

**THE RELATIONSHIP BETWEEN ATTACHMENT STYLES AND CONTRACEPTIVE
INTENT AMONG FEMALE UNIVERSITY OF LIMPOPO STUDENTS, SOUTH
AFRICA.**

By

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DECLARATION

I, Charlaine van Wyk, hereby declare that “***The relationship between attachment styles and contraceptive intent among female University of Limpopo students, South Africa***”, submitted to the University of Limpopo for the degree of MA Clinical Psychology has not been previously submitted by me for a degree at this or any other university; that it is my work in design and execution, and that all material contained herein has been duly acknowledged.



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ABSTRACT

This study examined the relationship between attachment styles and contraceptive intent among female University of Limpopo students in South Africa. The primary hypotheses proposed positive associations between secure attachment and high contraceptive intent, as well as varying relationships for avoidant and anxious attachment styles. Utilising multinomial logistic regression analysis, the study found no significant overall relationship between attachment styles and contraceptive intent, with a chi-square value of 8.992 and a p-value of 0.774. Notably, avoidant attachment was associated with low contraceptive intent, while anxious attachment was associated with high intent. Secure attachment showed no significant effect. The Pseudo R-squared values indicated weak predictive power, with Cox and Snell at 0.023, Nagelkerke at 0.116, and McFadden at 0.106. These results suggest that attachment styles may not be reliable predictors of contraceptive behaviour, highlighting the need for further research into additional factors influencing contraceptive intent. The study underscores the complexity of reproductive decision-making and emphasises the importance of exploring diverse populations and contextual influences in future research.

Keywords: Attachment styles, contraceptive intent, female university students, relationships

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LIST OF ACRONYMS

ECR- R – Experiences in Close Relationships Revised

CIQ – Contraceptive Intent Questionnaire

LARC – Long-Acting Reversible Contraceptive

IUD – Intrauterine Device

STI – Sexually Transmitted Infections

TRA – Theory of Reasoned Action

SPSS – Statistical Package for Social Sciences

CHAPTER 1: INTRODUCTION & BACKGROUND / ORIENTATION TO THE STUDY

1.1 Introduction

This chapter will outline the background and motivation of the study. It will also give a brief outline of the hypotheses, research objectives, and operational definitions used in the study.

1.2 Background and Motivation

Despite government efforts to reduce unplanned pregnancies, such as sex education provided in schools, awareness campaigns on gender-based violence, and the distribution of free contraceptives, the rate of unplanned pregnancies remains high, particularly among basic education learners and undergraduate students (Kantorová et al., 2021, United Nations Population Fund [UNFPA], 2022).

University students often experience a period of sexual exploration and experimentation characterised by diverse sexual behaviours and attitudes. While some students may engage in casual or non-monogamous sexual relationships, others may prioritise abstinence or monogamy (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020). Although the rate of unintended pregnancy is lower among university students than the general population, it is still reported at an alarming rate of 10 to 12 percent both internationally and locally (Baloyi, et al., 2020; Kgarose, et al., 2023; Mutinta, 2022). South African studies have reported unplanned pregnancy among university students at around 12 percent (Kgarosa, et al., 2023; Mutinta, 2022). Factors such as peer influence, alcohol/drug use, and access to sexual health information and services have been found to influence students' sexual decision-making, risk behaviours, and contraceptive intent

(an individual's inherent conscious and unconscious inclination to use contraception) (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020). University students often use less reliable contraceptive methods due to financial constraints or biases and misinformation related to contraceptive use (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020).

An individual's attachment style can influence contraceptive use and family planning behaviours (Cabeza de Baca & Ellis, 2017; Szepeswol & Simpson, 2019). Attachment theory by John Bowlby (1958, 1977) emphasises the importance of infant-caregiver interactions. Bowlby postulated that attachment styles are formed during early infant-caregiver interactions and that these interactions shape internal working models in the infant, such as patterns of thinking about oneself concerning the environment, that remain constant throughout its lifespan (Raby & Dozier, 2019). These internal working models influence individuals' relationships and behaviours in various domains, including contraception and family planning approaches. For example, individuals with secure attachment styles feel more secure and confident in their relationships (i.e. they have greater trust in their relationships) which makes them more confident in discussing and making decisions about contraception with their partners, whereas those with insecure attachment styles struggle with trust and communication (Campbell & Stanton, 2019; Mishra & Allen, 2023). Research has shown that individuals who have experienced inconsistent or negative caregiver interactions during infancy are more likely to engage in risky sexual behaviours or have difficulty accessing reliable contraceptive methods (Szepeswol & Simpson, 2019). This can lead to unintended pregnancies, sexually

transmitted infections, and other negative consequences for both the individual and their partners.

Therefore, research into the influence of university students' attachment style on their contraceptive intent can provide valuable insights for public health campaigns, help identify potential barriers or facilitators to effective contraceptive use among different attachment styles, leading to more tailored and effective interventions and increase understanding of current contraceptive use and family planning.

1.3 Research Problem

University students face a variety of challenges as they transition into adulthood concerning relationships, sexual health, and contraceptive decision-making (Phiri et al., 2021). Reproductive behaviours such as contraceptive adherence and pattern of use have often been investigated, especially with recent social trends such as chosen childlessness and delayed childbearing prevalent among populations in most countries (Morison et al., 2015; Nematian & Bahmani, 2022). Despite these observed trends, unplanned pregnancy and risky sexual behaviour remain a global concern (Agudile et al, 2020; Chersich et al., 2017; Hlongwa et al., 2020a; Hlongwa et al., 2020b; UNFPA, 2022). Risky sexual behaviour leads to unintended pregnancy and sexually transmitted diseases, which cause strain on the economy and government health facilities (UNFPA, 2022). In Southern Africa, 65% of pregnancies between 2015 and 2019 were unintended, and 36% ended in abortion (UNFPA, 2022).

The predominant cause of unintended pregnancy is sexual activity without the use of effective contraception, either by choice, ignorance, or coercion (Chersich et al., 2017;

Harries et al., 2019; Hlongwa et al., 2020a; Kriel et al., 2023; UNFPA, 2022). Unplanned pregnancies have a significant cost to government facilities and planning, either by contributing to an ever-growing population or by adding to public health risks such as unsafe abortions (UNFPA, 2022). Unplanned pregnancies among university students also contribute to high drop-out rates which affect the labour force and ultimately tax contributions (UNFPA, 2022). Reproductive behaviour is influenced by an individual's attachment style (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). Thus, understanding the role of attachment style in shaping university students' decisions is critical for developing effective interventions and educational programs to promote safe and responsible sexual behaviour (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018; Young et al., 2019). Insights into the role of attachment in reproductive behaviour, especially contraceptive intent, can help in the development of public health campaigns. Therefore, this study aims to investigate the relationship between attachment styles and contraceptive intent to understand how attachment styles are connected to contraceptive intent among female Limpopo University students.

1.4 Aim of the study

This study aims to assess the relationship between attachment styles and contraceptive intent of female students at the University of Limpopo.

1.5 Research Objectives

- 1.5.1 To explore the existence of a relationship between secure attachment and high contraceptive intent among female students at the University of Limpopo.

1.5.2 To explore the existence of a relationship between avoidant attachment and high contraceptive intent among female students at the University of Limpopo.

1.5.3 To explore the existence of a relationship between anxious attachment and low contraceptive intent among female students at the University of Limpopo.

1.6 Hypotheses

1.6.1 There is a positive relationship between secure attachment and high contraceptive intent among female students at the University of Limpopo.

1.6.2 There is a positive relationship between avoidant attachment and high contraceptive intent among female students at the University of Limpopo.

1.6.3 There is a positive relationship between anxious attachment and low contraceptive intent among female students at the University of Limpopo.

1.7 Significance of the study

This study aims to enhance sexual and reproductive health literature by identifying attachment styles linked to contraceptive intent. It will inform targeted interventions and educational programs and provide insights for stakeholders and government agencies to develop public health campaigns and policies. By identifying attachment styles that are likely linked to poor contraceptive adherence, interventions could be targeted toward at-risk populations. This study could also highlight the importance of secure attachment which could inform interventions targeted towards building secure attachment during infancy. Recommendations for mental health care providers could include the development of treatment programs to address the importance of early attachment

relationships and the multifaceted health needs of children (Sentino et al., 2018). Programs can be strengthened by involving other family members and improving parent-child communication and relationships (Sentino et al., 2018).

1.8 Operational Definitions

Adult Attachment style: patterns of emotions, dispositions, and emotion regulation strategies that are conceptually parallel to the attachment patterns consolidated in infancy (Campbell & Stanton, 2019; Gagliardi, 2021; Sagone et al., 2023; Szepeswol & Simpson, 2019). In this study adult attachment style will refer to an individual's current way of relating to others as it was consolidated from infancy.

