education was beyond primary school demonstrated autonomous decision-making because of their preparedness to act independently of their husbands' or relatives' opinions with regard to participating in HIV prevention research. Married women, on the other hand, demonstrated a lack of autonomous decision-making because they were unprepared to act independently of their husbands' or relatives wishes. Reasons given by women for their unwillingness to act against their husbands or relatives were consistent with the literature reviewed which reported that cultural/traditional beliefs which dictate that men hold decision-making power in marital relationships violate married women's rights to self-determination, thus limiting their ability to make decisions concerning their own health.

Even though the results showed no statistically significant association between respondents' age and decision-making as well as employment status and decision-making, it is important to note that younger women were generally more prepared to act against their husbands and relatives' opinions than their older counterparts while 27% of unemployed women were not prepared to act independently of their husbands' views due to fear of economic punishment. Furthermore, irrespective of age, level of education, marital status and employment status, women wanted their participation in research to be kept a secret if they participated against their husbands' wishes, but that did not apply to their relatives.

#### *6.4.3 Conclusions of participants' conceptualisation of autonomy*

Results on participants' understanding of autonomy within relationships were presented in terms of their recommendations on what could be done to foster autonomous decision-making. These recommendations echo those made by HIV research advocacy organisations (AVAC, 2005; UNAIDS/WHO, 2012 as well as in the original study by Nyika (2005)). However, the researcher notes that this aspect of the research was not adequately explored due to some apparent lack of understanding of aspects of the questionnaire and the fact that participants were not required to first explain what autonomy means to them.

### **6.5 Recommendations for future studies**

A prominent challenge while conducting this research was recruiting participants. Most women who visited the centre were bringing their infants to the clinic so they were focused on that priority. Those that did agree to participate asked the researcher to hold their infants for them so they could fill in the questionnaires. Also, because this is a rural community and the centre also serves as a feeding scheme to those in need, most participants did not want to participate in the study because they were not getting anything material in exchange from the researcher. As such, further studies should consider bringing incentives for the participants. The SA DoH (2015) notes that incentives encourage research participation and may be offered in some circumstances, such as when recruitment of participants is anticipated to be difficult. Furthermore, ethical and regulatory frameworks have stipulated that benefits of participating in HIV prevention research should include reimbursing participants for the inconvenience and time spent, for travel cost and any other expenses related to participation in research (CIOMS, 2016; DoH, 2015; SAMRC, 2003).

Additionally, one of the recommendations given by participants on how researchers can ensure their autonomous participation in research is that the researchers should speak to their families about their participation. In some communities, it is customary to require authorisation from community leaders or head of a family before entering the community or approaching individuals (UNAIDS/WHO; 2012). This means that women from such communities might have to consult their partners or families prior to decision-making and further studies should take this into consideration. Additionally, further studies should include participants from different communities, i.e. rural and urban areas to allow for comparisons between the two communities.

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## APPENDICES

### Appendix A: Ethics clearance



19 October 2018

Ms Mulalo P Mashamba 218082265  
School of Applied Human Sciences  
Pietermaritzburg Campus

Dear Ms Mashamba

Reference number: HSS/1232/018M

Project title: Informed consent: A study of the impact of relationships on women's decision-making regarding participation in HIV prevention vaccine trials in KwaZulu-Natal, South Africa.

**Full Approval - Full Committee Reviewed Application**

With regards to your response received 16 October 2018 to our letter of 04 September 2018, the Humanities and Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



.....  
Dr S Naidoo (Deputy Chair)  
/px

cc Supervisor: Prof DR Wassenaar  
cc Academic Leader Research: Dr M Mthembu  
cc School Administrator: Mrs P Konan

Humanities & Social Sciences Research Ethics Committee  
Professor Shenuka Singh (Chair)/Dr Shamila Naidoo (Deputy Chair)

Westville Campus, Govan Mbeki Building  
Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: / /  
Website:

1910 - 2010  
100 YEARS OF ACADEMIC EXCELLENCE



Appendix B: Gate keeper's permission



## 1000 HILLS COMMUNITY HELPERS

(UMBHOKODO)

Ikhaya Lo Thando

NAME GIVEN BY COMMUNITY



P.O. Box 316  
Botha's Hill  
Kwazulu-Natal  
3660  
Tel: +27 (0) 31 783 4013  
Fax: +27 (0) 31 783 4254  
Cell: +27 (0) 84 625 2771  
Cell: +27 (0) 76 232 3802  
Email: 1000heh@zmail.co.za

To whom it may concern,

This letter confirms that Mulalo Mashamba, ID No: 951018 0359 084 a research psychology student from University of KwaZulu Natal is granted permission to collect data for her study in our premises. She will be monitored by our psychologist Dr Sally John who volunteer at our centre every Thursday.

Yours Faithfully



Dawn Faith Leppan  
CEO/FOUNDER

1000 Hills Community Helpers  
Dawn Leppan - CEO / Founder  
No: 042 122  
Tel: +27 (0) 31 783 4013  
P.O. Box 316, Botha's Hill  
Kwazulu-Natal 3660, South Africa

## **Appendix C: Information sheet and consent to participate in research**

### **UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)**

#### **Information Sheet and Consent to Participate in Research**

Date:

Good day Madam

My name is Mulalo Mashamba. I am a student from the University of KwaZulu-Natal (UKZN), Pietermaritzburg campus. I am currently a Master's student in Research Psychology and I am registered in the Discipline of Psychology at UKZN. You can contact me via email: [mulalopretty@gmail.com](mailto:mulalopretty@gmail.com).

You are being invited to consider participating in a study that involves researching the impact of relationships on women's decision-making. The study is expected to enrol about 200 participants in total from Pietermaritzburg, KwaZulu-Natal. It will involve administering a questionnaire. The duration of your participation if you choose to enrol and remain in the study is expected to be 30 minutes.

Participation in this study is voluntary. There will be no deception or coercion used to pressurize anyone into participating in the study. You may withdraw from the study at any time without any negative consequences.

The research will be conducted anonymously to protect your privacy. You will not be asked to fill in your personal details (i.e. names, address) on the questionnaire. The data obtained from the study will not be shared with a third party without your consent. Findings will be reported anonymously. Confidentiality will be maintained at all times except in the case of extraordinary circumstances such as child abuse or threat to others. Study codes (e.g. 0001) will be used on completed questionnaires to ensure that you are not identifiable. Furthermore, the data will be stored on google drive, which only myself and my supervisor will have access to. The data will be properly disposed after the study has been completed.

There are no foreseeable risks of participating in the study. However, a psychologist will be available should you require psychological support after the study. There are no direct benefits to you for participating in the study. We hope that the study will add to the knowledge base with regard to how relationships influence women's decision-making and help inform interventions aimed at empowering women to be more autonomous in terms of participating in HIV/AIDS vaccine trials.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number :HSS/1232/018M).

In the event of any problems or concerns/questions you may contact the researcher at [mulalopretty@gmail.com](mailto:mulalopretty@gmail.com) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

**HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION**

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za)

## Consent for participating in Human Sciences Research

I (Name) have been informed about the study entitled Informed consent: a study of the impact of relationships on decision-making of women in KwaZulu-Natal, South Africa by Mulalo Mashamba.

I understand the purpose and procedures of the study. I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at [mulalopretty@gmail.com](mailto:mulalopretty@gmail.com)

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

### **HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION**

Research Office, Westville Campus

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Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za)

\_\_\_\_\_  
**Date**

\_\_\_\_\_ **Signature of Participant**

\_\_\_\_\_  
**Date (Where applicable)**

\_\_\_\_\_ **Signature of Witness**

\_\_\_\_\_  
**Date (Where applicable)**

\_\_\_\_\_ **Signature of Translator**

## **Consent form: IsiZulu**

Isicelo segunya lezemigomo Isicelo segunya lokwenza ucwaningo ngabantu Isibonelo sencwadi egunyazayo eshicilelwe abayingxenywe yocwaningo Incwadi yolwazi nemvumo yabazoba yingxenywe yocwaningo

Usuku:

Sawubona Nkosikazi

Igama lami ngingu Mulalo Mashamba. Ngingumfundi eNyuvesi yaKwaZulu Natali, phecelezi i-UKZN esikhungweni esise Mgungundlovu (Pietermaritzburg campus). Ngenza iziqu zemfundo ephakeme ze Master's in Research Psychology, ngaphansi komkhakha we Psychology. Ungaxhumana nami nge email ku; [mulalopretty@gmail.com](mailto:mulalopretty@gmail.com) noma enombolweni yocingo ethi 0711540274.

Uyamenywa ukuze ube yingxenywe yocwaningo olumayelana nokubheka umthelela wezobudlelwano ekwenzeni izinqumo kwabantu besifazane. Lolu cwaningo kulindeleke ukuthi lubandakanye abantu abababalelwa emakhulwini amabili (200) eMgungundlovu, KwaZulu Natali. Ucwaningo luzosebenzisa uhla lwemibuzo abantu abazoziphendulela kuyo. Lemibuzo kulindeleke ukuthi abantu bachithe isikhathi esingevile kwesiyimizuzu engamashumi amathathu (30 minutes) uma beyiphendula.

Ukuba yingxenywe yalolucwaningo akuphoqelekile, kufuneka umuntu angene ngoba ezithandela. Abantu abazoba yingxenywe yalolucwaningo angeke bakhohliswe noma baphoqeletwe ukuba yingxenywe yalo. Kanti futhi bane lungelo lokushiya ucwaningo noma inini ngaphandle kokujeziswa.

Ekwenzeni lolu cwaningo, igama lakho angeke lidalulwe ukuze u vikeleke. Angeke udalule imininingwane yakho ohlwini lwemibuzo. Izimpendulo ozozinika kulolu cwaningo angeke zidluliselwe kwabanye abantu ngaphandle kwemvume yakho. Imiphumela yalolu cwaningo angeke idalule imininingwane yakho. Ilungelo lakho lemfi hlo lizogcinwa ngasosonke isikhathi, ngaphandle kwezigameko eziveza ukunukubezeka kwabantwana noma ukuthi uyingozi kwabanye abantu. Ucwaningo luzosebenzisa ukufingqwa ohlwini lwemibuzo ephenduliwe, lokhu kuzokwenzelwa ukuqinisekiswa ukuba ucwaningo alukudaluli. Imphumelelo yalolucwaningo izogcinwa kuGoogle drive, ngaleyondlela yimina nomphathi

wami esizoba nemvume yokuwabona. Imphumela yocwaningo iyokhishwa kahle ucwaningo seluphelile.

