The Impact of Sexual Orientation, Gender Identity and Expression (SOGIE) Training Programme on the Perception of Gender Roles among Male University Students in South Africa

by

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Declaration

I, Nandipha Pelotshweu Shingange, student number 20735015, solemnly declare that the work presented in this dissertation is entirely my original work. I have diligently referenced the contributions and ideas of other authors where applicable. This dissertation is intended for submission to the University of Pretoria and has not been previously submitted to this university or any other tertiary institution.

Signed on the 30th day of April 2025

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Abstract

This study aimed to determine the impact of the SOGIE (Sexual Orientation, Gender Identity and Expression) training programme on male university students' perceptions of gender roles in South Africa. Using a quasi-experimental pre-test-post-test control group design, 140 Humanities students from a South African university were non-randomly assigned to either an experimental group (n = 70), which received the training, or a control group (n = 70), which received a placebo. Data were collected using the Gender Perception Scale (GPS) via Qualtrics and analysed in SPSS using both descriptive and inferential statistics, including the Mann-Whitney U test.

The reliability of the GPS was confirmed through Cronbach's alpha and McDonald's Omega, with high internal consistency in the experimental group ($\alpha = 0.93$ pre-test; $\alpha = 0.92$ post-test) and acceptable consistency in the control group. Results indicated a statistically significant improvement in gender-equitable attitudes in the experimental group ($p < 0.05$), while the control group showed minimal change. The intervention's effectiveness was further supported by a moderate-to-strong effect size and positive shifts in post-test mean ranks for most items.

Significant changes were observed in 23 out of 25 items, suggesting the training effectively influenced participants' gender perceptions. However, no significant change was noted for two items, namely Item 9 ("Women should always be protected by men") and Item 12 ("Working woman should give her earnings to her spouse"), indicating certain attitudes may be more resistant to change. Notably, participants from urban and middle-income backgrounds showed the most improvement, indicating the influence of socio-economic and environmental factors on the programme's impact. The training also led to increased levels of empathy among participants, reinforcing the value of structured gender education in promoting inclusive attitudes.

Overall, the findings underscore the effectiveness of the SOGIE training programme in challenging traditional gender norms. Subsequently, it is recommended that gender sensitivity training programmes be integrated into university curricula to foster a more inclusive and equitable society.

Keywords: Gender roles, SOGIE training, male university students, gender perception, quasi-experimental design, gender inclusivity

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Chapter 1: Introduction

1.1 Introduction

Gender roles are deeply embedded in societal norms and cultural traditions, shaping the way individuals perceive and interact with one another. In many societies, including South Africa, traditional gender roles have often reinforced rigid expectations of masculinity and femininity, which can contribute to gender inequality and discrimination (Ratele, 2013). However, as societies progress toward inclusivity and gender equity, there is a growing need to challenge and redefine these roles through educational interventions (Subrahmanian, 2005; UNESCO, 2017), such as Sexual Orientation, Gender Identity, and Expression (SOGIE) training programmes. As shall be discussed in the ensuing sections and chapters, this study intended to investigate the impact of SOGIE training programmes on the perception of gender roles among male university students in South Africa. Specifically, it sought to answer the following research question: What is the impact of SOGIE training programmes on the perception of gender roles among male university students in South Africa?

This chapter establishes the research problem and contextualises the significance of studying male university students in particular, as they represent a demographic that can influence future workplace and societal gender norms. It offers a comprehensive discussion of the background of this study. More importantly, it presents the research aim, objectives, and study hypotheses that formed the foundation of the study. Additionally, it highlights the gaps in research concerning the effectiveness of SOGIE training in transforming traditional gender role perceptions. It further presents a justification for the need for this study in South Africa. The chapter ends by providing an outline for this report.

1.2 Background

Globally, distressing statistics indicate that approximately one in three women experiences physical and/or sexual violence during their lifetimes, primarily at the hands of intimate partners (Stojetz & Brück, 2023). These figures underscore the critical need for comprehensive actions to address gender-based violence (GBV) on local and global fronts. Moreover, South Africa struggles with GBV, discrimination, and disparities in access to resources and opportunities, deeply rooted in societal gender norms and stereotypes (Vetten et al., 2016). In addition to cultural and normative influences, socio-economic status significantly shapes both the experience and perpetration of GBV. Economic hardships such

as poverty, unemployment and income inequality contribute to heightened household stress, which can escalate conflict and increase the likelihood of violence (Jewkes et al., 2015; Abramsky et al., 2011). Moreover, individuals facing socio-economic disadvantage often have limited access to vital services like healthcare, education, and social welfare, which restricts their ability to seek help or leave abusive environments (García-Moreno et al., 2015). Financial dependence on an abusive partner further worsens the power imbalances within intimate relationships, therefore making it difficult for victims to assert autonomy or leave unsafe situations (Gracia, 2024). In addition, social marginalisation and exclusion associated with poverty can erode support networks which leaves survivors isolated and more vulnerable to repeated abuse (Krishnan et al., 2010). Thus, socio-economic inequalities do not operate in isolation but intersect with entrenched gender norms to intensify the risk and persistence of GBV. These norms and behaviours perpetuate the marginalisation of women and other gender minority groups, further reinforcing gender inequality across various spheres of life (Jewkes et al., 2018). These issues are strongly influenced by cultural and societal factors, including entrenched gender norms and stereotypes (Jewkes et al., 2018). In South Africa, GBV and sexual assault are entrenched societal issues that profoundly impact individuals across diverse demographics (Sweeney, 2020). These pervasive problems not only inflict immediate physical and mental harm on victims but also create a pervasive climate of fear, mistrust, and trauma within communities (Kaminer & Eagle, 2010; Tshilongo, 2023). The repercussions extend beyond individual survivors to affect families, communities, and the broader societal structure of the country (Stauffer, 2015). However, efforts to address and prevent GBV and sexual assault have been extensive, with numerous organisations and activists leading initiatives for change.

Organisations such as People Opposing Women Abuse (POWA) were founded in 1981 in Johannesburg. Over the years, POWA has expanded its efforts to include advocacy for legal reforms and increased societal awareness about GBV issues (Dlakavu, 2024; Roberts, 2024). The Rural Development Support Programme (RDSP), established in 1992 by social activists, plays a critical role in human rights protection, women's rights advocacy, poverty alleviation, and GBV prevention across rural areas. Both organisations exemplify dedicated grassroots efforts to combat GBV through community engagement and empowerment (Roestenburg & Roestenburg, 2016). These collective efforts highlight the multi-faceted approach required to address GBV in South Africa. Through the combination of legal reforms, community-based interventions, advocacy, and private sector involvement,

stakeholders aim to create a safer and more supportive environment for all individuals affected by GBV. Moving forward, sustained commitment and collaboration across sectors will be essential to achieve lasting change and ensure that South Africa's efforts to combat GBV are comprehensive and effective (Government of South Africa, 2021).

Various programmes and initiatives, locally and internationally, have been adopted to address GBV. The Sonke Gender Justice Network, a non-partisan and non-profit organisation, adopted advocacy, research, and community-based programmes to challenge harmful gender norms and promote positive masculinities as a means to reduce GBV and promote gender equality (Gurumurthy & Chami, 2014). In addition to civil society efforts, the private sector has also stepped up to address GBV issues. At the launch of the Gender-Based Violence and Femicide (GBVF) Response, the private sector pledged R128 million towards a multi-sectoral fund supporting the implementation of the National Strategic Plan (NSP). Recently, the South African Department of Basic Education, in collaboration with UNESCO, has implemented an initiative known as the 'Connect with Respect' programme. This programme aims to promote gender equality and inclusivity within educational settings by equipping educators with strategies to recognise and address gender-based biases, thereby fostering safe and inclusive learning environments for all students (UNESCO, 2024). This plan serves as South Africa's comprehensive roadmap to combat Gender-based Violence and Femicide (GBVF), focusing on prevention, response, and support for survivors (Vetten, 2021). Despite these efforts, there remains a critical need to evaluate the effectiveness of these programmes. Among the programmes used to combat this scourge is the SOGIE training programme developed by the Islands of Southeast Asia Network on Male and Transgender Sexual Health (ISEAN) in 2015. This programme aligns with broader internal interventions aimed at promoting inclusivity and addressing biases related to gender and sexual diversity.

The ISEAN is a group of community representatives and organisations from Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Timor Leste (Nietschke et al., 2024). The training fosters understanding, empathy, and inclusivity for individuals of diverse sexual orientations and gender identities (Langlois, 2022). It seeks to create environments that are safe, respectful, and affirming for all while combating discrimination and promoting mental health and well-being (Husain, 2022). According to Tiansuwan (2024), research on the SOGIE training programme has predominantly centred on workplace

organisations and LGBTQ+ youth, leaving a significant gap when it comes to understanding the needs and experiences of male students, especially in South Africa. As captured in the introduction, this study intended to investigate the impact of the SOGIE training programme on the perception of gender roles among male university students in South Africa.

The country's traditional gender roles and entrenched ideas about masculinity often contribute to men engaging in GBV while impeding efforts to challenge these harmful behaviours (Abrahams et al., 2017; Casey, Carlson, Fraguela-Rios, & Kimball, 2018). By focusing on this specific demographic, the study sought to understand how targeted educational interventions can influence attitudes towards gender roles and contribute to the broader goal of reducing GBV. Consequently, addressing the disturbingly high prevalence of GBV in South Africa necessitates efforts to challenge traditional gender roles and beliefs about masculinity (Abrahams et al., 2017; Casey, Carlson, Two Bulls, & Yager, 2018). The study aimed to evaluate the impact of a programme aimed at reshaping gender roles and stereotypes within the context of higher education (Bozzoli, 2019).

1.3 Research Problem and Objectives

Male students navigate a complex interplay of societal pressures, including expectations regarding academic performance, career choices, and social interactions. Programmes like the SOGIE training programme are designed to address these challenges by providing education and awareness on gender roles and relationships. They hold immense promise in providing these students with the necessary tools to navigate these challenges effectively. Through the SOGIE training programme, there is an opportunity to shift their perspectives, possibly fundamentally, on gender roles and relationships. This, in turn, can lead to a more equitable and inclusive society, where individuals are empowered. Additionally, such initiatives have the potential to act as a powerful deterrent against instances of violence, creating safer environments for all. Therefore, tailored interventions, like the SOGIE training programme, are essential in addressing these issues effectively, ultimately contributing to a more inclusive and equitable society. The aim and objectives of the study were as follows.

Aim:

The proposed study aimed to determine the impact of the SOGIE training programme on the perception of gender roles among male university students.

Objectives:

To reach this goal, the following objectives have been established:

- To assess the perception of gender roles among male university students before participating in the SOGIE training.
- To compare the perception of gender roles among male university students in South Africa before and after the application of the SOGIE training.

Hypotheses

The hypotheses of the study were the following:

Null hypothesis (H_0): Participation in the SOGIE training programme will not significantly impact the students' levels of empathy and perception of traditional gender roles among male university students.

Alternative hypothesis (H_1): Participation in the SOGIE training will significantly impact the students' levels of empathy and perception of traditional gender roles among male university students.

The section that follows is a summary of the preliminary literature review.

Justification

Gender-based violence (GBV) refers to harmful acts directed at individuals based on their gender and is rooted in unequal power dynamics (Modise & Modise, 2023). Bitzer (2023) further defined GBV as violence that results in or is likely to result in physical, sexual, or psychological harm or suffering, including threats, coercion, or arbitrary deprivation of liberty. It affects individuals of all genders and manifests in various forms, including intimate partner violence (IPV), sexual violence, harassment, and harmful cultural practices (Thelma & Ngulube, 2024). While GBV predominantly affects women and girls, it is crucial to acknowledge that men and boys can also be victims, showing its pervasive nature across all demographics.

In South Africa, GBV remains a pressing concern. A 2024 study by the Human Sciences Research Council (HSRC) revealed that 33.1% of women aged 18 and older have experienced physical violence in their lifetime, equating to approximately 7.3 million women (Kuchukhidze, 2024). Additionally, 9.9% have faced sexual violence, translating to around 2.15 million women (Baloyi, 2025). These figures may be conservative, as many incidents go unreported due to stigma, fear of retribution, or distrust in the justice system (Koepke, 2024).

South Africa's challenges with GBV, discrimination, and disparities in access to resources are deeply rooted in societal gender norms and stereotypes (Jewkes et al., 2018; Vetten et al., 2016). Addressing these issues requires challenging traditional gender roles and beliefs about masculinity (Abrahams et al., 2017; Casey, Carlson, Fraguela-Rios, & Kimball, 2018). To this end, this study therefore investigated the perception of gender roles held by male university students in South Africa's cultural context. Therefore, to contribute to this discourse, the present study evaluated the perceptions of gender roles held by male university students within South Africa's cultural context.

The study focused on male university students to better understand the challenges and biases they face. This focus presented a unique opportunity to shape the attitudes and behaviours of young men who are actively developing their beliefs and values around gender roles and equity. Rentschler and Lombard (2017) argue that male students can impact society significantly by challenging harmful gender stereotypes and advocating for gender equality. Therefore, by involving male university students, the study aimed to make them effective advocates for gender equity and agents of change within their communities (Morojele et al., 2021). Universities play a pivotal role in reshaping gender roles and stereotypes. The SOGIE training programme seeks to foster empathy within the university setting, intending to extend its influence into the broader community (Shoko & Oosthuizen, 2019). The anticipated outcome is a reduction in gender-based discrimination and a contribution to the ongoing discourse on GBV, as well as efforts to empower male students to become advocates for gender equity.

A growing trend in using psychoeducation programmes to promote gender equity and transform gender roles has been highlighted by Colucci et al. (2021) and Shukla et al. (2019). These programmes aim to educate individuals about the social and cultural factors that shape gender roles, providing practical tools to challenge harmful beliefs and behaviours. In this

context, the SOGIE training programme, comprising five integrated modules, aims to offer a comprehensive understanding of gender and sexuality. Modules cover key terminology, dimensions of gender and sexuality, identity formation, stigma and discrimination, and psychological aspects of gender identity. These modules equip participants with the knowledge and empathy necessary to create inclusive and affirming environments.

The success of the SOGIE training programme lies not only in its content but also in how it facilitates change through key mechanisms. The modules help participants unlearn harmful gender norms and internalise more inclusive attitudes by introducing foundational concepts and encouraging critical reflection on personal beliefs. Interactive activities such as group discussions, case studies, and role-plays foster empathy and allow individuals to practise respectful communication and allyship. This experiential learning process seeks to improve self-awareness and strengthens prosocial behaviours, which are important for reducing gender-based prejudice and violence (McInerney, 2020; Levant et al., 2013). The programme's structure also promotes gradual engagement, allowing participants to build confidence in expressing inclusive values and advocating for change in their communities. These mechanisms namely knowledge acquisition, critical reflection, emotional engagement, and behavioural modelling are central to the programme's impact.

Through active participation in the SOGIE training programme, individuals may develop prosocial skills and attitudes that could mitigate the detrimental impact of traditional gender roles. The programme establishes secure opportunities for open dialogue, critical thinking, and positive role modelling, allowing individuals to break free from constraining gender norms and embrace their authentic identities (Levant et al., 2013; McInerney, 2020). Furthermore, promoting inclusive portrayals of gender in media and culture is crucial for dismantling entrenched gender stereotypes and fostering genuine representation of gender diversity (Eagly & Wood, 2012). To institute lasting change, it is essential to address structural and systemic factors perpetuating gender inequality, advocate for gender equality policies, and create supportive environments for challenging prevailing gender norms (Ridgeway, 2011).

Conducting research in this area is essential for several reasons. First, it helps to establish the effectiveness of the SOGIE training programme, specifically within the South African context, providing empirical evidence on how such programmes impact male

university students' views on gender roles. Second, it sheds light on the programme's impact on perceptions of gender roles, an important aspect in promoting gender equality and reducing GBV. Thirdly, university students represent the future workforce and leadership of the country. If they develop more equitable gender perceptions, they are more likely to foster inclusive and diverse professional and social environments. Finally, this research contributes to the broader field of interventions to reduce GBV and promote empathy and respect for others among young men in university settings. Chapter 2 provides an overview of the theoretical framework that underpinned this study.

1.4 Chapter Outline

This research report is structured into five chapters, each strategically contributing to the systematic exploration of gender role perceptions. Chapter One serves as the introduction, laying the foundation by presenting the background, justification, aims, and objectives of the study. Additionally, this chapter articulates the research questions that guided the investigation. Transitioning to Chapter Two, a literature review delves into both global and South African literature, providing insights and contextual connections relevant to gender roles. This chapter also elucidates the theoretical framework guiding the study, establishing a solid theoretical foundation. Chapter Three delves into the methodological aspects of the research, outlining the chosen research design, the sampling method, and details related to data collection and analysis. Ethical considerations pertinent to the study are also deliberated in this chapter, ensuring a rigorous and ethical research approach. Following this, Chapter Four presents the results and interpretations of the analysis of the study. Chapter Five then provides a discussion of the findings derived from the pre-test-post-test control groups, offering valuable insights into the impact of the SOGIE training programme on gender role perceptions. Additionally, this chapter details the implications of the findings, discusses the study’s limitations, and provides recommendations for future research on gender role perceptions.

1.5 Conclusion

In summary, this chapter has laid the groundwork for the study by introducing key components in a structured manner. It began with an introduction, which highlighted the significance of gender roles in shaping societal norms and the increasing importance of educational interventions, such as SOGIE training programmes, in challenging traditional perceptions. Following this, the background section provided context by discussing how rigid

gender expectations still exist and highlighted the need to explore how they can be challenged and changed among male university students. Building on this, the research problem was outlined, emphasising the gap in existing literature regarding the impact of SOGIE training on gender role perceptions.

In response to this gap, the aim of the study was clearly defined, focusing on determining whether the SOGIE training programmes influence male university students' attitudes towards gender roles. To further clarify the study's direction, specific objectives were established. Furthermore, the hypotheses were formulated to test the effectiveness of the intervention, distinguishing between the possibility of significant shifts in perception and the likelihood of no impact. This led to the justification of the study, which underscored its relevance in addressing gender inequality within the South African higher education sector and its potential contribution to broader societal change. To ensure clarity, a chapter outline was then provided, offering a structured guide of the dissertation and illustrating how each section contributes to the study. The next chapter presents a review of existing literature, examining key theories and previous research related to gender role perceptions, with a specific focus on male university students and the role of educational interventions in shaping these perceptions.

Chapter 2: Literature Review

2.1 Introduction

This chapter delves into various dimensions of gender, starting with an exploration of the definition and the historical evolution of gender roles. It examines the role of empathy in advancing gender equity, given its significance in shaping attitudes and fostering understanding. The review then analyses gender roles and stereotypes, focusing on how these perceptions impact behaviours and attitudes. Special attention is given to the SOGIE training programme and its effectiveness in promoting prosocial behaviour, particularly among male university students. Additionally, the chapter scrutinises various intervention strategies and their effectiveness in reshaping gender dynamics.

The review aims to provide a comprehensive understanding of the factors influencing gender perceptions, with a particular emphasis on male students. Previous studies on male students' perceptions of gender roles are critical to this discussion, as they highlight the specific challenges and biases faced by this demographic. Understanding these dynamics is essential for evaluating the impact of educational interventions like the SOGIE training programme. This literature review thus integrates insights from past research to contextualise and justify the need for targeted interventions in addressing GBV and promoting gender equity.

2.2 Defining Gender

Distinguishing between sex and gender is crucial, as the terms carry distinct meanings despite being commonly used interchangeably. While sex typically refers to the biological categorisation into male or female, often perceived through a binary lens, gender transcends this simplistic view (Lindsey, 2020). Gender, as a socially constructed concept, encompasses a spectrum of behaviours, markers, and expectations associated with an individual's biological sex, intertwined with societal norms regarding masculinity and femininity (Lindsey, 2020). Lapatinas et al. (2024) delineate three key aspects through which an individual's gender is commonly represented. Firstly, physical appearance plays a significant role, encompassing secondary sex characteristics like the presence or absence of Adam's apple, facial hair, and the tone of voice pitch. This dimension emphasises the observable attributes that are often linked to traditional gender norms. Secondly, gender identity, according to the same source, involves how an individual personally identifies in terms of

gender. This introspective aspect is intrinsic to one's self-perception and may or may not align with societal expectations associated with their assigned sex at birth. Lastly, gender expression refers to how an individual presents themselves to others through various channels, including appearance, behaviours, interactions, and actions. This outward dimension reflects the complex interplay between individual identity, societal expectations, and the diverse ways in which people express their gender within a given cultural context. In essence, these three dimensions collectively contribute to the multifaceted understanding of gender, emphasising its fluidity and the interconnection between biology, identity, and societal expectations (Englert & Dinkins, 2016).

This study emphasises that gender is a social and cultural construct encompassing roles, behaviours, expectations, and identities associated with being male or female (Lindqvist et al., 2021). It recognises that gender extends beyond a binary understanding, including a spectrum of identities and expressions such as non-binary, transgender, and gender-diverse individuals (DuBois & Shattuck-Heidorn, 2021). While the study acknowledges these diverse experiences, it focused explicitly on male university students. The decision to focus exclusively on male students was grounded in the need to address particular challenges and biases faced by this demographic concerning gender roles and stereotypes. According to Lu et al. (2025), male university students are at a formative stage where their beliefs and attitudes about gender are actively developing. This period presents a unique opportunity to influence their perceptions and behaviours concerning gender equity. By concentrating on this group, the study aimed to understand how targeted educational interventions, such as the SOGIE training programme, can effectively promote positive masculinity and reshape attitudes towards gender roles.

Although the study did not include other gender groups, it is important to recognise that addressing the needs and experiences of all gender identities is crucial for fostering a fully inclusive environment (Matsuno, 2019). The specific focus on male students was justified by the pressing need to challenge and transform harmful gender norms within this group. The insights gained from this study are intended to contribute to the broader efforts of gender equity that are meant to equip male students with the tools to become advocates for positive change within their communities The programme promotes empathy, positive masculinity, and healthy relationships to influence how male university students understand and engage with gender roles and stereotypes.

2.3 Gender Roles and Stereotypes

Gender roles, as explicated by Ebrie (2015) as well as Preece and Bullingham (2022), constitute the ingrained patterns of behaviour, beliefs, and expectations that influence the attitudes and actions of individuals categorised as males and females within a specific cultural or community setting. Expanding upon this definition, Clarke (2025) provides a more comprehensive insight, characterising gender roles as encompassing not only behaviours, but also economic and social dimensions. According to Clarke (2025), these roles are designated by societies based on an individual's sex, thereby prescribing and proscribing certain roles and behaviours within the societal framework. To explore deeper into this framework, Sczesny et al. (2025) introduce the concepts of prescriptive and proscriptive norms. Prescriptive norms, the expected behaviours that individuals are encouraged or supposed to exhibit, are deeply embedded in societal structures. For instance, in terms of gender-specific clothing, it is prescriptively normative for females to wear skirts or dresses. At the same time, in many cultures, males are expected to wear trousers.

According to Sczesny et al. (2025), politeness norms, such as saying "please" and "thank you", represent another facet of prescriptive norms, guiding individuals in expressing gratitude or making requests courteously. On the other hand, proscriptive norms outline behaviours that are discouraged or outright prohibited within a society. For instance, the act of littering is proscriptively normative, as society discourages and prohibits the disposal of waste in public spaces. Similarly, public nudity is considered proscriptive, with societal norms discouraging or prohibiting individuals from exposing their bodies in certain public contexts. Together, prescriptive and proscriptive norms form the regulatory framework that shapes social conduct and defines what is deemed acceptable or unacceptable in each community (Sczesny et al., 2025).

Nonetheless, societal attitudes have shifted in recent decades, leading to noticeable changes in conventional gender roles. In South Africa, as in many parts of the world, women have gained greater access to education and employment opportunities, resulting in more women entering the workforce and pursuing careers outside the home (Brown, 2011). Within universities, these changes are reflected in increasing female enrolment and participation in traditionally male-dominated fields (Ceci et al., 2014). Men have also started taking on more domestic responsibilities, challenging the notion that household chores and childcare are

exclusively women's responsibilities. This shift in societal norms has prompted a reconfiguration of men's and women's expectations, redefining their roles, responsibilities, and expected behaviours (Reichelt et al., 2021). Changing social attitudes towards gender equality and policies promoting gender equity in various spheres of life, such as the workplace, education, and politics, have facilitated this transformation. The efforts to challenge traditional gender roles and promote greater gender equality have gained momentum, aiming to break down barriers and dismantle the stereotypes that limit individuals' potential based on gender (West & Zimmerman, 1987).

Cultural norms, media representations, family upbringing, and educational systems influence these roles. Unfortunately, gender stereotypes can limit individual potential, perpetuate inequality, and contribute to discriminatory attitudes and practices (Ridgeway, 2011). Research conducted by Del Boca et al. (2022) indicates that both men and women are influenced by gender stereotypes, although men are more likely to conform to these stereotypes. Traditional gender roles prescribe certain qualities and behaviours for men and women, and those who deviate from these expectations may face social rejection and pressure to conform (Eagly & Wood, 2012). Men's higher tendency to conform to gender stereotypes may be influenced by factors such as group behaviour and identification with groups that reinforce traditional gender roles, as well as holding essentialist beliefs about gender (Hammond et al., 2014; Hogg, 2014).

In the South African university context, traditional gender norms continue to shape male students' perceptions and interactions, reinforcing rigid ideas about masculinity (Khumalo et al., 2020). Studies by Vanderveer (2019), De Welde and Stepnick (2023), as well as Nkosi and Maphalala (2025) highlight how masculinity is often maintained through peer culture, academic environments, and broader social expectations within universities. These influences create challenges in fostering more flexible and equitable understandings of gender. This study therefore evaluated whether the SOGIE training programme provides opportunities for individuals to challenge and transcend traditional gender roles and stereotypes and whether it promotes healthier, more equitable relationships and attitudes (Johnson, 2015; Johnson et al., 2017).

2.4 Historical Evolution of Gender Roles

Gender roles in South Africa have a profound historical foundation deeply rooted in cultural norms and societal structures (Enaifoghe et al., 2021; MacArthur et al., 2022). The shaping of traditional gender roles was significantly influenced by historical events, the era of colonisation, and prevalent cultural practices, all of which played pivotal roles in moulding societal expectations concerning the roles of men and women (Bonvillain, 2020). In the historical context, South African societies predominantly adhered to patriarchal norms, where men were typically assigned roles related to authority, decision-making, and provision (Ranganathan et al., 2022). Govender and Muringa (2025) noted that men were seen as the primary breadwinners and were responsible for protecting and governing their families and communities. In contrast, women were primarily confined to domestic and caregiving responsibilities, such as raising children, cooking, and maintaining the household (Adisa et al., 2019; Chisale, 2020; Rwafa, 2016; Thipe, 2013).

The influence of colonisation further entrenched these gender roles by introducing Western ideals that reinforced prevailing gender stereotypes. Colonial policies and missionary education often promoted the idea of the male breadwinner and the female homemaker, aligning with and intensifying existing patriarchal structures (Salam & Salam-Salmaoui, 2024). These Western ideals exacerbated gender inequalities by restricting women's access to education and economic opportunities, thereby limiting their roles to the private sphere while men dominated the public and economic spheres (Meier zu Selhausen & Weisdorf, 2023). Therefore, when the historical context of gender roles in South Africa is understood, the deep-rooted nature of these norms and the challenges involved in transforming them become more apparent. This historical perspective is essential for developing effective interventions aimed at promoting gender equity and challenging traditional gender stereotypes in contemporary society (Ratele, 2013).

However, a series of societal changes, including urbanisation, political movements, and the struggle against apartheid, initiated significant shifts in gender dynamics. Women actively engaged in resistance movements, challenging traditional roles, and advocating for equality and the dismantling of gender-based restrictions (Zawaira et al., 2023). In the post-apartheid era, South Africa witnessed substantial progress in gender equality through policy reforms and constitutional changes, acknowledging the imperative for gender inclusivity and dismantling discriminatory practices (Akala, 2018). Despite these advancements, remnants of

traditional gender roles persist, shaping perceptions within South African cultures and influencing contemporary gender expectations. Traditional gender roles, which assign men authority, decision-making power, and provider responsibilities, while relegating women to domestic and caregiving roles, continue to have a lasting impact (Chisale, 2020; Thipe, 2013). These entrenched roles create significant barriers to achieving true gender equality, as they reinforce stereotypes that limit opportunities for both men and women.