Secure attachment: a secure attachment style is characterised by confidence in the emotional availability and accessibility of close figures who are perceived as a secure base that enables restoring emotional balance during distressed and needed situations (Campbell & Stanton, 2019; Gagliardi, 2021; Sagone et al., 2023; Szepeswol & Simpson, 2019). A person with a secure attachment style will feel comfortable forming close relationships and maintaining healthy boundaries within these relationships.

Avoidant attachment: an avoidant attachment style is characterised by discomfort with emotional intimacy, a strong desire for independence, and difficulty trusting others (Campbell & Stanton, 2019; Gagliardi, 2021; Sagone et al., 2023; Szepeswol & Simpson, 2019). A person with an avoidant attachment style will avoid forming close relationships and bonds with others.

Anxious attachment: an anxious attachment style is characterised by anxiety and uncertainty in close relationships as well as severe dependence on romantic partners. A person with an anxious attachment style wants to form close relationships and bonds but

is constantly anxious about such bonds being broken and that they will be abandoned (Campbell & Stanton, 2019; Gagliardi, 2021; Sagone et al., 2023; Szepsenwol & Simpson, 2019).

Contraceptive Intent: an individual's underlying conscious and unconscious predisposition towards using contraception (Raine-Bennet & Rocca, 2015). This study referred to contraceptive intent as an individual's awareness of efficacy, adherence to prescribed use, and pattern of use of their chosen contraceptive methods.

1.9 Structure of the Dissertation

Chapter 1 – a comprehensive introduction to the study, what it aims to achieve, and its significance.

Chapter 2 – an overview of the literature on the topic of the study and of the theoretical frameworks upon which the study is founded.

Chapter 3 – an overview of the methodology used in the study.

Chapter 4 – the presentation and discussion of the results.

Chapter 5 – a summary of the results and conclusion of the study.

1.10 Chapter Summary

This chapter aimed to provide an overview of the study. The researcher provided a comprehensive introduction of the study, the research problem, the purpose, and significance of the study. It was noted that attachment styles are formed from early childhood experiences and have a significant impact on adult behaviour. The next chapter will examine the relevant literature about attachment styles and their relation to contraceptive intent.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This literature review chapter seeks to synthesise and critically evaluate existing research on attachment styles and contraceptive intent within the context of adult romantic relationships. Drawing upon a multidisciplinary body of scholarship spanning psychology, sociology, public health, and related fields, this chapter aims to elucidate key findings, theoretical frameworks, methodological approaches, and unresolved questions in the field.

2.2 Contraceptive use by women globally

2.2.1 Contraceptive use in developed countries

In developed nations, contraceptive methods are widely available and often integrated into comprehensive healthcare services (Baird et al., 2018; De León et al., 2019; D'Souza et al., 2022; Kantorová et al., 2021). Women have access to a variety of options ranging from oral contraceptives to long-acting reversible contraceptives (LARCs) such as intrauterine devices (IUDs) and implants. These countries typically have robust family planning programs, high contraceptive prevalence rates, and strong support for reproductive rights (Baird et al., 2018; De León et al., 2019; Kantorová et al., 2021). Developed Nations can also provide better sex education in schools and healthcare facilities. Education plays a critical role in empowering women to make informed choices about their reproductive health (Baird et al., 2018; De León et al., 2019; Kantorová et al., 2021; Merki-Feld et al., 2018; Slaymaker et al., 2020). Efforts to improve reproductive health education, particularly among adolescents, have proven effective in increasing

contraceptive use and reducing unintended pregnancies (although unintended pregnancy rates are still of concern) (Baird et al., 2018; De León et al., 2019; D'Souza et al., 2022; Kantorová et al., 2021). Globally, unintended pregnancy among university students still occurs at a rate of 10% to 12% despite the above-mentioned efforts to reduce unintended pregnancy (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020).

Studies done on contraceptive use among women globally mention that unintended pregnancies remain a concern but rarely delve into the causes behind contraceptive failure beyond medical factors. Baird et al. (2018) and D'Souza et al. (2022) highlight the complexity of contraceptive use and how it is affected by multiple aspects. This area requires further investigation which the present study could potentially contribute to.

2.2.2 Global trends in contraceptive use

Across various regions, there has been a notable shift toward the use of long-acting reversible contraceptives (LARCs) (Baird et al., 2018; De León et al., 2019; D'Souza et al., 2022; Kantorová et al., 2021; Merki-Feld et al., 2018). These methods offer several advantages including high efficacy, convenience, and long-lasting protection against unintended pregnancies. As a result, initiatives promoting the adoption of LARCs have gained momentum, particularly in low-resource settings where access to healthcare facilities may be limited (Baird et al., 2018; De León et al., 2019; Kantorová et al., 2021; Merki-Feld et al., 2018). However, short-acting contraceptive methods remain the most used form of contraception, especially among university students (Baird et al., 2018; De León et al., 2019; D'Souza et al., 2022; Kantorová et al., 2021; Merki-Feld et al., 2018). Studies found that women are often unaware of the benefits of longer-acting

contraceptive methods or misinformed about their dangers (Baird et al., 2018; De León et al., 2019; Kantorová et al., 2021; Merki-Feld et al., 2018). Financial constraints are also often a contributing factor to women choosing short-acting over long-acting contraceptives, especially among university students (De León et al., 2019; D'Souza et al., 2022; González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020).

Studies on the use of LARCs, such as De León et al. (2019), often overlook psychological and behavioural factors that may influence contraceptive choice. For instance, psychological barriers like fear of side effects, self-efficacy in using contraception correctly, or attitudes toward pregnancy, could impact decisions. Merki-Feld et al. (2018) emphasises the need for more information on contraceptive options and a deeper exploration of women's needs and expectations to improve contraceptive initiatives. Investigating how attachment style influences contraceptive intent could contribute to this research, as endeavoured in this study.

2.2.3 Socioeconomic factors

Socioeconomic status remains a significant determinant of contraceptive use, with disparities observed between affluent and marginalised communities. Women from lower-income households often face financial constraints that limit their access to contraceptive services and supplies (Baird et al., 2018; De León et al., 2019; D'Souza et al., 2022; Ekholuenetale et al., 2022; Kantorová et al., 2021). This is not only due to the cost of the contraceptive methods themselves but also the cost of access i.e. the availability of healthcare providers nearby and travel costs to healthcare facilities (Baird et al., 2018; De León et al., 2019; Ekholuenetale et al., 2022; Kantorová et al., 2021). University

students are especially affected by the costs involved in obtaining reliable contraceptive methods (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020).

2.2.4 Cultural and Religious Beliefs

Religion and culture wield significant influence over contraception use among women worldwide, shaping attitudes and practices in diverse ways. In many societies, religious doctrines play a pivotal role in determining access to and acceptance of contraceptive methods (Baird et al., 2018; Cole & Geist, 2020; De León et al., 2019; D'Souza et al., 2022). For instance, in predominantly Catholic countries, the Church's opposition to artificial contraception can limit its use, as religious teachings emphasise natural family planning methods. Similarly, conservative Islamic interpretations in some regions discourage contraceptive use, advocating for procreation as a primary purpose of marriage (Baird et al., 2018; Cole & Geist, 2020; De León et al., 2019). These religious teachings often affect public policy and healthcare practices, creating barriers to contraception for women.

Cultural norms and values also heavily impact contraceptive practices. In cultures where large families are traditionally valued, there may be resistance to using contraception due to the perceived social and economic benefits of having more children (Baird et al., 2018; Cole & Geist, 2020; De León et al., 2019; D'Souza et al., 2022). For example, in many parts of Sub-Saharan Africa and South Asia, cultural norms promote higher fertility rates and may stigmatise contraception, leading to lower usage rates. Conversely, in societies where women's education and career opportunities are highly valued, there tends to be greater acceptance and use of contraception as a means of

empowering women to make informed choices about family planning (Baird et al., 2018; Cole & Geist, 2020; De León et al., 2019; D'Souza et al., 2022; Slaymaker et al., 2020).

The intersection of religion, culture, and access to contraception creates a complex global landscape. While some regions witness progressive changes and increased access to a variety of contraceptive methods, others struggle with entrenched beliefs that limit options for women (Baird et al., 2018; Cole & Geist, 2020; De León et al., 2019). Efforts to address these disparities often involve navigating sensitive cultural and religious contexts, emphasising the need for respectful dialogue and education to promote reproductive health and rights universally.

2.3 Contraceptive use by women in Africa and Sub-Saharan Africa

2.3.1 Cultural and Societal Norms

Cultural and societal norms significantly shape women's contraceptive intent and sexual behaviour worldwide, especially in Africa (Ahuja et al., 2020; Budu et al., 2022; Cole & Geist, 2020; D'Souza et al., 2022; Kantorová et al., 2021; Negash et al., 2023). Many communities hold deep-rooted views on fertility and gender roles that often dictate attitudes toward family planning and contraceptive use. In some communities, there is pressure to have large families, reflecting economic and cultural values that associate numerous offspring with social status and security (Ahinkorah et al. 2021; Budu et al., 2022; Cole & Geist, 2020; Negash et al., 2023). Additionally, religious teachings and community leaders can influence perceptions of contraception, sometimes discouraging its use due to concerns about morality or health risks. Even when women are allowed the opportunity to further their education, they are still influenced by their cultural beliefs

related to childbearing and contraception (Ahinkorah et al. 2021; Ahuja et al., 2020; Budu et al., 2022; Cole & Geist, 2020; Negash et al., 2023).