Akukho okubonakala kuyingozi ngalolu cwaningo. Ayikho inzuzo ebekelwe labo abazoba yingxenye yocwaningo. Lolu cwaningo kulindeleke ukuthi lusize ekuthuthukiseni ulwazi mayelana nemithelela yobudlelwano ekwenzeni izinqumo kwabesifazane. Lolu cwaningo kulindeleke ukuba lukwazi ukudonsa usizo kwezokuthuthukiswa kwabantu besifazane bakwazi ukuzenzela izinqumo ezintweni ezifana nocwaningo olubheka umgomo wokuvikelwa kwabesifazane nabesilisa egciwaneni lesandulela ngculazi (HIV vaccine trial). Lolu cwaningo lugunyazwe I UKZN Humanities and Social Sciences Research Ethics Committee (Inombolo yokugunyaza.....).

Uma unemibuzo noma iziphakamiso ungaxhumana nomcwaningi nge email; [mulalopretty@gmail.com](mailto:mulalopretty@gmail.com) noma I UKZN Humanities & Social Sciences Research Ethics Committee kuleminingwane elandelayo:

## HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

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Ucingo: 031 260 4557

Iskhahlamezi: 031 260 4609

Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za)

Ukuvuma ukuba yingxenye yocwaningo

Mina (Igama) ngazisiwe ngo cwaningo olumayelana nomthelela wobudlelwano ekwenzeni izinqumo kwabantu besifazane esifundazweni saKwaZulu Natali oluzokwenziwa ngumcwaningi uMulalo Mashamba.

Ngiyayiqonda injongo yocwaningo kanye nendlela oluzokwenziwa ngayo. Nginikeziwe ithuba lokubuza imibuzo mayelana nocwaningo, nezimpendulo engizitholile zinganelisile. Ngiyavuma ukuthi ukuba yingxenye kwami kulolu cwaningo akuphoqiwe, kungukuzikhethela kwami. Ngingahoxa ocwaningweni noma yinini ngaphandle kokufuna inzuzo.

Ngazisiwe ngosizo oluphuthumayo ezimweni zokulimala noma ukuhlukumezeka okuwumphumela wocwaningo.

Uma nginemibuzo mayelana nocwaningo, ngiyaqonda ukuthi kufanele ngixhumane no mcwaningi nge email ethi: [mulalopretty@gmail.com](mailto:mulalopretty@gmail.com)

Uma nginemibuzo noma izikhalazo mayelana namalungelo ami njenge ngxenye yocwaningo kufuneka ngixhumane ne sigungu I HSSREC kule mininingwane elandelayo:

## **HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION**

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**Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za)**

\_\_\_\_\_ **isiginesha yomhlanganyeli**

\_\_\_\_\_ **Usuku**

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**Usuku**

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**ukusayina kofakazi**

---

**Usuku**

---

**ukushicelela kuka tolika**

## Appendix D: Questionnaire

SECTION A (Tick the correct answer where there are brackets)

1. Date: (dd/mm/yyyy)-----
2. Where do you live in Pietermaritzburg?
3. How old are you? Tick one Age range (tick one) 1=Between 18 and 30 years old ( )  
2= Between 31 and 40 years old ( )  
3=Between 41 and 50 years old ( )  
4= Between 51 and 60 years old ( )  
5= Above 61 years old ( )
4. Are you employed? 1=yes ( ) 2=NO ( )
5. Are you self-employed? 1
6. What is your marital status? 1=single ( ), 2=married ( ), 3=single parent ( ), 4=divorcee ( ) 5=widow ( ) (Tick one)
7. What is your highest completed level of education? (Tick one)  
1=None ( )  
2=Primary school ( )  
3=Secondary school ( )  
4=Vocational training ( )  
5=University ( ) ?

SECTION B (Tick the correct answer)

1. If you were asked by some research scientists to participate (as an experimental participant) in their health research would you first consult your husband? I=yes ( ) 2=NO ( )
2. If your spouse's views were different from your own with regard to your participation (even after you have explained your viewpoint) would you go

ahead and do what you think is right? I=yes ( ) 2=N0 ( )

3. What is the basis for your answers in B 1 and B 2 above?
- 1=religious beliefs ( )
  - 2=cultural/traditional beliefs ( )
  - 3=both (1) and (2) ( )
  - 4=self-determination ( )
  - 5=Other ( )
4. What is the most likely consequence of going against your spouse's opinion?
- 1=Emotional punishment like scolding ( ) 2=Economical punishment like withdrawal of financial support ( )
  - 3=Physical punishment like beating ( )
  - 4=Divorce ( )
  - 5= Other ( )
  - specify.....
  - 6= No punishment at all ( )
5. Out of all your relatives, who would you consult about your participation in the health research? You may consult more than one, but who would you consider to be the most important to consult?
- 1—Parent(s)
  - 2=Aunt(s)
  - 3=Sister(s)
  - 4=Brother(s)
  - 5=Uncle(s)
  - 6=Your Children
  - 7=In-laws
  - 8=Other ( ) Specify.....
  - 9=None
6. If your relatives' views were different from your own with regard to your participation (even after you have explained your viewpoint) would you be prepared to go against them?

YES=1 N0=2

7. What is the basis for your answers in B 5 and B 6 above?

1=religious beliefs      2=cultural/traditional beliefs

3=both (1) and (2)

4=self-determination

5=Other

Specify: .....

8. What is the most likely consequence of going against your relatives' opinion?

1=Emotional punishment like scolding ( )

2=Economical punishment like withdrawal of financial support ( )

3=Physical punishment like beating ( )

4=Divorce due to their influence on your husband ( ) 5=

Other ( )

Specify.....

~~6~~=No punishment at all ( )

9. If you participated in the health research against your husband's opinion, would you want your participation to be kept secret?

Yes ( ) No ( )

10. If you participated in the health research against the following relatives' opinions, who would you NOT want to know about your participation?

1.Parents ( )

2=Aunt(s) ( )

3=Sister(s) ( )      o

4=Brother(s) ( )

5. Uncles ( )

6=Your Children ( )

7=In-laws ( )

8=Other ( )

Specify:.....

9=None

11. What do you think could be done by researchers to make it possible for women to make autonomous decisions whether or not to participate in health research? May you explain.

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END. THANK YOU FOR YOUR TIME AND COOPERATION

Questionnaire: IsiZulu

ISIQEPHU SOKUQALA (Khetha impendulo okuyiyona yona kubakaki, ufake uqwhi)

1. Usuku: (usuku/inyanga/unyaka)
2. Uhlala kuphi noMgungundlovu?
3. Uneminyaka emingaki? Khetha kuleminyaka ebhalwe ngezansi (khetha kowodwa)

1= Phakathi kweminyaka eyishumi nesishiya galombili (18) kweya kwengama shumi amathathu (30) - ( )

2= Phakathi kweminyaka enigma shame amathathu nanny (31) nengamashumi mane (40)- ( )

3=Phakathi kweminyaka engamashumi mane nanny (41) kuya kwengamashumi amahlanu (50) - ( )

4= Phakathi kweminyaka engamashumi amahlanu nanye kuya kwengamashumi ayisithupha (60)- ( )

5= Phakathi kweminyaka engamashumi ayisithupha nanye kuya phezulu (61)- ( )

4. Uyasebenza? 1=yebo ( ) 2=Cha ( )

5. Uyazisebenza?

6. What is your marital status? 1=Awushadile ( ), 2=Ushadile ( ), 3= Ungumzali ongayedwana ( ), 4=Wehlukanisile ( ) 5=Washonelwa umyeni ( ) (Khetha okukodwa)

7. Yiliphi ibanga lemfundo ogcine kulo? (khetha okukodwa)

1=Akaze ufunde ( )

2=Imfundo yamabanga aphansi ( )

3=Umatikulethseni ( )

4= Ukuqeqeshelwa  
amakhono()

5=Isikhungo sezemfundo  
ephakeme- Inyuvesi ( ) ?

Isiqephu sesibili (Khetha impendulo okuyiyona yona)

1. Uma ungelwa umcwaningi ukuba ube yingxenywe yocwaningo lwezempilo, ingabe ungelwa imvume kumyeni wakho kuqala? 1- Yebo( ) 2- Cha ( ).
2. Uma umlingani wakho enovo oluhlukile kunolwakho mayelana nokuba yingxenywe yakho kucwaningo (ngisho usumchazele umbono wakho) ungelhubeka ube yingxenywe yocwaningo/ wenze lokhu okubona kulungile? 1- Yebo ( ) 2- Cha ( ).
3. Ingabe siyini isizathu sezimpendulo zakho ezingenhla uB1 no B2?

1= Ezenkolo

2= Izinkolelo zesintu noma  
isiko mpilo

3= Yikho kokubili  
okungenhla u1 no 2

4= Ukuzikhethela  
okungahlangene nalutho

5= Okunye

4.

4. Ikuphi okungenzeka ngokwenza okungahambelani nomlingani wakho?

1= Ukujeziswa ngokomphefumulo kanjengoku thethiswa?( )

2= Ukujeziswa ngokwezimali kanjengoknganikwa imali? ( )

3= Ukujeziswa ngokubekwa isandla?( )

4= Isehlukaniso?( )

5= Okunye?( )

Cacisa- kungaba yini?

6= Ngeke ujeze nhlobo?( )

5. Kuzo zonke izihlobo zakho, ubani ongakhuluma naye mayelana nokuzibandakanya kwakho ocwaningweni lwezempilo? Kunokwenzeka ukhulume nabaningi kodwa ubani lona okusemqoka ukuthi umkhethe kwabaningi?