For instance, men are often expected to embody strength and dominance, discouraging the expression of vulnerability and emotions, which can affect their mental health and interpersonal relationships negatively (McKenzie et al., 2018). Women, on the other hand, may face expectations to prioritise family and caregiving duties over professional aspirations, limiting their career opportunities and financial independence (Eze, 2017). Omojemite et al. (2024) further argue that the persistent stereotypes typically reinforce preconceived notions of what it means to be a man or a woman, leading to inequality, discrimination, and limited opportunities for those who do not conform to these rigid categories. These persistent stereotypes contribute to GBV, discrimination, and broader social inequalities by maintaining power imbalances and justifying harmful behaviours and attitudes (Omojemite et al., 2024). Furthermore, social norms, which are defined as the unspoken principles and expectations that guide behaviour within a society, play a crucial role in shaping and sustaining these stereotypes (Przepiorka et al., 2022). The enduring influence of these traditional gender roles, according to Merma-Molina et al. (2022), necessitates ongoing efforts to challenge and transform societal norms. Therefore, effective interventions must not only address these roles but also the deep-seated cultural beliefs and practices that sustain these roles, promoting a more equitable and inclusive understanding of gender (Akinwale, 2023). In addition, by recognising and confronting the historical and cultural roots of gender expectations, society can move towards a future where individuals are free to define their identities and roles without the constraints of outdated stereotypes (Safira, 2024; Tamale, 2020).

The persistence of traditional gender roles occurs alongside ongoing efforts to challenge, redefine, and ultimately transform these deeply ingrained norms in pursuit of a more egalitarian society. Greene (2020) further states that the perspectives on gender identity vary, with essentialists asserting that it is biologically predetermined at birth, while social constructivists argue that it is socially constructed and influenced by cultural and societal factors. These roles have become deeply rooted in society over time, often evolving through

historical processes (Englert & Dinkins, 2016). However, there has been a noticeable shift in recent decades away from these conventional gender roles. As women have gained greater access to education and employment opportunities, more women have entered the workforce (Heilman, 2012; Scarborough et al., 2019; Vincent et al., 2011).

2.5 Understanding Empathy and Its Role in Promoting Gender Equity

This study aimed to evaluate the impact of the SOGIE training programme on the attitudes and perceptions of gender roles among male university students. Although the study did not directly measure empathy, fostering empathy is a crucial mechanism through which the SOGIE training programme's mission to combat gender bias and promote prosocial behaviour. Empathy, as conceptualised in psychological literature, is a multifaceted construct involving both cognitive and affective components (Davis, 1983; Decety & Jackson, 2004). The cognitive component refers to the ability to understand another person's perspective, while the affective component relates to sharing in another's emotional experiences (Reniers et al., 2022). Empirical research emphasises empathy's role in reducing prejudice and promoting inclusive attitudes (Batson et al., 1997; Eisenberg & Miller, 1987). Within the context of gender relations, empathy enables individuals to recognise the impact of harmful gender norms and to engage in more equitable interpersonal behaviours (Hojat, 2016). Batson et al. (2002) demonstrated that empathy-inducing interventions can effectively reduce stereotypical thinking and improve intergroup relations, which aligns with the goals of the SOGIE training programme.

The term "empathy" has a long history, dating back over a century to its coinage by Titchener, derived from the German word Einfühlung (Wispé, 1986). Discussions surrounding empathy trace even further back in philosophical thought, as suggested by Stotland (1978). However, despite this extensive historical background, the concept of empathy lacks a consistent and universally agreed-upon definition. Instead, a multitude of definitions exists, reflecting the diverse perspectives of authors in the field. Various scholars have attempted to define empathy, resulting in a spectrum of interpretations (Davis, 2018; Zaki & Ochsner, 2012). For instance, Karniol et al. (2003) describe empathy as the capacity to comprehend and emotionally connect with others' sentiments, involving the skill of understanding situations from another person's viewpoint and sharing their emotional experiences

According to Rochat (2023) as well as Löffler and Greitemeyer (2023), empathy is essential in this study because it indirectly influences perceptions of gender roles. By promoting empathy, the SOGIE training programme aims to help male students understand and appreciate the experiences and challenges faced by individuals of all genders. This understanding is crucial for challenging traditional gender stereotypes and fostering an environment of inclusivity and respect (Amarachi et al., 2023). Although empathy itself is not being directly measured, its role in changing attitudes and perceptions toward gender roles cannot be overlooked. Empathy enables individuals to see beyond their own experiences and to recognise the validity of others' perspectives (Depow et al., 2021; Fernandez & Zahavi, 2020; Stietz et al., 2019). Eklund and Meranius (2021) attest that this broadened understanding can lead to a more critical evaluation of ingrained gender stereotypes and biases. By developing empathy, male university students are more likely to question and alter their preconceived notions about gender roles (Persson & Hostler, 2021). According to Stewart et al. (2021), this change can foster healthier relationships and more equitable interactions, both within the university setting and in broader society. Therefore, while the study focused on measuring gender perceptions, the promotion of empathy through the SOGIE training programme is a critical mechanism for achieving this change.

Barnett and Mann (2013) conceptualised empathy as a blend of cognitive and emotional understanding, leading to an emotional response aligned with the belief in the worthiness of others, deserving of compassion, respect, and intrinsic value. Adding to this complexity, Coplan (2011) offered a definition portraying empathy as a multifaceted process wherein an observer engages in a complex imaginative exercise, simulating the psychological states of another while maintaining a clear distinction between self and others. Despite their variations, these definitions converge on several key aspects. They collectively highlight empathy as a process involving understanding and connecting with others' emotions, perspectives, and experiences. It involves recognising individuals' intrinsic value and worth and fostering compassion and respect, while maintaining a distinction between one's emotions and those of others (Betzler, 2020; Magrì, 2020). However, the variances in these definitions reflect the complexity of empathy as a multifaceted construct encompassing cognitive, emotional, and imaginative dimensions.

The significance of empathy in fostering gender equity and reducing prejudice emerges prominently (Hojat, 2016). Its role in promoting social inclusion, particularly concerning gender and various social identities, becomes apparent (Tarrant et al., 2012). Empirical evidence supports its impact on reducing gender bias and advancing gender equality. For instance, Löffler and Greitemeyer's (2021) study highlighted the positive association between empathy and gender role egalitarianism among both male and female university students. Notably, their findings underscored the predictive link between empathy and attitudes concerning women's rights and gender equality. Similarly, a study by Savarese et al. (2024) found that empathy towards women was negatively related to gender bias among male university students.

The SOGIE training programme aligns closely with the findings of Durante et al. (2020) in its mission to foster empathy and understanding to combat gender bias. The study emphasised the negative relationship between empathy towards women and gender bias among male university students, highlighting the potential for empathy-building interventions. By participating in the SOGIE training programme, individuals can develop a deeper understanding of diverse perspectives, including those related to gender, and enhance their empathetic skills. This increased empathy can contribute to a more equitable and inclusive society by challenging and dismantling gender biases. The SOGIE training programme seeks to challenge traditional gender roles and stereotypes among male youth (Johnson, 2015). By focusing on promoting empathy, positive masculinity, and healthy relationships, the programme seeks to reduce the negative outcomes associated with toxic masculinity, such as aggression, violence, and emotional repression (McLachlan et al., 2018).

2.6 Barriers to Seeking Support for Gender-Based Violence in South African Universities

GBV remains a critical issue within South African universities, casting a profound impact on the university community due to its pervasive nature (Bozzoli, 2019). Survivors of such violence often encounter significant hurdles when attempting to report incidents or access essential support services, primarily due to societal stigmatisation and institutional shortcomings. Robinson et al.'s (2021) systematic review has shed light on six primary barriers hindering survivors from seeking help for GBV. Firstly, the lack of awareness about available support services significantly restricts survivors from seeking help, as many are

unaware of the resources accessible to them. This lack of awareness can stem from insufficient information dissemination by universities, leading to a gap between available resources and students who need support. Universities may have various support structures in place, but if these services are not adequately advertised or communicated to the student body, they remain underutilised.

Access challenges, including physical, financial, or logistical barriers, create impediments for survivors, particularly those residing in remote areas, in accessing vital support systems. Physical access issues can include the distance to support centres, a lack of transportation, and the physical layout of campuses that may not be conducive to the privacy or safety of those seeking help (Sullivan, 2021). Financial barriers might involve the costs associated with seeking medical attention or legal aid, which can be prohibitive for students who are often on limited budgets (Childress et al., 2022). Logistical barriers could include scheduling conflicts, limited office hours of support services, and the overall complexity of navigating university bureaucracy. Moreover, the fear of repercussions or further victimisation upon disclosing experiences of violence discourages many from coming forward. This fear is often rooted in concerns about not being believed, facing retaliation from the perpetrator or experiencing social ostracization (Mintah, 2022). In some cases, survivors may also worry about academic repercussions or believe that reporting the incident would impact their educational journey negatively (Fohring, 2020).

The lack of material resources, such as financial means or resource scarcity, further adds to the challenges survivors face in accessing crucial services or support (Toccalino et al., 2022). According to Voth Schrag et al. (2024), this barrier can be particularly acute in resource-constrained environments where university support services may be underfunded or understaffed, limiting their ability to provide comprehensive assistance. Survivors may need financial support to leave abusive situations, but without adequate resources, they remain trapped in harmful environments (Heron et al., 2022). On a personal level, psychological and emotional factors, like shame, guilt, or feelings of worthlessness, serve as significant barriers that prevent survivors from seeking assistance (Truss et al., 2023). These feelings, according to Kgolane (2023), can be exacerbated by societal attitudes that blame victims or minimise the severity of GBV. Survivors may internalise these attitudes, leading to self-blame and reluctance to seek help. The trauma of experiencing GBV can also result in mental health

issues such as depression, anxiety, and post-traumatic stress disorder (PTSD), which further hinder the ability to reach out for support (Nakalyowa-Luggya et al., 2022).

Additionally, system failures, including ineffective or unresponsive support structures, limit the efficacy of available resources in aiding survivors (Robinson et al., 2021). These failures can manifest in various ways, such as a lack of training for staff handling GBV cases, inadequate response protocols, and a general culture of indifference or hostility towards survivors within the institution (Özdemir, 2024). Systemic issues can also include bureaucratic red tape that complicates the process of reporting and seeking help, discouraging survivors from navigating an already daunting experience (Jagath, 2023). Expanding on these barriers highlights the complex and multifaceted nature of the challenges faced by GBV survivors at South African universities. Addressing these issues requires a holistic approach that involves increasing awareness of support services, improving access to resources, fostering a supportive and non-judgmental environment, and ensuring that institutional support structures are effective and responsive. Through addressing these barriers, universities can create safer and more supportive spaces for survivors, enabling them to seek the help they need without fear or impediment.

2.7 Intervention Strategies and Their Effectiveness

Several intervention strategies beyond the SOGIE training programme have been implemented internationally to combat GBV. These interventions can be broadly categorised into those aimed at improving protective factors and those focused on reducing violent behaviour (Alvarez et al., 2022). Holistic educational programmes, including workshops, seminars, and campaigns, are essential in addressing GBV and gender stereotypes, as noted by Müller and Bang-Manniche (2021). These initiatives aim to educate students on recognising and preventing GBV, fostering empathy, and promoting respectful interactions. The workshops and seminars often cover topics such as gender equality, healthy relationships, consent, and bystander intervention. Moreover, these educational efforts are designed to equip students with the knowledge and skills necessary to identify and challenge harmful behaviours and attitudes (Müller & Bang-Manniche, 2021; Mudiyanse et al., 2025). For example, an international study by Edwards et al. (2021) that was conducted in the Great Plains region of the United States of America (USA) focused on empowering young Indian American girls through comprehensive training in verbal assertiveness, physical resistance

techniques, and strategies to manage risky situations. Participants in the programme experienced an 80% reduction in sexual assault incidents and a 26% decrease in sexual harassment cases. However, the study also highlighted challenges, such as the lack of long-term support for participants, which may affect the sustainability of these outcomes over time. Similarly, Kågesten et al. (2021) implemented a qualitative programme in the Nairobi slums inKenya, to improve girls' critical thinking, problem-solving skills, self-esteem, and confidence. Concurrently, they aimed to foster positive masculinities and equip males with skills for bystander interventions. The programme led to improvements among female participants, who demonstrated a greater ability to assert themselves, negotiate consent, and exercise agency in their relationships. Male participants showed increased awareness of risky behaviours, developed healthier peer associations, and displayed more respect for boundaries and consent. Nonetheless, the study noted that the engagement levels among male participants were uneven, with some struggling to internalise the concepts fully, potentially limiting the intervention's overall impact.

Banyard et al. (2019) evaluated a gender-transformative violence prevention programme called the Reducing Sexism and Violence Program – Middle School Program (RSVP-MSP) aimed at middle school students in a predominantly White New England state. The programme targeted boys who had previously experienced victimisation, using a proactive approach to promote positive expressions of masculinity as a primary prevention strategy against GBV. The evaluation of the intervention showed that boys who participated in the RSVP-MSP experienced significant decreases in their support for using physical force and violence in relationships, compared to boys in the control group who did not participate in the programme. Additionally, the treatment group showed a statistically significant increase in support for gender equity in relationships ($p < 0.05$). While emotional dysregulation increased in the treatment group ($p = 0.10$), this change was marginally significant. Both the treatment and control groups showed a decrease in support for male power, but the treatment group exhibited a greater improvement in fostering gender equity. The programme also acted as a secondary prevention strategy, promoting healthy coping mechanisms and reducing risk factors for future violence. These results suggest that the programme was effective in achieving its goals, with measurable improvements in attitudes and behaviours, although emotional dysregulation in the treatment group warrants further attention.

Segura and González (2020) designed a multifaceted GBV prevention programme aimed at transforming attitudes towards gender equality and reducing acceptance of partner violence among primary school students in Colombia. This intervention, structured around units on gender construction, gender-based partner violence, and socio-emotional skills, challenged gender stereotypes and normalised beliefs about aggression in romantic relationships, contributing to a significant shift in attitudes among participants. The results of the intervention showed reduced gender stereotypes, with significant decreases in female ($p < 0.001$), male ($p < 0.001$), and romantic relationship stereotypes ($p = 0.022$) in the experimental group. Justification for aggression in romantic relationships also declined, as shown by significant reductions in physical violence ($p = 0.017$) and physical violence against women ($p = 0.001$). Additionally, acceptance of peer aggression decreased in the experimental group, particularly for strong aggression ($p = 0.001$), weak aggression ($p = 0.036$), and aggression against both men ($p = 0.016$) and women ($p = 0.049$), while affective empathy remained stable in the experimental group but declined in the control group ($p = 0.020$). Similarly, this study supports the notion that structured educational programmes can shift entrenched gender attitudes. However, it focused on young learners, whereas the current study sought to address university-aged males, a group often overlooked in gender interventions, yet critical in shaping future social and professional gender dynamics.

Ollis et al. (2021) targeted early primary school students with a programme focused on raising awareness about gender norms and promoting respectful behaviours called the Reducing Role Expectations programme. The RRE programme reduced children's stereotypic attitudes towards traditionally masculine and feminine occupations ($p < .001$, $\eta p^2 = .14$) and activities ($p < .001$, $\eta p^2 = .09$) significantly. Additionally, interest in both feminine and masculine occupations and activities declined after the programme, with no interaction effects, indicating similar impacts across boys and girls. While this study reinforces the effectiveness of early intervention, it highlights a gap in targeting older adolescents or young adults who may have already internalised gender norms. The current study aimed to assess whether change is still possible at the university level through SOGIE training, especially among males who are socially positioned to challenge or perpetuate gender inequalities.

Additionally, the Gender Roles, Equality and Transformations (GREAT) programme, developed by Dagadu et al. (2022) for adolescents aged 10 to 14years, employs a toolkit of participatory activities aimed at fostering reflection, dialogue, and action on gender

inequitable attitudes, sexual and reproductive health (SRH), and GBV. Alongside these activities, health teams in each community were trained to enhance the accessibility and quality of youth-friendly services. The programme showed to have an impact on participants' knowledge and attitudes concerning gender equity and SRH. The study took place in two post-conflict communities in the Lira and Amuru districts in Northern Uganda, and the findings showed significant improvements in gender equity, GBV, and SRH attitudes among older and newly married adolescents ($p < 0.05$). The intervention reduced inequitable gender attitudes, household roles, GBV attitudes, and SRH attitudes, while also decreasing instances of sexual assault and violent reactions towards partners, demonstrating its success in promoting gender equity and improving adolescent health. Although the programme reported positive outcomes, its rural and post-conflict context differs significantly from the South African university context. Thus, this study extended the research landscape by focusing on an urban, higher-education setting and perceptions of gender roles specifically rather than broader sexual and reproductive health topics, thereby filling a contextual and thematic gap in the existing literature.

Furthermore, interventions such as The Good School Toolkit (Devries et al., 2017) have been implemented to reduce emotional violence, severe physical violence, sexual violence, and injuries inflicted by school staff on students, as well as emotional, physical, and sexual violence occurring between peers in Ugandan primary schools. The findings demonstrated that the Toolkit was effective in reducing emotional, physical, and sexual violence from both school staff and peers. For male students, the adjusted odds ratio (aOR) of 0.34 indicated a 66% lower likelihood of experiencing violence, while for female students, the aOR of 0.55 reflected a 45% reduction in the odds of experiencing violence. Additionally, the Toolkit led to a decrease in injuries from staff violence, with male students showing a stronger effect (aOR = 0.36, a 64% reduction) compared to female students (aOR = 0.51, a 49% reduction). These results suggest that the Toolkit was effective in reducing violence and injuries, with slightly more significant outcomes for male students. This suggests that male participants can benefit significantly from gender-sensitive interventions. However, it also underscores the need to continue engaging males beyond the primary school context. The current study built on this by targeting young men in higher education, examining whether early intervention gains could be sustained or rekindled at later developmental stages.

The Sexual Assault Primary Prevention Model with Diverse Urban Youth (Smothers & Smothers, 2011) aimed to promote and create community change within individuals and the school environment by reducing tolerance of sexual violence and sexual harassment. Participants were 5th to 12th graders at a school in a Midwest city in the USA. The study demonstrated significant improvements in student knowledge and awareness regarding sexual assault, harassment, and healthy relationships across all grade levels, with notable gains in both Phase I and Phase II ($p < .001$). The intervention was effective in increasing students' understanding of sexual violence, school policies, and available resources, with positive outcomes observed across different genders, racial/ethnic groups, and grade levels. Furthermore, Taylor et al. (2015) used the Shifting Boundaries (SB) intervention to employ school-based and community-centred strategies to address various forms of violence. The study showed that the combined Shifting Boundaries interventions (SBC + SBS) led to a significant reduction in sexual harassment (SH) victimization, with an incident rate ratio (IRR) of 0.64 (95% CI: 0.43–0.95; $p = 0.026$) 6 months post-intervention. The SBS intervention alone resulted in a reduction in sexual violence victimization (adjusted odds ratio [AOR] = 0.53; 95% CI: 0.28–0.99; $p = 0.045$) and SDV victimization (IRR = 0.50; 95% CI: 0.27–0.95; $p = 0.034$). Furthermore, SBS also predicted a reduced frequency of total dating violence victimization (IRR = 0.46; 95% CI: 0.25–0.82; $p = 0.01$) and perpetration (IRR = 0.50; 95% CI: 0.25–0.93; $p = 0.027$).

In South Africa, several interventions have been implemented to address GBV and promote safer school environments (Safe Schools, 2015). One notable initiative is the Skhokho: Supporting Success programme by Jewkes et al. (2018), which targets Grade 8 high school students. The programme aims to prevent GBV perpetration by boys and victimisation of girls through a three-arm, cluster-randomised controlled trial involving 24 schools near Pretoria, in the Gauteng province of South Africa. The study found that girls reported higher honesty levels than boys (89.5% vs. 84.1%, $p<0.001$), with honesty declining with age for both genders. For GBV, boys in the control arm had an incidence rate (IR) of 33.3, compared to 31.8 in the school arm and 31.1 in the families' arm. For girls, the IR was 29.1 in the control arm, 26.0 in the school's arm, and 26.8 in the families' arm. Boys in the school arm showed improved gender attitudes (EMD = 0.82, $p = 0.007$), and bullying was lower in the school arm (EMD = -0.52, $p = 0.022$). In this study, the researcher hypothesised that the SOGIE training programme would similarly improve male university students' attitudes towards gender roles and reduce instances of GBV and related behaviours. The

findings from the Skhokho programme suggest that targeted interventions can be effective in shifting gender attitudes and behaviours, which directly aligns with the anticipated outcomes of the current study. The hypothesis posits that after completing the SOGIE training programme, male university students may demonstrate more positive gender attitudes and greater empathy towards issues of gender equality, mirroring the changes observed in previous interventions like Skhokho. Girls showed reduced bullying in the family arm (EMD = -0.34, p = 0.042) and decreased depression in the school arm (EMD = -0.774, p = 0.037). Both genders in the school arm reported increased condom use (aIRR = 1.35, p = 0.107 for boys, aIRR = 1.67, p = 0.087 for girls) and contraceptive use. Transactional sex decreased in both intervention arms, although not significantly. A slight increase in pregnancy was seen in the school arm (3.4% vs. 2.4%, aIRR = 1.88, p = 0.1), but family workshops showed no transactional sex and a lower pregnancy rate (0.7% vs. 2.4%, aIRR = 0.42, p = 0.28). Caregivers, mainly aged 30 to 49 years, showed improvements in communication with children (p = 0.043 for women, p = 0.12 for men).

Another significant effort is the Safe Schools initiative, supported by Smarrelli et al. (2024), implemented in Ghana and Malawi to create safer environments that promote gender-equitable relationships and reduce school-related GBV (SRGBV). This quasi-experimental intervention involved 40 schools per country, highlighting improvements in learner awareness of their rights and reductions in the acceptability of harmful practices such as corporal punishment and educator-learner sexual liaisons. In Malawi, there was a notable shift in educators' attitudes towards disciplinary practices, reflecting increased awareness and adherence to child protection standards. While SRGBV interventions primarily target school-age children, they provide important insights into early socialisation around gender norms and power dynamics, which continue to shape behaviour in later developmental periods such as university. Like school learners, male university students also adapt institutional environments that influence their understanding of gender roles; however, they do so with greater autonomy and more entrenched beliefs (Al-Bakr et a., 2017: Merrill, 2019.

Additionally, the Good School Toolkit by Raising Voices has been instrumental in Uganda, aiming to reduce physical violence from school staff towards learners (Devries et al., 2017). This intervention, based on a cluster-randomised controlled trial involving 42 primary schools, demonstrated significant reductions in physical violence incidents and improvements in overall school well-being. While educational outcomes and mental health indicators did

not show significant changes, the toolkit facilitated formal reporting of violence and improved safety measures within school settings (Devries et al.., 2017).

These interventions underscore the diverse strategies and frameworks employed to address GBV and promote safer, more equitable educational environments across different regions of South Africa and further afield countries. Continued research and adaptation of these approaches are necessary for sustaining positive impacts and fostering long-term behavioural change (Safe Schools, 2015). However, despite these efforts, there remains a significant gap in interventions specifically targeting young male adults aged 18 to 23 years in university settings. The SOGIE training programme directly addresses this gap by focusing on this age group, seeking to challenge traditional gender norms, promote empathy, and reduce GBV among male university students. Thus, this study will contribute to information on closing the lack of information on the effectiveness of targeted gender interventions for university students, particularly in South Africa, where limited research exists on how such programmes influence the perceptions and behaviours of male students within this demographic. Most existing programmes focus on younger age groups or broader community contexts, leaving university students relatively underserved in terms of tailored interventions addressing GBV and promoting gender equity. This study focused on the SOGIE programme which aimed to shed light on male university students. The above discussion assisted in interpreting the results achieved in this study in light of scores that were achieved in other programmes.

Despite the promising outcomes of many intervention strategies, some programmes have yielded neutral or limited results, highlighting the complexity of changing entrenched gender attitudes and behaviours. For instance, Flood (2024) evaluated the *Sex + Ethics* programme in Australia, which aimed to promote ethical sexual decision-making among university students through reflective, skills-based workshops. While post-programme assessments showed significant increases in participants' knowledge and ethical awareness related to consent and respectful relationships ($p < .01$), follow-up data collected six months later revealed limited sustained behavioural change, particularly in terms of translating ethical reasoning into consistent real-life practice. These findings underscore the challenge of fostering long-term impact through short-term interventions and highlight the need for ongoing reinforcement and broader cultural support mechanisms to solidify behavioural change.

Similarly, a study by Pagani et al. (2023) examined the Mentors in Violence Prevention (MVP) programme across nine Scottish high schools with 698 students aged 11 to 14 years, which aimed to encourage bystander intervention and challenge GBV through peer-led education. While participants expressed positive attitudes towards bystander behaviours and gender equity immediately post-intervention, the study found no statistically significant changes in key areas such as subjective norms, self-efficacy, or actual bystander behaviour at follow-up intervals. Although there were significant reductions in negative attitudes (p = .002) and moral disengagement (p = .006), and a decline in willingness to intervene in serious situations (p = .033), these shifts did not translate into sustained behavioural change, thereby highlighting the need to address structural and contextual factors beyond individual-level education.

In another study, Kettrey and Marx (2019) conducted a comprehensive meta-analysis of sexual assault prevention programmes across US colleges and universities, analysing 69 studies involving over 32,000 participants. The findings showed that while interventions significantly increased participants' knowledge (d = 0.43) and attitudes supportive of sexual assault prevention (d = 0.31), behavioural outcomes such as reductions in sexual violence perpetration were small (d = 0.14) or statistically non-significant in many cases. These results suggest that although educational efforts can positively influence awareness and attitudes, they are limited in producing meaningful behavioural change unless embedded within broader institutional reforms and cultural shifts.

These mixed findings highlight the need for ongoing, multi-level, and context-sensitive interventions to effectively challenge gender stereotypes and reduce GBV. They also underscore the importance of evaluating impact and sustaining engagement, particularly among university-aged males, whose social positioning grants them unique influence in shaping gender norms. The current study built upon this understanding by assessing the SOGIE training programme's ability to create shifts in perceptions of gender roles among male university students in South Africa, a context not extensively covered in existing literature. In light of these findings, the study remains relevant as it explores a different demographic (university-aged males), within a different cultural and institutional context (South African universities), and through a focused lens on gender role perception rather than broader violence or health outcomes. Moreover, the study adds value by determining the

impact of SOGIE-specific training, which has received limited empirical attention despite its growing use in diversity and inclusion strategies across universities.

2.8 The SOGIE Training Programme in Promoting Prosocial Behaviour

GBV and perpetuating traditional gender roles remain pervasive, particularly on university campuses (Biholar, 2022). Male university students may struggle to understand their role in addressing these issues and may hold harmful attitudes toward women and gender-diverse individuals, such as non-binary and transgender people (Ong et al., 2018). It has become evident that male university students require interventions that encourage empathy and challenge conventional gender roles. Researchers have conducted several studies to assess the effectiveness of SOGIE training programmes in promoting prosocial behaviour and socio-emotional variables. For example, the findings from Salazar et al.'s (2023) study on the Evaluation of a Brief Foster Parent/Case Worker Training to Support relationship-building skills and Acceptance of LGBTQ+ Youth in Care, which was conducted in the state of Washington in the USA, align closely with the objectives of the SOGIE training programme in promoting prosocial behaviour.

The results of the above-mentioned research study demonstrated significant improvements in caregivers' self-reported likelihood of seeking information, perceived importance of learning support strategies, and confidence in caring for LGBTQ+ youth after training (all $p < 0.05$). Notably, the greatest gains were observed among those with little to no prior experience, highlighting the training's effectiveness in bridging knowledge gaps and improving preparedness. The consistently high mean scores (above 3.9) across all measured factors indicate that child welfare professionals developed a strong sense of confidence and willingness to support LGBTQ+ youth post-training. Moreover, professionals with prior experience and those identifying outside heterosexuality reported slightly higher confidence and engagement, suggesting that the training reinforced existing knowledge while also being particularly impactful for those with less familiarity. The outcomes affirm the critical importance of the SOGIE training programme in equipping caregivers with the skills and understanding needed to foster positive relationships and provide acceptance to youth with diverse SOGIE, ultimately improving the overall quality of care they receive. This study provided insights mainly of male university students and determined if the same results could be achieved in a South African context.

Another study by Matarese et al. (2023) reinforces the pivotal role of the SOGIE training programme in promoting prosocial behaviour among juvenile justice staff. The research conducted in a mid-Atlantic state highlights a strong correlation between staff members' knowledge, attitudes, and prior experience with LGBTQ+ populations, and their inclination to display protective and supportive behaviours towards youth with diverse Sexual Orientation, Gender Identity, and Expression (SOGIE). Notably, staff who received SOGIE training were 65% more likely to intervene in cases of discrimination and 72% more likely to advocate for LGBTQ+ youth compared to those without training. This suggests that increased understanding and prior involvement with LGBTQ+ youth contribute to more inclusive and empathetic actions. This emphasises that the SOGIE training programme can have a substantial impact in fostering a more supportive and protective environment for youth with diverse SOGIE within the juvenile justice system, as it enhances staff members' knowledge and attitudes, leading to more empathetic and inclusive behaviours.