Gender dynamics further complicate access to contraceptive methods, as women may face barriers related to male partner approval or limited autonomy in decision-making (Ahinkorah et al. 2021; Ahuja et al., 2020; Budu et al., 2022; D'Souza et al., 2022; Negash et al., 2023). The stigma surrounding sexuality and contraception may also deter women from seeking information and services, leading to suboptimal contraceptive use and unintended pregnancies (Ahinkorah et al. 2021; Budu et al., 2022; Forty et al., 2021; Negash et al., 2023). Female students are often financially reliant on their partners which makes it difficult for them to negotiate contraception use if their partners are against it (Baloyi et al, 2020; Mutinta, 2022).

Studies have widely explored the influence of gender roles and religious teachings on contraceptive use in the region, highlighting how these norms contribute to large family sizes and discourage contraception. However, most research focuses on rural areas and Christian or Muslim-majority communities, lacking diversity. More research is needed on ethnically diverse or urban populations, where cultural attitudes toward family planning may be evolving, due to urbanisation and globalisation. While set in a semi-rural area, this study aims to add diversity to the existing research.

2.3.2 Access to Contraceptive Services

Access to contraception services in Sub-Saharan Africa has a profound influence on contraceptive use among women, with significant implications for reproductive health and economic development (Ahinkorah et al. 2021; Asmamaw et al., 2022; Budu et al., 2022; Cohen et al., 2024; D'Souza et al., 2022; Kantorová et al., 2021). In many areas of

the region, limited availability of contraceptives and insufficient healthcare infrastructure hinder women's ability to access family planning services. Rural areas, in particular, face challenges such as a shortage of healthcare facilities and providers, which results in lower rates of contraceptive use (Ahinkorah et al. 2021; Budu et al., 2022; Kantorová et al., 2021; Negash et al., 2023). Additionally, the cost of contraceptives and lack of affordable options further restrict access for many women, especially female students (Ekholuenetale et al., 2022).

The most common form of contraception used in Sub-Saharan Africa remains short-acting oral contraceptives and barrier methods (Ahinkorah et al. 2021; Budu et al., 2022; Kantorová et al., 2021; Negash et al., 2023). Likely, women in Sub-Saharan Africa have not started making use of long-acting reversible contraceptives yet because they are not widely available or because of misinformation and provider bias (Ahinkorah et al. 2021; Budu et al., 2022; Negash et al., 2023). These barriers contribute to high fertility rates and can impede women's ability to make informed choices about their reproductive health (Ahinkorah et al. 2021; Asmamaw et al., 2022; Budu et al., 2022; Negash et al., 2023). Female students who rely on on-campus healthcare services are especially affected by the lack of contraceptive options available to them, and provider bias (Baloyi et al, 2020; Mutinta, 2022).

The impact of these access issues is evident in the overall contraceptive prevalence in Sub-Saharan Africa, which remains lower compared to other regions (Ahinkorah et al. 2021; Ahuja et al., 2020; Asmamaw et al., 2022; Budu et al., 2022; Kantorová et al., 2021; Negash et al., 2023).

Ahinkorah et al. (2021) and Ahinkorah (2020) found that women in rural areas were less likely to use modern contraceptives than urban women, emphasising the importance of access to contraceptive services, particularly in relation to the perceived distance to healthcare facilities. In contrast, Asmamaw et al. (2022) and Budu et al. (2022) found that rural women had a higher intent to use contraception than their urban counterparts, an unexpected result that warrants further exploration. This study contributes by examining attachment style as a potential influence on contraceptive intent. While both previous studies focused on married women, attachment style may also impact marital status, suggesting the need for further research, which this study could help address.

2.3.3. Partner Dynamics and Relationship Context

In Sub-Saharan Africa, partner dynamics and relationship context significantly influence contraceptive use among women, shaping both their access to and decision-making around family planning (Ahuja et al., 2020; Budu et al., 2022; Casola et al., 2020; D'Souza et al., 2022; Negash et al., 2023; Nkonde et al., 2023; Sarfraz et al., 2023). Many women in the region face challenges related to male partners' attitudes toward contraception, which can greatly impact their ability to use contraceptives effectively. In some communities, men hold the primary decision-making power regarding reproductive health, leading to resistance against contraceptive use if partners do not support or prioritise family planning (Ahuja et al., 2020; Budu et al., 2022; Negash et al., 2023; Nkonde et al., 2023; Sarfraz et al., 2023). This dynamic can result in women having limited negotiating power and autonomy over their reproductive choices, affecting their access to and consistent use of contraceptive methods (Ahuja et al., 2020; Budu et al., 2022; Nkonde et al., 2023; Negash et al., 2023). Many women, especially female students, also

have limited autonomy regarding their contraceptive use and sexual experiences when they are financially reliant on their partners as is often the case (Baloyi et al, 2020; Mutinta, 2022).

Cultural norms and societal expectations further complicate the relationship context around contraception. In many traditional settings, there is a strong emphasis on fertility and large family sizes, often reinforced by male partners who may view contraception as a threat to these values (Ahuja et al., 2020; Budu et al., 2022; Negash et al., 2023). The stigma associated with contraceptive use can be particularly pronounced in relationships where partners believe that family planning methods undermine traditional gender roles or the perceived natural order of procreation. Consequently, women may experience pressure to forgo contraceptives, leading to higher fertility rates and less control over their reproductive health (Ahuja et al., 2020; Budu et al., 2022; D'Souza et al., 2022; Negash et al., 2023; Nkonde et al., 2023; Sarfraz et al., 2023).

Although the influence of male partner dynamics is emphasised in these studies (Ahinkorah et al., 2021; Ahuja et al., 2020; Nkonde et al., 2023) there is a lack of exploration regarding the role of coercive control or violence in contraceptive decision-making. Many women in Sub-Saharan Africa report experiencing power imbalances or abuse (Budu et al., 2022), yet studies on how these experiences impact contraceptive use and decision-making are sparse. Furthermore, the concept of autonomy is mentioned in the studies done but lacks in-depth analysis. While there is acknowledgment of limited autonomy for women in many regions, how autonomy intersects with factors like education level, income, and access to services remains insufficiently explored. The

current study aims to add to this body of literature by exploring the effect of attachment styles, which could influence women's relationships, on contraceptive intent.

2.3.4. Fertility Preferences and Reproductive Goals

Fertility preferences and reproductive goals significantly influence contraceptive use among women in Sub-Saharan Africa, shaping how and whether they access and utilise family planning methods (Akoku et al., 2022; Asmamaw et al., 2022; Budu et al., 2022; Merki-Feld et al., 2018; Negash et al., 2023). In many regions, cultural and societal values place a high premium on large family sizes, which can lead to resistance against contraception. Women may face social pressure to conform to expectations of having multiple children, driven by traditional beliefs that associate large families with social status, economic security, and the fulfillment of gender roles (Ahuja et al., 2020; Asmamaw et al., 2022; Budu et al., 2022; Kantorová et al., 2021; Negash et al., 2023). Consequently, women who desire larger families may be less inclined to use contraceptives, prioritising the achievement of their reproductive goals over family planning.

Conversely, shifts in fertility preferences are gradually influencing contraceptive use patterns in the region (Asmamaw et al., 2022; Budu et al., 2022; Negash et al., 2023). As education levels rise and economic opportunities expand, more women are expressing a preference for smaller family sizes. This changing perspective is often linked to increased awareness of the benefits of contraception, such as improved maternal health, better child welfare, and the ability to invest more resources in each child's future (Asmamaw et al., 2022). Women who prioritise career development or seek to improve their quality of life may be more likely to adopt contraceptive methods that align with their

desire for smaller families and more controlled reproductive outcomes (Asmamaw et al., 2022; Budu et al., 2022; Negash et al., 2023). Women may also use contraception to space their pregnancies strategically to optimise maternal and child health outcomes (Asmamaw et al., 2022; Budu et al., 2022; Negash et al., 2023).

2.3.5. Health Education and Empowerment

Health education and empowerment play crucial roles in influencing contraceptive use among women in Sub-Saharan Africa, with significant implications for reproductive health outcomes (Asmamaw et al., 2022; De León et al., 2019; D'Souza et al., 2022; Kantorová et al., 2021; Merki-Feld et al., 2018; Slaymaker et al., 2020). Comprehensive health education helps demystify contraceptive methods and their benefits, addressing common misconceptions and misinformation. In many areas, limited knowledge about contraception and its use can lead to reluctance or fear, resulting in lower uptake (De León et al., Dorji et al., 2022; 2019; Kantorová et al., 2021; Merki-Feld et al., 2018; Slaymaker et al., 2020). By providing accurate, culturally sensitive information about different contraceptive options, their effectiveness, and their safety, health education programs can empower women to make informed decisions about their reproductive health and actively seek out family planning services.