1= Umzali/ Abazali

2= UAnti/ umamncane

3= Udadewenu

4= Umfowenu

5= Umalume/

ubabomncane

6= Abantwana/ Umtwana wakho

7= Abantu basemzini

8= Abanye- Cacisa

9= Akekho

6. Uma izihlobo zakho zinombono ohlukile mayelana nokuzibandakanya kucwaningo lwezempilo (noma usuzichazele ngombono wakho) ungaqhubeka wenze okubona kulungile, okungahambelani nabo?

1= Yebo 2= Cha

7. Ingabe siyini isizathu sezimpendulo zakho ezingenhla uB5 no B6?

1= Ezenkolo

2=Izinkolelo zesintu noma isiko mpilo

3=Yikho kokubili u 1 no 2

4= Ukuphokophela kwakho

5=Okunye

Cacisa: .....

8. Ikuphi okungenzeka Uma wens okuphambene nombono wezihlobo zakho?

1=Ukujeziswa ngokomphefumulo kanjengoku thethiswa( )

2= Ukujeziswa ngokwezimali, unganikwa imali ( )

3= Ukujeziswa ngokubekwa isandla( )

4= Isehlukano ngenxa yomthelela wezihlobo zakho kumyeni wakho ( )

5= Okunye ( )

Cacisa.....

Angeke ujeze nhlobo ( )

9. Uma untava yingxenye yocwaningo lwezempilo yize umyeni wakho engahambisani nalokho, ungakhetha ukuthi ukuzibandakanya kwakho kube yimfihlo?

1=Yebo ( ) 2=Cha ( )

10. Uma ungaba yingxenye yocwaningo lwezempilo noma lezi zihlobo ezilandelayo zingavumelani nalokho, ubani ONGEKE wafuna ukuthi azi ngalokho?

1=Abazali ( )

2= UAnti/  
Umamncane

Udadewenu

4= Umfowenu ( )

5= Umalume/ Ubaba omncane ( )

6=Umtwana/ Abantwana bakho ( )

7=Abasemzini ( )

8=Abanye ( )

Cacisa:.....

9=Akekho

11. Yini ocabanga ukuthi ingenziwa abacwaningi ukuze abantu besifazane bekwazi ukuzithathela izinqumo ngokwabo mayelana nokuba yingxenye yocwaningo lwezempilo? Chaza ngamafuphi.

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Ekugcineni. Ngiyabonga kakhulu ngesikhathi sakho nokuzinikela kwakho.

## Appendix E: SPSS Output

### 1. Descriptive statistics

#### *Statistics*

		Education level	Age	Employment status	Marital status
N	Valid	103	103	103	103
	Missing	0	0	0	0

#### *Age*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	39	37.9	37.9	37.9
	31-40	23	22.3	22.3	60.2
	41-50	28	27.2	27.2	87.4
	51-60	13	12.6	12.6	100.0
	Total	103	100.0	100.0	

#### *Employment status*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	16.5	16.5	16.5
	No	66	64.1	64.1	80.6
	Self-employed	20	19.4	19.4	100.0
	Total	103	100.0	100.0	

*Marital status*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	24	23.3	23.3	23.3
	Married	29	28.2	28.2	51.5
	Single-parent	32	31.1	31.1	82.5
	Divorcee	7	6.8	6.8	89.3
	Widow	11	10.7	10.7	100.0
	Total	103	100.0	100.0	

**2. Crosstabulations and Chi-square tests**

**Age \* q1**

*Crosstab*

		q1		Total	
		Yes	No		
Age	18-30	Count	10	29	39
		Expected Count	17.4	21.6	39.0
		% within Age	25.6%	74.4%	100.0%
		% within q1	21.7%	50.9%	37.9%
		% of Total	9.7%	28.2%	37.9%
31-40	Count	10	13	23	
	Expected Count	10.3	12.7	23.0	
	% within Age	43.5%	56.5%	100.0%	
	% within q1	21.7%	22.8%	22.3%	
	% of Total	9.7%	12.6%	22.3%	
41-50	Count	15	13	28	
	Expected Count	12.5	15.5	28.0	
	% within Age	53.6%	46.4%	100.0%	
	% within q1	32.6%	22.8%	27.2%	
	% of Total	14.6%	12.6%	27.2%	
51-60	Count	11	2	13	

*Crosstab*

	Expected Count	5.8	7.2	13.0
	% within Age	84.6%	15.4%	100.0%
	% within q1	23.9%	3.5%	12.6%
	% of Total	10.7%	1.9%	12.6%
<b>Total</b>	Count	46	57	103
	Expected Count	46.0	57.0	103.0
	% within Age	44.7%	55.3%	100.0%
	% within q1	100.0%	100.0%	100.0%
	% of Total	44.7%	55.3%	100.0%

**Age \* q2**

*Crosstab*

		q2		Total	
		Yes	No		
Age	18-30	Count	26	13	39
		Expected Count	23.1	15.9	39.0
		% within Age	66.7%	33.3%	100.0%
		% within q2	42.6%	31.0%	37.9%
		% of Total	25.2%	12.6%	37.9%
31-40	Count	16	7	23	
	Expected Count	13.6	9.4	23.0	
	% within Age	69.6%	30.4%	100.0%	
	% within q2	26.2%	16.7%	22.3%	
	% of Total	15.5%	6.8%	22.3%	
41-50	Count	13	15	28	
	Expected Count	16.6	11.4	28.0	
	% within Age	46.4%	53.6%	100.0%	
	% within q2	21.3%	35.7%	27.2%	
	% of Total	12.6%	14.6%	27.2%	
51-60	Count	6	7	13	

	Expected Count	7.7	5.3	13.0
	% within Age	46.2%	53.8%	100.0%
	% within q2	9.8%	16.7%	12.6%
	% of Total	5.8%	6.8%	12.6%
Total	Count	61	42	103
	Expected Count	61.0	42.0	103.0
	% within Age	59.2%	40.8%	100.0%
	% within q2	100.0%	100.0%	100.0%
	% of Total	59.2%	40.8%	100.0%

### *Chi-Square Tests*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.731 <sup>a</sup>	3	.193
Likelihood Ratio	4.730	3	.193
Linear-by-Linear Association	3.429	1	.064
N of Valid Cases	103		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.30.

### *Symmetric Measures*

	Value	Approximate Significance
Nominal by Nominal		
Phi	.214	.193
Cramer's V	.214	.193
Contingency Coefficient	.210	.193
N of Valid Cases	103	

Age \* q3

Crosstab

		q3					
		Cultural/religious beliefs	traditional beliefs	Both (1) and (2)	Self-determination	Other	Total
Age 18-30	Count	6	5	6	20	2	39
	Expected	4.2	5.7	8.0	19.7	1.5	39.0
	Count						
	% within Age	15.4%	12.8%	15.4%	51.3%	5.1%	100.0%
	% within q3	54.5%	33.3%	28.6%	38.5%	50.0%	37.9%
	% of Total	5.8%	4.9%	5.8%	19.4%	1.9%	37.9%
31-40	Count	0	5	4	12	2	23
	Expected	2.5	3.3	4.7	11.6	.9	23.0
	Count						
	% within Age	0.0%	21.7%	17.4%	52.2%	8.7%	100.0%
	% within q3	0.0%	33.3%	19.0%	23.1%	50.0%	22.3%
	% of Total	0.0%	4.9%	3.9%	11.7%	1.9%	22.3%
41-50	Count	3	3	7	15	0	28
	Expected	3.0	4.1	5.7	14.1	1.1	28.0
	Count						
	% within Age	10.7%	10.7%	25.0%	53.6%	0.0%	100.0%
	% within q3	27.3%	20.0%	33.3%	28.8%	0.0%	27.2%
	% of Total	2.9%	2.9%	6.8%	14.6%	0.0%	27.2%
51-60	Count	2	2	4	5	0	13
	Expected	1.4	1.9	2.7	6.6	.5	13.0
	Count						
	% within Age	15.4%	15.4%	30.8%	38.5%	0.0%	100.0%

	% within q3	18.2%	13.3%	19.0%	9.6%	0.0%	12.6%
	% of Total	1.9%	1.9%	3.9%	4.9%	0.0%	12.6%
Total	Count	11	15	21	52	4	103
	Expected	11.0	15.0	21.0	52.0	4.0	103.0
	Count						
	% within Age	10.7%	14.6%	20.4%	50.5%	3.9%	100.0%
	% within q3	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	10.7%	14.6%	20.4%	50.5%	3.9%	100.0%

### Age \* q4

Crosstab

		q4							
		Emotional punishment	Economic punishment	Physical punishment	Divorce	No punishment at all	Other	Total	
Age	18-30	Count	3	11	3	3	1	18	39
		Expected	6.1	7.6	5.7	1.9	2.3	15.5	39.0
		Count							
		% within Age	7.7%	28.2%	7.7%	7.7%	2.6%	46.2%	100.0%
		% within q4	18.8%	55.0%	20.0%	60.0%	16.7%	43.9%	37.9%
		% of Total	2.9%	10.7%	2.9%	2.9%	1.0%	17.5%	37.9%
Age	31-40	Count	6	2	4	0	3	8	23
		Expected	3.6	4.5	3.3	1.1	1.3	9.2	23.0
		Count							
		% within Age	26.1%	8.7%	17.4%	0.0%	13.0%	34.8%	100.0%
		% within q4	37.5%	10.0%	26.7%	0.0%	50.0%	19.5%	22.3%
		% of Total							