The qualitative study by Abesamis (2023) further illustrates the complexities surrounding SOGIE-based harassment and intervention efforts. In the Philippines, rising incidences of harassment directed at Filipinos who identify as LGBTQI+ are tied to systemic prejudice and discrimination based on an individual’s SOGIE. The study revealed how bystanders, particularly those with identities distinct from targets of harassment, faced hesitations and barriers to successful intervention. For instance, cisgender and heterosexual bystanders may experience uncertainty or fear of backlash, which could hinder their willingness to act. Conversely, bystanders who acknowledge their shared identity or connection with victims were more motivated and found it easier to intervene. This recognition of shared identity, referred to as kapwa, fosters bystander intervention and counteracts the inhumane treatment targeted at LGBTQI+ individuals. This emphasises the importance of empathy and shared identity in promoting prosocial behaviour among male university students regarding gender roles and SOGIE issues.

Despite these findings, there is a need for further research on the application of this training, specifically in South Africa as it is underexplored in existing research. It is crucial to consider that different cultural contexts can have specific elements that impact the success of interventions. In South Africa, there is a pressing need for interventions that address GBV and promote empathy and respect, particularly among young men in university settings.

Previous research conducted by Allen et al. (2017) has highlighted the role of traditional gender roles and sexist attitudes as risk factors for perpetrating GBV, further indicating how important it is to have interventions that focus on changing these attitudes and behaviours. The SOGIE training programme is a promising intervention that promotes empathy and respect for others and reduces GBV among young men. Conducting a study on the impact of this programme on the perception of gender roles among male university students can provide a valuable understanding of its effectiveness or ineffectiveness and whether it promotes positive attitudes and behaviours or not. Furthermore, this study can contribute to developing evidence-based interventions tailored to the South African context. It will help to understand if the SOGIE training programme can be adapted and implemented to address South African university settings' unique challenges and cultural complexities.

2.9 Theoretical Framework: Social Cognitive Theory (SCT).

This study adopted the Social Cognitive Theory (SCT), developed by Albert Bandura (1977a), as its foundational theoretical framework. SCT is a comprehensive psychological approach that emphasises the interplay between cognitive processes, social learning, and self-regulation in shaping human behaviour. According to this theory, individuals learn through various mechanisms, including observation, attention, memory, and imitation. Furthermore, their behaviour is influenced by cognitive factors, self-efficacy beliefs, and the perceived consequences of their actions (Mujahidah & Yusdiana, 2023). Thus, this theory enables researchers to measure variables such as perceptions.

Albert Bandura is widely recognised as a pioneer in the field of social cognitive theory. His groundbreaking research in the 1960s and 1970s transformed the understanding of the cognitive aspects of learning and behaviour. Bandura's work on observational learning, self-efficacy, and social modelling has contributed significantly to the development and application of SCT (Bandura, 1986). SCT posits that individuals acquire knowledge, beliefs, and behaviours by observing and modelling the actions of others (Cai & Shi, 2022). In this context, the SOGIE training programme serves as an intervention that provides participants with opportunities to observe diverse role models and improve their self-efficacy beliefs. This, in turn, can potentially influence their perceptions of gender roles. The programme aims to challenge traditional stereotypes, promote empathy, and foster a more inclusive understanding of gender roles among male university students.

2.9.1 Relevance of SCT to the Study

The relevance of SCT to this study lies in its ability to elucidate the mechanisms through which the SOGIE training programme might effect change in participants' perceptions of gender roles. SCT underscores the importance of observational learning, self-efficacy beliefs, and social norms in shaping behaviour. In the context of this study, these elements were critical for measuring how the SOGIE intervention can alter entrenched gender perceptions.

Observational Learning:

Bandura's concept of observational learning suggests that individuals can learn behaviours and attitudes by observing others (Parwata et al., 2023). The SOGIE training programme employs this principle by incorporating role models who exemplify healthy and equitable gender behaviours. Participants can observe these behaviours and, through the process of modelling, incorporate them into their attitudes and actions. This is particularly important for male university students because, according to Malonda-Vidal et al. (2021), they may have internalised traditional notions of masculinity. By providing counterexamples and alternative models, the programme aims to shift participants' understanding of what it means to express masculinity in a non-violent and respectful manner. This method of learning can help break the cycle of violence and discrimination that often accompanies rigid gender norms, allowing for the potential for the emergence of healthier interpersonal dynamics.

Self-Efficacy:

Self-efficacy, a core component of SCT, refers to an individual’s belief in their ability to succeed in specific situations (Damayanti et al., 2022). This belief can influence how participants engage with the programme and the likelihood of adopting new behaviours. The SOGIE training programme seeks to improve self-efficacy among participants by providing them with tools and strategies to navigate challenging social situations related to gender and sexuality. Through fostering a sense of agency, the programme aims to empower participants to challenge harmful stereotypes and actively promote gender equity in their communities. Furthermore, increased self-efficacy may lead participants to feel more capable of intervening in situations of GBV, thus fostering a culture of accountability among peers (Cordisco Tsai, 2023; Pagani et al., 2023). This empowerment is important in shaping a cohort of male

students who are not only aware of the issues surrounding gender roles but are also equipped to take action against harmful practices. Although self-efficacy is not directly measured in this study, it remains a crucial element within the SCT framework, which underpins this research, as it helps to explain the mechanisms through which behaviour change may occur (Bandura, 1977b, 2013). This dynamic reinforces the learning process, as higher self-efficacy can motivate individuals to seek out and engage with additional resources, further solidifying their understanding and commitment to equitable gender norms (Corbin, 2021).

Social Norms:

SCT also highlights the role of social norms in shaping behaviour. The SOGIE training programme acknowledges that societal expectations regarding gender roles can be deeply entrenched and often dictate behaviour. By addressing these social norms directly, the programme aims to create a supportive environment where participants feel encouraged to adopt more equitable attitudes towards gender. This can lead to broader societal changes as participants begin to challenge the status quo in their interactions with peers. Through group discussions, interactive exercises, and role-playing scenarios, participants can explore and critique the social norms that contribute to GBV and discrimination. By collectively addressing these issues, the programme not only fosters individual growth but also encourages a shift in the collective mindset of the participant group. This can result in a ripple effect, where participants take these new insights back into their social circles, thereby influencing their peers and contributing to a more equitable campus culture.

Linking SCT to Research Methodology

The integration of SCT into this study informed the quantitative research methodology employed. SCT provides a foundational framework for selecting and measuring relevant variables, thereby facilitating a systematic approach to data collection and analysis. Key constructs of SCT, including self-efficacy, observational learning, and outcome expectations, were quantitatively assessed in this study using a questionnaire that utilised Likert scales. These measures captured participants' beliefs, attitudes, and behaviours related to gender roles, enabling objective and reliable analysis.

By aligning the research methodology with SCT, the study not only established a coherent connection between theoretical constructs and practical application, but also ensured that the assessment of the SOGIE training programme's effectiveness was grounded in a well-defined framework. This systematic approach improved the credibility of the findings and

supported the interpretation of results within the context of SCT. Ultimately, this alignment enriched the study's contributions to understanding how educational interventions can influence perceptions of gender roles, providing valuable insights for future research and practical applications in promoting gender equity. The SCT theoretical framework not only supported the study's design but also highlighted the potential for transformative learning experiences that could lead to long-term changes in attitudes and behaviours related to gender roles (Brewster & Moradi, 2010).

2.10 Conclusion

In this chapter, different aspects of gender were explored, beginning with the definition, and then tracing the historical evolution of gender roles. The role of empathy in promoting fairness between genders was investigated, along with examining the impact of gender roles and stereotypes. Barriers to Seeking Support for Gender-Based Violence in South African Universities were also reviewed. The review also assessed the potential of the SOGIE training programme in encouraging positive behaviour and its role in reshaping gender norms. Finally, various strategies for intervention and their effectiveness were examined. This literature review aimed to provide an understanding of the key elements shaping gender perceptions and behaviours. As the review transitioned, the theoretical framework grounding the study was also introduced and discussed, which further solidified the foundation for comprehending the dynamics inherent in gender studies. The next chapter outlines the research methodology, detailing the study's strategy and design, how the study was piloted, the validity and mitigation of threats, the sampling approach, data collection methods, and analysis techniques. This section provides a framework for understanding how the study was conducted and ensures the reliability and validity of the findings.

Chapter 3: Research Methodology

3.1 Introduction

This chapter discusses the research design, sampling procedures, data collection methods, and analytical strategies employed in this study. As shall be explained in the ensuing sections, the study adopted a quantitative approach using a quasi-experimental pre-test-post-test control group design to assess the impact of the SOGIE training programme on male university students' perceptions of gender roles. Data were collected through structured questionnaires and analysed using both descriptive and inferential statistical methods to determine the effectiveness of the intervention. Lastly, the ethical considerations that guided the study are discussed.

3.2 Paradigmatic Assumptions

In embracing the positivist paradigm, this study grounded itself in a philosophical perspective that views reality as objective, observable, and quantifiable (Bryman, 2016). Positivism, as articulated by Flynn (2021), asserts that knowledge is derived through systematic empirical inquiry, prioritising the collection of quantifiable data to uncover patterns and relationships, and generalising findings across populations. This approach was particularly apt for the study's aim of systematically exploring the impact of the SOGIE training programme on perceptions of gender roles among male university students. The study adopted a structured and systematic approach. It used numerical data to rigorously examine how the intervention influences participants' attitudes and perceptions.

Central to the positivist paradigm is the emphasis on objectivity, advocating that researchers maintain a neutral stance to minimise biases during both data collection and analysis (Neuman, 2014). The current researcher was committed to ensuring that the findings reflected the true impact of the SOGIE training programme on male university students' perceptions of gender roles, rather than being influenced by subjective interpretations. Moreover, positivism prioritises causality, positing that observable phenomena are governed by cause-and-effect relationships (Omodan, 2024). The study's choice of a pre-test-post-test control group design aligned seamlessly with this paradigmatic assumption, allowing for a systematic investigation into whether the SOGIE training programme causes changes in

perceptions of gender roles among participants (Campbell & Stanley, 1966; Flannelly et al., 2018).

Statistical methods serve a pivotal role within the positivist framework, acting as the tools through which hypotheses are tested, patterns are identified, and conclusions are drawn from empirical data (Park et al., 2020). This study used quantitative analysis techniques such as the Mann-Whitney U test, a non-parametric alternative to analyse the numerical data collected rigorously and after the intervention (Cooksey, 2020). These methods provided a robust means to measure the effectiveness of the intervention and ascertain any significant changes in participants' perceptions. Furthermore, the positivist approach underscores the production of generalisable knowledge, aiming to contribute findings that transcend the specific context of the study (Osbeck & Antczak, 2021). The study sought to generate insights that can inform broader understanding and future interventions addressing gender role perceptions among male university students by adhering to a replicable research design and rigorous methodology. This commitment to generalisability enhanced the study's significance and potential impact within both academic and practical domains, contributing to advancements in educational practices and social interventions.

3.3 Survey Questionnaire Testing

In this study, a mini-pilot test was conducted with three participants to assess whether the survey questions were understandable, unambiguous, and appropriately structured for the target population. The number was deemed sufficient to test the feasibility of data collection instruments and identify potential issues rather than to draw statistical conclusions. The piloting phase allowed the researcher to identify any potential issues related to wording, response formats, and the overall flow of the questionnaire (Song et al., 2015). Feedback from the pilot participants was used to refine survey items, ensuring that they effectively captured the intended constructs (Doody & Doody, 2015; Saris & Gallhofer, 2014). Additionally, the pilot test helped to assess the estimated completion time and whether any technical or procedural difficulties would arise during administration, which, according to Teresi et al. (2022), are vital. Conducting the pilot study strengthened the reliability and validity of the final survey instrument, thereby improving the overall quality and accuracy of the data collected during the main study.

3.4 Research Approach

In this study, the quantitative approach was deemed ideal for assessing the impact of the SOGIE training programme on male university students' perceptions of gender roles. It enabled precise measurement and analysis of changes in perceptions over time, providing a vigorous framework for testing the research hypotheses (Creswell, 2014). This approach enabled the researcher to use a large sample size to ensure the reliability and validity of results, employing various statistical techniques to test hypotheses and draw conclusions about relationships between variables (Muijs & Brookman, 2015). Statistical methods were employed to analyse the collected data, ensuring objectivity and reliability in evaluating the programme's effectiveness. This approach facilitated the collection of empirical evidence to support the conclusions drawn from the study, contributing to a deeper understanding of the intervention's impact on gender role perceptions (Babbie, 2020). The use of quantitative methods provided a clear and structured means of examining the outcomes of the SOGIE training programme, reinforcing the study's findings with statistical rigour (Cohen et al., 2018).

3.4.1 Research Strategy and Design

This study employed a quasi-experimental strategy. A quasi-experimental strategy is a research design that examines causal relationships without the use of random assignment (Shadish et al., 2002). It is often used in educational research when a random assignment of participants to different groups, such as treatment and control, is not feasible (Stuart & Rubin, 2007). In quasi-experimental designs, participants are assigned to groups based on pre-existing characteristics or circumstances rather than through random assignment (Shadish et al., 2002). This method is ideal for real-world settings where strict randomisation might be impractical or disruptive. It allowed the study to assess the impact of the SOGIE intervention on male university students in a real-world setting while maintaining methodological rigour. The pre-test-post-test control group design employed in this study is a type of quasi-experimental research method that measures outcomes before and after an intervention in both an experimental and a control group (Reichardt, 2009). In this study, both the experimental and control groups were drawn from the Faculty of Humanities at a South African university. Male students who responded to an online recruitment advertisement and met the inclusion criteria were included in the sample. From this pool, participants were non-randomly assigned to groups based on their availability and willingness to attend specific

sessions on set dates. Those who were available during the SOGIE training dates were assigned to the experimental group. Those who were unavailable at that time were assigned to the control group to partake at a different point in time, which received a placebo intervention to control for the effect of participating in any intervention. The key difference between the two groups was the availability or non-availability during the SOGIE training dates; both groups were comparable in terms of demographic characteristics such as age, academic level, and gender.

This design helped to control for confounding variables by assessing participants' baseline perceptions and comparing changes over time. In this study, the pre-test-post-test control group design was used to evaluate the effectiveness of the SOGIE training programme in shifting male university students' perceptions of gender roles. By measuring their perceptions both before and after the intervention was applied to the experimental group, the study accounted for pre-existing differences between groups and strengthened the internal validity of its findings. This design was particularly suitable for assessing an educational intervention like SOGIE, as it provided a structured way to evaluate changes in understanding and behaviour while maintaining the practical applicability of the research in real-world university settings (Krass, 2016).

Third, this design made it possible to determine whether the intervention may have led to changes in gender role perceptions (Price et al., 2015). By employing pre-intervention testing, the design allowed for the establishment of baseline measures, making it possible to detect any changes attributable to the intervention. This method was particularly useful in educational research where interventions aimed to alter perceptions or behaviours, as it helped in understanding the direct impact of the intervention (Rogers & Revesz, 2019). The inclusion of a control group that did not receive the intervention served as a benchmark, enabling the researcher to differentiate between changes due to the intervention and those that may occur naturally over time (Cook & Wong, 2008).

The research design was implemented in several phases:

Phase 1: Recruitment and sampling procedure.

- *Sampling Procedure*

This study used a combination of convenience and snowball sampling to recruit 140 male university students from the Humanities faculty at a South African university. Initially,

convenience sampling was employed to recruit readily available participants given the time constraints of the study (Stratton, 2021). Eligible students who responded to online advertisements were selected based on the study's inclusion criteria. To further expand the sample, this was followed by employing snowball sampling. This strategy allowed enrolled participants to refer peers who met the eligibility requirements, facilitating the recruitment of additional participants and enhancing the diversity of backgrounds while maintaining the study's criteria (Simkus, 2023).

The target population for this study was male students aged 18 to 23 years, a group considered to be in the formative stages of their higher education journey (Da Re et al., 2022). This cohort was selected because they were particularly relevant for examining potential shifts in gender role perceptions following an educational intervention, such as the SOGIE training programme. While the initial goal was to recruit approximately 300 participants to account for potential dropouts, time constraints limited the sample size to 140 participants. The final sample consisted of 70 students in the treatment group and 70 in the control group. Despite the reduced sample size, this number was considered sufficient for statistical analysis, ensuring adequate power to detect meaningful effects of the intervention (Giner-Sorolla et al., 2024).

- *Recruitment Process*

The first step in participant recruitment involved designing and disseminating recruitment materials, including the study's invitation poster (attached as Appendix E). The poster clearly outlined the study's objectives, procedural details, potential risks and benefits, and specific inclusion and exclusion criteria. These materials were strategically distributed across personal online platforms and prominent social media channels such as LinkedIn, Facebook, X, formerly known as Twitter, and Instagram. Additionally, recruitment advertisements were posted on the university's student portal and notice boards to maximise outreach within the university community. This multi-channel recruitment approach was aimed at broadening access to potential participants.

Interested students who volunteered were directed to a secure online Qualtrics platform, where they completed a screening questionnaire designed to confirm their eligibility based on predetermined inclusion criteria (attached as Appendix F). The screening questionnaire assessed factors such as age, prior participation in psycho-educational

programmes, smartphone ownership, and current university enrolment. To maintain data integrity, the Qualtrics survey incorporated skip logic, automatically redirecting ineligible participants (e.g. non-male students or those from different faculties) to the end of the survey, thereby ensuring that only those who met the criteria proceeded to the next phase of the study. After this, eligible participants were emailed the Participant Information Sheet, which provided detailed information about the study, including its purpose, duration, expectations, and ethical considerations. This approach aimed to promote transparency, build trust, and uphold the autonomy of potential participants (Cornell University, n.d.). After reviewing this document, participants provided informed consent by electronically signing a digital consent form on the Qualtrics platform, after which they were officially enrolled in the study.

The inclusion criteria

The inclusion criteria for participant eligibility in this study included:

- Male students currently enrolled at a South African University;
- Aged between 18 and 23 years. proficient in reading and understanding English;
- Demonstrated willingness to engage in the SOGIE training programme;
- Have access to a smartphone with either IOS or Android operating systems, along with internet connectivity; and
- Individuals who had not previously participated in any psychoeducation programmes.

These criteria were designed to ensure that participants met the necessary prerequisites for engaging with the study's objectives and interventions effectively.

Phase 2: Pre-test phase

Pre-tests were conducted to establish participants' initial perceptions of gender roles before the implementation of the SOGIE training programme. This phase served as a pre-test, allowing for a comparison of attitudes before and after the intervention to assess its effectiveness (Bailey & Burch, 2017). A total of 140 male university students who volunteered for the study were recruited and screened through an online platform (Qualtrics) to ensure that they met the eligibility criteria. After obtaining informed consent, participants were asked to complete a structured questionnaire designed to assess their perceptions of gender roles. Collecting this baseline data (pre-test) was important in identifying existing

perceptions and ensuring that any observed changes could be attributed to the intervention rather than external factors (Creswell & Creswell, 2018).

Collecting baseline data was important for several reasons. First, it helped to establish participants' initial perceptions of gender roles, providing a benchmark for comparison after the intervention (Gravetter & Forzano, 2018; Sunny et al., 2022). This data also controlled for pre-existing differences among participants, addressing potential confounding variables and enhancing the study's internal validity (Benedetto et al., 2018).

Phase 3: Group allocation

As already explained in the preceding paragraphs, participants were assigned to groups based on their availability and willingness to attend intervention sessions scheduled on specific dates. Those who were available to attend the SOGIE training sessions during the planned intervention dates were allocated to the experimental group. In contrast, participants who were not available during those dates but were still willing to participate in the study on other dates were placed in the control group, with the understanding that they would receive the intervention at a later stage. This method ensured that all participants could fully engage with the study without logistical constraints, such as scheduling conflicts, that could affect participation and compromise data integrity. While random assignment was not used, limiting the ability to make definitive causal claims (Hammerton & Munafò, 2021), this quasi-experimental design still allowed for valid comparisons between the groups.

Phase 4: Intervention

During this phase, the treatment group participated in the SOGIE training programme, which consisted of five modules, each lasting approximately 90 minutes. The programme aimed to address and challenge participants' perceptions of gender roles by providing education on sexual orientation, gender identity, and gender expression. The modules were designed to progress from basic concepts to more complex discussions on gender equity and inclusivity. Module 1 focused on building foundational knowledge by introducing the terminology of gender and sexuality through guided definitions, discussions, and written reflections. Module 2 introduced concepts such as sex vs. gender, gender diversity, and sexual behaviours using visual tools, small-group activities, and assigned readings. Module 3 explored the identity development process and its challenges through case studies, personal storytelling exercises, and journaling. Module 4 addressed stigma, discrimination,

homophobia, and transphobia using video materials, group debates, and empathy-building exercises. Finally, Module 5 tackled psychological issues related to gender identity and sexuality, including emotional wellbeing, coping strategies, and support mechanisms, delivered via interactive role-plays, discussions, and scenario analysis. The interactive format of the programme included discussions, activities, and group exercises, all intended to foster understanding, empathy, and inclusivity. These elements were carefully chosen to promote meaningful changes in participants' attitudes and behaviours related to gender stereotypes. Furthermore, there were no fundamental alterations were made to the original SOGIE training curriculum. However, the programme included designated sections for applications and discussions, which allowed facilitators to contextualise the material and bring cultural relevance to the sessions. This flexible approach was particularly important and helpful given South Africa's diverse socio-cultural landscape, enabling participants to engage with the content in ways that reflected their own experiences and realities while maintaining the integrity of the original curriculum.

Data were collected at five different time points throughout the two-month intervention period. These time points corresponded to five separate SOGIE training sessions, each conducted on a different date. Participants attended one of these five sessions, based on their availability on the scheduled dates. Each session involved the full completion of the intervention, with data collection scheduled to coincide with key stages of the programme. This design allowed for the tracking of changes in participants' perceptions of gender roles over time, providing a clear picture of how the SOGIE training influenced their attitudes. In addition to the pre-test and post-test, data collected at all five-time points were included in the analysis. The control group, in contrast, received a placebo intervention. The readings focused on subjects such as general health, history, and current events, which are areas entirely unrelated to gender identity, sexual orientation, or gender expression. The readings were intentionally neutral, designed to ensure that the control group remained engaged throughout the study without influencing their perceptions of gender roles. Additionally, participants in the control group were asked to participate in activities related to the readings, such as summarising the content and discussing it in small groups, mirroring the engagement level of the treatment group.

The researcher's decision to keep the control group engaged through the placebo intervention was aimed at ensuring that any observed changes in the treatment group could be

attributed specifically to the SOGIE programme, rather than external factors such as the act of participation itself (Knezevic et al., 2025). The placebo intervention also served several important purposes. First, it helped to maintain participant engagement in both groups, reducing the risk of dropout and ensuring that the study's results were not compromised by attrition (Anastasi et al., 2024). Second, it controlled for psychological factors, such as the potential impact on the control group of receiving no intervention at all (Theodosis-Nobelos et al., 2021). Lastly, the placebo allowed for a more rigorous test of the SOGIE programme's effectiveness by providing a valid comparison between the two groups (Creswell & Creswell, 2018). This ensured that any observed differences in outcomes could more confidently be attributed to the programme itself.

The use of a placebo intervention was important for controlling the Hawthorne effect, which is a psychological phenomenon where participants may alter their behaviour simply because they are aware of being observed as part of a study (Elston, 2021; Wartolowska et al., 2023). To address this, the control group received a placebo intervention, which sought to minimise the influence of external factors such as participation awareness, allowing for a clearer assessment of the SOGIE programme's potential impact (Knezevic et al., 2025). The placebo intervention also served several practical purposes. It contributed to maintaining participant engagement across both groups, potentially reducing dropout rates and maintaining data quality (Anastasi et al., 2024). In addition, it addressed psychological concerns associated with participants receiving no intervention, which could affect their responses (Theodosis-Nobelos et al., 2021). By including a placebo, the study design allowed for a more structured comparison between groups, supporting a more cautious interpretation of the SOGIE programme’s effects (Creswell & Creswell, 2018).

Phase 4: Time consideration

Time was a critical factor in this study, as the scheduling of the SOGIE training programme and associated assessments directly impacted participant engagement and the overall validity of the findings. Each training module of the SOGIE programme lasted approximately 90 minutes, and the accompanying questionnaire took around 20 to 25 minutes to complete. To accommodate participants' academic schedules and other personal commitments, the training sessions were scheduled during late afternoons, specifically between 15:00 and 16:00, when participants were typically free from classes and

extracurricular activities. This timing was chosen to maximise attendance and minimise potential scheduling conflicts.

Groups attended on different days to avoid overlap and further reduce the risk of absenteeism. To increase flexibility and cater to participants' schedules, each participant had the option to choose between two available session times: 16:00 or 17:30. This approach aimed to accommodate individual preferences and ensure that participants could attend the sessions without conflict. To ensure high levels of engagement and minimise absenteeism, the researcher sent out reminder emails and messages 24 hours before each session. These reminders were aimed at helping participants to stay on track with the programme and ensuring that they were prepared for each session, contributing to better attendance and completion rates.

Phase 5: Post-testing

After the intervention period, post-testing was conducted for both the treatment and control groups. The post-test assessment was designed to evaluate any changes in participants' perceptions of gender roles (Alam, 2019). This assessment was administered to both groups following the completion of the SOGIE training programme. The post-test served as a crucial tool for measuring the immediate effects of the training programme.

3.5 Data Collection Procedure

Data were collected using an online self-administered Gender Perception Scale (GPS) questionnaire comprising closed-ended questions. To ensure the inclusion of demographic data, indicators such as race, ethnicity, socio-economic status, and religious beliefs, if applicable, were included (attached as Appendix H). In addressing SES specifically, participants were presented with structured household income brackets based on the classification provided by Statistics South Africa. These income groups were defined as follows: low-income (R0–R54,344), lower-middle income (R54,345–R151,727), upper-middle income (R151,728–R529,689), and high income (R529,690 and above) per annum. Participants were asked to select the income range that most closely aligned with the socioeconomic conditions of their home environment. This approach allowed for a consistent and standardised measure of SES across the sample, reducing ambiguity and aligning the demographic variable with nationally recognised thresholds. The online questionnaire for this

study was distributed exclusively through the secure and highly regarded platform, Qualtrics. Recognised for its robust data collection capabilities and stringent security measures, Qualtrics provided a trusted environment for participants to complete the questionnaire, safeguarding the confidentiality of their responses from unauthorised access (Salinas, 2023). Participants received a direct link to the platform via email and the study's recruitment materials. GPS was employed as the primary measurement instrument to assess the participants' perceptions of gender roles. The following outlines the details of the scale and its application during data collection:

Measurement Instrument: Perception of Gender Scale

The study used the GPS as the primary means of collecting data. The GPS was developed by Altınova and Duyan in 2013 in Turkey as a reliable instrument to assess individuals' perceptions of gender. It consists of 25 items, each rated on a five-point Likert scale ranging from "1 - strongly disagree" to "5- strongly agree". The scale comprises 10 positively worded items and 15 negatively worded items, which are reverse scored during data analysis to maintain consistency. Scores on the GPS (attached as Appendix I) range from 25 to 125, with higher scores indicating more egalitarian or positive perceptions of gender roles.

Importantly, the GPS offers a multidimensional assessment of gender-related beliefs and attitudes, reflecting the influence of cultural, familial, and societal norms. Rather than measuring general perceptions of gender, the scale specifically captures thematic categories that illustrate participants' alignment with either traditional or egalitarian gender norms. One such theme is women and employment (Items 1, 2, 3, 4, 6, 8, 10, 12, 13), which assesses whether women should work, under what conditions, and how employment may affect their family responsibilities. Closely related to this is motherhood and family roles (Items 3, 4, 6, 13), which explores how employment may shape perceptions of a woman's identity as a mother. Furthermore, the theme of traditional gender roles in the household (Items 7, 9, 14, 16, 18, 20, 25) evaluates support for conventional divisions of household labour and decision-making power, typically favouring male authority. Similarly, patriarchal authority and male superiority (Items 10, 15, 19, 20, 21, 25) examines attitudes toward male dominance in income generation, social status, and family control. In addition, freedom and rights of women (Items 5, 17, 22, 23, 24) assesses support for women's independence in politics, business, and personal decision-making. gender equality in leadership and society (Items 11,

21, 22), meanwhile, measures acceptance of women in leadership roles and positions of societal influence. Lastly, the theme of dependency and protectionism (Items 9, 15, 17) reflects beliefs that women inherently require male protection or support to succeed. Taken together, the GPS provides a nuanced framework for assessing a wide range of gender role perceptions.