Empowerment, particularly through increased access to education and economic opportunities, also drives higher rates of contraceptive use. Women who are educated and economically independent are more likely to prioritise their reproductive health and advocate for their own needs, including the use of contraception (Ahinkorah, 2020; Ahinkorah et al. 2021; Ahuja et al., 2020; Asmamaw et al., 2022; Budu et al., 2022; Ekholuenetale et al., 2022; Negash et al., 2023; Slaymaker et al., 2020). Empowerment

initiatives that support women's rights and autonomy encourage them to challenge traditional norms and make decisions aligned with their personal and familial goals. This shift in empowerment not only fosters greater control over reproductive choices but also promotes broader societal changes toward gender equality and improved health outcomes (Ahinkorah et al. 2021; Ahuja et al., 2020; Asmamaw et al., 2022; Budu et al., 2022; Negash et al., 2023; Slaymaker et al., 2020).

Health education and empowerment are crucial for improving contraceptive use (Ahinkorah, 2020; Ahinkorah et al., 2021; Asmamaw et al., 2022; Baird et al., 2018; De León et al., 2019; Merki-Feld et al., 2018; Slaymaker et al., 2020), but most studies focus on education about contraceptive availability. Psychological factors, such as attachment style, relationship dynamics, and perceived autonomy, are often overlooked. Examining these factors, as in this study, can enhance educational interventions, making them more comprehensive and potentially more effective and sustainable.

2.4 Contraceptive Use and Intent among South African women

2.4.1 Contextual Factors

In South Africa, the influence of contextual factors on contraceptive use among women is multifaceted, shaped by socioeconomic conditions, healthcare access, and cultural norms (Cohen et al., 2024; Cole & Geist, 2020; D'Souza et al., 2022; Ekholuenetale et al., 2022; Freedman et al., 2020; Govender et al., 2020; Willan et al., 2020). Socioeconomic factors such as income and education levels play a significant role in determining contraceptive use. Women with higher levels of education and greater economic resources are more likely to access and use contraceptives, as they tend to have better knowledge of and access to family planning services (Ahinkorah, 2020; Ahuja

et al., 2020; Ekholuenetale et al., 2022; Freedman et al., 2020; Govender et al., 2020; Willan et al., 2020). Conversely, women from lower-income backgrounds or with less education may face barriers such as cost, lack of information, and limited access to healthcare facilities, which can reduce their likelihood of using contraceptives (Ahinkorah, 2020; Ahuja et al., 2020; Freedman et al., 2020; Govender et al., 2020; Willan et al., 2020). Female university students often lack financial resources for reliable contraception and may face the challenge of provider bias when making use of on-campus healthcare services for contraception (Baloyi et al, 2020; Mutinta, 2022).

Healthcare infrastructure and access also critically impact contraceptive use in South Africa. The country's healthcare system is characterised by a dual structure of public and private services, with disparities between the two. While private healthcare facilities often offer a wide range of contraceptive options, public services may be under-resourced and overburdened, particularly in rural areas. This disparity can lead to unequal access, with women in underserved regions experiencing difficulties in obtaining contraceptive methods (Cohen et al., 2024; D'Souza et al., 2022; Freedman et al., 2020; Govender et al., 2020; Willan et al., 2020).

Cultural and societal norms further influence contraceptive practices in South Africa. Traditional beliefs and attitudes towards family planning can affect both individual and community-level acceptance of contraception (Freedman et al., 2020; Govender et al., 2020; Willan et al., 2020). In some communities, there may be resistance to contraceptive use due to perceptions that it conflicts with cultural or religious values.

2.4.2 Contraceptive Prevalence

While contraceptive prevalence has increased in South Africa over the years, disparities in contraceptive use persist across different demographic groups. According to national surveys, modern contraceptive use among sexually active women of reproductive age remains suboptimal, with significant differentials observed by age, education, and socio-economic status (Cohen et al., 2024; D'Souza et al., 2022; UNFPA, 2022). Young women, unmarried women, and those living in rural areas are less likely to use modern contraceptives, highlighting the need for targeted interventions to improve access and utilisation of contraceptive services among these populations (Cohen et al., 2024; Govender et al., 2020; Merki-Feld et al., 2018; Willan et al., 2020).

The most used forms of contraception remain short-acting oral contraceptives and barrier methods despite the availability of long-acting reversible contraceptives (LARCs). South African women are likely unaware of the benefits, efficacy, and safety of these LARCs or the LARCs are inaccessible due to cost, unavailability, or provider bias (Govender et al., 2020; Merki-Feld et al., 2018; Willan et al., 2020).

The relationship between socioeconomic status, age, and contraceptive choice should be further explored. The current study could add to this exploration by identifying relationships between demographic factors and contraceptive intent, which could be further investigated.

2.4.3 Barriers to Contraceptive Access

Numerous barriers hinder women's access to contraceptives in South Africa, including limited availability of contraceptive methods, stockouts of supplies, long waiting times at healthcare facilities, and provider bias or stigma (Cohen et al., 2024; D'Souza et

al., 2022; Govender et al., 2020; Willan et al., 2020). Structural factors such as poverty, unemployment, and inadequate transportation further exacerbate barriers to contraceptive access, particularly among marginalised or underserved populations (Cohen et al., 2024; Govender et al., 2020; Willan et al., 2020). Overcoming these barriers requires a multi-faceted approach that addresses both supply-side and demand-side constraints and ensures that contraceptive services are accessible, affordable, and culturally sensitive.

2.4.4 Fertility Intention and Reproductive Autonomy

Women's contraceptive intent is closely linked to their fertility intentions and reproductive autonomy. While some women may desire to delay or limit childbearing for personal, educational, or economic reasons, others may face pressure to conform to societal expectations of motherhood or experience coercion to forgo contraception (Akoku et al., 2022; D'Souza et al., 2022; Govender et al., 2020; Nkonde et al., 2023; Willan et al., 2020). Many women may also have limited autonomy regarding their reproductive decision-making because of partner dynamics or socioeconomic reasons, this may be especially true for female university students who are financially reliant on their partners (Baloyi et al., 2020; Govender et al., 2020; Mutinta, 2022; Nkonde et al., 2023; Willan et al., 2020). Ensuring that women have the agency to make informed choices about their reproductive futures is essential for promoting reproductive autonomy and reducing unintended pregnancies in South Africa.

2.5 Contraceptive Intent and Reproductive Behaviours among University

Students

Contraceptive use among university students varies widely depending on factors such as knowledge, access, attitudes, and relationship dynamics. While some students may use contraception consistently and correctly to prevent unintended pregnancies and sexually transmitted infections (STIs), others may rely on less effective methods or forgo contraception altogether (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020). Intentions to use contraception can also fluctuate over time, influenced by factors such as relationship status, partner communication, and perceived risk of pregnancy or STIs (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020).

2.5.1 Sexual Activity and Risk Behaviours

Sexual activity and risk behaviours among university students are influenced by a complex interplay of factors, including peer pressure, personal values, and the quest for intimacy and identity during this formative period (Akoku et al., 2022; González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020). Many students engage in sexual activities with varying levels of awareness regarding the associated risks, such as unintended pregnancies and STIs (Dorji et al., 2022). Risky behaviours, such as inconsistent condom use and multiple sexual partners, can be driven by a lack of comprehensive sexual education, substance use, or the desire for social acceptance (Akoku et al., 2022; González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020). Female South African students reported due to poor socio-economic status, they had sexual relationships with older males who could support them financially (Baloyi et al, 2020; Mutinta, 2022). They

also quoted peer pressure to be in romantic relationships as a reason for unintended pregnancy (Baloyi et al, 2020; Kgarose et al., 2023; Mutinta, 2022).

Further research could investigate the role of peer networks and social media in shaping sexual behaviour among university students. For instance, where university students are receiving contraceptive advice or information (for example from their peers through informal networks or social platforms) and how reliable this information is.

2.5.2 Knowledge and Access to Contraceptive Services

Access to accurate information about contraception and reproductive health services is essential for supporting informed decision-making among university students. While many universities offer sexual health education programs and on-campus clinics that provide contraceptive counselling and services, gaps in knowledge and access may persist, particularly among marginalised or underserved student populations (Akoku et al., 2022; González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020).

South African students reported that they did not receive sex education at home and were unaware of the risks involved in sexual activity. They also reported that although they know about contraceptives, they often choose not to use them (Baloyi et al, 2020; Kgarose et al., 2023; Mutinta, 2022). Of the students using contraceptive methods, most of them are using oral contraceptives or barrier methods which are often unreliable (Akoku et al., 2022; Baloyi et al, 2020; Dorji et al., 2022; Kgarose et al., 2023; Mutinta, 2022). Students also reported that the attitude of healthcare professionals on campus contributed to their lack of contraception use when it was available to them. They reported that healthcare professionals are judgemental and unfriendly when providing healthcare

services to students, especially regarding contraception and sexual health (Baloyi et al, 2020; Kgarose et al., 2023; Mutinta, 2022).