	% of Total	5.8%	1.9%	3.9%	0.0%	2.9%	7.8%	22.3%
41-	Count	5	5	5	0	2	11	28
50	Expected	4.3	5.4	4.1	1.4	1.6	11.1	28.0
	Count							
	% within	17.9%	17.9%	17.9%	0.0%	7.1%	39.3%	100.0
	Age							%
	% within q4	31.3%	25.0%	33.3%	0.0%	33.3%	26.8%	27.2%
	% of Total	4.9%	4.9%	4.9%	0.0%	1.9%	10.7%	27.2%
51-	Count	2	2	3	2	0	4	13
60	Expected	2.0	2.5	1.9	.6	.8	5.2	13.0
	Count							
	% within	15.4%	15.4%	23.1%	15.4%	0.0%	30.8%	100.0
	Age							%
	% within q4	12.5%	10.0%	20.0%	40.0%	0.0%	9.8%	12.6%
	% of Total	1.9%	1.9%	2.9%	1.9%	0.0%	3.9%	12.6%
Total	Count	16	20	15	5	6	41	103
	Expected	16.0	20.0	15.0	5.0	6.0	41.0	103.0
	Count							
	% within	15.5%	19.4%	14.6%	4.9%	5.8%	39.8%	100.0
	Age							%
	% within q4	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0
					%	%		%
	% of Total	15.5%	19.4%	14.6%	4.9%	5.8%	39.8%	100.0
								%

**Age \* q5**

*Crosstab*

q5

	Aunt(s)	Sister(s)	
Parent(s and	Uncle(s)	and	Brother(s
)		Childre	n
		In-	laws
		None	Total

Age 18-30	Count	13	2	6	0	2	16	39
	Expected	6.1	1.9	2.7	3.0	8.3	17.0	39.0
	Count							
	% within Age	33.3%	5.1%	15.4%	0.0%	5.1%	41.0%	100.0%
	% within q5	81.3%	40.0%	85.7%	0.0%	9.1%	35.6%	37.9%
	% of Total	12.6%	1.9%	5.8%	0.0%	1.9%	15.5%	37.9%
31-40	Count	2	1	1	1	4	14	23
	Expected	3.6	1.1	1.6	1.8	4.9	10.0	23.0
	Count							
	% within Age	8.7%	4.3%	4.3%	4.3%	17.4%	60.9%	100.0%
	% within q5	12.5%	20.0%	14.3%	12.5%	18.2%	31.1%	22.3%
	% of Total	1.9%	1.0%	1.0%	1.0%	3.9%	13.6%	22.3%
41-50	Count	1	1	0	6	11	9	28
	Expected	4.3	1.4	1.9	2.2	6.0	12.2	28.0
	Count							
	% within Age	3.6%	3.6%	0.0%	21.4%	39.3%	32.1%	100.0%
	% within q5	6.3%	20.0%	0.0%	75.0%	50.0%	20.0%	27.2%
	% of Total	1.0%	1.0%	0.0%	5.8%	10.7%	8.7%	27.2%
51-60	Count	0	1	0	1	5	6	13
	Expected	2.0	.6	.9	1.0	2.8	5.7	13.0
	Count							
	% within Age	0.0%	7.7%	0.0%	7.7%	38.5%	46.2%	100.0%
	% within q5	0.0%	20.0%	0.0%	12.5%	22.7%	13.3%	12.6%
	% of Total	0.0%	1.0%	0.0%	1.0%	4.9%	5.8%	12.6%
Total	Count	16	5	7	8	22	45	103
	Expected	16.0	5.0	7.0	8.0	22.0	45.0	103.0
	Count							

% within Age	15.5%	4.9%	6.8%	7.8%	21.4%	43.7%	100.0%
							%
% within q5	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
				%	%	%	%
% of Total	15.5%	4.9%	6.8%	7.8%	21.4%	43.7%	100.0%
							%

### Age \* q6

#### Crosstab

		q6			
		Yes	No	Total	
Age	18-30	Count	22	17	39
		Expected Count	25.0	14.0	39.0
		% within Age	56.4%	43.6%	100.0%
		% within q6	33.3%	45.9%	37.9%
		% of Total	21.4%	16.5%	37.9%
31-40	Count	18	5	23	
		Expected Count	14.7	8.3	23.0
		% within Age	78.3%	21.7%	100.0%
		% within q6	27.3%	13.5%	22.3%
		% of Total	17.5%	4.9%	22.3%
41-50	Count	17	11	28	
		Expected Count	17.9	10.1	28.0
		% within Age	60.7%	39.3%	100.0%
		% within q6	25.8%	29.7%	27.2%
		% of Total	16.5%	10.7%	27.2%
51-60	Count	9	4	13	
		Expected Count	8.3	4.7	13.0
		% within Age	69.2%	30.8%	100.0%
		% within q6	13.6%	10.8%	12.6%
		% of Total	8.7%	3.9%	12.6%

Total	Count	66	37	103
	Expected Count	66.0	37.0	103.0
	% within Age	64.1%	35.9%	100.0%
	% within q6	100.0%	100.0%	100.0%
	% of Total	64.1%	35.9%	100.0%

**Age \* q7**

*Crosstab*

		q7					
		Religious beliefs	Cultural/traditional beliefs	Both and (2)	Self-(1) determination	Other	Total
Age 18-30	Count	3	13	1	22	0	39
	Expected Count	3.0	8.0	2.3	25.0	.8	39.0
	% within Age	7.7%	33.3%	2.6%	56.4%	0.0%	100.0%
	% within q7	37.5%	61.9%	16.7%	33.3%	0.0%	37.9%
	% of Total	2.9%	12.6%	1.0%	21.4%	0.0%	37.9%
31-40	Count	1	1	2	19	0	23
	Expected Count	1.8	4.7	1.3	14.7	.4	23.0
	% within Age	4.3%	4.3%	8.7%	82.6%	0.0%	100.0%
	% within q7	12.5%	4.8%	33.3%	28.8%	0.0%	22.3%
	% of Total	1.0%	1.0%	1.9%	18.4%	0.0%	22.3%
41-50	Count	2	4	3	17	2	28
	Expected Count	2.2	5.7	1.6	17.9	.5	28.0
	% within Age	7.1%	14.3%	10.7%	60.7%	7.1%	100.0%
							%

	% within q7	25.0%	19.0%	50.0%	25.8%	100.0%	27.2%
	% of Total	1.9%	3.9%	2.9%	16.5%	1.9%	27.2%
51-60	Count	2	3	0	8	0	13
	Expected	1.0	2.7	.8	8.3	.3	13.0
	Count						
	% within Age	15.4%	23.1%	0.0%	61.5%	0.0%	100.0%
	% within q7	25.0%	14.3%	0.0%	12.1%	0.0%	12.6%
	% of Total	1.9%	2.9%	0.0%	7.8%	0.0%	12.6%
Total	Count	8	21	6	66	2	103
	Expected	8.0	21.0	6.0	66.0	2.0	103.0
	Count						
	% within Age	7.8%	20.4%	5.8%	64.1%	1.9%	100.0%
	% within q7	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	7.8%	20.4%	5.8%	64.1%	1.9%	100.0%

### Age \* q8

#### Crosstab

		q8				
		Emotional punishment	Economical punishment	No punishment at all		
					Total	
Age	18-30	Count	15	2	22	39
		Expected Count	11.4	1.9	25.7	39.0
		% within Age	38.5%	5.1%	56.4%	100.0%
		% within q8	50.0%	40.0%	32.4%	37.9%
		% of Total	14.6%	1.9%	21.4%	37.9%

31-40	Count	3	2	18	23
	Expected Count	6.7	1.1	15.2	23.0
	% within Age	13.0%	8.7%	78.3%	100.0%
	% within q8	10.0%	40.0%	26.5%	22.3%
	% of Total	2.9%	1.9%	17.5%	22.3%
41-50	Count	9	1	18	28
	Expected Count	8.2	1.4	18.5	28.0
	% within Age	32.1%	3.6%	64.3%	100.0%
	% within q8	30.0%	20.0%	26.5%	27.2%
	% of Total	8.7%	1.0%	17.5%	27.2%
51-60	Count	3	0	10	13
	Expected Count	3.8	.6	8.6	13.0
	% within Age	23.1%	0.0%	76.9%	100.0%
	% within q8	10.0%	0.0%	14.7%	12.6%
	% of Total	2.9%	0.0%	9.7%	12.6%
Total	Count	30	5	68	103
	Expected Count	30.0	5.0	68.0	103.0
	% within Age	29.1%	4.9%	66.0%	100.0%
	% within q8	100.0%	100.0%	100.0%	100.0%
	% of Total	29.1%	4.9%	66.0%	100.0%

### Age \* q9

*Crosstab*

		q9		Total	
		Yes	No		
Age	18-30	Count	24	15	39
		Expected Count	21.6	17.4	39.0
		% within Age	61.5%	38.5%	100.0%
		% within q9	42.1%	32.6%	37.9%
		% of Total	23.3%	14.6%	37.9%

31-40	Count	9	14	23
	Expected Count	12.7	10.3	23.0
	% within Age	39.1%	60.9%	100.0%
	% within q9	15.8%	30.4%	22.3%
	% of Total	8.7%	13.6%	22.3%
41-50	Count	14	14	28
	Expected Count	15.5	12.5	28.0
	% within Age	50.0%	50.0%	100.0%
	% within q9	24.6%	30.4%	27.2%
	% of Total	13.6%	13.6%	27.2%
51-60	Count	10	3	13
	Expected Count	7.2	5.8	13.0
	% within Age	76.9%	23.1%	100.0%
	% within q9	17.5%	6.5%	12.6%
	% of Total	9.7%	2.9%	12.6%
Total	Count	57	46	103
	Expected Count	57.0	46.0	103.0
	% within Age	55.3%	44.7%	100.0%
	% within q9	100.0%	100.0%	100.0%
	% of Total	55.3%	44.7%	100.0%

### Age \* q10

Crosstab

		q10						
		Aunt(s) and Parent(s) Uncle(s)		Sister(s) and Brother(s) In-laws		None	Total	
Age	18-30	Count	11	3	4	1	20	39
		Expected Count	4.5	2.3	1.9	4.9	25.4	39.0