The reliability of the GPS has been well established in both the original and subsequent studies. Altınova and Duyan (2013) reported a Cronbach's alpha coefficient of 0.872, indicating high internal consistency. In line with Field (2018), a coefficient exceeding 0.7 denotes acceptable reliability, affirming the instrument's soundness. Further evidence of the GPS's robustness comes from a study by Ataman and Okanlı (2019), who used it to examine the relationship between gender perception and family sense of belonging among medical and nursing students in Turkey; they reported an even higher reliability coefficient of 0.93. Moreover, Gender Links (2021) applied the GPS in a South African study on gender attitudes, reporting a Cronbach's alpha of 0.82. These findings collectively support the GPS's validity and applicability in various cultural contexts, including South Africa. The scale is thus a suitable and trustworthy instrument for capturing participants' perceptions of gender roles in the present study and is attached as Appendix I.

3.6 Data Analysis

The data collected in this study underwent statistical analysis to determine the impact of the SOGIE training programme on the perception of gender roles among male university students. Both descriptive and inferential statistical methods were employed to achieve this objective, using SPSS version 29 as the primary analytical tool.

Descriptive Analysis:

A descriptive analysis was conducted to provide a comprehensive summary of participants' demographic characteristics and their perceptions of gender roles. This approach involved examining pre-test and post-test scores to identify trends and patterns, thereby offering insights into how participants' attitudes evolved following their exposure to the SOGIE training programme (Stapor & Stapor, 2020). Key statistical measures, including frequencies, percentages, and means were computed to summarise participants' responses.

Inferential Statistical Analysis

Given that the data were ordinal and did not meet the assumptions of normality, non-parametric statistical methods were employed for hypothesis testing. The Mann-Whitney U test was used to compare pre-test and post-test scores between the control and experimental groups. This test was selected due to its suitability for analysing non-normally distributed data, as it ranks participants' responses and assesses differences between distributions without requiring parametric assumptions. To confirm the necessity of non-parametric methods, a normality assessment was conducted using skewness, kurtosis, and the Shapiro-Wilk test. This methodological approach aimed to improve the robustness and reliability of the analysis of the intervention's effectiveness, providing valuable insights into how training influenced gender role perceptions over time.

Statistical Software

The entire selection of statistical analyses was executed utilising the SPSS (Statistical Package for the Social Sciences Version 29), originally developed by Norman H. Nie, Dale H. Bent, and C. Hadlai Hull in 1968 (Nie et al., 1970), a powerful tool commonly used in social science research for data analysis. SPSS played an integral role in analysing the relationships between variables, unearthing any significant disparities, and furnishing an invaluable understanding of the impact of the SOGIE training. By employing a combination of descriptive statistics, reliability testing, and non-parametric inferential analysis, the researcher aimed to increase the rigour and methodological soundness. Study Validity and Mitigation of Threats. Ensuring the validity of the study was a critical priority, as validity determines the extent to which the research accurately measures what it intends to measure.

3.7 Study Validity and Mitigation of Threats

Ensuring the validity of the study was a critical priority, as validity determines the extent to which the research accurately measures what it intends to measure.

3.7.1 Internal Validity

Internal validity refers to the extent to which changes in the dependent variable (perceptions of gender roles) can be confidently attributed to the independent variable (SOGIE training) rather than to extraneous factors (Cahit, 2015). One potential threat to internal validity in this quasi-experimental study was selection bias, as participants who

volunteered may have had pre-existing views on gender issues. To mitigate selection bias, efforts were made to ensure diversity in participant backgrounds by recruiting from multiple sources and screening for key demographic variables (Shadish et al., 2002). Additionally, a pre-test-post-test design was employed, allowing for baseline comparisons between the treatment and control groups to assess initial group equivalence (Bryman, 2016).

Another potential threat was maturation, as participants' perceptions of gender roles might naturally evolve over time. To control for this, the study used a relatively short intervention period, reducing the likelihood of significant time-related changes influencing results (Creswell & Creswell, 2018). By administering both pre- and post-tests within a controlled timeframe, any observed changes were more likely to be attributed to the intervention rather than external influences. Instrumentation threats were also considered, particularly regarding the consistency of measurement tools. To address this, standardised instruments were used in both groups, ensuring reliability and validity (DeVellis, 2017). Data collection procedures were carefully monitored, with researchers trained to follow strict protocols, thereby minimising observer bias (Babbie, 2020). These measures improved the credibility of the study's findings and strengthened its internal validity.

3.7.2 External Validity

External validity refers to the extent to which the study's findings can be generalised beyond the specific sample used (McDermott, 2011). One potential limitation was that the study was conducted at a single university, which may restrict its applicability to other academic or cultural settings. To mitigate this, participants from diverse socio-economic backgrounds were included, enhancing the representativeness of the sample and increasing the likelihood that findings could be relevant to a broader population (Shadish et al., 2002). Another threat to external validity was reactivity or demand characteristics, where participants might modify their responses due to awareness of being part of an intervention. To reduce this risk, confidentiality and anonymity were assured, encouraging honest and unbiased responses (Creswell & Creswell, 2018). Additionally, the inclusion of a control group helped to isolate the actual effect of the SOGIE training programme from potential external influences, improving the study's generalizability (Bryman, 2016). By addressing these threats through strategic sampling, confidentiality measures, and research design choices, the study strengthened both internal and external validity, ensuring that the findings

contribute meaningfully to the understanding of gender sensitivity training's impact on male university students' perceptions of gender roles.

3.8 Ethical Considerations

The researcher committed to upholding ethical standards throughout the study to protect the privacy and rights of all research participants. Before commencing the study, ethical approval was sought from the Research Ethics Committee of the Faculty of Humanities at a registered South African university , following established procedures. Following the initial screening process, participants were directed to the information sheet (attached as Appendix D) to ensure that they were thoroughly informed about the study's nature and purpose. Providing participants with this comprehensive information equipped them to proceed to the consent form page (attached as Appendix G) and make a voluntary and well-informed decision about their participation. Recognising that informed consent was paramount to respecting their autonomy and safeguarding their rights as research participants (Arifin, 2018), a disclaimer was included to explicitly state that participation was entirely voluntary. Participants could withdraw from the study at any point without incurring any negative consequences.

To safeguard the confidentiality and privacy of participants, their names and identities remained confidential throughout the data analysis process and in the publication of results. The data collected during the study would be securely stored for a period of 10 years, in strict adherence to the University's regulations, within a designated and secure location within the Department of Psychology. Furthermore, to provide an additional layer of protection for participant data, the data collection platform, Qualtrics, adhered to pertinent privacy regulations and industry standards. This included the implementation of features such as data encryption, secure servers, and restricted access (Molnar, 2019).

While the researcher did not anticipate any significant harm to participants during the data collection process, there was an acknowledgement of the importance of being sensitive to potential emotional discomfort, sensitivity to gender-related topics, and unforeseen psychological impacts that some participants might have experienced. A proactive approach was adopted to ensure the well-being of participants. In such instances, participants were referred to the UP-Student Counselling Unit (SCU) at the university (0800 747 747 or send

an SMS to 31393), as well as the South African Depression and Anxiety Group (SADAG) mental health line (0800 121314 or 011 234 4837) for additional support. For more helpline numbers, participants could refer to the attached document (attached as Appendix K) where they could access professional counselling services.

3.9 Conclusion

This section outlined the research methodology employed in the study, . Key elements included the use of a pre-test-post-test control group design, random assignment of participants, rigorous statistical analyses such as descriptives and inferential statistics, and ethical considerations ensuring participant privacy and well-being. These methods aimed to provide a comprehensive assessment of the programme's effectiveness while upholding research standards and ethical guidelines. The following chapter presents the results and interpretations of the data analysis, offering insights into the impact of the intervention on participants' gender role perceptions.

Chapter 4: Results and Interpretations

4.1 Introduction

The data analysis was conducted using SPSS version 29 (Nie et al., 1970). To ensure the reliability of the measurement instrument, internal consistency was assessed using both Cronbach's alpha and McDonald's omega coefficients. Cronbach's alpha is a widely used measure of internal consistency that assesses how closely related a set of items are as a group, providing an estimate of the scale's reliability (Cronbach, 1951; Izah et al., 2023). On the other hand, McDonald's Omega is considered a more robust reliability estimate (McDonald, 2013). It provides a more precise measure of internal consistency, particularly in cases where items may contribute varying amounts to the construct being measured (Stensen & Lydersen, 2022).

Descriptive statistics were computed to summarise the demographic data, providing a comprehensive overview of the sample characteristics. These statistics included measures such as frequencies and percentages. For the inferential analysis, the effectiveness of the intervention was assessed by comparing pre- and post-test scores. Given that the data were ordinal and did not follow a normal distribution, a non-parametric statistical approach was employed. The Mann-Whitney *U* test was used to determine whether there was a significant difference between the pre- and post-test scores. The Mann-Whitney *U* test is particularly suitable for comparing two independent groups when the assumptions of normality and homogeneity of variance are not met, as it does not require the data to be normally distributed (Mann & Whitney, 1947; Okoye & Hosseini, 2024). According to Wall Emerson (2023), this test ranks the data and compares the distributions between groups, making it a robust alternative to the independent samples t-test in cases where parametric assumptions are violated. By employing appropriate statistical techniques, this analysis ensured that the findings would be both valid and reliable. The researcher believed that the combination of reliability assessments, descriptive statistics, and a non-parametric inferential test would provide a comprehensive and methodologically sound approach to evaluating the effectiveness of the intervention.

4.2 Reliability Analysis

The internal consistency of the measurement instrument was assessed using Cronbach's alpha and McDonald's Omega coefficients for both the control and experimental

groups, across pre-test and post-test scores (see Table 1). For the control group (n = 70), the pre-test scores yielded an acceptable level of reliability, with a Cronbach's alpha of 0.71 and McDonald's Omega of 0.73. In the post-test, reliability was slightly lower, with an alpha coefficient of 0.65 and an Omega of 0.66, but still within the minimally acceptable range for exploratory research, which is typically 0.60 to 0.70 (Taber, 2018). The experimental group (n = 70) demonstrated consistently high reliability. The pre-test scores had an alpha coefficient of 0.93 and an Omega of 0.93, indicating satisfactory internal consistency. Similarly, the post-test scores for the experimental group remained highly reliable, with an alpha coefficient of 0.92 and an Omega of 0.93.

The observed difference in reliability estimates between the control and experimental groups may be attributed to the nature of the interventions. The control group received a placebo intervention consisting of neutral readings and activities unrelated to gender roles, which may have led to lower engagement and thus reduced consistency in responses, particularly at post-test. Conversely, the experimental group's exposure to the targeted SOGIE training likely improved participants' engagement and understanding of the constructs measured, contributing to higher reliability scores. Overall, while the control group's post-test reliability was lower than that of the experimental group, it remains within an acceptable range for exploratory studies, affirming the consistency of the measurement instrument across both groups. These differences should be considered when interpreting the study results, as they may reflect the differential impact of the interventions on participants' response patterns rather than deficiencies in the instrument itself.

Table 1:

Reliability Assessment using the Cronbach alpha and McDonalds Omega Coefficients

Test-Scores	**Control** ***n*** **= 70**	**Experimental** ***n*** **= 70**
	Alpha (Omega)	Alpha (Omega)
Pre-Test	0.71 (0.73)	0.93 (0.93)
Post-Test	0.65 (0.66)	0.92 (0.93)

Statements were rated on a 5-point Likert scale.

4.3 Biographical Data of Participants

Before a detailed analysis of the data was done, basic distributions according to the study's demographic profile were initially performed. Descriptive statistics were used to describe the

biographical variables of the study (see Table 2). The demographic characteristics of the participants were analysed across the combined sample, control group, and experimental group.

Table 2:

Demographic Characteristics of Participants

Characteristic	Combined Groups	Control Group	Experimental Group
	N (%)	N (%)	N (%)
Ethnicity			
African	113 (81.3)	56 (80.0)	57 (82.6)
White	3 (5.8)	3 (4.3)	5 (7.2)
Indian	7 (5.0)	4 (5.7)	3 (4.3)
Coloured	11 (7.9)	7 (10.0)	4 (5.8)
Socio-economic Status			
Low-Income	43 (30.7)	16 (22.9)	27 (38.6)
Middle-Income	83 (59.3)	43 (61.4)	40 (57.1)
High-Income	14 (10.0)	11 (15.7)	3 (4.3)
Place of residence			
Urban	66 (47.1)	32 (45.7)	34 (48.6)
Suburban	44 (31.4)	24 (34.3)	20 (28.6)
Rural	30 (21.4)	14 (20.0)	16 (22.9)
Religion			
Christianity	124 (88.6)	63 (90.0)	61 (87.1)
Islam	11 (7.9)	6 (8.6)	5 (7.1)
Atheism/Agnosticism	4 (2.9)	1 (1.4)	3 (4.3)
Buddhism	1 (0.7)	-	1 (1.4)

A description of the descriptive statistics of the demographic information is outlined below. It is important to note that the mean age for the control group was 20.84 ± 1.59 years and that of the experimental group was 20.45 ± 1.73 years. The youngest was 18 years old and the oldest was 23 years of age in both the control and experimental groups.

4.3.1 Percentage Distribution by Ethnicity

The majority of participants were African (n = 113, 81.3%), with similar proportions in the control group (n = 56, 80.0%) and experimental group (n = 57, 82.6%). Relatively few participants identified as White (n = 8, 5.8%), most of whom were in the experimental group (n = 5, 7.2%). Indian participants made up 5.0% of the total sample (n = 7), distributed between the control group (n = 4, 5.7%) and experimental group (n = 3, 4.3%). Coloured

individuals accounted for 7.9% (*n* = 11), with slightly more in the control group (*n* = 7, 10.0%) than in the experimental group (*n* = 4, 5.8%).

4.3.2 Percentage Distribution by Socio-economic Status

The largest proportion of participants fell into the middle-income category (*n* = 83, 59.3%), with similar distributions between the control group (*n* = 43, 61.4%) and the experimental group (*n* = 40, 57.1%). Low-income participants made up 30.7% (*n* = 43) but were more in the experimental group (*n* = 27, 38.6%) than the control group (*n* = 16, 22.9%). The high-income category had the lowest representation (*n* = 14, 10.0%), with a greater proportion in the control group (*n* = 11, 15.7%) compared to the experimental group (*n* = 3, 4.3%).

4.2.3 Percentage Distribution by Place of Residence

Table 2 shows the distribution of participants in relation to their place of residence. Most participants come from urban areas (*n* = 66, 47.1%), with similar distributions between the control group (*n* = 32, 45.7%) and experimental group (*n* = 34, 48.6%). Suburban residents made up 31.4% (*n* = 44), slightly higher in the control group (*n* = 24, 34.3%) than in the experimental group (*n* = 20, 28.6%). Those from rural areas accounted for 21.4% (*n* = 30), evenly distributed between the control group (*n* = 14, 20.0%) and experimental group (*n* = 16, 22.9%).

4.3.4 Percentage Distribution by Religion

A significant majority identified as Christian (*n* = 124, 88.6%), with slightly more in the control group (*n* = 63, 90.0%) than in the experimental group (*n* = 61, 87.1%). Islam was the second most common religion (*n* = 11, 7.9%), nearly evenly split between the control group (*n* = 6, 8.6%) and experimental group (*n* = 5, 7.1%). Atheism/Agnosticism accounted for 2.9% (*n* = 4), with one respondent in the control group (*n* = 1, 1.4%) and three in the experimental group (*n* = 3, 4.3%). Buddhism was the least represented category (*n* = 1, 0.7%), with one respondent in the experimental group.

4.4 Inferential Analysis of the Pre and Post-test Results for the Control and Experimental Groups

4.4.1 Normality Assessment

The normality of the pre-test and post-test scores for the control group was evaluated using skewness, kurtosis, and the Shapiro-Wilk test. The responses were measured on a 5-point Likert scale, and the assumption of normality was crucial in determining the suitability of parametric statistical tests.

In Table 3, the skewness and kurtosis values varied across the 25 items, with several items showing notable deviations from zero, indicating departures from normality. Specifically, some items exhibited strong negative or positive skewness, reflecting asymmetry in the data distribution. The Shapiro-Wilk test further confirmed the non-normality of the data. For both the pre-test and post-test scores, all 25 items returned statistically significant results ($p < 0.001$), indicating that the assumption of normality was violated across all items. In summary, the results indicate that the pre-test and post-test scores for the control group were not normally distributed. This finding suggests that non-parametric statistical methods may be more appropriate for further analysis of the data.

Table 3:

Normality Assessment for the Pre-and Post-Test Scores for the Control Group Using the Skewness, Kurtosis and the Shapiro-Wilk Test

Item	Pre-Score (Control Group)				Post-Score (Control Group)			
	Skew.	Kurt.	SW Statistic	SW p-value	Skew.	Kurt.	SW Statistic	SW p-value
1	-0.067	-0.127	0.815	<0.001	0.498	-1.230	0.782	<0.001
2	-1.260	0.653	0.643	<0.001	-0.335	-0.348	0.839	<0.001
3	-0.416	-1.190	0.677	<0.001	0.042	-0.379	0.881	<0.001
4	0.320	-0.162	0.796	<0.001	0.215	0.432	0.857	<0.001
5	-1.310	1.670	0.706	<0.001	-0.384	2.260	0.766	<0.001
6	-0.515	-0.794	0.701	<0.001	-0.152	-0.306	0.908	<0.001
7	-0.058	-2.060	0.636	<0.001	0.196	0.561	0.862	<0.001
8	0.166	0.068	0.776	<0.001	-0.331	0.301	0.870	<0.001
9	0.151	-0.726	0.725	<0.001	-0.572	-0.001	0.841	<0.001
10	-0.570	-0.147	0.750	<0.001	-0.467	-0.063	0.873	<0.001

11	0.742	-0.223	0.766	<0.001	-0.282	-0.415	0.837	<0.001
12	-0.288	-0.651	0.741	<0.001	-0.777	1.280	0.810	<0.001
13	-0.295	-1.970	0.629	<0.001	-0.746	0.131	0.851	<0.001
14	-0.304	-0.612	0.753	<0.001	0.132	0.284	0.871	<0.001
15	0.240	-1.310	0.683	<0.001	0.040	-0.090	0.888	<0.001
16	0.439	-0.621	0.751	<0.001	0.021	0.086	0.868	<0.001
17	-0.683	-1.120	0.754	<0.001	0.518	0.141	0.836	<0.001
18	-0.092	-1.140	0.809	<0.001	-0.288	-1.210	0.858	<0.001
19	-0.044	-1.320	0.681	<0.001	-0.660	-0.112	0.854	<0.001
20	-0.101	-1.300	0.678	<0.001	-0.517	-0.433	0.885	<0.001
21	-0.026	-1.460	0.798	<0.001	-0.139	-0.057	0.872	<0.001
22	-0.707	1.090	0.755	<0.001	-0.039	0.460	0.835	<0.001
23	0.183	-1.330	0.684	<0.001	-0.129	0.585	0.851	<0.001
24	-0.001	-0.505	0.752	<0.001	-0.563	-0.107	0.863	<0.001
25	-0.241	-0.638	0.685	<0.001	0.238	0.198	0.881	<0.001

Further, the normality of the pre-test and post-test scores for the experimental group was examined using skewness, kurtosis, and the Shapiro-Wilk test. The skewness values for the pre-test scores ranged from -1.000 to 0.178, while kurtosis values varied between -1.410 and 0.407 (see Table 4). Similarly, for the post-test scores, skewness ranged from -2.130 to 0.758, with kurtosis values ranging from -1.160 to 4.660. These results indicate deviations from a normal distribution, with certain items showing strong negative or positive skewness, as well as extreme kurtosis values suggesting non-normal distributions.

The Shapiro-Wilk test further confirmed these deviations. The test statistics (SW) for the pre-test scores ranged from 0.762 to 0.912, while the post-test scores had SW values between 0.600 and 0.905. In both cases, the p-values were consistently less than 0.001 ($p < 0.001$), indicating a significant departure from normality. Overall, the results demonstrate that the pre-test and post-test scores for the experimental group do not conform to normality assumptions. Given the significant skewness, kurtosis, and Shapiro-Wilk test results (all $p < 0.001$), non-parametric tests may be more suitable for further statistical analysis.

Table 4:

Normality Assessment for the Pre- and Post-Test Scores for the Experimental Group using the Skewness, Kurtosis and the Shapiro-Wilk Test

Item	Pre-Score (Experimental Group)				Post-Score (Experimental Group)			
	Skew.	Kurt.	SW Statistic	SW p-value	Skew.	Kurt.	SW Statistic	SW p-value
1	-0.510	-0.395	0.893	<0.001	-1.590	2.570	0.739	<0.001
2	-0.302	-1.120	0.888	<0.001	0.758	-0.368	0.850	<0.001
3	-0.191	-0.617	0.912	<0.001	-1.620	3.650	0.745	<0.001
4	-0.250	-1.120	0.894	<0.001	0.320	-0.362	0.902	<0.001
5	-0.308	-1.130	0.875	<0.001	-2.130	3.850	0.600	<0.001
6	-0.077	-1.410	0.876	<0.001	0.278	-0.558	0.875	<0.001
7	-0.114	-0.828	0.869	<0.001	-1.400	1.910	0.770	<0.001
8	-0.537	0.002	0.889	<0.001	-1.550	2.690	0.754	<0.001
9	-0.525	-0.540	0.866	<0.001	-0.497	-0.517	0.891	<0.001
10	0.077	-1.300	0.881	<0.001	0.298	-0.860	0.868	<0.001
11	-0.410	-0.871	0.872	<0.001	-1.860	3.750	0.692	<0.001
12	0.160	-0.886	0.896	<0.001	0.316	-0.633	0.904	<0.001
13	-0.347	-0.221	0.904	<0.001	-1.560	4.660	0.728	<0.001
14	-0.071	-1.090	0.903	<0.001	-1.450	2.110	0.768	<0.001
15	-0.380	-1.220	0.862	<0.001	0.192	-0.684	0.902	<0.001
16	-0.752	-0.649	0.782	<0.001	-0.474	-0.244	0.895	<0.001
17	0.178	-0.973	0.903	<0.001	0.677	-0.063	0.872	<0.001
18	-0.704	-0.218	0.863	<0.001	-0.061	-1.120	0.893	<0.001
19	-0.347	-0.685	0.904	<0.001	0.158	-0.804	0.905	<0.001
20	-1.000	0.407	0.762	<0.001	-0.013	-1.160	0.903	<0.001
21	-0.746	-0.118	0.864	<0.001	0.602	-0.517	0.880	<0.001
22	-0.089	-1.350	0.876	<0.001	-1.500	1.430	0.724	<0.001
23	0.051	-1.130	0.890	<0.001	-1.810	3.740	0.708	<0.001
24	-0.437	-0.392	0.899	<0.001	-0.084	-0.104	0.889	<0.001
25	-0.810	-0.148	0.840	<0.001	0.094	-0.957	0.904	<0.001

4.4.2 Pre-test Results

The Mann-Whitney *U* test was conducted to compare the baseline pre-test scores of participants in the control and experimental groups to assess their initial level of knowledge before the intervention. The results in Table 5 indicate that for the majority of the items, there were no statistically significant differences ($p > 0.05$) between the two groups. This suggests that participants in both groups had a comparable level of knowledge at baseline.

Thus, the mean ranks for most items were relatively close between the two groups, and the p-values for 20 out of 25 items were greater than the 0.05 significance threshold,

indicating no significant difference. However, three items (3, 10, 12, 16, and 20) showed statistically significant differences, suggesting some variation in responses for these specific knowledge areas. Despite these few exceptions, the overall trend indicates that the control and experimental groups had a similar baseline understanding before the intervention. Thus, these baseline results confirm that any differences observed in the post-test can be attributed to the intervention rather than pre-existing differences in knowledge between the groups.

Table 5:

Mann-Whitney U Test between the Pre-test Scores for the Control and Experimental group

Item	Pre-Score (Control Group)		Pre-Score (Experimental Group)		Mann-Whitney *U* Statistics	
	Mean ± SD	Mean Rank	Mean ± SD	Mean Rank	Standardised Test Statistics	P-value
1	3.56 ± 0.67	68.94	3.56 ± 1.14	72.06	-0.484	0.628
2	3.63 ± 0.57	73.69	3.31 ± 1.34	67.31	-0.994	0.320
3	3.53 ± 0.53	78.18	3.13 ± 1.08	62.82	-2.408	0.016*
4	3.50 ± 0.65	73.34	3.23 ± 1.35	67.66	-0.866	0.387
5	3.50 ± 0.68	68.41	3.54 ± 1.25	72.59	-0.640	0.522
6	3.50 ± 0.56	75.79	3.04 ± 1.45	65.21	-1.617	0.106
7	3.51 ± 0.50	64.34	3.75 ± 0.89	75.74	-1.815	0.070
8	3.27 ± 0.62	66.85	3.36 ± 1.05	74.15	-1.152	0.249
9	3.64 ± 0.57	67.61	3.68 ± 1.19	72.42	-0.745	0.456
10	3.54 ± 0.61	80.39	2.86 ± 1.44	60.61	-3.013	0.003*
11	3.51 ± 0.69	64.84	3.74 ± 1.10	76.16	-1.744	0.081
12	3.36 ± 0.59	81.51	2.74 ± 1.28	59.49	-3.401	<0.001*
13	3.57 ± 0.49	74.71	3.34 ± 1.05	66.29	-1.335	0.182
14	3.33 ± 0.61	73.12	3.16 ± 1.24	67.88	-0.804	0.422
15	3.51 ± 0.53	71.26	3.24 ± 1.45	69.74	-0.235	0.814
16	3.63 ± 0.62	56.77	4.20 ± 0.93	84.23	-4.238	<0.001*
17	2.89 ± 1.21	73.52	2.76 ± 1.29	67.48	-0.912	0.362
18	4.06 ± 0.74	75.91	3.66 ± 1.21	65.09	-1.661	0.097
19	3.59 ± 0.53	76.51	3.20 ± 1.16	64.49	-1.886	0.059
20	3.60 ± 0.52	54.95	4.23 ± 0.95	86.05	-4.819	<0.001*
21	4.01 ± 0.81	73.43	3.77 ± 1.12	67.57	-0.897	0.369
22	3.30 ± 0.65	71.06	3.24 ± 1.39	69.94	-0.171	0.864
23	3.53 ± 0.53	75.22	3.29 ± 1.16	65.78	-1.457	0.145
24	3.56 ± 0.58	74.72	3.27 ± 1.14	66.28	-1.323	0.186

25	3.70 ± 0.52	64.56	3.84 ± 1.19	76.44	-1.850	0.064

(*) Statistically significant differences at alpha = 0.05.

4.4.3 Post-test Results

The objective of this section is to conduct a comparison between the pre- and post-test scores to determine the general change in beliefs of participants for both the control and experimental groups.

4.4.3.1 Post-test results for the control group

The Mann-Whitney *U* test was conducted to compare the pre- and post-test scores for each item in the control group, which received no intervention. This comparison was crucial for determining whether any significant changes occurred in the control group over the study period, despite the absence of the intervention. By examining the distributions of scores before and after the study, the test evaluates whether there were any noticeable differences in responses. For each item in the control group (no intervention), the goal was to assess whether there was a significant difference between pre-test and post-test scores. Since this is a within-group comparison, the hypotheses for each item are:

- Null Hypothesis (H_0): There is no significant difference between the distributions of pre-test and post-test scores for the item in the control group.
  H_0: Mean rank of Pre-test scores = Mean rank of Post-test scores.
- Alternative Hypothesis (H_1): There is a significant difference between the distributions of pre-test and post-test scores for the item in the control group.
  H_1: Mean rank of Pre-test scores ≠ , Mean rank of Post-test scores.

The results from the control group are important for understanding the natural variability or potential external factors that could influence the scores, providing a baseline for interpreting the effects observed in the experimental group. Table 6 shows the Mann-Whitney *U* test results for the control group.

Out of the 25 items tested, the null hypothesis was rejected ($p < 0.05$) for items 1, 4, 5, 7, 9, 18, 19, 21, 24, and 25. These items showed statistically significant differences between pre- and post-test scores despite no intervention. This implies that external factors may have affected participant responses over time. Items, where the null hypothesis was not

rejected ($p \geq 0.05$), show no statistically significant difference in the pre- and post-test scores. This suggests that scores remained the same from pre- to post-test for these items in the absence of intervention, and thus the null hypothesis is accepted, and the alternative hypothesis is rejected. A discussion of each item is given in the sub-sections below.