While there is significant emphasis on contraception knowledge and access at universities, studies (Akoku et al., 2022; Baloyi et al, 2020; Dorji et al., 2022; Kgarose et al., 2023; Mutinta, 2022) suggest that some students are aware of contraceptives but choose not to use them. This gap may be due to preferences, misconceptions, cultural stigma, or psychological factors like attachment style. Research on attitudes towards contraception, as conducted in this study, could shed light on how this influences actual use. Additionally, exploring healthcare professionals' attitudes at university clinics (as noted by Baloyi et al., 2020) would be valuable in understanding students' contraceptive decisions. The literature shows a contradiction between students' knowledge of contraception and their use of unreliable methods. Further research is needed to explore why students persist with ineffective methods and the barriers preventing them from using more reliable contraception, despite availability. This study contributes to examining these factors.

2.5.3 Relationship Dynamics and Communication

The quality of intimate relationships and communication between partners can significantly influence contraceptive intent and behaviour among university students. Effective communication about contraceptive preferences, intentions, and concerns is essential for negotiating safer sex practices and promoting mutual understanding and support (Casola et al., 2020; González-Marugán et al., 2021; Gräf et al., 2020; Nkonde et al., 2023; Lyu, 2020). However, barriers such as fear of judgement, embarrassment, or lack of communication skills may impede open dialogue about contraception within

relationships, leading to suboptimal contraceptive use and increased risk of unintended pregnancy or STIs (Casola et al., 2020; González-Marugán et al., 2021; Gräf et al., 2020; Nkonde et al., 2023; Lyu, 2020).

Another problem faced by a significant number of female South African students is engaging in sexual activity for reimbursement which makes it difficult to negotiate for safe sex (Baloyi et al, 2020; Kgarose et al., 2023; Mutinta, 2022).

2.5.4 Intersectional Factors and Equity

Intersectional factors such as gender, race/ethnicity, socio-economic status, and sexual orientation intersect to shape students' experiences of sexual/reproductive behaviour and contraceptive intent. Marginalised or minority student populations may face unique barriers to accessing sexual health resources and services, including discrimination, stigma, and lack of culturally competent care (González-Marugán et al., 2021; Gräf et al., 2020; Lyu, 2020). Addressing these disparities requires a multifaceted approach that acknowledges and addresses the intersecting social determinants of health that contribute to inequities in sexual and reproductive health outcomes among university students.

Most studies mention intersectionality in sexual behaviour and contraceptive intent; however, they lack a thorough exploration of how multiple identities (e.g., race, class, gender, and sexual orientation) interact to create unique barriers. This could be especially significant in the South African context, where historical inequalities persist. The present study could aid in addressing this gap in the literature.

2.6 Attachment Styles and Contraception Use

2.6.1 Secure attachment

Secure attachment styles, typically characterised by a stable and positive view of oneself and others, can significantly influence sexual behaviour and contraceptive use (Casola et al., 2020; Gagliardi, 2021; Sagone et al., 2023; Szepesenwol & Simpson, 2019). Individuals with secure attachments tend to have healthier relationships and greater communication skills, which can lead to more responsible sexual behaviours and effective contraceptive use (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). Their comfort with intimacy and trust often translates into more open discussions about sexual health with partners, enabling more consistent and informed use of contraceptives. This proactive approach reduces the risk of unintended pregnancies and STIs, reflecting their broader ability to handle interpersonal and emotional matters in a balanced and thoughtful manner. (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018)

Future studies could explore whether secure attachment positively influences contraception use in different relationship contexts, such as casual versus committed relationships, and whether this effect varies by gender or sexual orientation. This study contributes by examining the impact of marital status on contraceptive intent and offers a different setting from those of Kim & Miller (2020), Owino et al. (2021), and Sentino et al. (2018), adding diversity to the literature.

2.6.2 Anxious attachment

Anxious attachment, marked by a heightened sensitivity to relationship dynamics and a fear of abandonment, can significantly impact sexual behaviour and contraceptive use (Casola et al., 2020; Gagliardi, 2021; Sagone et al., 2023; Szepesenwol & Simpson,

2019). Individuals with anxious attachment often seek reassurance and validation from their partners, which can lead to more impulsive or risk-prone sexual behaviours as a means of securing emotional connection (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). Their heightened anxiety and preoccupation with the relationship may also result in inconsistent use of contraception, as they might prioritise immediate relational needs or fail to engage in clear, proactive discussions about sexual health. This lack of consistency can increase the risk of unintended pregnancies and sexually transmitted infections, reflecting how attachment insecurities can undermine effective sexual health practices (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). Anxiously attached individuals were also found to be more likely to have multiple sexual partners and less likely to use contraception (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018).

The literature is ambiguous regarding whether anxiously attached individuals inconsistently use contraceptives out of a fear of intimacy or a lack of communication skills in their relationships. Further qualitative investigation into this ambiguity could be beneficial to understanding how attachment style could influence contraceptive use and identifying possible confounding variables. Furthermore, investigating the relationship between anxious attachment and gender roles in contraception decision-making could provide deeper insight into the emotional and social factors driving contraceptive use among students. The current study could aid in addressing the ambiguity of the literature.

2.6.3 Avoidant attachment

Avoidant attachment, characterised by a tendency to distance oneself from emotional closeness and intimacy, can have a marked effect on sexual behaviour and contraception use (Casola et al., 2020; Gagliardi, 2021; Sagone et al., 2023; Szepsenwol

& Simpson, 2019). Individuals with avoidant attachment often prioritise self-sufficiency and may resist deep emotional engagement, which can manifest in their sexual behaviour as detachment or reluctance to discuss sexual health openly (Casola et al., 2020; Gagliardi, 2021; Sagone et al., 2023; Szepeswol & Simpson, 2019). This emotional distance can result in inconsistent or ineffective contraceptive practices, as these individuals might avoid conversations about contraception due to discomfort with vulnerability or fear of being perceived as needy. Their reluctance to engage in such discussions can lead to lower adherence to contraceptive methods and a higher risk of unintended pregnancies or STIs (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018).

2.6.4 Fearful-avoidant attachment

A fearful-avoidant attachment style, characterised by a combination of anxiety and avoidance in relationships, can significantly impact an individual's sexual behaviour. People with this attachment style often struggle with intimacy and may experience a fear of vulnerability (Casola et al., 2020; Gagliardi, 2021; Sagone et al., 2023; Szepeswol & Simpson, 2019). As a result, they might engage in sexual encounters that are more detached or casual, avoiding deeper emotional connections. This could manifest as a preference for one-night stands or situations where they can maintain a sense of distance, thereby protecting themselves from potential rejection or emotional pain. When it comes to contraception use, individuals with a fearful-avoidant attachment may have ambivalent feelings about sexual relationships (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). Their anxiety about intimacy can lead to inconsistent behaviours regarding contraception. For example, they may avoid discussions about safe sex practices out of

fear of confrontation or rejection, leading to increased risk-taking behaviour. Alternatively, they might use contraception to create emotional distance, focusing solely on the physical aspects of the encounter while neglecting the relational dimensions that come with sexual activity (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018).

Moreover, the internal conflicts experienced by those with a fearful-avoidant attachment style can result in poor communication with partners about sexual health. They may find it challenging to assert their needs or negotiate contraception use, fearing that such discussions could lead to emotional closeness or vulnerability (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). This lack of open communication can increase the risk of unintended pregnancies and STIs, highlighting the importance of addressing attachment styles in sexual health education and counselling to promote healthier behaviours and relationships (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018).

The studies mention that individuals with a fearful-avoidant attachment style might use contraception to create emotional distance. This contradicts the idea that anxiety and fear lead to avoidance of contraception discussions. Investigating these conflicting motivations would help clarify the relationship between attachment style and contraceptive practices.

2.7 Theoretical framework

2.7.1 Attachment theory

Attachment theory is a psychological framework developed by John Bowlby and further expanded upon by Mary Ainsworth and others (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). It focuses on the bonds formed between infants and their

primary caregivers, typically their parents, and how these early attachment experiences shape individuals' emotional and social development throughout their lives (Raby & Dozier, 2019, Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). At its core, attachment theory proposes that infants are biologically predisposed to seek proximity to their caregivers as a means of obtaining safety, security, and comfort (Raby & Dozier, 2019, Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). These early attachment bonds serve as a foundation for the development of a child's internal working models, which are mental representations of themselves, their caregivers, and their relationships with others (Raby & Dozier, 2019, Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019).