	% within Age	28.2%	7.7%	10.3%	2.6%	51.3%	100.0%
	% within q10	91.7%	50.0%	80.0%	7.7%	29.9%	37.9%
	% of Total	10.7%	2.9%	3.9%	1.0%	19.4%	37.9%
31-40	Count	0	2	1	1	19	23
	Expected	2.7	1.3	1.1	2.9	15.0	23.0
	Count						
	% within Age	0.0%	8.7%	4.3%	4.3%	82.6%	100.0%
	% within q10	0.0%	33.3%	20.0%	7.7%	28.4%	22.3%
	% of Total	0.0%	1.9%	1.0%	1.0%	18.4%	22.3%
41-50	Count	1	0	0	7	20	28
	Expected	3.3	1.6	1.4	3.5	18.2	28.0
	Count						
	% within Age	3.6%	0.0%	0.0%	25.0%	71.4%	100.0%
	% within q10	8.3%	0.0%	0.0%	53.8%	29.9%	27.2%
	% of Total	1.0%	0.0%	0.0%	6.8%	19.4%	27.2%
51-60	Count	0	1	0	4	8	13
	Expected	1.5	.8	.6	1.6	8.5	13.0
	Count						
	% within Age	0.0%	7.7%	0.0%	30.8%	61.5%	100.0%
	% within q10	0.0%	16.7%	0.0%	30.8%	11.9%	12.6%
	% of Total	0.0%	1.0%	0.0%	3.9%	7.8%	12.6%
Total	Count	12	6	5	13	67	103
	Expected	12.0	6.0	5.0	13.0	67.0	103.0
	Count						
	% within Age	11.7%	5.8%	4.9%	12.6%	65.0%	100.0%
	% within q10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	11.7%	5.8%	4.9%	12.6%	65.0%	100.0%

**Employment status \* q1**

*Crosstab*

	q1	Total
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		Yes	No		
Employment status	Yes	Count	9	8	17
		Expected Count	7.6	9.4	17.0
		% within	52.9%	47.1%	100.0%
		Employment status			
		% within q1	19.6%	14.0%	16.5%
		% of Total	8.7%	7.8%	16.5%
No		Count	29	37	66
		Expected Count	29.5	36.5	66.0
		% within	43.9%	56.1%	100.0%
		Employment status			
		% within q1	63.0%	64.9%	64.1%
		% of Total	28.2%	35.9%	64.1%
Self-employed		Count	8	12	20
		Expected Count	8.9	11.1	20.0
		% within	40.0%	60.0%	100.0%
		Employment status			
		% within q1	17.4%	21.1%	19.4%
		% of Total	7.8%	11.7%	19.4%
Total		Count	46	57	103
		Expected Count	46.0	57.0	103.0
		% within	44.7%	55.3%	100.0%
		Employment status			
		% within q1	100.0%	100.0%	100.0%
		% of Total	44.7%	55.3%	100.0%

**Employment status \* q2**

*Crosstab*

		q2		
		Yes	No	Total

Employment status	Yes	Count	11	6	17
		Expected Count	10.1	6.9	17.0
		% within	64.7%	35.3%	100.0%
		Employment status			
		% within q2	18.0%	14.3%	16.5%
		% of Total	10.7%	5.8%	16.5%
No		Count	36	30	66
		Expected Count	39.1	26.9	66.0
		% within	54.5%	45.5%	100.0%
		Employment status			
		% within q2	59.0%	71.4%	64.1%
		% of Total	35.0%	29.1%	64.1%
Self-employed		Count	14	6	20
		Expected Count	11.8	8.2	20.0
		% within	70.0%	30.0%	100.0%
		Employment status			
		% within q2	23.0%	14.3%	19.4%
		% of Total	13.6%	5.8%	19.4%
Total		Count	61	42	103
		Expected Count	61.0	42.0	103.0
		% within	59.2%	40.8%	100.0%
		Employment status			
		% within q2	100.0%	100.0%	100.0%
		% of Total	59.2%	40.8%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.771 <sup>a</sup>	2	.412
Likelihood Ratio	1.805	2	.406

Linear-by-Linear Association	.166	1	.683
N of Valid Cases	103		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.93.

*Symmetric Measures*

		Value	Approximate Significance
Nominal by Nominal	Phi	.131	.412
	Cramer's V	.131	.412
	Contingency Coefficient	.130	.412
	N of Valid Cases	103	

**Employment status \* q3**

*Crosstab*

		q3						
		Cultural/religious beliefs		Both (1) and (2)	Self-determination	Other	Total	
Employment status	Yes	Count	1	1	2	11	2	17
		Expected	1.8	2.5	3.5	8.6	.7	17.0
		Count						
		% within Employment status	5.9%	5.9%	11.8%	64.7%	11.8%	100.0%
		% within q3	9.1%	6.7%	9.5%	21.2%	50.0%	16.5%
		% of Total	1.0%	1.0%	1.9%	10.7%	1.9%	16.5%

No	Count	10	10	15	29	2	66
	Expected	7.0	9.6	13.5	33.3	2.6	66.0
	Count						
	% within	15.2%	15.2%	22.7%	43.9%	3.0%	100.0
	Employment status						%
	% within q3	90.9%	66.7%	71.4%	55.8%	50.0	64.1
	% of Total	9.7%	9.7%	14.6%	28.2%	1.9%	64.1
							%
Self-employed	Count	0	4	4	12	0	20
	Expected	2.1	2.9	4.1	10.1	.8	20.0
	Count						
	% within	0.0%	20.0%	20.0%	60.0%	0.0%	100.0
	Employment status						%
	% within q3	0.0%	26.7%	19.0%	23.1%	0.0%	19.4
	% of Total	0.0%	3.9%	3.9%	11.7%	0.0%	19.4
							%
Total	Count	11	15	21	52	4	103
	Expected	11.0	15.0	21.0	52.0	4.0	103.0
	Count						
	% within	10.7%	14.6%	20.4%	50.5%	3.9%	100.0
	Employment status						%
	% within q3	100.0%	100.0%	100.0%	100.0%	100.0	100.0
	% of Total	10.7%	14.6%	20.4%	50.5%	3.9%	100.0
							%

**Employment status \* q4**

Crosstab

			q4						
			Emotio nal punish ment	Econo mical punish ment	Physic al punish ment		No punish ment at all		Total
Employment status	Yes	Count	5	0	0	0	2	10	17
		Expected	2.6	3.3	2.5	.8	1.0	6.8	17.0
		Count							
		% within Employment status	29.4%	0.0%	0.0%	0.0%	11.8%	58.8%	100.0%
		% within q4	31.3%	0.0%	0.0%	0.0%	33.3%	24.4%	16.5%
		% of Total	4.9%	0.0%	0.0%	0.0%	1.9%	9.7%	16.5%
No		Count	7	18	12	4	3	22	66
		Expected	10.3	12.8	9.6	3.2	3.8	26.3	66.0
		Count							
		% within Employment status	10.6%	27.3%	18.2%	6.1%	4.5%	33.3%	100.0%
		% within q4	43.8%	90.0%	80.0%	80.0%	50.0%	53.7%	64.1%
		% of Total	6.8%	17.5%	11.7%	3.9%	2.9%	21.4%	64.1%
Self-employed		Count	4	2	3	1	1	9	20
		Expected	3.1	3.9	2.9	1.0	1.2	8.0	20.0
		Count							
		% within Employment status	20.0%	10.0%	15.0%	5.0%	5.0%	45.0%	100.0%

	% within q4	25.0%	10.0%	20.0%	20.0%	16.7%	22.0%	19.4%
	% of Total	3.9%	1.9%	2.9%	1.0%	1.0%	8.7%	19.4%
Total	Count	16	20	15	5	6	41	103
	Expected	16.0	20.0	15.0	5.0	6.0	41.0	103.0
	Count							0
	% within Employment status	15.5%	19.4%	14.6%	4.9%	5.8%	39.8%	100.0%
	% within q4	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	15.5%	19.4%	14.6%	4.9%	5.8%	39.8%	100.0%

**Employment status \* q5**

*Crosstab*

		q5							
		Parent(s)	Aunt(s) and Uncle(s)	Sister(s) and Brother(s)	Child ren	In-laws	None	Total	
Employment status	Yes	Count	1	1	0	0	5	10	17
		Expected	2.6	.8	1.2	1.3	3.6	7.4	17.0
		Count							
		% within Employment status	5.9%	5.9%	0.0%	0.0%	29.4%	58.8%	100.0%
		% within q5	6.3%	20.0%	0.0%	0.0%	22.7%	22.2%	16.5%

	% of Total	1.0%	1.0%	0.0%	0.0%	4.9%	9.7%	16.5%
No	Count	12	3	6	6	15	24	66
	Expected	10.3	3.2	4.5	5.1	14.1	28.8	66.0
	Count							
	% within	18.2%	4.5%	9.1%	9.1%	22.7%	36.4%	100.0%
	Employment status							
	% within q5	75.0%	60.0%	85.7%	75.0%	68.2%	53.3%	64.1%
	% of Total	11.7%	2.9%	5.8%	5.8%	14.6%	23.3%	64.1%
Self-employed	Count	3	1	1	2	2	11	20
	Expected	3.1	1.0	1.4	1.6	4.3	8.7	20.0
	Count							
	% within	15.0%	5.0%	5.0%	10.0%	10.0%	55.0%	100.0%
	Employment status							
	% within q5	18.8%	20.0%	14.3%	25.0%	9.1%	24.4%	19.4%
	% of Total	2.9%	1.0%	1.0%	1.9%	1.9%	10.7%	19.4%
Total	Count	16	5	7	8	22	45	103
	Expected	16.0	5.0	7.0	8.0	22.0	45.0	103.0
	Count							
	% within	15.5%	4.9%	6.8%	7.8%	21.4%	43.7%	100.0%
	Employment status							
	% within q5	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	15.5%	4.9%	6.8%	7.8%	21.4%	43.7%	100.0%

**Employment status \* q6**

*Crosstab*

		q6		Total	
		Yes	No		
Employment status	Yes	Count	12	5	17
		Expected Count	10.9	6.1	17.0
		% within	70.6%	29.4%	100.0%
		Employment status			
		% within q6	18.2%	13.5%	16.5%
		% of Total	11.7%	4.9%	16.5%
	No	Count	39	27	66
		Expected Count	42.3	23.7	66.0
		% within	59.1%	40.9%	100.0%
		Employment status			
		% within q6	59.1%	73.0%	64.1%
		% of Total	37.9%	26.2%	64.1%
Self-employed		Count	15	5	20
		Expected Count	12.8	7.2	20.0
		% within	75.0%	25.0%	100.0%
		Employment status			
		% within q6	22.7%	13.5%	19.4%
		% of Total	14.6%	4.9%	19.4%
Total		Count	66	37	103
		Expected Count	66.0	37.0	103.0
		% within	64.1%	35.9%	100.0%
		Employment status			
		% within q6	100.0%	100.0%	100.0%
		% of Total	64.1%	35.9%	100.0%