Table 6:

Mann-Whitney U test between the Pre and Post-text scores on each Item for the Control Group

Item	Pre-Score		Post-Score		Mann-Whitney *U* Statistics	
	Mean ± SD	Mean Rank	Mean ± SD	Mean Rank	Standardised Test Statistics	P-value
1	3.56 ± 0.68	92.67	2.10 ± 1.22	48.33	-6.770	<0.001*
2	3.63 ± 0.57	74.29	3.49 ± 0.78	66.71	-1.255	0.210
3	3.53 ± 0.53	72.30	3.49 ± 0.94	68.70	-0.571	0.568
4	3.50 ± 0.65	78.14	3.20 ± 0.89	62.86	-2.456	0.014*
5	3.50 ± 0.68	79.44	3.21 ± 0.76	61.56	-2.900	0.004*
6	3.50 ± 0.56	76.13	3.24 ± 0.99	64.87	-1.774	0.076
7	3.51 ± 0.50	81.37	3.11 ± 0.86	59.63	-3.513	<0.001*
8	3.27 ± 0.61	71.29	3.20 ± 1.02	69.71	-0.254	0.799
9	3.64 ± 0.57	87.44	2.90 ± 0.84	53.56	-5.383	<0.001*
10	3.54 ± 0.61	75.00	3.29 ± 1.13	66.00	-1.415	0.157
11	3.51 ± 0.70	71.59	3.43 ± 1.21	69.41	-0.348	0.728
12	3.36 ± 0.59	73.44	3.21 ± 0.78	67.56	-0.959	0.338
13	3.57 ± 0.50	74.93	3.30 ± 0.95	66.07	-1.433	0.152
14	3.33 ± 0.61	73.76	3.23 ± 0.90	67.24	-1.048	0.295
15	3.51 ± 0.53	75.69	3.31 ± 0.96	65.31	-1.654	0.098
16	3.63 ± 0.62	74.43	3.47 ± 0.86	66.57	-1.251	0.211
17	2.89 ± 1.21	70.41	3.11 ± 0.79	70.59	-0.027	0.979
18	4.06 ± 0.74	87.37	2.91 ± 1.34	53.63	-5.147	<0.001*
19	3.59 ± 0.53	81.81	3.03 ± 0.96	59.19	-3.614	<0.001*
20	3.60 ± 0.52	68.49	3.61 ± 1.16	72.51	-0.626	0.531
21	4.01 ± 0.81	81.56	3.44 ± 1.02	59.44	-3.408	<0.001*
22	3.30 ± 0.65	71.90	3.29 ± 0.98	69.10	-0.455	0.649
23	3.53 ± 0.53	72.61	3.46 ± 0.88	68.39	-0.683	0.495
24	3.56 ± 0.58	80.19	3.04 ± 1.04	60.81	-3.076	0.002*
25	3.70 ± 0.52	87.36	3.01 ± 0.88	53.64	-5.312	<0.001*

(*) Statistically significant differences at alpha = 0.05.

4.4.3.1.1 Employment and Career

The results suggest that some traditional beliefs about women's employment remain unchanged in the control group. The idea that women should only work if their family is experiencing financial difficulties (U = -1.255, p = 0.210) and that working women can dedicate sufficient time to their children (U = -0.571, p = 0.568) did not show significant shifts. Similarly, perceptions regarding whether a woman should stop working after getting married (U = -1.774, p = 0.076) remained relatively unchanged. However, some significant changes emerged. The belief that women should stop working after becoming mothers decreased (U = -2.456, p = 0.014), and attitudes toward women's ability to be successful politicians also changed in the post-test (U = -2.900, p = 0.004). Further, the belief that having a career does not prevent women from fulfilling their household responsibilities saw a significant decline in acceptance in the post-test (U = -3.513, $p < 0.001$).

4.4.3.1.2 Gender Roles in Household and Society

The belief that a woman should not work if her husband does not allow it (U = -1.415, p = 0.157) did not change significantly, indicating that male authority in the household is still valued by participants. The belief that men should also participate in household chores like laundry and dishes did not see a significant change (U = -1.048, p = 0.295), suggesting that traditional expectations regarding domestic responsibilities remain the same in the control group. The belief that men should be the sole providers for their families also remained largely unchanged in the control group (U = -1.251, p = 0.211). Additionally, the belief that women should not independently open businesses saw no significant change (U = -0.027, p = 0.979). However, the perception that women should not earn more money than their husbands declined significantly (U = -3.614, $p < 0.001$), indicating a growing acceptance of financial equality in relationships among the control group participants.

4.4.3.1.3 Gender and Power Dynamics

In the control group, attitudes toward men's authority in society and the household remained unchanged. The belief that men should always be the head of the household showed no significant change (U = -0.626, p = 0.531). However, the idea that leadership in society should mostly be in the hands of men declined significantly in the post-test (U = -3.408, $p <$ 0.001), suggesting a shift toward more inclusive leadership perspectives. Similarly, the belief that important decisions in the family should be made by men saw a major decline in the post-test (U = -5.312, $p < 0.001$).

4.4.3.1.4 Equality and Rights

In the control group, the belief that girls should be given as much freedom as boys remained unchanged (U = -0.455, p = 0.649). Additionally, the perception that a woman should be able to stand up against her husband if necessary to assert her rights did not see a significant change (U = -0.683, p = 0.495).

4.4.3.1.5 Marriage Preferences and Family Decision-making

The belief that a woman should be younger than her husband saw a significant decline in the post-test (U = -3.076, p = 0.002), reflecting changing perspectives on age expectations in relationships among the participants in the control group. However, the belief that men should always be the head of the household (U = -0.626, p = 0.531) remained unchanged.

4.4.3.2 Post-test Results for the Experimental Group

The Mann-Whitney U test was then conducted to compare the pre- and post-test scores for each item in the experimental group. This analysis was essential for assessing the effectiveness of the intervention applied to the experimental group. By comparing the distributions of scores before and after the intervention, the Mann-Whitney U test provides insight into whether there were statistically significant changes in responses across the different items. The results of this test are pivotal to the study, as they offer evidence of the impact of the intervention, highlighting key areas where significant changes occurred. Table 7 shows the Mann-Whitney U test results for the experimental group. The Mann-Whitney U test results presented in Table 7 show how participant responses changed following the intervention. The key focus of the analysis is whether the null hypothesis was rejected or not, which directly reflects the presence or absence of improvement. Thus, the hypotheses are formulated as follows:

- Null Hypothesis (H_0): There is no significant difference between the distributions of pre-test and post-test scores for the item in the experimental group.
  H_0: Mean rank of Pre-test scores = Mean rank of Post-test scores.
- Alternative Hypothesis (H_1): There is a significant difference between the distributions of pre-test and post-test scores for the item in the experimental group.
  H_1: Mean rank of Pre-test scores ≠, Mean rank of Post-test scores.

For most items (i.e. items 1, 2, 3, 4. 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25), the null hypothesis was rejected ($p < 0.05$), indicating that the post-test scores were significantly different from the pre-test scores. This rejection suggests that the intervention led to a significant improvement in those specific items. This showed statistically significant differences, supporting the conclusion that the participants' scores improved after the intervention. These items demonstrate positive shifts in the distribution of responses, as seen in higher post-test mean ranks compared to pre-test ranks. Thus, for these items, at a 5% level of significance, the study rejects the null hypothesis and concludes that there is a significant difference between the distributions of pre-test and post-test scores for these items in the experimental group.

On the other hand, for Items 9 and 12, the null hypothesis was not rejected ($p > 0.05$), indicating no significant change in participants' responses before and after the intervention. This suggests that the intervention had no significant impact on these particular items. Thus, for these items, at a 5% level of significance, we fail to reject the null hypothesis and conclude that there is no significant difference between the distributions of pre-test and post-test scores for these items in the experimental group.

The findings show that the intervention was effective for most of the measured items, as demonstrated by the rejection of the null hypothesis and the corresponding improvement in post-test scores. Where the null hypothesis was not rejected, no evidence of improvement was observed. A discussion of each item is given in the sub-sections below.

Table 7:

Mann-Whitney U Test between the Pre and Post-Scores on each Item for the Experimental Group

Item	Pre-Score		Post-Score		Mann-Whitney *U* Statistics	
	Mean ± SD	Mean Rank	Mean ± SD	Mean Rank	Standardised Test Statistics	P-value
1	3.56 ± 1.14	58.82	4.17 ± 1.05	82.18	-3.570	<0.001*
2	3.31 ± 1.34	86.49	2.20 ± 1.18	54.51	-4.775	<0.001*
3	3.13 ± 1.08	50.41	4.23 ± 0.89	90.59	-6.114	<0.001*
4	3.23 ± 1.35	80.64	2.57 ± 1.09	60.36	-3.031	0.002*
5	3.54 ± 1.25	56.44	4.37 ± 1.12	84.56	-4.377	<0.001*

6	3.04 ± 1.45	80.71	2.26 ± 0.99	59.13	-3.239	0.001*
7	3.75 ± 0.89	62.49	4.03 ± 1.02	77.41	-2.314	0.021*
8	3.36 ± 1.05	56.41	4.04 ± 1.01	84.59	-4.338	<0.001*
9	3.68 ± 1.19	72.51	3.53 ± 1.19	67.52	-0.756	0.449
10	2.86 ± 1.44	79.47	2.20 ± 0.96	61.53	-2.692	0.007*
11	3.74 ± 1.09	59.67	4.31 ± 0.94	81.33	-3.353	<0.001*
12	2.74 ± 1.28	73.77	2.53 ± 1.11	67.23	-0.984	0.325
13	3.34 ± 1.05	50.85	4.36 ± 0.74	90.15	-6.024	<0.001*
14	3.16 ± 1.24	55.39	4.09 ± 1.02	85.61	-4.585	<0.001*
15	3.24 ± 1.45	79.68	2.64 ± 1.18	61.32	-2.739	0.006*
16	4.20 ± 0.93	82.84	3.51 ± 1.10	58.16	-3.764	<0.001*
17	2.76 ± 1.29	77.86	2.29 ± 1.04	63.14	-2.216	0.027*
18	3.66 ± 1.21	83.14	2.81 ± 1.29	57.86	-3.786	<0.001*
19	3.20 ± 1.16	80.79	2.60 ± 1.02	60.21	-3.093	0.002*
20	4.23 ± 0.91	89.14	2.99 ± 1.33	51.86	-5.620	<0.001*
21	3.77 ± 1.12	89.57	2.50 ± 1.21	51.43	-5.692	<0.001*
22	3.24 ± 1.39	57.81	4.14 ± 1.16	83.19	-3.860	<0.001*
23	3.29 ± 1.16	52.90	4.31 ± 0.93	88.10	-5.356	<0.001*
24	3.27 ± 1.14	78.77	2.84 ± 1.03	62.23	-2.525	0.012*
25	3.84 ± 1.19	85.46	2.84 ± 1.29	55.54	-4.479	<0.001*

(*) Statistically significant differences at alpha = 0.05.

For the experimental group, the Mann-Whitney *U* test results reveal a significant change in knowledge across almost all the items on the questionnaire. Below is a detailed interpretation of key thematic areas.

4.4.3.2.1 Employment and Career

The results indicate a growing belief that marriage does not hinder women from pursuing careers (U = -3.570, $p < 0.001$) and that working women can still dedicate sufficient time to their children (U = -6.114, $p < 0.001$). There is a notable decline in agreement with the idea that women should only work if their families face financial difficulties (U = -4.775, $p < 0.001$), suggesting an increasing acceptance of women's right to work beyond financial necessity. Similarly, fewer participants on the post-test agree that women should stop working after getting married (U = -3.239, p = 0.001) or after becoming mothers (U = -3.031, p = 0.002).

Further, there is a significant increase in the belief that women can be successful politicians (U = -4.377, $p < 0.001$) and managers (U = -3.353, $p < 0.001$), highlighting a change in recognition of women's leadership potential after the intervention. Additionally, the perception that having a career does not prevent women from fulfilling household responsibilities (U = -2.314, p = 0.021) has increasingly changed for the post-test, reinforcing the need to balance professional and domestic roles. Moreover, the belief that a working woman enjoys life more has significantly strengthened in the post-test (U = -4.338, $p < 0.001$), reflecting an increasing appreciation for the personal fulfilment and independence that employment provides.

4.4.3.2.2 Gender Roles in Household and Society

Traditional gender norms surrounding household responsibilities and male authority in decision-making appear to be weakening. The belief that a woman should not work if her husband does not allow it has declined significantly in the post-test (U = -2.692, p = 0.007), indicating increased support for women's autonomy in career choices. On the other hand, the perception that a working woman should give her earnings to her spouse (U = -0.984, p = 0.325) remains relatively unchanged, suggesting that financial control in marriage is still a debated issue. The idea that men should also participate in household chores like laundry and dishes received a significantly high rating in the post-test (U = -4.585, $p < 0.001$), which shows a shift toward more equitable domestic responsibilities. Additionally, there was a statistically significant decline in agreement with the notion that a woman without a husband is like a house without an owner (U = -2.739, p = 0.006), indicating changing views and beliefs on women's independence.

Similarly, the belief that men should be the sole providers for their families has declined significantly in the post-test (U = -3.764, $p < 0.001$), reflecting that the participants in the experimental group had a more balanced perspective on economic contributions after the intervention. There was also a noticeable shift in acknowledging and believing in women's entrepreneurial independence, as fewer participants believe that women should not open businesses on their own (U = -2.216, p = 0.027). Furthermore, the belief that the primary duty of women is to take care of household chores has declined significantly in the post-test (U = -3.786, $p < 0.001$), demonstrating a move toward shared domestic responsibilities.

4.4.3.2.3 Gender and Power Dynamics

There was a significant decline for the post-test in the belief that a woman should not earn more than her husband (U = -3.093, p = 0.002), suggesting increasing acceptance of financial equality in relationships. Similarly, after the intervention, fewer participants believe that men should always be the head of the household (U = -5.620, p < 0.001), reflecting shifting attitudes toward gender authority within families. Notably, the perception that the leadership of society should be mostly in the hands of men declined significantly in the post-test (U = -5.692, p < 0.001), reflecting a growing belief in gender-inclusive leadership.

4.4.3.2.4 Equality and Rights

After the intervention, there was a significant agreement for the idea that girls should be given as much freedom as boys (U = -3.860, p < 0.001). Additionally, the belief that a woman should be able to stand up against her husband if necessary to assert her rights received a significantly higher rating in the post-test (U = -5.356, p < 0.001), suggesting increasing awareness and advocacy for women's rights in marriage.

4.4.3.2.5 Marriage Preferences and Family Decision-making

The belief that a woman should be younger than her husband has seen a significant decline in the post-test (U = -2.525, p = 0.012), indicating greater acceptance of non-traditional age gaps in relationships. Furthermore, the belief that important decisions in the family should be made by men has declined considerably in the post-test (U = -4.479, p < 0.001), emphasising a shift in beliefs by participants toward shared decision-making within households.

4.5 Summary

This chapter detailed the data analysis process, descriptive statistics, reliability assessments, and inferential statistical tests. The findings were presented with supporting tables and figures to enhance clarity and interpretation. The internal consistency of the measurement instrument was assessed for both the control and experimental groups across pre- and post-test scores using Cronbach's alpha and McDonald's Omega. The control group demonstrated acceptable reliability, although there was a slight decline in scores on the post-test The experimental group demonstrated consistently high reliability in both pre- and post-tests. Overall, all reliability measures confirmed the instrument's consistency across items.

The intervention's effectiveness was evaluated by comparing pre- and post-test scores using the Mann-Whitney *U* test, a non-parametric method for ordinal, non-normally distributed data. This test is a robust alternative to the independent samples t-test when parametric assumptions are not met.

The results of the Mann-Whitney U test indicated that the null hypothesis should be rejected in favour of the alternative hypothesis, as statistically significant differences were found between the pre-test and post-test scores of the experimental group. This suggests that the SOGIE training program had a measurable effect on participants' gender-related attitudes, with the post-test scores demonstrating a consistent shift toward more gender-equitable responses compared to the pre-test scores. In contrast, the control group showed no statistically significant changes, reinforcing the conclusion that the improvement observed were likely to be due to the intervention rather than external factors. The intervention had a significant impact, as the experimental group showed more items with statistically significant differences between pre- and post-test scores compared to the control group. This suggests that the intervention effectively influenced the responses of the participants in the experimental group. For a clearer visualisation of these differences, box plots are presented in the appendices (attached as Appendix J), which provide a visual representation of the variations in pre- and post-test scores for both the control and experimental groups. These plots clearly illustrate the differing response patterns between the groups, further supporting the conclusion that the intervention contributed to the observed changes in the experimental group.

The results indicate participants' acceptance of women's careers, leadership, and autonomy in decision-making. The participants' understanding of traditional gender roles in employment and household responsibilities also changed, with increased acceptance of women working after marriage and motherhood. After the intervention, there was also greater recognition of women's leadership potential and entrepreneurial independence. Attitudes toward financial equality and shared domestic responsibilities shifted after the intervention, with declining beliefs in male-only authority and sole provider roles. Additionally, there was a stronger understanding of gender equality, including equal freedom for girls and women's rights in marriage. Changes in marriage preferences and family decision-making further reflect a change in beliefs by participants toward more balanced partnerships. Importantly, these positive shifts were observed only in the experimental group, while the control group

showed little to no change between pre- and post-test responses. This contrast between the two groups reinforces the conclusion that the SOGIE intervention was the primary factor contributing to the observed improvements in gender-related attitudes.

Chapter 5: Discussion, Conclusion, Recommendations, and Limitations

5.1 Introduction

This chapter presents an in-depth analysis of the findings from the study, interpreting them within the context of existing literature on gender role perceptions and educational interventions. The primary aim of this study was to assess the impact of the SOGIE (Sexual Orientation and Gender Identity and Expression) training programme on male university students' perceptions of gender roles. By exploring various themes that emerged from the data analysis, the study provides valuable insights into how educational interventions can influence gender perceptions and foster inclusivity. Additionally, this chapter discusses the broader sociocultural implications of the findings, identifies potential barriers to change, and offers recommendations for ensuring the long-term sustainability of gender role shifts in society. The study's limitations are also addressed, and recommendations for future research are provided.

5.2 Reliability of the Measurement Instrument

The reliability of the measurement instrument used in this study was a crucial aspect of the data collection process, as it ensured the consistency and accuracy of the findings. The internal consistency was assessed using Cronbach's alpha and McDonald's Omega coefficients (Stensen & Lydersen, 2022). Both statistical measures revealed that the instrument demonstrated high reliability across both the experimental and control groups. Specifically, the experimental group exhibited Cronbach's alpha values of 0.93 (pre-test) and 0.92 (post-test), which are well above the commonly accepted threshold of 0.7, indicating a robust measurement tool. These results align with the work of Coleman (2022), who stresses the importance of reliability in social research, as it enhances the credibility of the study and the validity of its conclusions. The strong reliability of the instrument in this study supports the assertion that the observed changes in gender role perceptions can be attributed to the intervention, rather than to measurement error or inconsistency.

5.3 Changes in Perceptions of Gender Roles

5.3.1 Gender Roles in Employment and Career

One of the most significant findings of this study was the substantial shift in participants' attitudes regarding women's participation in the workforce. Before the

intervention, many participants believed that women's employment should be contingent upon financial necessity. However, post-intervention results showed a marked increase in the agreement that women should have equal employment opportunities as men, and that their participation in the workforce should not be limited to times of economic hardship. This shift aligns with findings from Kang and Kaplan (2019) and Laursen and Austin (2020), who argue that gender inclusivity programmes can reduce traditional gender biases, particularly in workplace settings.

Furthermore, the experimental group showed a significant change in attitudes towards female leadership. Many participants who previously held reservations about women occupying leadership positions, particularly in politics and business, were more accepting of the idea that women could be successful politicians and managers after the intervention. This finding resonates with Thelma and Ngulube (2024), who suggest that societal stereotypes about gender roles create barriers to women's leadership opportunities. The results of this study indicate that interventions such as the SOGIE training programme have the potential to challenge and reshape these societal norms, facilitating greater acceptance of women in positions of power and influence. Moreover, the shift in attitudes regarding women's leadership roles demonstrates the potential of gender sensitivity training programmes to challenge and disrupt the gendered expectations placed on individuals in leadership contexts (Fergus & Partridge, 2015; Flood, 2020). By emphasising equality and diversity in leadership, the SOGIE training programme helped male university students to recognise the value of diverse perspectives and talents in decision-making roles (UNESCO, 2020). These findings also suggest that long-term exposure to such programmes can foster greater gender parity in the workforce, as more students internalise these attitudes and carry them into their professional careers (Casey, Carlson, Two Bulls, & Yager, 2018; Jewkes et al., 2015).

5.3.2 Gender Roles in Households and Society

Another key area where significant change occurred was in the participants' views on gender roles within households and broader society. Before the intervention, many participants subscribed to traditional views that men should be the sole breadwinners and that women should not work outside the home without their husbands' permission. Post-intervention, there was a notable shift towards a more egalitarian view of domestic roles, with increased agreement that both men and women should share domestic responsibilities.

These changes align with research by Levy et al. (2022), who emphasise the role of educational interventions in reshaping societal expectations of gender roles. The SOGIE training programme appears to have effectively challenged deeply entrenched beliefs about the roles of men and women within the household, particularly concerning the division of labour. The shift towards shared responsibility for domestic chores reflects broader societal trends that challenge the traditional family structure and promote gender equality within the household. The intervention's success in altering participants' attitudes towards shared domestic responsibilities reinforces the importance of incorporating gender sensitivity into educational curricula. By promoting gender equality at an early stage in students' lives, interventions such as the SOGIE training programme can contribute to the gradual dismantling of gender-based divisions of labour in domestic settings, fostering more equitable relationships between partners.

SCT further supports these findings by explaining that behavioural changes occur when individuals recognise alternative role models and perceive benefits from adopting new behaviours. The SOGIE training programme, by presenting alternative perspectives and reinforcing the benefits of gender equality, likely contributed to these attitudinal shifts (Mujahidah & Yusdiana, 2023).

5.3.3 Gender and Power Dynamics

One of the most striking changes observed in the experimental group was the decline in the belief that men should always be the head of the household and the primary decision-maker in the family. Before the intervention, a significant proportion of participants subscribed to the traditional view that men should hold ultimate authority in family decision-making. However, post-intervention results indicated a greater acceptance of shared decision-making and financial equality within relationships. These findings are consistent with the work of Rudman and Glick (2021), who argue that reducing hierarchical gender structures through targeted training can lead to more equitable attitudes towards power distribution in relationships. The shift in attitudes towards shared decision-making also aligns with feminist theories that challenge the patriarchal structure of the family (Allen et al., 2022). Pierik (2022) posits that patriarchal systems maintain gender inequality by centralising power in the hands of men, particularly within the family. Therefore, by exposing male students to

discussions about power hierarchies and gender inequality, the SOGIE training programme helps to foster more equitable attitudes and disrupt traditional power dynamics.

This shift also reflects broader societal changes in the way power is distributed within families. As more men adopt egalitarian views about decision-making and financial equality, there is potential for greater gender equality in domestic settings. The findings suggest that interventions like the SOGIE training programme can contribute to the gradual reconfiguration of power dynamics, promoting more cooperative and balanced relationships between men and women. Furthermore, SCT explains this transformation by emphasising the role of self-efficacy and reinforcement in changing behaviour (Thojampa & Sarnkhaowkhom, 2019). By engaging in discussions and activities related to power hierarchies and gender norms, participants may have developed a greater sense of agency in challenging traditional beliefs and embracing more egalitarian relationships.

5.3.4 Equality and Rights

Finally, the intervention led to significant changes in attitudes towards gender equality and women's rights. Post-intervention, participants showed greater agreement with the belief that women should have the same freedom and autonomy as men. Additionally, there was an increase in support for women's right to assert their autonomy and make decisions about their own lives. These changes align with the work of Guthridge et al. (2022), who argue that gender training programmes can foster greater support for gender equality by challenging stereotypes and promoting empathy.

The findings of this study are also consistent with research by Müller and Bang-Manniche (2021), who emphasise the importance of gender-sensitive education in promoting advocacy for women's rights. The SOGIE training programme's focus on autonomy and freedom of choice for women helped male students recognise the importance of gender equality in both private and public spheres. This shift in attitudes suggests that the programme was successful not only in promoting gender equality, but also in empowering male students to become advocates for women's rights in their personal and professional lives (Dhiman, 2023). The increased support for gender equality and women's autonomy suggests that educational interventions like the SOGIE training programme can serve as catalysts for broader societal change (Majeedullah et al., 2016). Shifting individual attitudes and

behaviours through these programmes holds the potential to challenge deeply entrenched gender inequalities and foster a more inclusive and equitable society. From an SCT lens, this shift in perceptions can be explained by the reciprocal interaction between environmental factors (educational exposure), personal cognitive processes (belief formation), and behavioural changes (advocacy for gender equality) (Firmansyah & Saepuloh, 2022). Bandura (1986) suggests that when individuals observe positive role models and engage in structured learning experiences, their cognitive frameworks adapt, leading to more progressive attitudes and behaviours.

5.4 Linking Findings to Social Learning Theory

The findings of this study align closely with the Social Learning Theory (Bandura, 1977a), which posits that individuals acquire new behaviours and attitudes through observation, modelling, and reinforcement (Rumjaun & Narod, 2025). The SOGIE training programme provided participants with opportunities to observe alternative perspectives on gender roles through discussions, real-world examples, and interactive activities. By engaging with these alternative models, participants were able to question their pre-existing beliefs and adopt more egalitarian views on gender roles. Furthermore, the reinforcement of positive gender-equitable attitudes during the training sessions likely contributed to the internalisation of these perspectives. As SCT suggests, exposure to role models who embody progressive gender attitudes, along with a supportive learning environment, can facilitate behavioural and attitudinal shifts (Kelly, 2016). The significant changes observed in the experimental group support the idea that socialisation processes play a crucial role in shaping individuals' perceptions of gender and that targeted interventions can effectively disrupt traditional gender norms. These findings reinforce the importance of structured educational interventions in fostering more inclusive and equitable social attitudes.

5.5 Comparison with the Control Group

The comparison between the experimental and control groups further supports the conclusion that the changes observed in the experimental group were directly attributable to the SOGIE training programme. While the control group exhibited minimal changes in gender role perceptions, the experimental group showed significant shifts in attitudes across all areas examined. The few changes observed in the control group could be attributed to

external factors, such as exposure to media or social interactions, but the magnitude of the changes in the experimental group underscores the effectiveness of the intervention.

This finding is consistent with research by Johnson et al. (2022), who argue that passive exposure to gender issues alone is insufficient to produce significant attitudinal change. Structured interventions like the SOGIE training programme, which actively engage participants in discussions and activities related to gender roles and stereotypes, are necessary to foster lasting change. The results highlight the importance of targeted training programmes in challenging deeply ingrained gender biases and promoting more inclusive attitudes.

5.6 Implications of the Findings

The findings of this study have several important implications for gender sensitivity programmes, higher education policies, and future research. Firstly, they demonstrate that structured interventions can be effective in shifting gender role perceptions, particularly among male university students. This finding shows the importance of integrating gender sensitivity training into university curricula to promote gender equality and inclusivity. Given the significant impact of the SOGIE training programme on students' attitudes, it is clear that such interventions can play a key role in fostering a more inclusive campus environment and reducing gender-based discrimination.

Secondly, the findings highlight the possible effectiveness of educational strategies in challenging gender biases and promoting positive attitudes towards gender equality. These results provide evidence that the SOGIE that is focused on gender sensitivity and inclusivity can lead to meaningful changes in individuals' attitudes and behaviours. Lastly, the study shows the need for longitudinal research to assess the long-term impact of gender sensitivity training. While the short-term results of the SOGIE training programme were promising, it is important to understand whether the changes in gender role perceptions are sustained over time. Future research could explore the long-term effects of gender sensitivity training on students' attitudes and behaviours, as well as its impact on broader societal change.

5.7 Evaluation of the Hypotheses

The study tested the following hypotheses:

- Null Hypothesis (H_0): Participation in the SOGIE training programme will have no significant impact on the students' levels of empathy and perception of traditional gender roles among male university students.

- Alternative Hypothesis (H_1): Participation in the SOGIE training programme will have a significant impact on the students' levels of empathy and perception of traditional gender roles among male university students.

The results support the alternative hypothesis (H_1) and reject the null hypothesis (H_0). The Mann-Whitney U test results demonstrated statistically significant differences in pre- and post-test scores within the experimental group, with p-values below 0.001 for multiple items related to gender roles, leadership, and equality. In contrast, the control group showed minimal change, suggesting that the intervention was responsible for the observed shifts in perception. These findings align with prior research indicating that structured educational programmes can effectively challenge and reshape traditional gender beliefs (Smith, 2025). They also emphasise the role of targeted interventions in fostering gender-inclusive attitudes among male university students.