According to attachment theory, there are four main attachment styles (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019) that individuals may develop based on their early caregiving experiences namely: *secure*, *avoidant*, *anxious*, and *fearful-avoidant*. Children with secure attachment bonds feel confident that their caregivers will be available and responsive when needed. They are comfortable exploring their environment and forming relationships with others (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). Children with an anxious attachment may exhibit clingy behaviour and anxiety about separation from their caregivers. They may constantly seek reassurance and approval from others (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). Children with an avoidant attachment may appear independent and self-reliant but may have difficulty forming close emotional bonds with others. They may downplay the importance of relationships and suppress their emotional needs. Children with a fearful-avoidant attachment may have a combination of anxious and avoidant

behaviours (Gagliardi, 2021; Sagone et al., 2023; & Berg, 2019). They may desire close relationships but fear rejection or abandonment, leading to ambivalence and difficulty trusting others (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019).

Attachment theory suggests that these attachment styles can influence individuals' behaviour and relationships across their lifespan, impacting their romantic relationships, friendships, and interactions with authority figures and peers (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). Attachment style also plays a significant role in influencing an individual's health risk. People with secure attachment styles tend to have positive self-regard and healthy interpersonal relationships, which can lead to better physical and mental health outcomes (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). These individuals are generally more resilient to stress and more likely to engage in health-promoting behaviours, such as seeking medical care when needed and maintaining healthy relationships. In contrast, those with insecure attachment styles may struggle with emotional regulation and coping strategies, increasing their vulnerability to health risks (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019).

Insecure attachment, particularly anxious attachment, is often linked to heightened stress levels and emotional distress. This can manifest in physiological responses, such as increased cortisol levels, which may lead to a range of health issues, including cardiovascular problems and weakened immune function (Gagliardi, 2021; Voges & Berg, 2019). Moreover, individuals with an anxious attachment style may engage in maladaptive coping mechanisms, such as substance abuse or overeating, to manage their emotional turmoil, further exacerbating their health risks. Avoidant attachment styles can also contribute to health complications. Individuals with an avoidant attachment style may

avoid seeking help or addressing health concerns due to fears of vulnerability, resulting in delayed treatment and poorer health outcomes (Gagliardi, 2021; Sagone et al., 2023; Voges & Berg, 2019). Overall, attachment theory provides valuable insights into the role of early caregiving experiences in shaping individuals' emotional development, interpersonal relationships, and physical and mental well-being.

Studies done on the influence of attachment styles on sexual behaviour and contraception use have indicated that secure attachment serves as a protective factor against risky sexual behaviours and is associated positively with contraception use (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). In contrast, anxious and avoidant attachment is associated with having more sexual partners and poor contraception use (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018).

2.8 Chapter Summary

This chapter provided a broad, balanced overview of the existing literature related to the proposed research topic and highlighted the theories used as frameworks for the study. The literature identified various factors that influence women's reproductive behaviour and specifically their contraceptive intent. These factors include cultural and religious beliefs, romantic partner relationships, access to and stigma around safe contraceptives, and fertility intentions. The literature further indicates that each of these factors may also be influenced by an individual's attachment style.

The next chapter discusses the research methodology used in this investigation.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter will explore the research approach and design. It will discuss the research methodology and give a detailed overview of why this approach was chosen.

3.2 Research Approach and Design

The research approach for the study was quantitative. Quantitative research is a systematic and empirical investigation of a phenomenon through the processing and analysis of numerical data using statistical analysis (Heppner & Heppner, 2004). This study aimed to assess the relationship between attachment styles and contraceptive intent among female Limpopo University students. This study was conducted at a single point in time and used a cross-sectional study design. In this design, data from respondents that represent a certain population was sampled. The use of this design was guided by and aligned with the earlier mentioned objectives of the study.

3.3 Variables of the study

3.3.1 Attachment style (independent variable) – as measured by the experiences in close relationships revised (ECR-R) can be secure, avoidant, anxious, or fearful-avoidant.

3.3.2 Contraceptive intent (dependent variable) – refers to a woman's likelihood to adhere to her chosen contraceptive method and use it correctly. It will be measured by the contraceptive intent questionnaire (CIQ) which indicates low levels of contraceptive intent (low adherence) to high levels (strong adherence).

3.4 Sampling

3.4.1 Population of the study

The study sample included registered female students at the University of Limpopo. Participants in this study consisted of female students who are between the ages of 18 and 40 years. Limiting the study to include participants aged 18 to 40 years helped to ensure the sample is relevant to the demographic most likely to be engaged in higher education and at a stage where contraceptive use is a significant concern. This age range encompasses the typical period of university enrollment and early career stages, capturing a critical window when students are likely to be actively making decisions about their reproductive health. Additionally, focusing on this age group avoided the potential confounding factors associated with younger adolescents or older women, who may not need to use contraceptives (due to menopause), and have different sexual behaviours, life stages, or health priorities that could skew the study's findings. English was chosen as the language for data collection because it is the primary medium of instruction at the University of Limpopo, thus it is assumed that students are well-versed in academic and everyday communication in English.

3.4.2 Study site

The study took place at the University of Limpopo, Turfloop Campus, located in the Capricorn District of Limpopo Province and approximately 30 km east of Polokwane. Polokwane is the biggest town in the province of Limpopo (Statistics South Africa, 2023). The province largely consists of rural settlement types, but Polokwane's settlement type is slightly more urban. Sepedi is the most common language spoken, and most of the population is African (Statistics South Africa, 2023). However, University of Limpopo

students are comprised of students across all nine provinces and some other African countries speaking different languages.

3.4.3 Sample and Sampling Procedure

In this study, the sample was drawn using the convenience sampling method to sample university students from all the university faculties, namely health sciences, humanities, science and agriculture, and management and law. The convenience sample consisted of undergraduate and postgraduate students who were readily available to the researcher and met the study's inclusion criteria. Because of this, an accessible and manageable convenience sample of the University of Limpopo students was selected. Given the population of 23423 students who were actively registered at the university in 2024, a sample size of 377 was calculated using the Bukhari (2020) method at a 95% confidence interval.

The inclusion criteria used to select university students were as follows:

- University students had to be female.
- University students had to be under the age of 40 years (so as to exclude menopausal women)

The criteria used to exclude university students were:

- University students who are male.
- University students who are older than 40 years of age.

The sample for this study consisted of 380 female students enrolled at the University of Limpopo. The sample was selected using a convenience sampling technique. The study

used self-report questionnaires to gather data on attachment styles and contraceptive intent among female university students.

3.5 Data Collection

3.5.1 Demographic questionnaire

Respondents first completed a demographic questionnaire that collected information regarding their home language, level of study, gender, relationship status, age, and ethnicity.

3.5.2 Experiences in Closed Relationships-Revised (ECR-R) Questionnaire

The ECR-R was used to assess the attachment styles of the female university students. The ECR-R self-report instrument is a widely used measure that assesses adult attachment styles within close relationships.

It was developed by building on earlier models of attachment theory, particularly the work of John Bowlby and Mary Ainsworth, the ECR captures the complexities of how individuals perceive and engage in intimate relationships (Dupont et al., 2022; Flemming et al., 2021). Attachment theory posits that early interactions with caregivers shape one's expectations and behaviours in adult relationships. The ECR was created to assess these dynamics, providing a framework to understand how attachment influences relationship functioning. The scale was first introduced in the late 1990s by Brennan et al. (1998) as a response to the limitations of previous measures of attachment. While earlier tools primarily focused on childhood attachment styles, the ECR specifically targets adult romantic relationships, recognising that attachment patterns can manifest differently as individuals mature. The scale was later revised by Fraley et al. (2000) to form the Experiences in Close Relationships-Revised or ECR-R. The ECR-R includes dimensions

of anxiety, avoidance, and fearful avoidance (as a combination of anxious and avoidant) reflecting three styles of insecure attachment. By measuring these dimensions, the ECR-R offers a nuanced view of how individuals might fear rejection or feel uncomfortable with closeness, which can significantly impact relationship quality and satisfaction (Dupont et al., 2022; Flemming et al., 2021).

One of the key advantages of the ECR-R is its empirical support and widespread application in psychological research. Numerous studies have validated its reliability and validity across diverse populations, confirming that attachment styles measured by the scale correlate with various relational outcomes, including relationship satisfaction, conflict resolution, and emotional intimacy (Dupont et al., 2022; Flemming et al., 2021). The ECR-R has been used in various studies set in South Africa and using university students as the study sample (Magorokosho & Mberira, 2020; Rawatlal et al., 2015; Schuitmaker et al., 2022; Tyolo et al., 2022).

The ECR-R consists of 36 items that assess adult attachment across two subscales. The two subscales are anxiety and avoidance. An example of an item on the anxiety subscale is: 'I often worry that my romantic partner does not love me'. An example of an item on the avoidance subscale is: 'I struggle allowing myself to depend on romantic partners. The 36 items are rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). A combined score on both the anxious and avoidant scale determines fearful avoidant attachment.

The ECR-R's attachment subscales, avoidance and anxiety, have demonstrated high internal consistency and reliability, with Cronbach's alphas of 0.89 and 0.90, respectively (Dupont et al., 2022; Flemming et al., 2021).