**Employment status \* q7**

Crosstab

		q7						
		Religious beliefs	Cultural/traditional beliefs	Both (1) and (2)	Self-determination	Other	Total	
Employment status	Yes	Count	1	2	1	12	1	17
		Expected	1.3	3.5	1.0	10.9	.3	17.0
		Count						
		% within Employment status	5.9%	11.8%	5.9%	70.6%	5.9%	100.0%
		% within q7	12.5%	9.5%	16.7%	18.2%	50.0%	16.5%
		% of Total	1.0%	1.9%	1.0%	11.7%	1.0%	16.5%
No		Count	4	17	5	39	1	66
		Expected	5.1	13.5	3.8	42.3	1.3	66.0
		Count						
		% within Employment status	6.1%	25.8%	7.6%	59.1%	1.5%	100.0%
		% within q7	50.0%	81.0%	83.3%	59.1%	50.0%	64.1%
		% of Total	3.9%	16.5%	4.9%	37.9%	1.0%	64.1%
Self-employed		Count	3	2	0	15	0	20
		Expected	1.6	4.1	1.2	12.8	.4	20.0
		Count						
		% within Employment status	15.0%	10.0%	0.0%	75.0%	0.0%	100.0%

	% within q7	37.5%	9.5%	0.0%	22.7%	0.0%	19.4%
	% of Total	2.9%	1.9%	0.0%	14.6%	0.0%	19.4%
Total	Count	8	21	6	66	2	103
	Expected	8.0	21.0	6.0	66.0	2.0	103.0
	Count						
	% within	7.8%	20.4%	5.8%	64.1%	1.9%	100.0%
	Employment status						
	% within q7	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	7.8%	20.4%	5.8%	64.1%	1.9%	100.0%

**Employment status \* q8**

*Crosstab*

		q8				
			Emotiona l punishme nt	Economi cal punishme nt	No punishme nt at all	Total
Employment status	Yes	Count	4	0	13	17
		Expected Count	5.0	.8	11.2	17.0
		% within	23.5%	0.0%	76.5%	100.0%
	No	Count	22	5	39	66
		Expected Count	19.2	3.2	43.6	66.0
		% within q8	13.3%	0.0%	19.1%	16.5%
		% of Total	3.9%	0.0%	12.6%	16.5%

	% within	33.3%	7.6%	59.1%	100.0%
Employment status					%
	% within q8	73.3%	100.0%	57.4%	64.1%
	% of Total	21.4%	4.9%	37.9%	64.1%
Self-employed	Count	4	0	16	20
	Expected Count	5.8	1.0	13.2	20.0
	% within	20.0%	0.0%	80.0%	100.0%
Employment status					%
	% within q8	13.3%	0.0%	23.5%	19.4%
	% of Total	3.9%	0.0%	15.5%	19.4%
Total	Count	30	5	68	103
	Expected Count	30.0	5.0	68.0	103.0
	% within	29.1%	4.9%	66.0%	100.0%
Employment status					%
	% within q8	100.0%	100.0%	100.0%	100.0%
	% of Total	29.1%	4.9%	66.0%	100.0%

### Employment status \* q9

#### Crosstab

		q9		Total	
		Yes	No		
Employment status	Yes	Count	7	10	17
		Expected Count	9.4	7.6	17.0
		% within	41.2%	58.8%	100.0%
		Employment status			
	% within q9	12.3%	21.7%	16.5%	

	% of Total	6.8%	9.7%	16.5%
No	Count	40	26	66
	Expected Count	36.5	29.5	66.0
	% within	60.6%	39.4%	100.0%
	Employment status			
	% within q9	70.2%	56.5%	64.1%
	% of Total	38.8%	25.2%	64.1%
Self-employed	Count	10	10	20
	Expected Count	11.1	8.9	20.0
	% within	50.0%	50.0%	100.0%
	Employment status			
	% within q9	17.5%	21.7%	19.4%
	% of Total	9.7%	9.7%	19.4%
Total	Count	57	46	103
	Expected Count	57.0	46.0	103.0
	% within	55.3%	44.7%	100.0%
	Employment status			
	% within q9	100.0%	100.0%	100.0%
	% of Total	55.3%	44.7%	100.0%

### Employment status \* q10

*Crosstab*

		q10							
		Aunt(s) and Parent (s)		Uncle(s) )		Sister(s) and Brother (s)		In- laws None Total	
Employment status	Yes	Count	0	1	0	2	14	17	
		Expected Count	2.0	1.0	.8	2.1	11.1	17.0	

	% within	0.0%	5.9%	0.0%	11.8	82.4	100.0
	Employment status				%	%	%
	% within q10	0.0%	16.7%	0.0%	15.4	20.9	16.5
					%	%	%
	% of Total	0.0%	1.0%	0.0%	1.9%	13.6	16.5
						%	%
No	Count	10	5	4	10	37	66
	Expected	7.7	3.8	3.2	8.3	42.9	66.0
	Count						
	% within	15.2%	7.6%	6.1%	15.2	56.1	100.0
	Employment status				%	%	%
	% within q10	83.3%	83.3%	80.0%	76.9	55.2	64.1
					%	%	%
	% of Total	9.7%	4.9%	3.9%	9.7%	35.9	64.1
						%	%
Self-employed	Count	2	0	1	1	16	20
	Expected	2.3	1.2	1.0	2.5	13.0	20.0
	Count						
	% within	10.0%	0.0%	5.0%	5.0%	80.0	100.0
	Employment status					%	%
	% within q10	16.7%	0.0%	20.0%	7.7%	23.9	19.4
						%	%
	% of Total	1.9%	0.0%	1.0%	1.0%	15.5	19.4
						%	%
Total	Count	12	6	5	13	67	103
	Expected	12.0	6.0	5.0	13.0	67.0	103.0
	Count						

% within	11.7%	5.8%	4.9%	12.6	65.0	100.0
Employment status				%	%	%
% within q10	100.0	100.0%	100.0%	100.0	100.0	100.0
	%			%	%	%
% of Total	11.7%	5.8%	4.9%	12.6	65.0	100.0
				%	%	%

### Marital status \* q1

#### Crosstab

		q1			
			Yes	No	Total
Marital status	Single	Count	4	20	24
		Expected Count	10.7	13.3	24.0
		% within Marital status	16.7%	83.3%	100.0%
		% within q1	8.7%	35.1%	23.3%
		% of Total	3.9%	19.4%	23.3%
Married	Count	22	7	29	
	Expected Count	13.0	16.0	29.0	
	% within Marital status	75.9%	24.1%	100.0%	
	% within q1	47.8%	12.3%	28.2%	
	% of Total	21.4%	6.8%	28.2%	
Single-parent	Count	11	21	32	
	Expected Count	14.3	17.7	32.0	
	% within Marital status	34.4%	65.6%	100.0%	
	% within q1	23.9%	36.8%	31.1%	
	% of Total	10.7%	20.4%	31.1%	
Divorcee	Count	2	5	7	
	Expected Count	3.1	3.9	7.0	
	% within Marital status	28.6%	71.4%	100.0%	
	% within q1	4.3%	8.8%	6.8%	

	% of Total	1.9%	4.9%	6.8%
Widow	Count	7	4	11
	Expected Count	4.9	6.1	11.0
	% within Marital status	63.6%	36.4%	100.0%
	% within q1	15.2%	7.0%	10.7%
	% of Total	6.8%	3.9%	10.7%
Total	Count	46	57	103
	Expected Count	46.0	57.0	103.0
	% within Marital status	44.7%	55.3%	100.0%
	% within q1	100.0%	100.0%	100.0%
	% of Total	44.7%	55.3%	100.0%

### Marital status \* q2

*Crosstab*

		q2			
		Yes	No	Total	
Marital status	Single	Count	18	6	24
		Expected Count	14.2	9.8	24.0
		% within Marital status	75.0%	25.0%	100.0%
		% within q2	29.5%	14.3%	23.3%
		% of Total	17.5%	5.8%	23.3%
Married	Count	11	18	29	
	Expected Count	17.2	11.8	29.0	
	% within Marital status	37.9%	62.1%	100.0%	
	% within q2	18.0%	42.9%	28.2%	
	% of Total	10.7%	17.5%	28.2%	
Single-parent	Count	21	11	32	
	Expected Count	19.0	13.0	32.0	
	% within Marital status	65.6%	34.4%	100.0%	
	% within q2	34.4%	26.2%	31.1%	

	% of Total	20.4%	10.7%	31.1%
Divorcee	Count	3	4	7
	Expected Count	4.1	2.9	7.0
	% within Marital status	42.9%	57.1%	100.0%
	% within q2	4.9%	9.5%	6.8%
	% of Total	2.9%	3.9%	6.8%
Widow	Count	8	3	11
	Expected Count	6.5	4.5	11.0
	% within Marital status	72.7%	27.3%	100.0%
	% within q2	13.1%	7.1%	10.7%
	% of Total	7.8%	2.9%	10.7%
Total	Count	61	42	103
	Expected Count	61.0	42.0	103.0
	% within Marital status	59.2%	40.8%	100.0%
	% within q2	100.0%	100.0%	100.0%
	% of Total	59.2%	40.8%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.068 <sup>a</sup>	4	.039
Likelihood Ratio	10.140	4	.038
Linear-by-Linear Association	.005	1	.944
N of Valid Cases	103		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 2.85.