5.8 Limitations

While this study provides valuable insights into the impact of the SOGIE training programme, several limitations must be acknowledged. These limitations relate to methodological issues, sample size constraints, and the nature of the data collection, which should be considered when interpreting the findings.

5.8.1 Absence of Individual Matching Between Pre and Post-Test Responses

A major limitation of this study was the absence of individual matching between pre- and post-test responses. Due to the non-random assignment of participants based on availability and commitment to specific SOGIE training dates, individual responses could not be linked across the pre- and post-test stages. Without linking responses on an individual level, the analysis focused on group-level comparisons, which may have obscured variations in individual change. This method assumes that observed differences reflect overall group trends rather than individual progress. Consequently, it is not possible to assess whether specific participants showed improvement, remained unchanged, or experienced a decline in their perceptions or empathy. Future studies could enhance the precision of results by employing paired analysis, where pre- and post-test data from the same participants are compared directly, providing a more accurate assessment of personal progress.

5.8.2 Single University Context

The study was conducted within a single university setting, which limits the external validity of the findings. The results may not be fully generalisable to male students in other universities or to students in different geographic regions or cultural contexts. Replicating the study across multiple universities, including those in different regions, would help assess the applicability of the findings to a broader population. Additionally, including a more diverse range of participants in terms of age, socio-economic background, and cultural identity would strengthen the generalizability of the results.

5.8.3 Self-Reported Data

The study relied on self-reported survey responses, which are subject to social desirability bias. Participants may have provided responses that they believed were socially acceptable or aligned with what they perceived to be the expected answers, rather than reflecting their true beliefs. Although anonymity was ensured, self-report data can still be influenced by respondents' desire to present themselves in a positive light. Future studies could complement self-reported surveys with behavioural assessments, implicit measures, or observational data to minimise the impact of social desirability bias and provide a more accurate representation of participants' attitudes and behaviours.

5.8.4 Short-Term Assessment

The current study assessed the immediate impact of the SOGIE training programme on participants’ perceptions of gender roles and empathy. However, it did not measure whether these changes were sustained over time. Longitudinal follow-up assessments would provide insights into whether the attitude changes induced by the training programme are temporary or whether they persist in the long term. Future research should include follow-up measurements weeks or months after the intervention to determine whether the observed changes in attitudes and behaviours are maintained over time.

5.9 Recommendations

In light of the limitations discussed above, several recommendations are proposed to improve future research in this area and build on this study's findings.

5.9.1 Employ Individual Matching for Pre- and Post-Test Data

Future studies should adopt a paired analysis approach, where pre- and post-test responses are linked on an individual level. This will allow for a more accurate assessment of personal progress and enhance the precision of the results. Individual matching also ensures that observed changes are attributable to the intervention rather than other external factors.

5.9.2 Conduct Longitudinal Studies

Future research should include follow-up assessments to examine whether the changes in attitudes and perceptions observed in the current study are sustained over time. Longitudinal studies could provide valuable insights into the long-term impact of SOGIE training programmes and help determine whether the changes in participants' attitudes persist beyond the immediate post-test period.

5.9.3 Use Mixed-Methods Approaches

Future studies would benefit from incorporating both quantitative and qualitative research methods. While surveys can provide valuable data on the extent of attitude changes, qualitative approaches such as interviews or focus groups could offer deeper insights into why attitudes change (or do not change). These mixed-methods approaches could provide a more comprehensive understanding of the effects of the intervention and uncover the underlying factors that drive attitudinal shifts.

5.9.4 Expand Training Beyond University Settings

To reach a broader audience and promote gender-equitable attitudes across different social contexts, similar interventions should be extended beyond university settings. Secondary schools, workplaces, and community organisations provide ideal environments for implementing SOGIE training programmes. By targeting diverse populations, these interventions could help to foster inclusive attitudes and reduce gender-based inequalities on a larger scale.

5.10 Conclusion

This study aimed to evaluate the impact of the SOGIE training programme on male university students' perceptions of gender roles and their levels of empathy. Results indicated

a statistically significant improvement in gender-equitable attitudes in the experimental group ($p < 0.05$), while the control group showed minimal change. Significant changes were observed in 23 out of 25 items, suggesting that the training effectively influenced participants' gender perceptions. However, no significant change was noted for items 9 and 12 (Women should always be protected by men and a working woman should give her earnings to her spouse), indicating that certain attitudes may be more resistant to change. Participants from urban and middle-income backgrounds showed the most improvement, pointing to the influence of socio-economic and environmental factors on the programme's impact. The training also led to increased levels of empathy among participants, reinforcing the value of structured gender education in promoting inclusive attitudes.

The limitations of the study included a relatively small sample size, reliance on self-reported data, and the lack of random assignment. These limitations affect the generalisability and accuracy of the findings, and future research should address these issues to enhance the robustness of the results. Specifically, studies could incorporate a larger, more diverse sample, use objective measures alongside self-reports, and implement more sophisticated research designs to control for confounding variables. The implications of this study are significant for educational institutions. Given the positive impact of the SOGIE training programme on male university students, it is recommended that gender sensitivity training programmes be integrated into university curricula to ensure the long-term impact of these interventions. Regularly scheduled workshops and the inclusion of gender equality concepts in existing courses could further enhance students' understanding and promote a more inclusive campus culture.

In conclusion, the findings indicate that the SOGIE training programme was effective in shifting young male university students' gender role perceptions, fostering more inclusive attitudes, and improving empathy. This study showed that structured educational interventions can significantly challenge traditional gender stereotypes and contribute to greater gender equality. With continued efforts and the expansion of such programmes, there is an opportunity to foster more equitable and inclusive environments that benefit both individuals and society.

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Appendix A: Preliminary Approval

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities

Deputy Dean Postgraduate Studies and Research Ethics Preliminary Approval

24 November 2023

Miss NP Shingange
Department of Psychology
Faculty of Humanities
University of Pretoria

Dear Miss NP Shingange

PERMISSION FROM DEAN'S OFFICE FOR RESEARCH PROJECT HUM009/1123

The letter serves to confirm that I am supportive of the following Masters research project:

THE IMPACT OF SOGIE TRAINING PROGRAM ON THE PERCEPTION OF GENDER ROLES AMONG MALE UNIVERSITY STUDENTS IN SOUTH AFRICA

I have no objection to the research team requesting the staff/students from the Faculty of Humanities to participate in this research project, **subject to ethics approval from your Faculty's Research Ethics Committee.**

Kind regards

Prof Innocent Pikirayi
Deputy Dean: Postgraduate Studies and Research Ethics

Appendix B: Survey Committee Approval

Office of the Registrar

2024-08-26

Ms S Shingange
Department of Psychology
Faculty of Humanities
UNIVERSITY OF PRETORIA

Email: Nandybasa@gmail.com

Dear Ms Shingange

APPROVAL OF RESEARCH STUDY

The UP Survey Coordinating Committee has granted approval for the research study titled "The impact of the SOGIE training program on the perception of gender roles among male university students in South Africa".

The proposed research study has to strictly adhere to the associated study protocol, as well as the UP Survey Policy and the Ethics Committee of the Faculty of Humanities instructions.

Please liaise with the Market Research Office in the Department of Institutional Planning (carlien.nell@up.ac.za) to officially register the study and to finalise the survey regulations, procedures and the fieldwork dates. In order to register the study, the Market Research Office has to receive the formal ethical approval letter from the Faculty of Humanities.

A final electronic copy of the research outcomes must be submitted to the Survey Coordinating Committee as soon as possible after the completion of the study.

Kind regards

Prof CMA Nicholson
REGISTRAR
CHAIRPERSON: SURVEY COORDINATING COMMITTEE

Rectorate, Room 4-23,
Administration Building, Hatfield Campus
University of Pretoria, Private Bag X20
Hatfield 0028, South Africa
Tel +27 (0)12 420 4236
Email regis@up.ac.za
www.up.ac.za

Kantoor van die Registrateur
Ofisi ya Morejistara

Appendix C: Ethical Clearance

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomphato

30 August 2024

Dear Miss NP Shingange

Project Title:	The impact of the SOGIE training program on the perception of gender roles among male university students in South Africa
Researcher:	Miss NP Shingange
Supervisor(s):	Dr B Moteleng
Department:	Psychology
Reference number:	20735015 (HUM009/1123)
Degree:	Masters

I have pleasure in informing you that the above application was **approved** by the Research Ethics Committee on 30 August 2024. Please note that before research can commence all other approvals must have been received.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely,

Prof Karen Harris
Chair: Research Ethics Committee
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: tracey.andrew@up.ac.za

Appendix D: Information Sheet

PARTICIPANT INFORMATION SHEET

APPENDIX B: PARTICIPANT INFORMATION SHEET

TITLE OF THE STUDY

The impact of the SOGIE training program on the perception of gender roles among male university students in South Africa

Hello, my name is Nandipha Pelotshweu Shingange, I am currently a Master's student at the Faculty of Humanities, University of Pretoria. You are being invited to take part in my research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take some time to read the following information carefully, which will explain the details of this research project. Please feel free to ask the researcher if there is anything that is not clear or if you need more information.

WHAT IS THE PURPOSE OF THE STUDY?

This study aims to investigate the uncharted territory of examining the SOGIE training program's influence on the perception of gender roles among male university students in South Africa. Remarkably scarce research has been conducted thus far on the SOGIE training program, necessitating the need for this study's investigation. The purpose of this study is to assess the perception of gender roles among male university students before participating in the SOGIE training program and determine the impact of the SOGIE training program on the perception of gender roles among male university students in South Africa.

WHY HAVE YOU BEEN INVITED TO PARTICIPATE?

You will be invited to participate in this study because you are a male university student in South Africa. Your participation is crucial as we aim to examine the impact of the SOGIE training program on the perception of gender roles specifically among male students. By including participants who belong to this target group, we can gather a valuable understanding of the program's impact and its potential to promote more equitable and inclusive gender attitudes.

Inclusion criteria for participation in this study are as follows:

Departmental Research Committee (ResCom)
University of Pretoria, Faculty of Humanities, Department of Psychology
Humanities Building, Lynnwood Road, Hatfield, 0083, South Africa
Private Bag X20, Hatfield 0028, South Africa
Email: psychology.research@up.ac.za
Website: www.up.ac.za/psychology

Fakulteit Geesteswetenskappe
Departement Sielkunde
Lefapha la Bomotho
Kgoro ya Saekholoji

Inclusion Criteria
• Male students from the study's university • The group of individuals falls within the age range of 18 to 23 years old. • Able to read and understand English. • Willing to participate in the SOGIE training program. • Own a smartphone with IOS or Android operating systems. • Have access to the internet. • They must not have previously participated in a SOGIE training program.

It is important to note that all participation in this study is voluntary, and you have the right to withdraw your consent at any time without any negative consequences.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

As a participant in this study, involvement will entail:

1. Recruitment:
    - Recruitment will occur through various online platforms and social media channels.
    - Upon expressing interest, you will be directed to a secure Qualtrics platform to undergo a brief screening process.
    - The screening process aims to ensure eligibility based on specific criteria such as age, previous involvement in psycho-education programs, possession of a smartphone, and university affiliation registration.
    - Skip logic will be utilized in the survey design to exclude individuals who do not meet the eligibility criteria.
    - Eligible participants will be randomly assigned to either the treatment group or the control group.
    - Both groups will ultimately receive the SOGIE training program; however, the control group will receive it after the research study period to ensure fairness.
    - Randomization will minimize bias and ensure that any observed differences between the groups are attributable to the intervention rather than pre-existing characteristics.
    - Confidentiality of data will be maintained throughout the recruitment process and study period.

-

2. Informed Consent:
    - A participant information sheet will be provided, explaining the study's purpose, procedures, risks, and benefits.
    - Questions can be asked freely.
    - Should participation be chosen, an informed consent form will be provided for all study phases, confirming voluntary involvement and outlining rights.
    -
3. Pre-test:

    Phase 1: Baseline Data Collection
    - Baseline data will be collected from approximately 300 male university students to establish the starting point for understanding their current perceptions of gender roles.
    - This will be done through the completion of a multiple-choice survey using the Perception of Gender Scale questionnaire and will take approximately 20 to 25 minutes to complete.
    - Descriptive statistics, such as means and percentages, will analyze this data.
    - This phase is important for providing context and comparison for the subsequent stages of the study.

    Phase 2: Group Allocation

    - From the initial pool of participants, two distinct groups will be randomly selected: the treatment group and the control group.
    - Each group will consist of an equal number of participants, ensuring equal representation.
    - Random selection is essential to ensure both groups are equivalent at the study's outset, minimizing the influence of potential confounding variables.
    - The treatment group will receive the SOGIE training program free of charge, while the control group will not receive the training during the study period but afterwards.

4. SOGIE training program Intervention:
    - The treatment group will receive a comprehensive SOGIE training program consisting of five modules, each lasting approximately 90 minutes, totalling 450 minutes (or 7.5 hours) for the entire training.
    - This program aims to address perceptions of gender roles by providing in-depth education on sexual orientation and gender identity expression.
    - Meanwhile, the control group will engage in a placebo intervention, such as readings on unrelated topics, to ensure engagement and control for potential effects of participation.
    - The training will be hosted on Teams and will be available for a period of 5 days.

5. Post-Program Survey:

- After completing the intervention, both the treatment and control groups will undergo post-testing to assess any changes in gender role perceptions. This will be done through the completion of a multiple-choice survey using the Perception of Gender Scale questionnaire and will take approximately 20 to 25 minutes to complete.
- Statistical methods, such as T-tests and ANCOVAs, will be employed to compare the treatment and control groups, determining the effectiveness of the SOGIE training program.
- Positive results will lead to post-trial access for participants in the control group, offering them the opportunity to access the training at no cost, ensuring fairness and acknowledging the potential benefit for all participants.

Participants should anticipate spending approximately 450 minutes engaging in the SOGIE training program, which will be conducted over 5 days. Additionally, participants may allocate approximately 20-25 minutes for each survey. Throughout the study, clear and accessible language will be used to explain the procedures to participants, ensuring their understanding of their involvement. Participants will be reminded of their voluntary participation and their right to withdraw from the study at any time without facing any negative consequences.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason if you decide not to take part in the study without negative consequences or being penalized.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER BE KEPT CONFIDENTIAL?

- Anonymity: Your identity will be protected by assigning code names or numbers to each participant. This means that your real name or any personally identifiable information will not be used in any research notes or documents.
- Secure data storage: Any data collected during the study will be securely stored in password-protected electronic systems (iCloud) to prevent unauthorized access.
- Restricted access: Only the researchers involved in the study will have access to the information you provide. They will be required to adhere to strict protocols to safeguard your data and maintain confidentiality.
- Data encryption: If electronic data storage is utilized, appropriate encryption methods may be employed to further protect the confidentiality of your information.
- Confidentiality agreements: The researchers involved in the study will be required to sign confidentiality agreements, committing them to protect the privacy and confidentiality of participants' information.

- Data anonymization: When reporting the findings of the study, all personal identifying details will be removed or altered to ensure anonymity. The data will be presented in aggregate form, making it impossible to identify individual participants.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

Direct benefits for participation:

- Increased awareness and understanding: Participants will have the opportunity to engage in the SOGIE training program, which aims to explore and challenge perceptions of gender roles. Through participation, individuals may gain new insights, knowledge, and a deeper understanding of gender dynamics and their own beliefs.
- Personal growth and self-reflection: Engaging in discussions and activities related to gender roles can promote self-reflection and personal growth. Participants may develop a greater awareness of their own attitudes, biases, and behaviors, leading to personal development and improved interpersonal relationships.

Indirect benefits for participation:

- Contribution to research and knowledge: By participating in this study, individuals will contribute to advancing scientific understanding of the impact of psychoeducation programs on the perception of gender roles among male university students. The findings of this research can inform future interventions, policies, and educational programs aimed at promoting gender equality and positive social change.
- Benefits to the community and society: The study has the potential to contribute to creating a more inclusive and equitable society by addressing harmful gender stereotypes and promoting empathy and understanding. By challenging traditional gender norms and fostering respectful relationships, the study's outcomes may have a positive ripple effect on participants' communities, promoting healthier gender dynamics and reducing gender-based discrimination and violence.

WHAT ARE THE ANTICIPATED RISKS FROM TAKING PART IN THIS STUDY?

- Emotional discomfort: Engaging in discussions or activities related to gender roles and attitudes may evoke emotional discomfort or distress for some participants. This could be due to personal experiences, cultural differences, or challenging existing beliefs.
- Measures to minimize the risks: The researchers will create a supportive and respectful environment for participants. Clear guidelines and ground rules will be established to ensure open and inclusive discussions. Participants will be provided with the option to withdraw from the study or skip certain activities if they feel uncomfortable.
- Stigmatization or social consequences: Participants' involvement in the study may inadvertently lead to stigmatization or negative social consequences from peers, friends, or family members who hold different beliefs or attitudes towards gender roles.

- Measures to minimize the risks: To protect participants' confidentiality, as mentioned earlier, all data will be anonymized, and no personally identifiable information will be shared. Participants will be informed about the importance of confidentiality and encouraged not to discuss specific details of the study outside of the research context.
- Sensitivity to gender-related topics: Some participants may have strong personal opinions or sensitivities related to gender-related topics. Engaging in discussions or activities that challenge or explore different perspectives on gender roles may cause discomfort or disagreement.
- Measures to minimize the risks: The researchers will ensure a non-judgmental and respectful atmosphere throughout the study. Participants will be encouraged to share their views and experiences without fear of judgment. The facilitators will be trained to manage discussions in a sensitive and inclusive manner, allowing for diverse perspectives while maintaining a supportive environment.
- Unforeseen psychological impact: Engaging in psychoeducation programs can potentially evoke unexpected psychological reactions or triggers for some participants. This may include the surfacing of unresolved personal issues, trauma, or emotional distress.
- Measures to minimize the risks: The researchers will collaborate with mental health professionals to develop appropriate support mechanisms. Participants will be provided with contact information for counselling services and resources for seeking additional help, should they require it during or after the study. Facilitators will be trained to recognize signs of distress and provide appropriate support or referrals.

WHAT WILL HAPPEN IN THE UNLIKELY EVENT THAT SOME FORM OF DISCOMFORT OCCUR AS A RESULT OF TAKING PART IN THIS RESEARCH STUDY?

- Should you have the need for further discussions after the surveys an opportunity will be arranged for you.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

- Electronic information will be stored for period of 10 years. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.
- Participant information in hard copies of raw data be will locked in the cabinet and electronic data will be kept in a file that is password protected in the Department of Psychology

WHAT WILL THE RESEARCH DATA BE USED FOR?

- Data gathered from the participant would be used for research purpose that included.
- Dissertation, article publication, national and international conference presentations
- For administration purpose or policy briefs
- For further research inform of secondary data analysis.

WILL I BE PAID TO TAKE PART IN THIS STUDY?

- NO, you will not be paid to take part in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

- This study has received written approval from the Research Ethics Committee of Faculty of Humanities, University of Pretoria.
- Ethical approval number is……
- A copy of the approval letter can be provided to you on request.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

- The findings of the research study will be shared with you by Nandipha Pelotshweu Shingange after one year or two years of completing the study.

WHO SHOULD I CONTACT IF I HAVE CONCERN, COMPLAINT OR ANYTHING I SHOULD KNOW ABOUT THE STUDY?

If you have questions about this study or you have experienced adverse effects as a result of participating in this study, you may contact the researcher whose contact information is provided below. If you have questions regarding the rights as a research participant, or if problems arise which you do not feel you can discuss with the researcher, please contact the supervisor, and contact details are below.

Thank you for taking time to read this information sheet and in advance for participating in this study.

Researcher
Name Surname Nandipha Shingange
Contact number 084 084 4217
Email address Nandybasa@gmail.com

Supervisor
Name Dr Benny Motileng
Contact number 012 420 2907
Email address Benny.motileng@up.ac.za

Appendix E: Invitation

Appendix F: Brief Screening Questionnaire

Brief Screening Questionnaire

The following brief screening questionnaire will be used on the Qualtrics platform to ensure participants meet the eligibility criteria for the study.

Screening Questions:

1. **Are you a male student currently registered at the University of Pretoria?**
   - Yes
   - No
2. **What is your age?**
   - Under 18
   - 18-23
   - 24 and above
3. **Are you able to read and understand English?**
   - Yes
   - No
4. **Are you willing to participate in the SOGIE training program?**
   - Yes
   - No
5. **Do you own a smartphone with either IOS or Android operating systems?**
   - Yes
   - No
6. **Do you have access to the internet?**
   - Yes
   - No

7. **Have you participated in any psychoeducation program before?**
    - Yes
    - No

Skip Logic Implementation:

- **Question 1:** If the answer is "No," the participant is directed to the end of the survey.
- **Question 2:** If the answer is "Under 18" or "24 and above," the participant is directed to the end of the survey.
- **Question 3:** If the answer is "No," the participant is directed to the end of the survey.
- **Question 4:** If the answer is "No," the participant is directed to the end of the survey.
- **Question 5:** If the answer is "No," the participant is directed to the end of the survey.
- **Question 6:** If the answer is "No," the participant is directed to the end of the survey.
- **Question 7:** If the answer is "Yes," the participant is directed to the end of the survey.

Eligible participants who pass the screening will proceed to the informed consent section and then complete the baseline data collection questionnaire.

Appendix G: Consent Forms

The Impact of The Hero Empathy Psychoeducation Program on the Perception of Gender Roles Among Male University Students in South Africa.

ETHICAL APPROVAL NUMBER:

WRITTEN CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

STATEMENT	AGREE	DISAGREE	NOT APPLICABLE
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without any consequences or penalties.			
I understand that information collected during the study will not be linked to my identity and I give permission to the researchers of this study to access the information.			
I understand that this study has been reviewed by, and received ethics clearance from Research Ethics Committee Faculty of Humanities of the University of Pretoria.			
I understand who will have access to personal information and how the information will be stored with a clear understanding that, I will not be linked to the information in any way.			
I give consent that data gathered may be used for dissertation, article publication, conference presentations and writing policy briefs.			
I understand how to raise a concern or make a complaint.			
I consent to being audio recorded.			
I consent to being video recorded.			
I consent to having my photo taken.			
I consent to have my audio recordings /videos/photos be used in research outputs such as publication of articles, thesis and conferences as long as my identity is protected.			

Departmental Research Committee (ResCom)
University of Pretoria, Faculty of Humanities, Department of Psychology
Humanities Building, Lynnwood Road, Hatfield, 0083, South Africa
Private Bag X20, Hatfield 0028, South Africa
Email: psychology.rescom@up.ac.za
Website: www.up.ac.za/psychology

Fakulteit Geesteswetenskappe
Departement Sielkunde
Lefapha la Bomotho
Kgoro ya Saekholotši

I give permission to be quoted directly in the research publication whilst remaining anonymous.			
I have sufficient opportunity to ask questions and I agree to take part in the above study.			

Name of Participant	Date	Signature
Name of person taking consent	Date	Signature

The Impact of The Hero Empathy Psychoeducation Program on the Perception of Gender Roles Among Male University Students in South Africa.

ETHICAL APPROVAL NUMBER:

WRITTEN CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in Phase 1(pretest) of the research study has told me about the nature, procedure, potential benefits, and anticipated inconvenience of participation.

STATEMENT	AGREE	DISAGREE	NOT APPLICABLE
I understand that my participation in this phase is voluntary and that I am free to withdraw at any time, without giving any reason, and without any consequences or penalties.			
I understand that information collected during this phase of the study will not be linked to my identity and I give permission to the researchers of this study to access the information.			
I understand that this study has been reviewed by, and received ethics clearance from Research Ethics Committee Faculty of Humanities of the University of Pretoria.			
I understand who will have access to personal information and how the information will be stored with a clear understanding that, I will not be linked to the information in any way.			
I give consent that data gathered may be used for dissertation, article publication, conference presentations and writing policy briefs.			
I understand how to raise a concern or make a complaint.			
I consent to being audio recorded.			

Departmental Research Committee (ResCom)
University of Pretoria, Faculty of Humanities, Department of Psychology
Humanities Building, Lynnwood Road, Hatfield, 0083, South Africa
Private Bag X20, Hatfield 0028, South Africa
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Website: www.up.ac.za/psychology

Fakulteit Geesteswetenskappe
Departement Sielkunde
Lefapha la Bomotho
Kgoro ya Saekolotši

I consent to being video recorded.			
I consent to having my photo taken.			

I consent to have my audio recordings /videos/photos be used in research outputs such as publication of articles, thesis and conferences as long as my identity is protected.			
I give permission to be quoted directly in the research publication whilst remaining anonymous.			
I have sufficient opportunity to ask questions and I agree to take part in the above study.			

Name of Participant	Date	Signature
Name of person taking consent	Date	Signature

The Impact of The Hero Empathy Psychoeducation Program on the Perception of Gender Roles Among Male University Students in South Africa.

ETHICAL APPROVAL NUMBER:

WRITTEN CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in Phase 2 (Intervention) of the research study has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

STATEMENT	AGREE	DISAGREE	NOT APPLICABLE
I understand that my participation in this phase is voluntary and that I am free to withdraw at any time, without giving any reason, and without any consequences or penalties.			
I understand that information collected during this phase of the study will not be linked to my identity and I give permission to the researchers of this study to access the information.			
I understand that this study has been reviewed by, and received ethics clearance from Research Ethics Committee Faculty of Humanities of the University of Pretoria.			
I understand who will have access to personal information and how the information will be stored with a clear understanding that, I will not be linked to the information in any way.			
I give consent that data gathered may be used for dissertation, article publication, conference presentations and writing policy briefs.			
I understand how to raise a concern or make a complaint.			
I consent to being audio recorded.			
I consent to being video recorded.			

Departmental Research Committee (ResCom)
University of Pretoria, Faculty of Humanities, Department of Psychology
Humanities Building, Lynnwood Road, Hatfield, 0083, South Africa
Private Bag X20, Hatfield 0028, South Africa
Email: psychology.rescom@up.ac.za
Website: www.up.ac.za/psychology

Fakulteit Geesteswetenskappe
Departement Sielkunde
Lefapha la Bomotho
Kgoro ya Saekolotši

I consent to having my photo taken.			

I consent to have my audio recordings /videos/photos be used in research outputs such as publication of articles, thesis and conferences as long as my identity is protected.			
I give permission to be quoted directly in the research publication whilst remaining anonymous.			
I have sufficient opportunity to ask questions and I agree to take part in the above study.			

Name of Participant	Date	Signature
Name of person taking consent	Date	Signature

The Impact of The Hero Empathy Psychoeducation Program on the Perception of Gender Roles Among Male University Students in South Africa.

ETHICAL APPROVAL NUMBER:

WRITTEN CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in Phase 3 (Posttest) of the research study has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

STATEMENT	AGREE	DISAGREE	NOT APPLICABLE
I understand that my participation in this phase is voluntary and that I am free to withdraw at any time, without giving any reason, and without any consequences or penalties.			
I understand that information collected during this phase of the study will not be linked to my identity and I give permission to the researchers of this study to access the information.			
I understand that this study has been reviewed by and received ethics clearance from Research Ethics Committee Faculty of Humanities of the University of Pretoria.			
I understand who will have access to personal information and how the information will be stored with a clear understanding that, I will not be linked to the information in any way.			
I give consent that data gathered may be used for dissertation, article publication, conference presentations and writing policy briefs.			
I understand how to raise a concern or make a complaint.			
I consent to being audio recorded.			

Departmental Research Committee (ResCom)
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Fakulteit Geesteswetenskappe
Departement Sielkunde
Lefapha la Bomotho
Kgoro ya Saekholotši

I consent to being video recorded.			
I consent to having my photo taken.			

I consent to have my audio recordings /videos/photos be used in research outputs such as publication of articles, thesis and conferences as long as my identity is protected.			
I give permission to be quoted directly in the research publication whilst remaining anonymous.			
I have sufficient opportunity to ask questions and I agree to take part in the above study.			

Name of Participant	Date	Signature

Name of person taking consent	Date	Signature

2

Appendix H: Demographic Questionnaire

DEMOGRAPHIC QUESTIONNAIRE

Please tick the appropriate boxes for each demographic category that applies to you. If you select 'Other', kindly specify in the provided space. Thank you for your cooperation!