3.5.3 Contraceptive Intent questionnaire

The Contraceptive Intent Questionnaire (CIQ) was used to assess female students' adherence to contraceptive use. The CIQ is a self-report measure that was designed by Raine-Bennet and Rocca (2015) to identify women at risk of non-adherence to contraceptive methods.

The CIQ was developed to gather insights into the attitudes and behaviours surrounding contraceptive choices. The questionnaire may help healthcare providers understand the factors influencing an individual's decision-making process. The CIQ's development was grounded in the Theory of Reasoned Action (TRA) and the Necessity-Concerns Framework from medication adherence research (Raine-Bennet & Rocca, 2015). The TRA theorises that the best predictor of a given behaviour is the intention to engage in the behaviour. The intention is influenced by two factors namely the individual's beliefs and values about the consequences of engaging in the behaviour, and their perception of social expectations related to the behaviour (Raine-Bennet & Rocca, 2015) for example item 1 which asks: "How important is it for you to get further along in your life, like finish school, get a job, or make more money, before you have a child or your next child?" and item 10 which asks: "How upset would you feel if you or your partner got pregnant in the next year?". The Necessity-Concerns Framework posits that individuals balance their concerns about medications against their perceived need for the therapy and its perceived benefits (Raine-Bennet & Rocca, 2015). Measurement instruments based on the framework have been shown to predict adherence and differentiate non-adherers from adherers (Raine-Bennet & Rocca, 2015).

Building on the TRA, the item set for the CIQ was generated based on results from research and formative qualitative work with young women who were starting to use contraceptives (Raine-Bennet & Rocca, 2015). Findings from a one-year longitudinal study of women aged 15–24 years initiating hormonal contraceptives at family planning clinics in the San Francisco Bay Area were also incorporated into the development of the item set (Raine-Bennet & Rocca, 2015). Additional items related to belief in the need for, efficacy of, and potential harm of contraceptives were also included as was indicated by the Necessity-Concerns framework (Raine-Bennet & Rocca, 2015).

The CIQ was found to be a reliable measure of contraceptive intent in various studies, however, none of these studies were done in South Africa or Sub-Saharan Africa (Boydell & Galavotti, 2022; Öner & Çelik, 2023; Yeşil & Dönmez, 2024). The CIQ questionnaire consists of 15 items with a separation reliability coefficient of 0.73, showing acceptable internal consistency (Raine-Bennet & Rocca, 2015).

3.5.4 Data collection procedure

Data was collected using self-report questionnaires that female university students completed online using Google Forms. An email advertising the study and requesting participants was sent out to all students at the University of Limpopo. Participation was voluntary, and participants self-selected to take part in the study. The study was specifically advertised as being for female students, and the Google Form used for data collection was set up to automatically end the survey if a participant indicated they were male, ensuring that only female students participated in the study. The questionnaires entailed several sections, including demographic information, ECR-R, and CIQ among female university students.

Data collection followed strict ethical guidelines to protect the participants of the study. Informed consent was communicated at the start of the questionnaire, and information regarding the study and the use of data was provided to the participant on the Google Form before the test battery.

Participants were required to consent to participation before the survey questions started. Participation in the study was voluntary, and participants could withdraw at any time. The researcher's details were also provided to answer questions or if participants were interested in the study's findings. The participants participated anonymously. The data obtained from the participants was kept safe with only access to the supervisor and researcher. The rights of participants to privacy and confidentiality were protected (Health Professions Council of South Africa [HPCSA], 2016).

Participants could have experienced emotional reactions to survey questions. At the end of the survey, a message appeared to debrief participants and guide them to the psychology clinic on the Turfloop campus of the University of Limpopo, where they could seek psychological assistance if needed.

Participants were treated with autonomy, respect, and dignity, ensuring informed consent, and safeguarding against harm. This includes upholding a standard of care that minimises risks, respects cultural differences, and prioritises participants' well-being throughout the study. For example, the participant information sheet that preceded the research protocols contained the following statement: "It is completely voluntary for you to participate in this research, and you have the right to stop participating at any time." Each protocol was also preceded with the note: "No answer is right or wrong."

3.6 Data Analysis

Statistical Package for Social Sciences (SPSS version 29) software was used to affect the data analysis as it enables researchers to conduct complex statistical analysis independently (Heppner & Heppner, 2004). The descriptive analysis was done to summarise demographic characteristics and attachment style distributions among Limpopo University students. The analysis provided an overview of the sample, including age, gender, relationship status, and attachment style distribution. Key variables, such as attachment style and contraceptive intent, were analysed using descriptive statistics. Moreover, correlation analysis was conducted to examine the relationship between attachment styles and contraceptive intent (Heppner & Heppner, 2004). Multinomial logistic regression analyses were used to assess the unique contribution of attachment styles, relationship status, and educational level in predicting contraceptive intent.

3.7 Chapter Summary

This chapter gave a detailed overview of the research methodology used in the study as well as the research approach used. It also gave information on the reliability and validity of the test batteries used, the data collection procedure, and ethical considerations.

CHAPTER 4: DISCUSSION OF FINDINGS

4.1 Introduction

This chapter describes the study's findings in detail. The study set out to investigate the influence of attachment styles on the contraceptive intent of female students at the University of Limpopo.

4.2 Findings of the study

4.2.1 Socio-demographic profile of respondents

Table 1 below presents the socio-demographic characteristics of the female students who participated in this study. A total of 380 female students from the University of Limpopo participated in this study.

Table 1: *Demographic characteristics of participants (N = 380)*

Variables	N 380	Percent	Valid Percent
<i>Relationship Status</i>			
In a Relationship	222	58.4	58.4
Married	13	3.4	3.4
Single	144	37.9	37.9
Divorced	1	.3	.3
<i>Age (years)</i>			
18 – 20	120	31.6	31.6
21 – 25	246	64.7	64.7
31 – 35	14	3.7	3.7
<i>Level of Study</i>			
1 st year	62	16.3	16.3
2 nd year	74	19.5	19.5
3 rd year	111	29.2	29.2
Post-graduate studies	133	35.0	35.00
<i>Ethnicity</i>			
African	374	98.4	98.4
White	2	0.5	0.5

Coloured	3	0.8	0.8
Indian	1	0.3	0.3

4.2.2 Relationship status of respondents

Of the 380 participants, 222 (58.4%) reported being in a relationship, making it the most common relationship status. A total of 144 participants (37.9%) identified as single, while 13 participants (3.4%) reported being married. Divorce was the least common relationship status, with only 1 participant (0.3%) reporting being divorced.

4.2.3 Age of respondents

The majority (65%) of the participants were between the ages of 21 – 25, 32 percent were between the ages of 18 – 20, and the least number of participants were between the ages of 31 – 35. This suggests that the sample study sample comprised of a young population.

4.2.4 Level of study of respondents

One hundred and thirty-three (39%) of the study participants were enrolled for their post-graduate studies at the University of Limpopo, 29 percent were in their third years and first years accounted for the least in the sample, accounting for 16 percent of the total participants.

4.2.5 Ethnicity of Respondents

The majority (98.4%) of the participants were African and only 1.6 percent of respondents were of different ethnicities (0.8% Coloured, 0.5% White, and 0.3% Indian). This suggests that the sample study sample comprised a homogenous population in terms of ethnicity.

4.3 Study's survey results

4.3.1 The Experiences in Close Relationships Revised (ECR-R) results

Table 2 below presents the distribution of attachment types obtained using the Experiences in Close Relationships-Revised self-report questionnaire. Based on the calculated scores, the female students exhibited all four types of attachment types, namely, fearful-avoidant attachment, avoidant attachment, anxious attachment, and secure attachment.

Table 2: *Attachment Styles*

Attachment styles	N	Percent	Valid Percent
	380		
Secure	19	5.0	5.0
Anxious	20	5.3	5.3
Avoidant	160	42.1	42.1
Fearful avoidant	181	47.6	47.6

As shown in Table 2, the majority (48%) of the female students who participated in the study exhibited fearful-avoidant attachment while 42 percent exhibited avoidant attachment type. Only 5 percent, respectively, exhibited secure and anxious attachment types.

4.3.2 The Contraceptive Intent Questionnaire (CIQ) results

Table 3 outlines the frequency of low and high contraceptive intent reported by the participating female students. Most of the participants indicated a high contraceptive intent. The mean value for contraceptive intent was 2.1250. Values below the mean were categorised as low contraceptive intent, and values above were categorised as high contraceptive intent.

Table 3: Contraceptive Intent

Contraceptive Intent	N	Percent	Valid Percent
	380		
Low Intent	9	2.4	2.4
High Intent	371	97.6	97.6

4.4 Data Analysis

4.4.1. Correlation Analysis

The main objective of this study as articulated earlier was to assess the relationship between attachment styles and contraceptive intent among female students at the University of Limpopo. The study aimed to examine how an individual's experiences in close relationships (attachment style) influence their attitudes and behaviour toward contraceptive intent. Table 4 below presents the Pearson's correlation results.