### Symmetric Measures

Value	Approximate Significance

Nominal by Nominal	Phi	.313	.039
	Cramer's V	.313	.039
	Contingency Coefficient	.298	.039
N of Valid Cases		103	

### Marital status \* q4

*Crosstab*

		q4							
		Emotional punishment	Economic punishment	Physical punishment	Divorce	Other	Not punished at all	Total	
Marital status	Single	Count	2	2	4	3	2	11	24
		Expected	3.7	4.7	3.5	1.2	1.4	9.6	24.0
		Count							
		% within Marital status	8.3%	8.3%	16.7%	12.5%	8.3%	45.8%	100.0%
		% within q4	12.5%	10.0%	26.7%	60.0%	33.3%	26.8%	23.3%
		% of Total	1.9%	1.9%	3.9%	2.9%	1.9%	10.7%	23.3%
Married		Count	10	6	2	1	2	8	29
		Expected	4.5	5.6	4.2	1.4	1.7	11.5	29.0
		Count							
		% within Marital status	34.5%	20.7%	6.9%	3.4%	6.9%	27.6%	100.0%
		% within q4	62.5%	30.0%	13.3%	20.0%	33.3%	19.5%	28.2%
		% of Total	9.7%	5.8%	1.9%	1.0%	1.9%	7.8%	28.2%

Single-parent	Count	4	11	4	0	2	11	32
	Expected	5.0	6.2	4.7	1.6	1.9	12.7	32.0
	Count							
	% within	12.5%	34.4%	12.5%	0.0%	6.3%	34.4%	100.0
	Marital status							%
	% within q4	25.0%	55.0%	26.7%	0.0%	33.3	26.8%	31.1
	% of Total	3.9%	10.7%	3.9%	0.0%	1.9%	10.7%	31.1
								%
Divorcee	Count	0	0	2	1	0	4	7
	Expected	1.1	1.4	1.0	.3	.4	2.8	7.0
	Count							
	% within	0.0%	0.0%	28.6%	14.3	0.0%	57.1%	100.0
	Marital status							%
	% within q4	0.0%	0.0%	13.3%	20.0	0.0%	9.8%	6.8%
	% of Total	0.0%	0.0%	1.9%	1.0%	0.0%	3.9%	6.8%
								%
Widow	Count	0	1	3	0	0	7	11
	Expected	1.7	2.1	1.6	.5	.6	4.4	11.0
	Count							
	% within	0.0%	9.1%	27.3%	0.0%	0.0%	63.6%	100.0
	Marital status							%
	% within q4	0.0%	5.0%	20.0%	0.0%	0.0%	17.1%	10.7
	% of Total	0.0%	1.0%	2.9%	0.0%	0.0%	6.8%	10.7
								%
Total	Count	16	20	15	5	6	41	103
	Expected	16.0	20.0	15.0	5.0	6.0	41.0	103.0
	Count							
	% within	15.5%	19.4%	14.6%	4.9%	5.8%	39.8%	100.0
	Marital status							%

% within q4	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
				0%	0%			%
% of Total	15.5%	19.4%	14.6%	4.9%	5.8%	39.8%		100.0%
								%

**Marital status \* q5**

*Crosstab*

		q5							
		Aunt(s) and Parent(s)		Uncle(s) ) and Brother(s)		Child ren		In-laws None Total	
Marital status	Single	Count	7	2	2	2	0	11	24
		Expected	3.7	1.2	1.6	1.9	5.1	10.5	24.0
		Count							
		% within Marital status	29.2%	8.3%	8.3%	8.3%	0.0%	45.8%	100.0%
		% within q5	43.8%	40.0%	28.6%	25.0%	0.0%	24.4%	23.3%
		% of Total	6.8%	1.9%	1.9%	1.9%	0.0%	10.7%	23.3%
Married		Count	0	0	1	0	20	8	29
		Expected	4.5	1.4	2.0	2.3	6.2	12.7	29.0
		Count							
		% within Marital status	0.0%	0.0%	3.4%	0.0%	69.0%	27.6%	100.0%
		% within q5	0.0%	0.0%	14.3%	0.0%	90.9%	17.8%	28.2%
		% of Total	0.0%	0.0%	1.0%	0.0%	19.4%	7.8%	28.2%
		Count	8	1	4	3	0	16	32

Single-parent	Expected	5.0	1.6	2.2	2.5	6.8	14.0	32.0
	Count							
	% within	25.0%	3.1%	12.5%	9.4%	0.0%	50.0	100.0
	Marital status						%	%
	% within q5	50.0%	20.0%	57.1%	37.5	0.0%	35.6	31.1
	% of Total	7.8%	1.0%	3.9%	2.9%	0.0%	15.5	31.1
						%	%	
Divorcee	Count	1	1	0	1	0	4	7
	Expected	1.1	.3	.5	.5	1.5	3.1	7.0
	Count							
	% within	14.3%	14.3%	0.0%	14.3	0.0%	57.1	100.0
	Marital status						%	%
	% within q5	6.3%	20.0%	0.0%	12.5	0.0%	8.9%	6.8%
						%	%	
	% of Total	1.0%	1.0%	0.0%	1.0%	0.0%	3.9%	6.8%
Widow	Count	0	1	0	2	2	6	11
	Expected	1.7	.5	.7	.9	2.3	4.8	11.0
	Count							
	% within	0.0%	9.1%	0.0%	18.2	18.2	54.5	100.0
	Marital status						%	%
	% within q5	0.0%	20.0%	0.0%	25.0	9.1%	13.3	10.7
						%	%	
	% of Total	0.0%	1.0%	0.0%	1.9%	1.9%	5.8%	10.7
								%
Total	Count	16	5	7	8	22	45	103
	Expected	16.0	5.0	7.0	8.0	22.0	45.0	103.0
	Count							
	% within	15.5%	4.9%	6.8%	7.8%	21.4	43.7	100.0
	Marital status						%	%
	% within q5	100.0	100.0%	100.0%	100.0	100.0	100.0	100.0
		%		%	%	%	%	

% of Total	15.5%	4.9%	6.8%	7.8%	21.4	43.7	100.0
					%	%	%

### Marital status \* q6

*Crosstab*

		q6			
		Yes	No	Total	
Marital status	Single	Count	16	8	24
		Expected Count	15.4	8.6	24.0
		% within Marital status	66.7%	33.3%	100.0%
		% within q6	24.2%	21.6%	23.3%
		% of Total	15.5%	7.8%	23.3%
Married	Married	Count	13	16	29
		Expected Count	18.6	10.4	29.0
		% within Marital status	44.8%	55.2%	100.0%
		% within q6	19.7%	43.2%	28.2%
		% of Total	12.6%	15.5%	28.2%
Single-parent	Single-parent	Count	21	11	32
		Expected Count	20.5	11.5	32.0
		% within Marital status	65.6%	34.4%	100.0%
		% within q6	31.8%	29.7%	31.1%
		% of Total	20.4%	10.7%	31.1%
Divorcee	Divorcee	Count	6	1	7
		Expected Count	4.5	2.5	7.0
		% within Marital status	85.7%	14.3%	100.0%
		% within q6	9.1%	2.7%	6.8%
		% of Total	5.8%	1.0%	6.8%
Widow	Widow	Count	10	1	11
		Expected Count	7.0	4.0	11.0
		% within Marital status	90.9%	9.1%	100.0%
		% within q6	15.2%	2.7%	10.7%

	% of Total	9.7%	1.0%	10.7%
Total	Count	66	37	103
	Expected Count	66.0	37.0	103.0
	% within Marital status	64.1%	35.9%	100.0%
	% within q6	100.0%	100.0%	100.0%
	% of Total	64.1%	35.9%	100.0%

**Marital status \* q7**

*Crosstab*

		q7						
		Cultural /traditional Religious beliefs		Both (1) and (2)		Self-determination	Other	Total
Marital status	Single	Count	1	5	1	17	0	24
		Expected Count	1.9	4.9	1.4	15.4	.5	24.0
		% within Marital status	4.2%	20.8%	4.2%	70.8%	0.0%	100.0%
		% within q7	12.5%	23.8%	16.7%	25.8%	0.0%	23.3%
		% of Total	1.0%	4.9%	1.0%	16.5%	0.0%	23.3%
Married		Count	2	8	4	15	0	29
		Expected Count	2.3	5.9	1.7	18.6	.6	29.0
		% within Marital status	6.9%	27.6%	13.8%	51.7%	0.0%	100.0%
		% within q7	25.0%	38.1%	66.7%	22.7%	0.0%	28.2%
		% of Total						

	% of Total	1.9%	7.8%	3.9%	14.6%	0.0%	28.2%
Single-parent	Count	3	8	1	19	1	32
	Expected	2.5	6.5	1.9	20.5	.6	32.0
	Count						
	% within	9.4%	25.0%	3.1%	59.4%	3.1%	100.0%
	Marital status						
	% within q7	37.5%	38.1%	16.7%	28.8%	50.0%	31.1%
	% of Total	2.9%	7.8%	1.0%	18.4%	1.0%	31.1%
Divorcee	Count	0	0	0	6	1	7
	Expected	.5	1.4	.4	4.5	.1	7.0
	Count						
	% within	0.0%	0.0%	0.0%	85.7%	14.3%	100.0%
	Marital status						
	% within q7	0.0%	0.0%	0.0%	9.1%	50.0%	6.8%
	% of Total	0.0%	0.0%	0.0%	5.8%	1.0%	6.8%
Widow	Count	2	0	0	9	0	11
	Expected	.9	2.2	.6	7.0	.2	11.0
	Count						
	% within	18.2%	0.0%	0.0%	81.8%	0.0%	100.0%
	Marital status						
	% within q7	25.0%	0.0%	0.0%	13.6%	0.0%	10.7%
	% of Total	1.9%	0.0%	0.0%	8.7%	0.0%	10.7%
Total	Count	8	21	6	66	2	103
	Expected	8.0	21.0	6.0	66.0	2.0	103.0
	Count						

% within Marital status	7.8%	20.4%	5.8%	64.1%	1.9%	100.0%
% within q7	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% of Total	7.8%	20.4%	5.8%	64.1%	1.9%	100.0%