Age:

[ ] 18 [ ] 19 [ ] 20 [ ] 21 [ ] 22 [ ] 23

Ethnicity:

[ ] African [ ] Asian [ ] Caucasian [ ] Indian [ ] Middle Eastern [ ] Coloured [ ] Other (please specify): _____

Socioeconomic Status:

[ ] Low-income [ ] Middle-income [ ] High-income

Field of Study:

[ ] Arts and Humanities [ ] Business [ ] Education [ ] Engineering and Technology [ ] Health Sciences
[ ] Natural Sciences [ ] Social Sciences [ ] Other (please specify): _____

Context of Origin:

[ ] Urban [ ] Rural [ ] Suburban

Religion:

[ ] Christianity [ ] Islam [ ] Hinduism [ ] Buddhism [ ] Judaism [ ] Atheism/Agnosticism [ ] Other (please specify): _____

Appendix I: Scale for Perception of Gender Roles

Scale for Perceptions of Gender Roles – 25 Items

Indicate your level of agreement with the statements below using one of the following options: "Strongly disagree," "Partially disagree," "Neutral," "Partially agree," or "Strongly agree" by marking (x). Please do not leave any questions unanswered.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Marriage does not hinder women from working.					
2.	A woman should only work if her family is experiencing financial difficulties					
3.	Working women can dedicate sufficient time to their children					
4.	Women should not work after becoming mothers					
5.	Women can be successful politicians					
6.	Women should not work after getting married.					
7.	Having a career does not prevent women from fulfilling their household responsibilities					
8.	A working woman enjoys life more					
9.	Women should always be protected by men					
10.	A woman should not work if her husband does not allow it.					
11.	Women can be managers.					
12.	A working woman should give her earnings to her spouse.					
13.	A working woman can be a better mother to her children.					
14.	Men should also do household chores like laundry and dishes.					

15.	A woman without a husband is like a house without an owner.					
16.	Men should provide for a family's income.					
17.	Women should not independently open businesses like cafes, markets, or real estate agencies.					
18.	The primary duty of women is to take care of household chores.					
19.	A woman should not earn more money than her husband.					
20.	Men should always be the head of the household.					
21.	The leadership of society should mostly be in the hands of men.					
22.	Girls should be given as much freedom as boys.					
23.	A woman should be able to stand up against her husband if necessary to assert her rights.					
24.	A woman should be younger than her husband.					
25.	Important decisions in the family should be made by men.					

Altınova, H. H., & Duyan, V. (2013). The validity and reliability of perception of gender scale. *Society and Social Work*, 24(2): 9-22.

Appendix J: Box Plots of Responses to the 25 Questionnaire Items (Pre- and Post-test)

Figure 1:

Boxplot for item 1 - Marriage does not hinder women from working

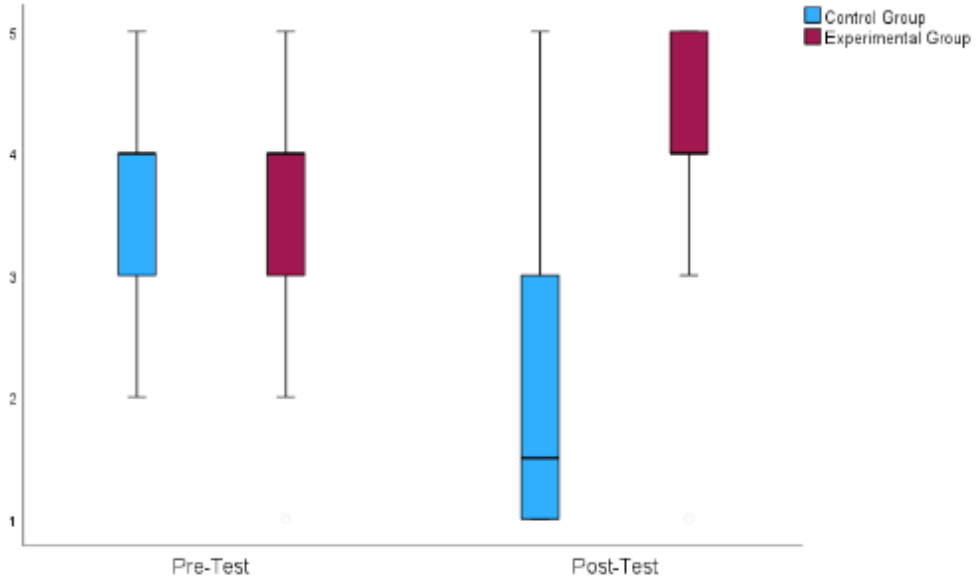


Figure 2:

Boxplot for item 2 - A woman should only work if her family is experiencing financial difficulties

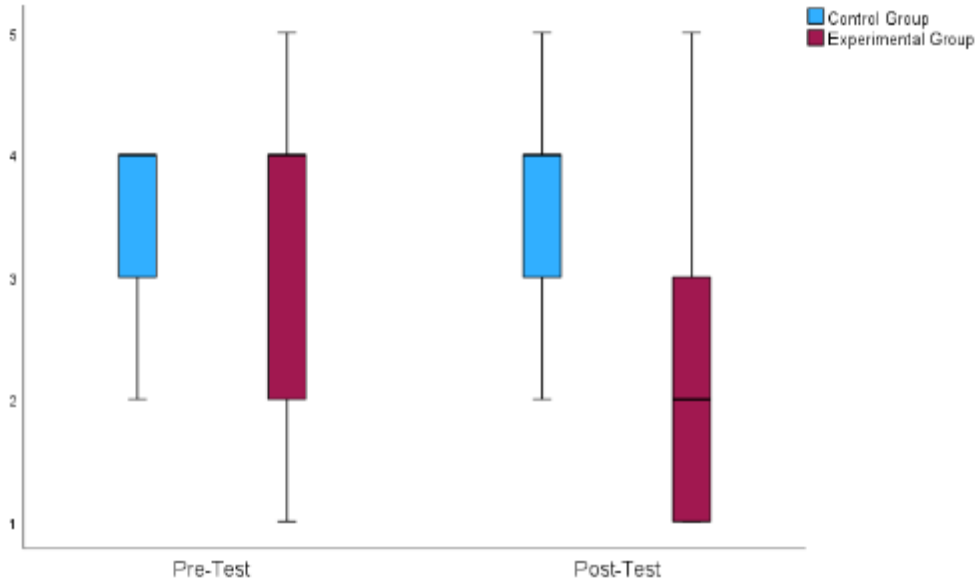


Figure 3:

Boxplot for item 3 - Working women can dedicate sufficient time to their children

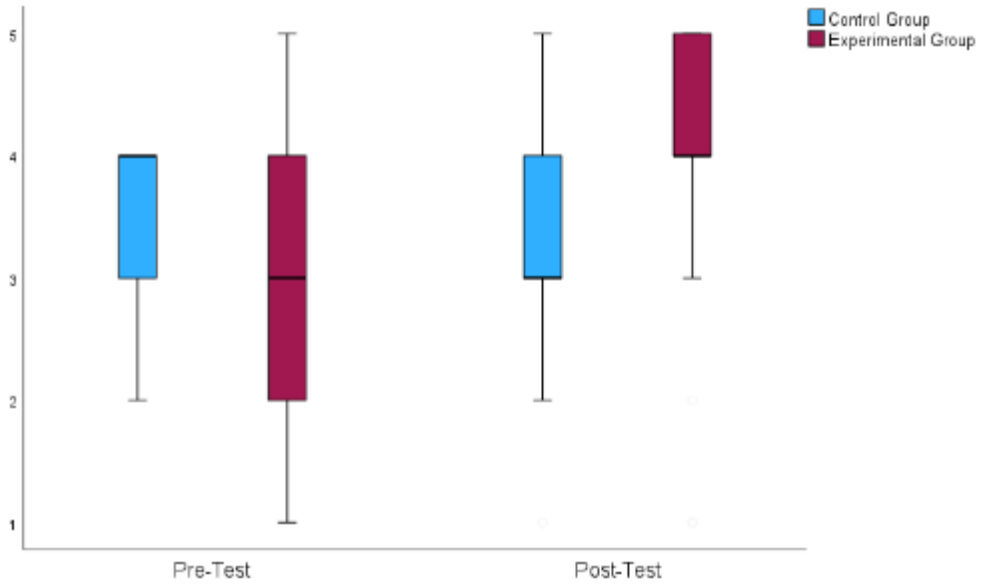


Figure 4:

Boxplot for item 4 - Women should not work after becoming mothers

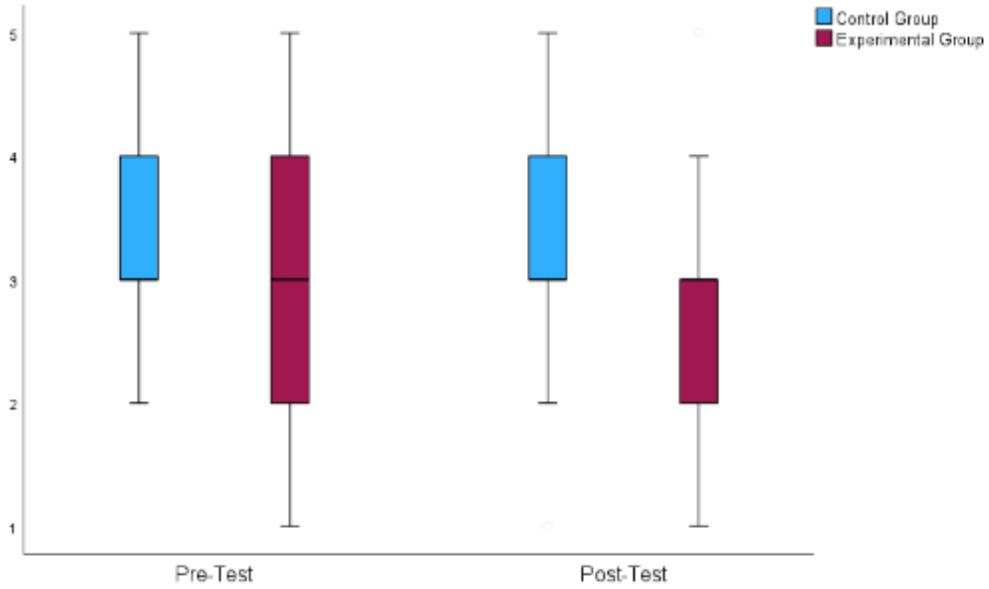


Figure 5:

Boxplot for item 5 - Women can be successful politicians

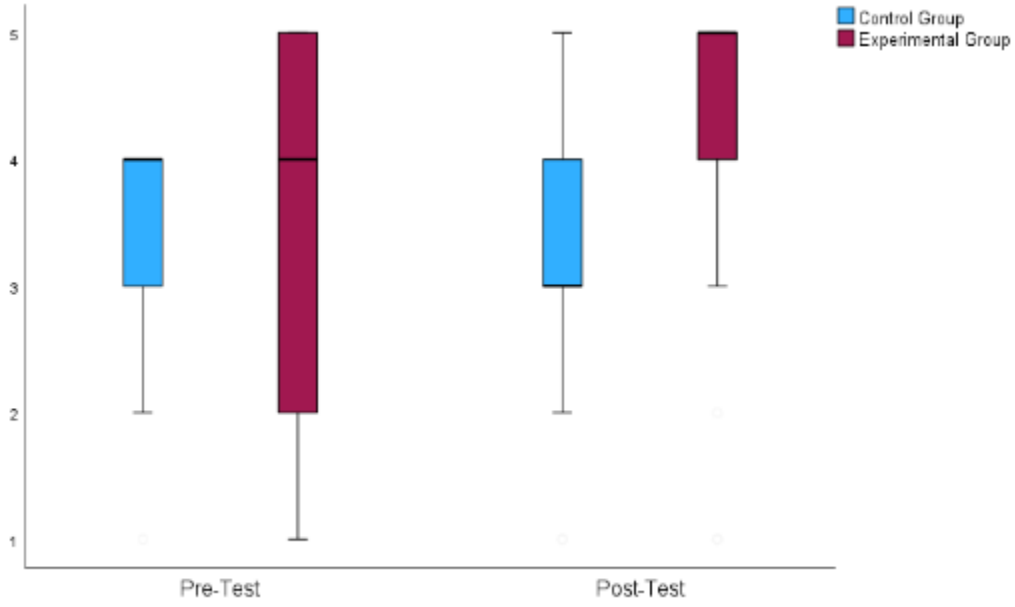


Figure 6:

Boxplot for item 6 - Women should not work after getting married

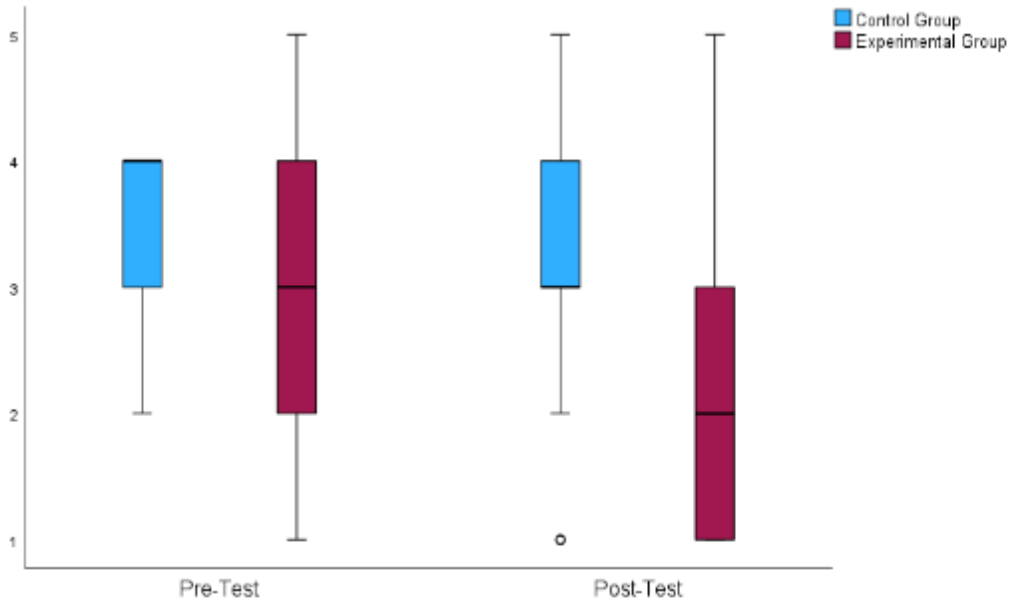


Figure 7:

Boxplot for item 7 - Having a career does not prevent women from fulfilling their household responsibilities

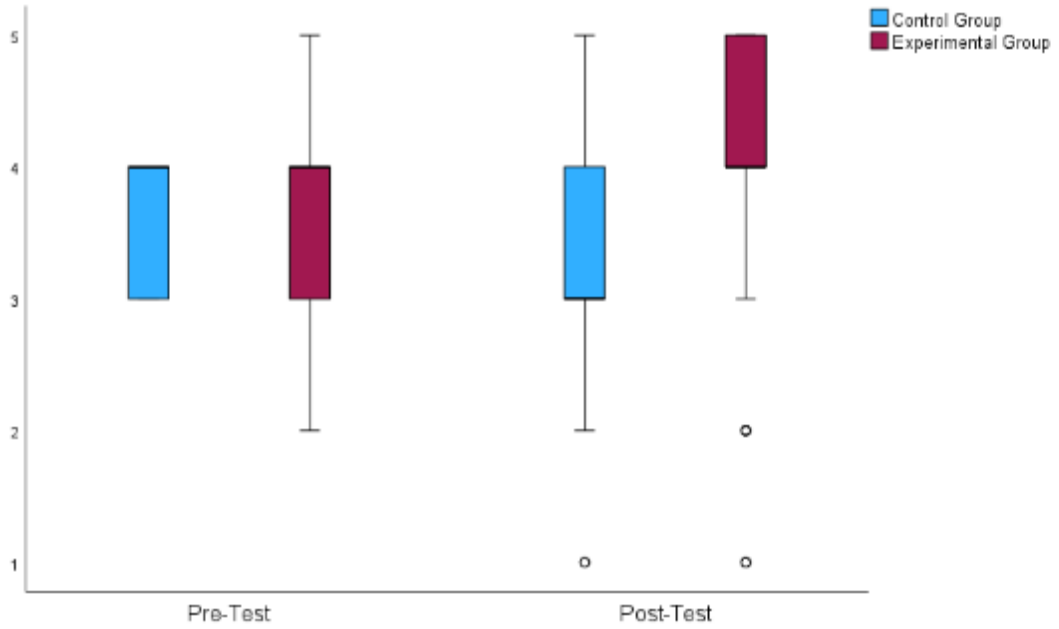


Figure 8:

Boxplot for item 8 - A working woman enjoys life more

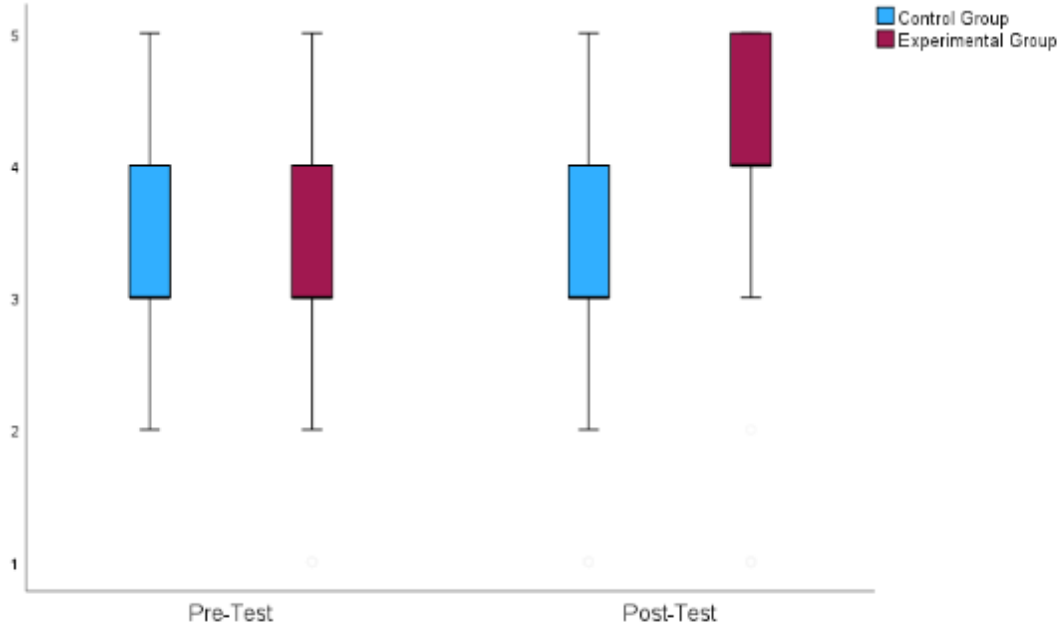


Figure 9:

Boxplot for item 9 - Women should always be protected by men

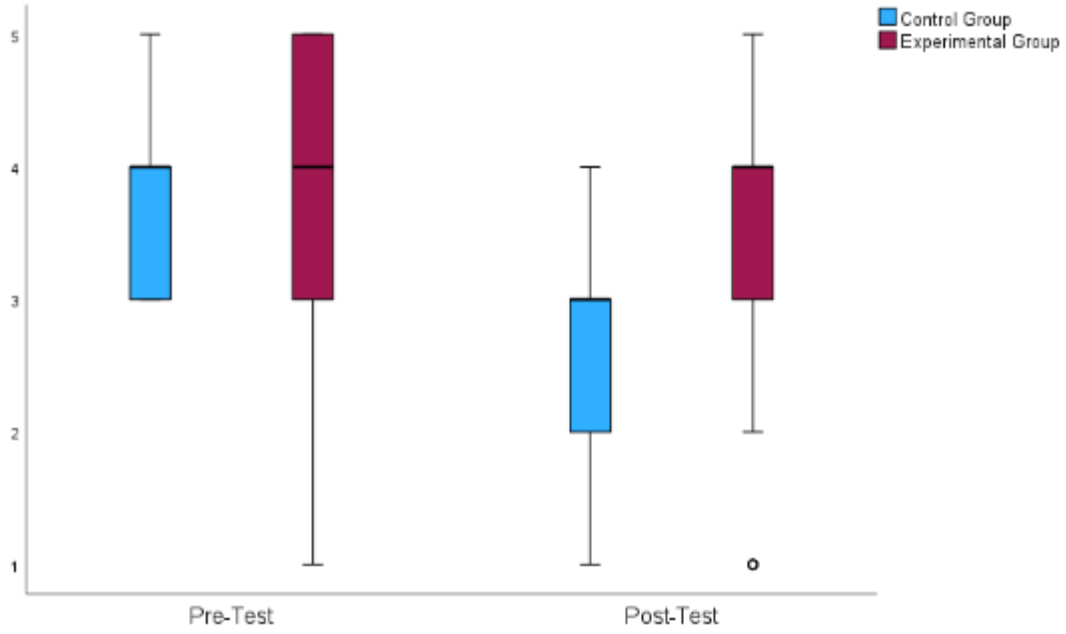


Figure 10:

Boxplot for item 10 - A woman should not work if her husband does not allow it

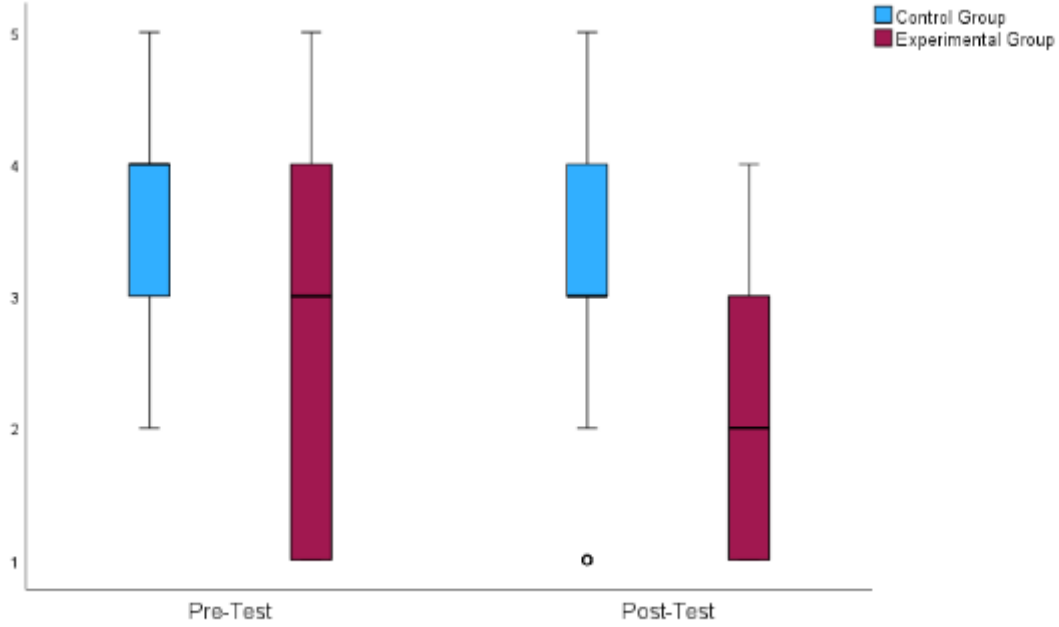


Figure 11:

Boxplot for item 11 - Women can be managers

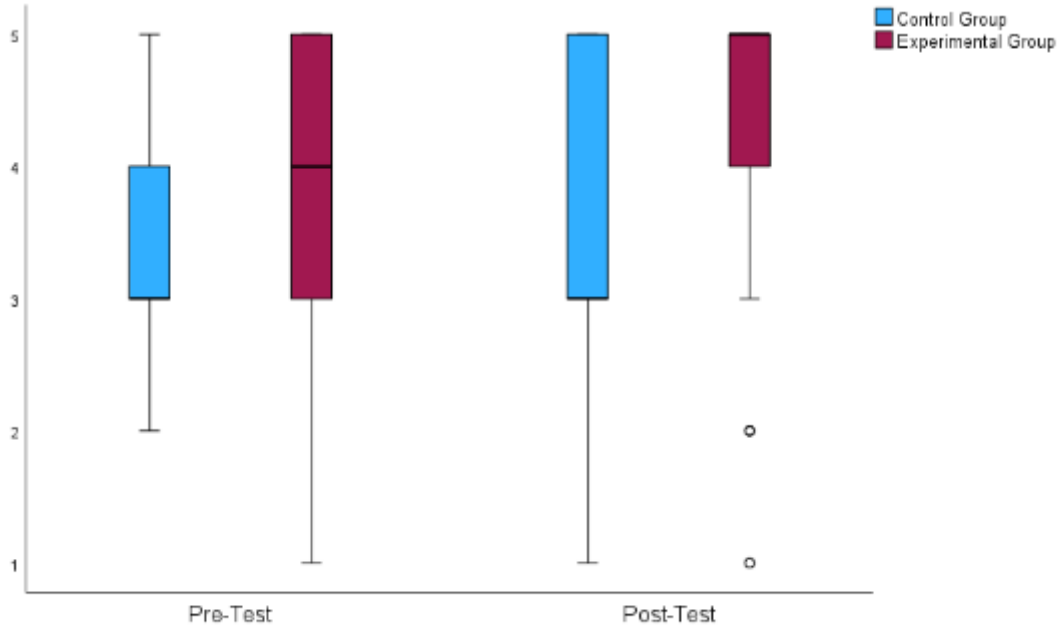


Figure 12:

Boxplot for item 12 - Working woman should give her earnings to her spouse

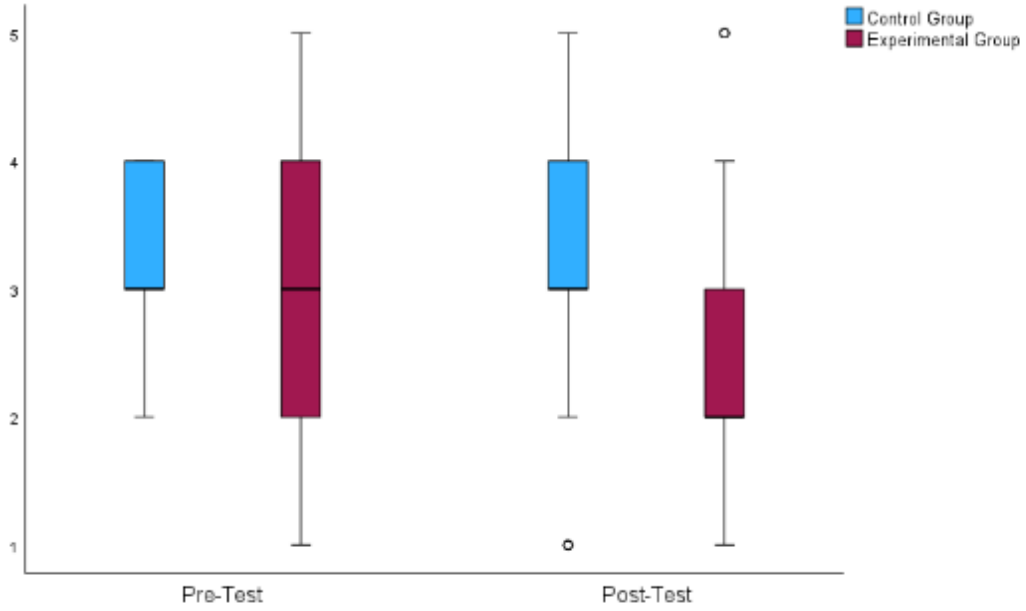


Figure 13:

Boxplot for item 13 - A working woman can be a better mother to her children

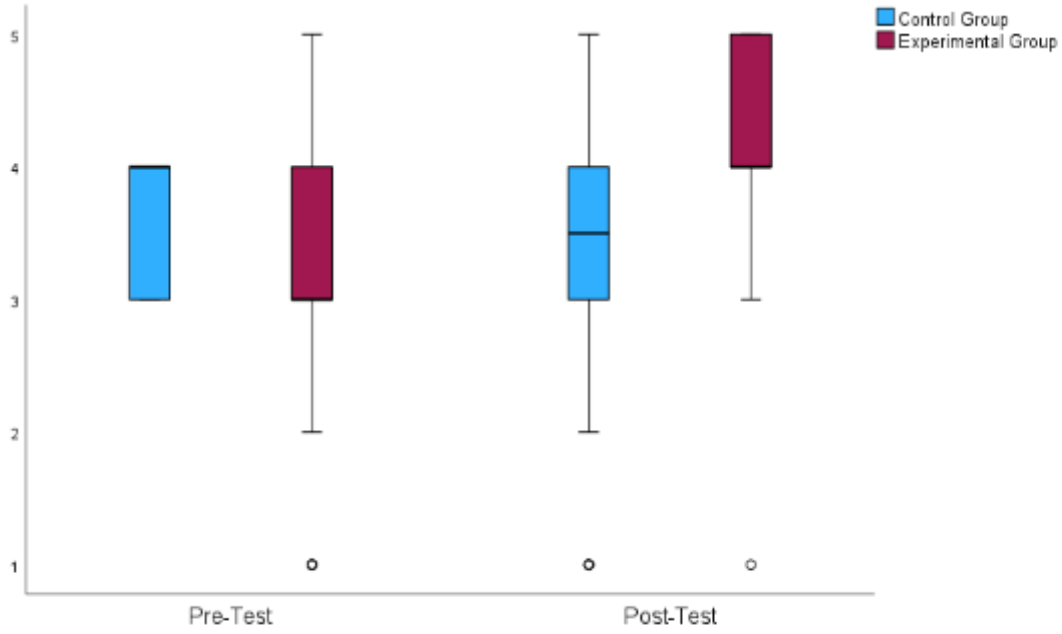


Figure 14:

Boxplot for item 14 - Men should also do household chores like laundry and dishes

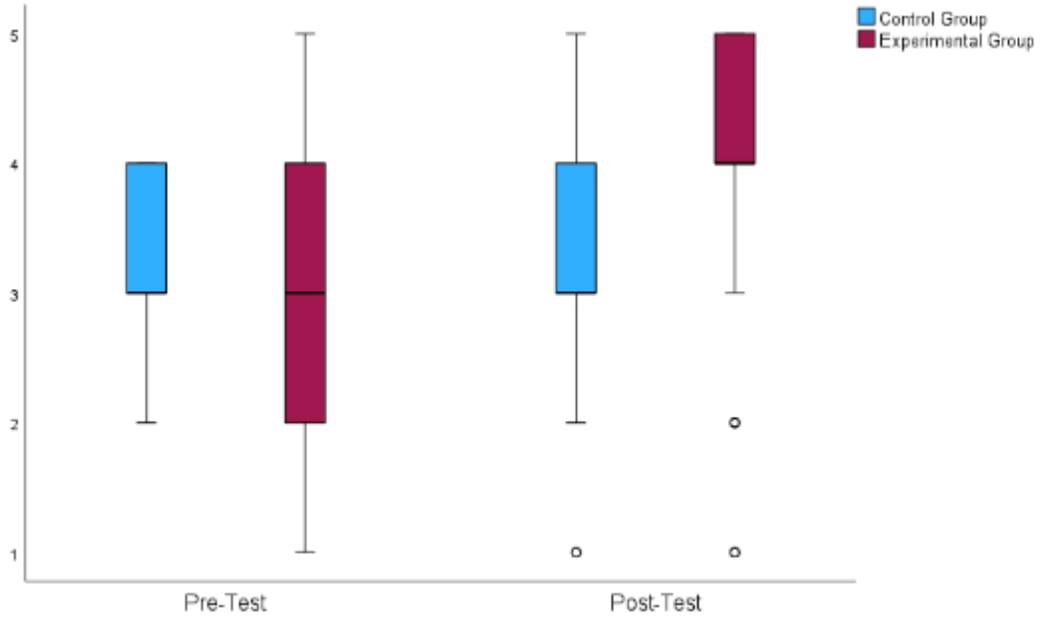


Figure 15:

Boxplot for item 15 - A woman without a husband is like a house without an owner

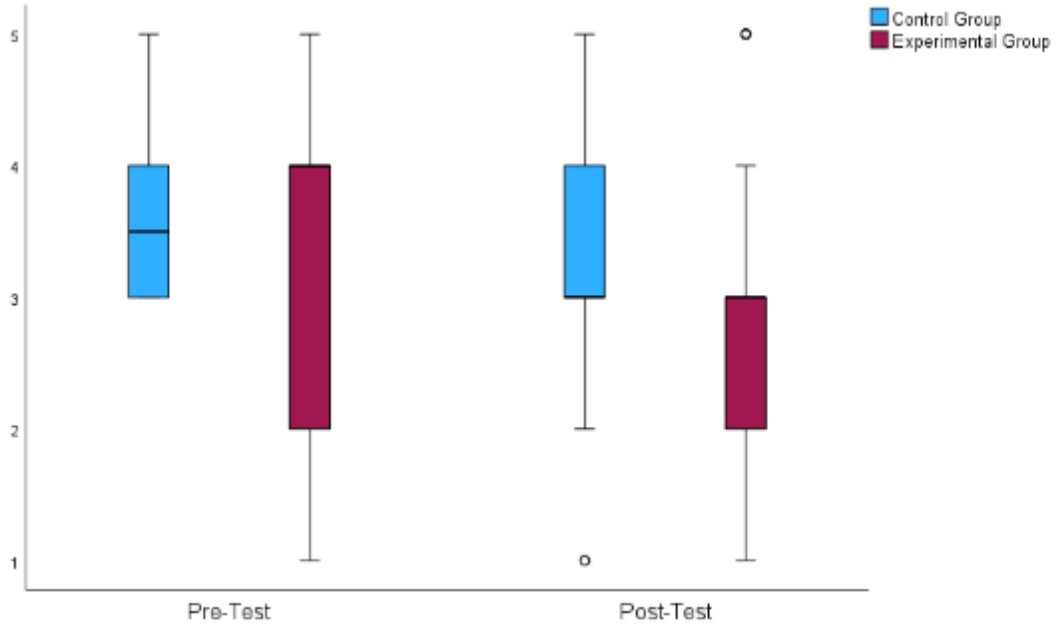


Figure 16:

Boxplot for item 16 - Men should provide for a family's income

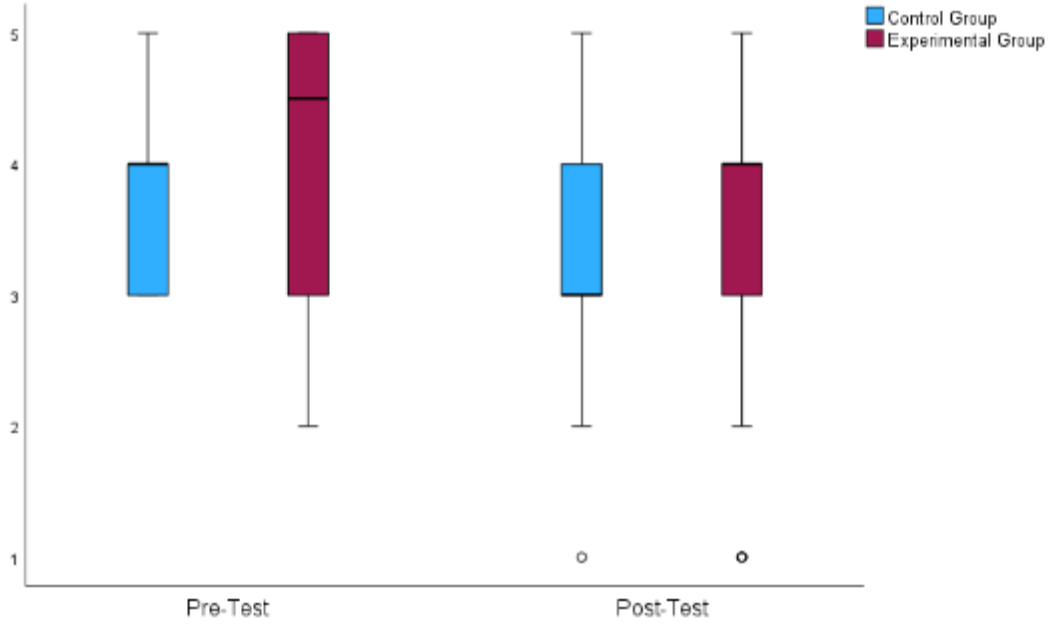


Figure 17:

Boxplot for item 17 - Women should not independently open businesses like cafes, markets, or real estate agencies

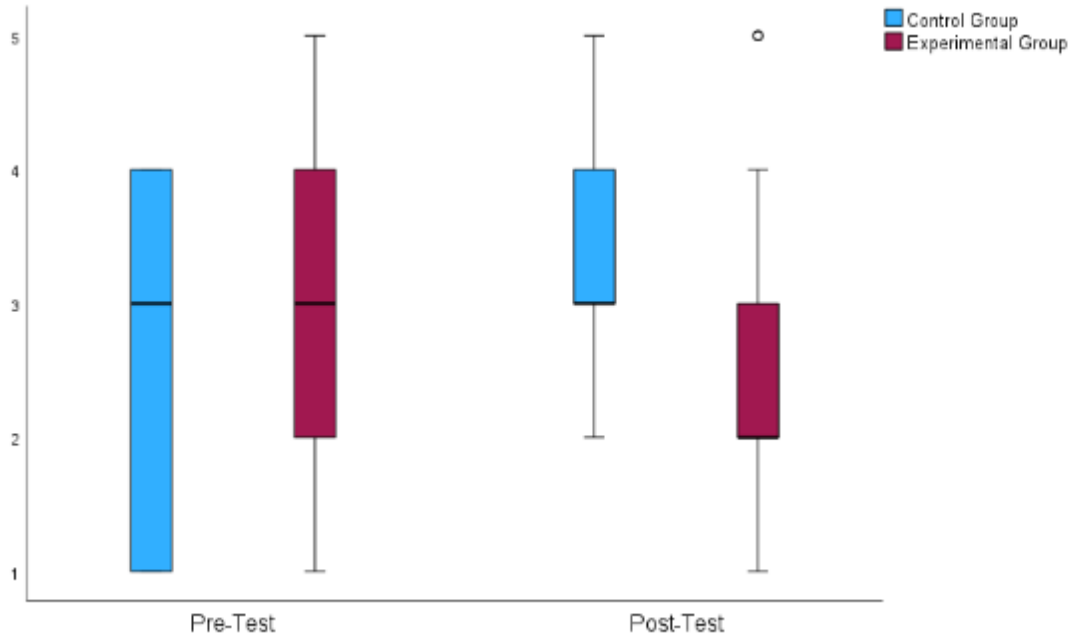


Figure 18:

Boxplot for item 18 - The primary duty of women is to take care of household chores

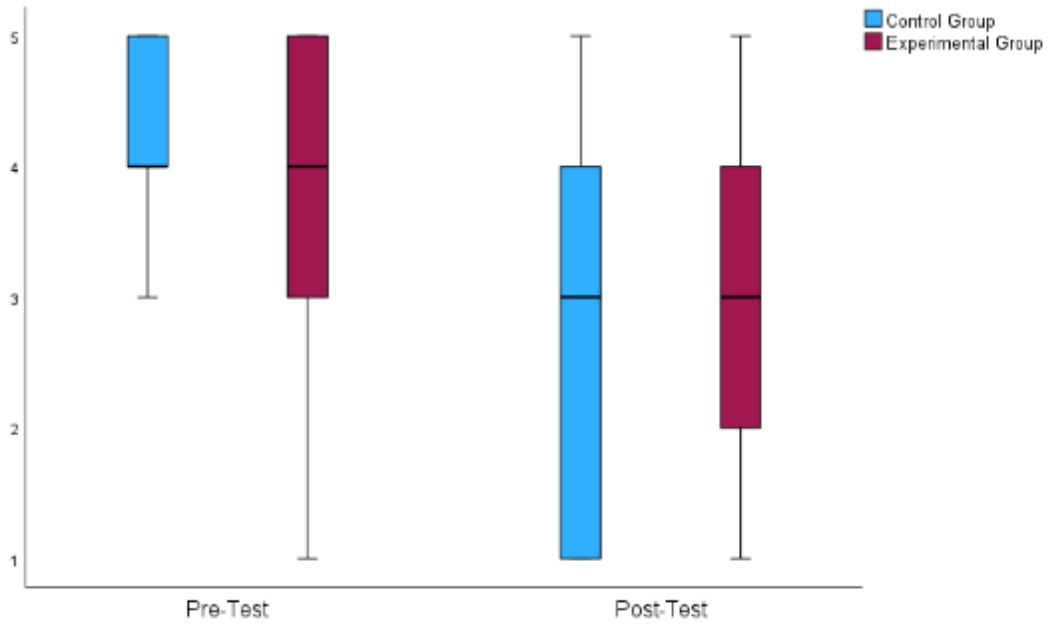


Figure 19:

Boxplot for item 19 - A woman should not earn more money than her husband

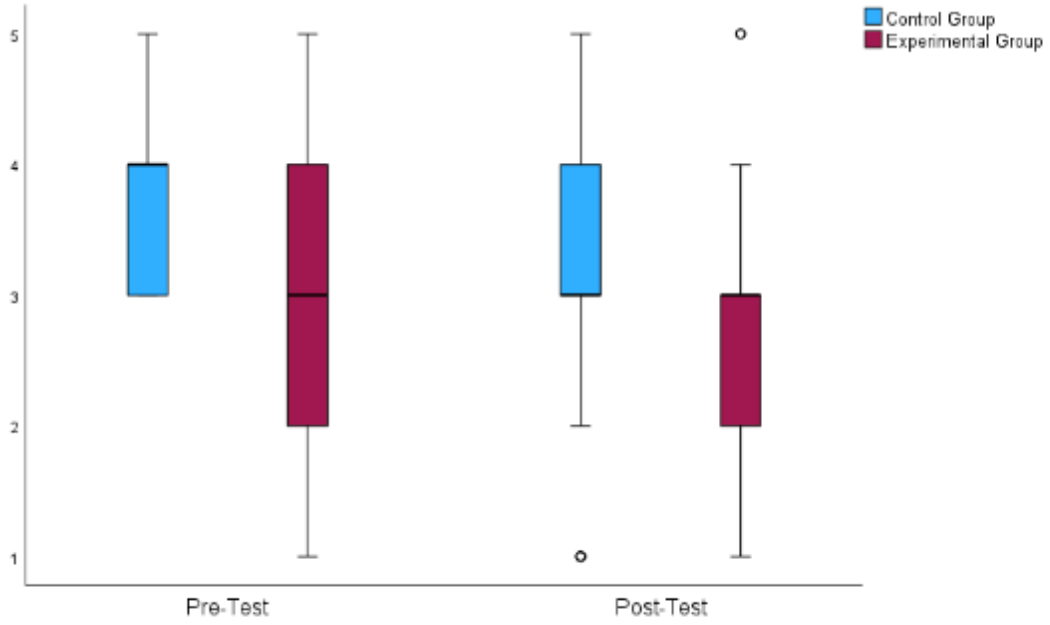


Figure 20:

Boxplot for item 20 - Men should always be the head of the household

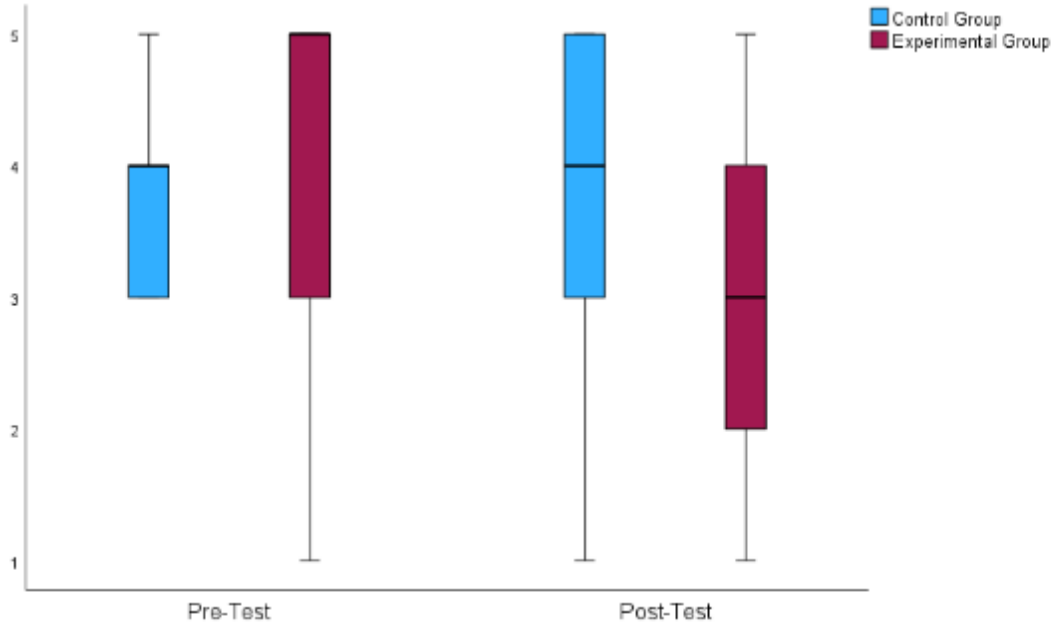


Figure 21:

Boxplot for item 21 - The leadership of society should mostly be in the hands of men

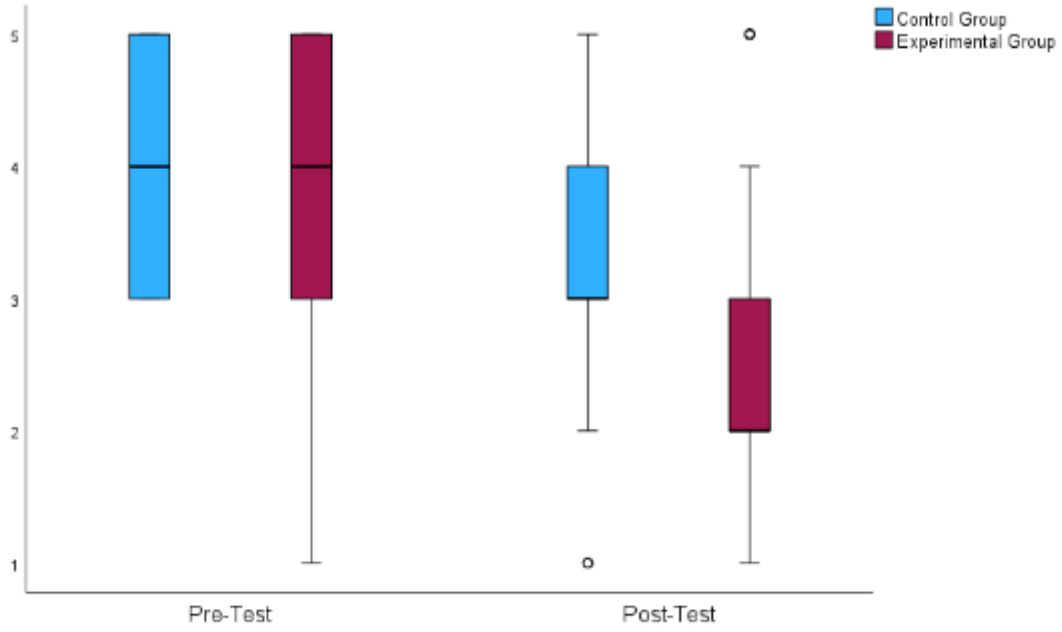


Figure 22:

Boxplot for item 22 - Girls should be given as much freedom as boys

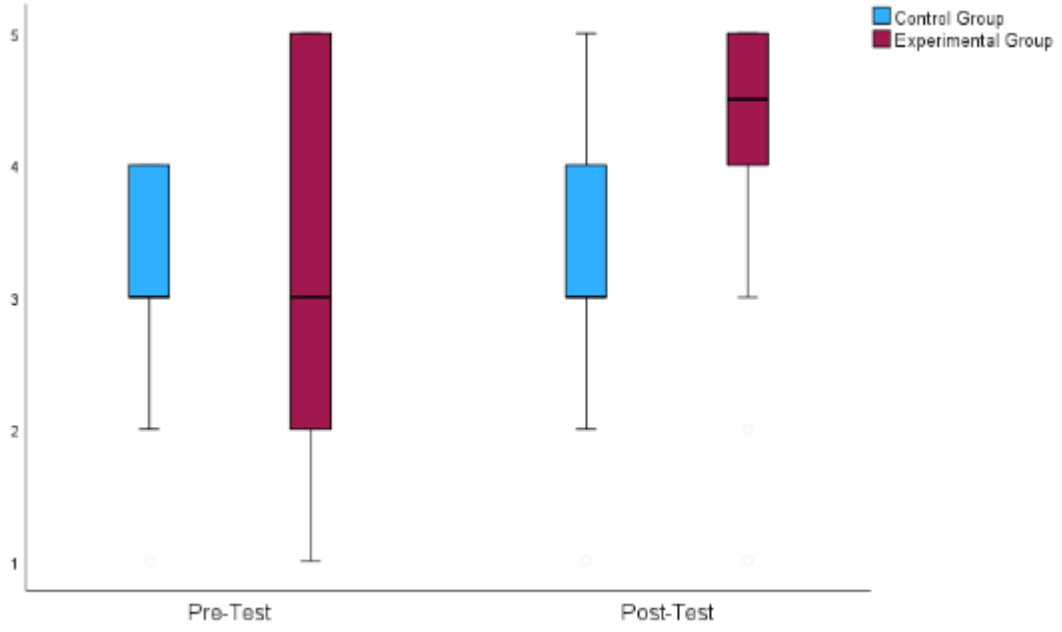


Figure 23:

Boxplot for item 23 - A woman should be able to stand up against her husband if necessary to assert her rights

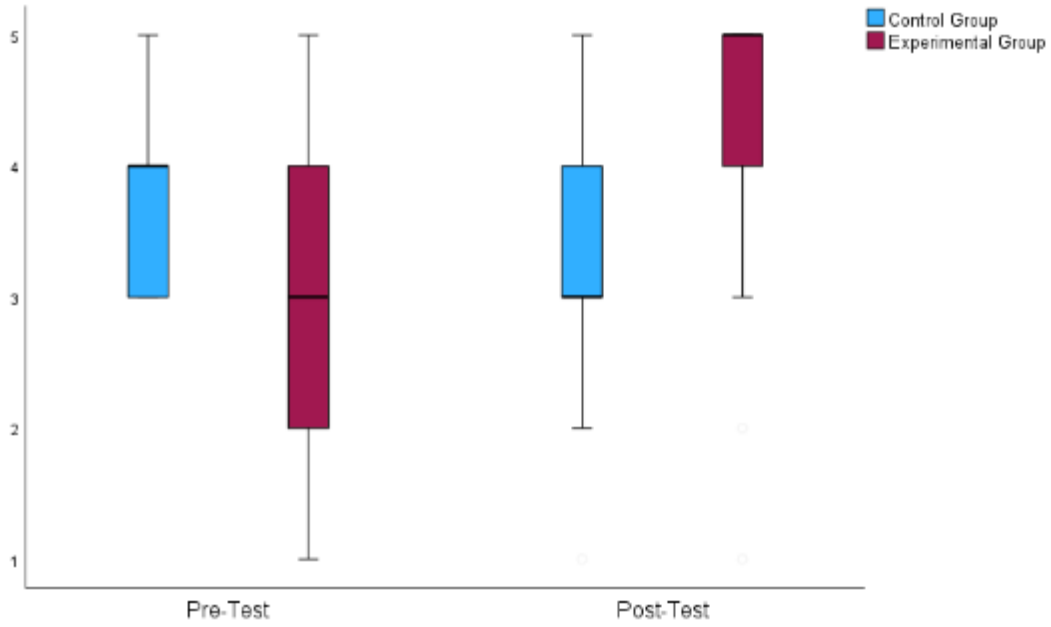


Figure 24:

Boxplot for item 24 - A woman should be younger than her husband

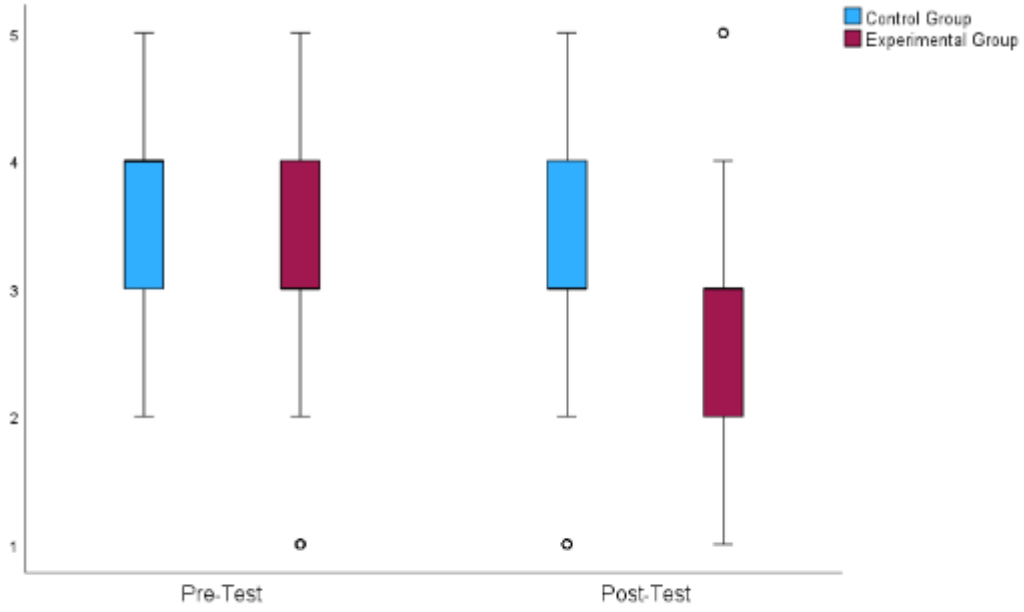
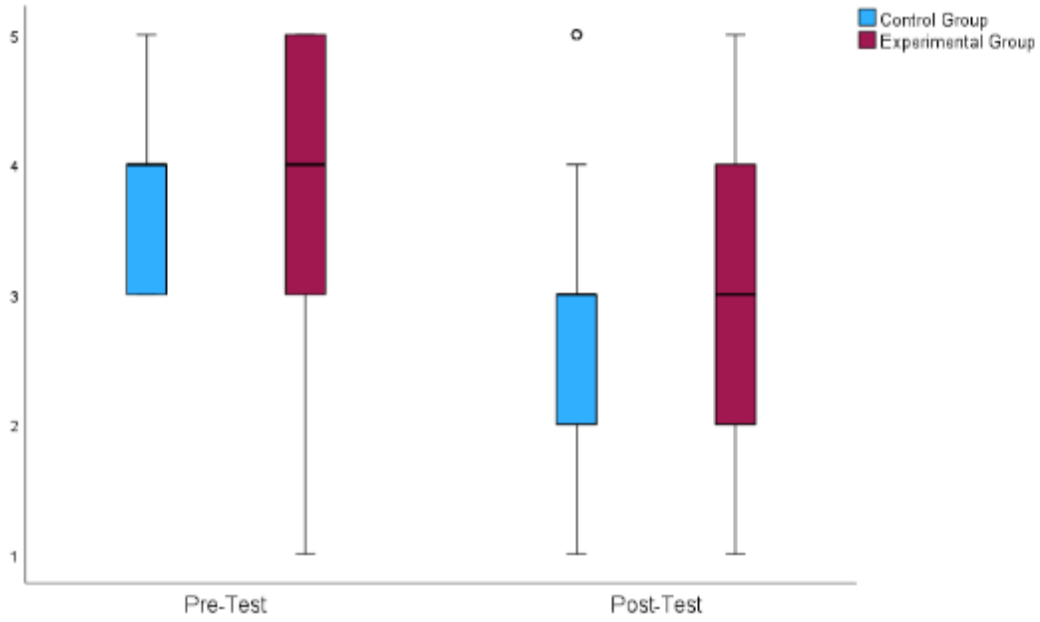


Figure 25:

Boxplot for item 25 - Important decisions in the family should be made by men



Appendix K: Emergency Helplines

1) **Dr Reddy's Help Line**

0800 21 22 23

2) **Cipla 24-hour Mental Health Helpline**

0800 456 789

3) **Pharmadynamics Police &Trauma Line**

0800 20 50 26

4) **Adcock Ingram Depression and Anxiety Helpline**

0800 70 80 90

5) **Suicide Crisis Line**

0800 567 567

6) **SADAG Mental Health Line**

011 234 4837

7) **Akeso Psychiatric Response Unit 24 Hour**

0861 435 787

Appendix L: Editor's Declaration

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TO WHOM IT MAY CONCERN

This serves to confirm that I have edited and proofread the dissertation entitled

The Impact of SOGIE Training Programme on the Perception of Gender Roles among Male University Students in South Africa

prepared by Ms Nandipha Pelotshweu Shingange, submitted in accordance with the requirements for the degree Master of Arts in Research Psychology at the University of Pretoria, according to the specifications of the University, where available, and the latest standards for language editing and technical (computer-based) layout.

Editing was restricted to language usage and spelling, consistency, formatting and the style of referencing. No structural writing of any content was undertaken.

As an editor I am not responsible for detecting any content that may constitute plagiarism.

To the best of my knowledge, all references have been provided in the prescribed format.

I am not accountable for any changes made to this dissertation by the author or any other party after the date of my edit.

Electronically signed (actual signature withheld for security reasons)

MONICA BOTHA
22 April 2025