**Marital status \* q8**

*Crosstab*

		q8				
		Economic			No	
		Emotional	al			
		punishme	punishme			
		nt	nt		nt at all	Total
Marital status	Single	Count	8	1	15	24
		Expected Count	7.0	1.2	15.8	24.0
		% within Marital status	33.3%	4.2%	62.5%	100.0%
		% within q8	26.7%	20.0%	22.1%	23.3%
		% of Total	7.8%	1.0%	14.6%	23.3%
Married		Count	12	0	17	29
		Expected Count	8.4	1.4	19.1	29.0
		% within Marital status	41.4%	0.0%	58.6%	100.0%
		% within q8	40.0%	0.0%	25.0%	28.2%
		% of Total	11.7%	0.0%	16.5%	28.2%
Single-parent		Count	8	4	20	32
		Expected Count	9.3	1.6	21.1	32.0
		% within Marital status	25.0%	12.5%	62.5%	100.0%
		% within q8	26.7%	80.0%	29.4%	31.1%
		% of Total	7.8%	3.9%	19.4%	31.1%

Divorcee	Count	1	0	6	7
	Expected Count	2.0	.3	4.6	7.0
	% within Marital status	14.3%	0.0%	85.7%	100.0%
	% within q8	3.3%	0.0%	8.8%	6.8%
	% of Total	1.0%	0.0%	5.8%	6.8%
Widow	Count	1	0	10	11
	Expected Count	3.2	.5	7.3	11.0
	% within Marital status	9.1%	0.0%	90.9%	100.0%
	% within q8	3.3%	0.0%	14.7%	10.7%
	% of Total	1.0%	0.0%	9.7%	10.7%
Total	Count	30	5	68	103
	Expected Count	30.0	5.0	68.0	103.0
	% within Marital status	29.1%	4.9%	66.0%	100.0%
	% within q8	100.0%	100.0%	100.0%	100.0%
	% of Total	29.1%	4.9%	66.0%	100.0%

### Marital status \* q9

#### Crosstab

		q9		Total	
		Yes	No		
Marital status	Single	Count	9	15	24
		Expected Count	13.3	10.7	24.0
		% within Marital status	37.5%	62.5%	100.0%

	% within q9	15.8%	32.6%	23.3%
	% of Total	8.7%	14.6%	23.3%
Married	Count	18	11	29
	Expected Count	16.0	13.0	29.0
	% within Marital status	62.1%	37.9%	100.0%
	% within q9	31.6%	23.9%	28.2%
	% of Total	17.5%	10.7%	28.2%
Single-parent	Count	22	10	32
	Expected Count	17.7	14.3	32.0
	% within Marital status	68.8%	31.3%	100.0%
	% within q9	38.6%	21.7%	31.1%
	% of Total	21.4%	9.7%	31.1%
Divorcee	Count	3	4	7
	Expected Count	3.9	3.1	7.0
	% within Marital status	42.9%	57.1%	100.0%
	% within q9	5.3%	8.7%	6.8%
	% of Total	2.9%	3.9%	6.8%
Widow	Count	5	6	11
	Expected Count	6.1	4.9	11.0
	% within Marital status	45.5%	54.5%	100.0%
	% within q9	8.8%	13.0%	10.7%
	% of Total	4.9%	5.8%	10.7%
Total	Count	57	46	103
	Expected Count	57.0	46.0	103.0
	% within Marital status	55.3%	44.7%	100.0%
	% within q9	100.0%	100.0%	100.0%
	% of Total	55.3%	44.7%	100.0%

### Marital status \* q10

*Crosstab*

	q10	Total
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			Aunt(s)	Sister(s)				
			Parent(	and	Brother(	In-		
			s)	Uncle(s)	s)	laws	None	
Marital status	Single	Count	6	1	1	0	16	24
		Expected Count	2.8	1.4	1.2	3.0	15.6	24.0
		% within	25.0%	4.2%	4.2%	0.0%	66.7%	100.0
		Marital status						%
		% within q10	50.0%	16.7%	20.0%	0.0%	23.9%	23.3%
		% of Total	5.8%	1.0%	1.0%	0.0%	15.5%	23.3%
Married		Count	2	0	0	10	17	29
		Expected Count	3.4	1.7	1.4	3.7	18.9	29.0
		% within	6.9%	0.0%	0.0%	34.5%	58.6%	100.0
		Marital status						%
		% within q10	16.7%	0.0%	0.0%	76.9%	25.4%	28.2%
		% of Total	1.9%	0.0%	0.0%	9.7%	16.5%	28.2%
Single-parent		Count	4	3	4	0	21	32
		Expected Count	3.7	1.9	1.6	4.0	20.8	32.0
		% within	12.5%	9.4%	12.5%	0.0%	65.6%	100.0
		Marital status						%
		% within q10	33.3%	50.0%	80.0%	0.0%	31.3%	31.1%
		% of Total	3.9%	2.9%	3.9%	0.0%	20.4%	31.1%
Divorcee		Count	0	1	0	1	5	7
		Expected Count	.8	.4	.3	.9	4.6	7.0
		% within	0.0%	14.3%	0.0%	14.3%	71.4%	100.0
		Marital status						%
		% within q10	0.0%	16.7%	0.0%	7.7%	7.5%	6.8%
		% of Total	0.0%	1.0%	0.0%	1.0%	4.9%	6.8%
Widow		Count	0	1	0	2	8	11
		Expected Count	1.3	.6	.5	1.4	7.2	11.0
		% within	0.0%	9.1%	0.0%	18.2%	72.7%	100.0
		Marital status						%

	% within q10	0.0%	16.7%	0.0%	15.4%	11.9%	10.7%
	% of Total	0.0%	1.0%	0.0%	1.9%	7.8%	10.7%
Total	Count	12	6	5	13	67	103
	Expected Count	12.0	6.0	5.0	13.0	67.0	103.0
	% within	11.7%	5.8%	4.9%	12.6%	65.0%	100.0
	Marital status						%
	% within q10	100.0	100.0%	100.0%	100.0	100.0	100.0
	%				%	%	%
	% of Total	11.7%	5.8%	4.9%	12.6%	65.0%	100.0
							%

### 3. Reliability

#### Case Processing Summary

		N	%
Cases	Valid	103	100.0
	Excluded <sup>a</sup>	0	.0
	Total	103	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha Based on Cronbach's Standardized Items		
Alpha	Items	N of Items
.601	.243	10

#### Inter-Item Correlation Matrix

	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10
q1	1.000	-.526	.364	.229	-.025	-.182	.087	.136	.296	-.128

q2	-.526	1.000	-.643	-.396	-.095	.326	-.194	-.357	-.427	.014
q3	.364	-.643	1.000	.347	-.006	-.117	.072	.181	.246	.117
q4	.229	-.396	.347	1.000	.064	-.312	.353	.280	.331	.195
q5	-.025	-.095	-.006	.064	1.000	-.497	.382	.400	.224	.634
q6	-.182	.326	-.117	-.312	-.497	1.000	-.682	-.578	-.347	-.406
q7	.087	-.194	.072	.353	.382	-.682	1.000	.429	.335	.396
q8	.136	-.357	.181	.280	.400	-.578	.429	1.000	.270	.439
q9	.296	-.427	.246	.331	.224	-.347	.335	.270	1.000	.167
q10	-.128	.014	.117	.195	.634	-.406	.396	.439	.167	1.000

*Scale Statistics*

Mean	Variance	Std. Deviation	N of Items
33.98	67.862	8.238	10

#### 4. Validity

*KMO and Bartlett's Test*

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy.	.742
Bartlett's Test	of Approx. Chi-Square	378.577
Sphericity	df	45
	Sig.	.000

*Communalities*

Initial	Extraction
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q1	1.000	.532
q2	1.000	.773
q3	1.000	.558
q4	1.000	.397
q5	1.000	.621
q6	1.000	.691
q7	1.000	.577
q8	1.000	.544
q9	1.000	.404
q10	1.000	.621

Extraction Method: Principal Component Analysis.

*Total Variance Explained*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.673	36.725	36.725	3.673	36.725	36.725	3.269
2	2.046	20.463	57.189	2.046	20.463	57.189	2.878
3	.877	8.768	65.956				
4	.802	8.015	73.971				

5	.698	6.976	80.947		
6	.552	5.516	86.463		
7	.505	5.055	91.518		
8	.388	3.876	95.393		
9	.256	2.556	97.949		
10	.205	2.051	100.000		

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

*Component Matrix<sup>a</sup>*

	Component	
	1	2
q1	.382	-.622
q2	-.625	.619
q3	.456	-.592
q4	.572	-.266
q5	.566	.548
q6	-.788	-.263
q7	.699	.298
q8	.712	.193

q9	.599	-.213
q10	.552	.562

---

Extraction Method:  
Principal Component  
Analysis.

a. 2 components extracted.

*Pattern Matrix<sup>a</sup>*

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	Component	
	1	2
q1	-.185	.758
q2	.006	-.881
q3	-.108	.769
q4	.218	.535
q5	.818	-.201
q6	-.768	-.171
q7	.729	.094
q8	.661	.195
q9	.277	.502
q10	.819	-.221

---

Extraction Method:  
Principal Component  
Analysis.

Rotation Method: Promax  
with Kaiser Normalization.

a. Rotation converged in 3  
iterations.

*Structure Matrix*

---

	Component	
	1	2
q1	.021	.707
q2	-.234	-.879

q3	.101	.740
q4	.363	.595
q5	.764	.022
q6	-.814	-.380
q7	.754	.292
q8	.714	.375
q9	.413	.577
q10	.759	.002

---

Extraction Method:  
Principal Component  
Analysis.

Rotation Method: Promax  
with Kaiser Normalization.

*Component Correlation Matrix*

Component	1	2
1	1.000	.272
2	.272	1.000

---

Extraction Method: Principal  
Component Analysis.

Rotation Method: Promax with  
Kaiser Normalization.

*Component Score  
Coefficient Matrix*

	Component	
	1	2
q1	-.061	.287
q2	.003	-.333
q3	-.036	.291
q4	.070	.202
q5	.267	-.077
q6	-.250	-.064
q7	.238	.035
q8	.215	.073
q9	.090	.189
q10	.267	-.084

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

*Component Score Covariance Matrix*

Component	1	2
1	1.074	.544
2	.544	1.074

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.