Table 4: Correlation analysis results

Variables	Attachment styles	Contraceptive Intent
Attachment styles		
Pearson Correlation	1	-.027
Sig. (2-tailed)		.595
N	380	380
Contraceptive Intent		
Pearson Correlation	-.027	1
Sig. (2-tailed)	.595	
N	380	380

The findings in Table 4 reveal an insignificant connection between attachment styles and contraceptive intent. In simpler terms, the Pearson correlation analysis indicates no meaningful association between these two variables. This implies that

variations in attachment styles do not appear to affect contraceptive intent. Several factors may contribute to this weak relationship, one being that attachment styles may not effectively predict contraceptive intent. Additionally, the homogeneity of the sample could play a role; as noted in Table 1, the participants were primarily African youth aged 21 to 25. This lack of diversity suggests that there may be other unidentified factors influencing contraceptive intent.

4.4.2 Multinomial logistic regression

The results obtained from the multinomial logistic regression are shown below. In this regression, independent variables such as attachment type, relationship status, age, education levels, and ethnicity were included as their association with the dependent variable has been suggested in the literature. Below are the main findings of this study.

Table 5: Multinomial logistic regression results

Contraceptive Intent ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Attachment styles								
Intercept	-4.167	7396.172	0.000	1	1.000			
Avoidant attachment	-13.884	894.271	0.000	1	0.988	9.337E-007	0.000	. ^b
Anxious attachment	0.275	0.825	0.111	1	0.739	1.316	0.261	6.627
Secure attachment	0 ^c	.	.	0	.	.	.	.
Relationship status								
In a relationship	-13.009	.688	357.497	1	.000	2.240E-006	5.817E-007	8.629E-006
Married	-26.842	1755.003	.000	1	.988	2.202E-012	.000	. ^b

Single	-	.000	.	1	.000	3.261E-006	3.261E-006	3.261E-006
Divorced	12.633	.	.	0	.	.	.	.
Level of Study	0 ^c	.	.	0	.	.	.	.
1 st year	-	866.967	.000	1	.987	1.133E-006	.000	. ^b
2 nd year	13.691	.996	.015	1	.901	1.132	.161	7.975
3 rd year	.124	.788	.001	1	.980	.981	.209	4.595
Post-graduate studies	-.020	.	.	0	.	.	.	.
Age	0 ^c	.	.	0	.	.	.	.
18-20 years	-	866.967	.000	1	.987	1.133E-006	.000	. ^b
21-25 years	13.691	.996	.015	1	.901	1.132	.161	7.975
31-35	.124	.	.	0	.	.	.	.
	0 ^c	.	.	0	.	.	.	.

^a The reference category is high contraceptive intent

4.4.2.1 Multinomial logistic regression of the association between attachment style and high contraceptive intent

Table 5 above shows the multinomial logistic regression results between attachment style and high contraceptive intent. As indicated in the significance column of the table, none of the relationships had a significance value below 0.05, meaning that none of them were statistically significant. However, the B coefficients were still interpreted for potential insights.

The coefficient results for avoidant attachment ($B = -13.884$) indicate a strong negative relationship between avoidant attachment and the likelihood of having high contraceptive intent compared to low intent. These results may be loosely interpreted to suggest that female students with higher levels of avoidant attachment are significantly less likely to report high intent regarding contraceptive use. This could be attributed to their emotional distancing and potential discomfort with intimacy which often may affect their attitudes towards contraceptives. This is supported by the earlier discoveries made

by Gagliardi (2021) and Sagone et al. (2023) who found that individuals with avoidant attachment experience discomfort with intimacy and exhibit extreme independence and self-directiveness. This result therefore rejects the null hypothesis that there is a positive relationship between avoidant attachment and high contraceptive intent.

The coefficient results for anxious attachment ($B = 0.275$) indicate a positive relationship between anxious attachment and the likelihood of having a high contraceptive intent compared to a low intention. This suggests that female students with high anxious attachment are more likely to have high contraceptive intent. These findings contradict expected outcomes as suggested by earlier studies including Kim and Miller (2020) and Owino et al. (2021) who found that anxious attachment was related to higher likelihood of engaging in risky sexual behaviours. The differences in this study compared to the findings of Kim and Miller could be the parameters used to measure risky sexual behaviour. This study focused on contraceptive intent with the specific goal of preventing pregnancy (not sexually transmitted diseases as well) whereas the study by Kim and Miller (2020) focused on condom use and multiple sexual partners. The study done by Owino et al. (2021) used a younger population and focused on risky sexual behaviour rather than strictly contraceptive intent for pregnancy prevention which could explain the differences found in the results.

The coefficient results for secure attachment ($B = 0$) show that secure attachment does not have any effect on the likelihood of having a high contraceptive intent compared to a low intent. This implies that female students classified as having a secure attachment style have the same likelihood of reporting high contraceptive intent as those in any of the attachment styles. This contrasts with earlier studies, such as Owino et al. (2021) who

found that secure attachment was a protective factor against risky sexual behaviour. The differences in findings could be due to a difference in the age of the sample used and the measurement of risky sexual behaviour.

4.4.2.2 Multinomial logistic regression of the association between relationship status and high contraceptive intent

Table 5 displays the findings of a multinomial logistic regression that investigates the relationship between relationship status and levels of contraceptive intent. The coefficient ($B = -13.009$) (for students who reported being in a relationship) reveals a very strong negative correlation between female students in relationships and the likelihood of expressing high contraceptive intent versus low intent. In other words, these findings indicate that female students in relationships are significantly less likely to report high intent regarding contraceptive use compared to low intentions.

Additionally, Table 5 presents the results of a multinomial logistic regression analysing the impact of being married on high contraceptive intent. The coefficient ($B = -26.842$) demonstrates a strong negative association between married female students and their likelihood of having high contraceptive intent compared to low intent. This suggests that married female students are significantly less likely to express high intent to use contraceptives. A potential explanation for this trend is offered by Abraha et al. (2018), who found that women whose husbands opposed family planning were more likely to have lower intent to use contraceptives. Their study highlights the importance of male involvement in family planning, as husbands and partners appear to play a crucial role in influencing their wives' contraceptive use and intent.

Furthermore, Table 5 also examines the relationship between being single and high contraceptive intent. The coefficient ($B = -12.633$) indicates a very strong negative association between single female students and their likelihood of having high contraceptive intent compared to low intent. In other words, these results suggest that single female students are significantly less likely to report high intent regarding contraceptive use compared to low intent.

Two relationships were found to be statistically significant: the relationship between contraceptive intent and being in a relationship, as well as being single. According to the literature, an individual's relationship status may be influenced by their attachment style (Kim & Miller, 2020; Owino et al., 2021; Sentino et al., 2018). Additionally, the nature and health of the relationship could also be shaped by the attachment styles of those involved. This suggests that attachment style might serve as a covariate for contraceptive intent, as it could influence both whether someone is in a relationship and the quality of that relationship. Future research could explore attachment style as a potential covariate for contraception use.

4.4.2.3 Multinomial logistic regression of the association between level of study and high contraceptive intent

As shown in the significance column of the table, all relationships had significance values above 0.05, indicating that none of the relationships are statistically significant. Nevertheless, the B coefficients were still analysed for potential interpretation.

Table 5 presents the results of a multinomial logistic regression exploring the relationship between the level of study and contraceptive intent. The coefficient ($B = -13.691$) indicates a very strong negative association for female students in their first year

of study, suggesting they are significantly less likely to express high contraceptive intent compared to low intent.

Additionally, the table shows the impact of being in the second year of study on high contraceptive intent. The coefficient ($B = 0.124$) shows a positive association, indicating that second-year female students are more likely to report high intentions regarding contraceptive use. This trend may be attributed to second-year students prioritising their education and wanting to avoid unplanned pregnancies.

Moreover, Table 5 also presents the relationship for third-year students. The coefficient ($B = -0.20$) reveals a negative association, suggesting that third-year female students are less likely to report high contraceptive intent compared to low intent.

Finally, the table looks at the relationship between pursuing post-graduate studies and high contraceptive intent. The coefficient ($B = 0$) indicates that studying at the post-graduate level does not significantly affect contraceptive intent. In other words, female students in post-graduate programmes are equally likely to express high contraceptive intent as those in earlier years.

4.4.2.4 Multinomial logistic regression of the association between age and high contraceptive intent

As indicated in the significance column of the table, all relationships had significance values greater than 0.05, meaning none of them were statistically significant. However, the B coefficients were still examined for potential insights.

Table 5 displays the findings of a multinomial logistic regression that investigates the relationship between age and levels of contraceptive intent. The coefficients ($B =$

12.459) and ($B = 13.371$) reveal a very strong positive correlation between female students aged 18-20 years and 21-25 years respectively and the likelihood of expressing high contraceptive intent versus low intent. In other words, these findings indicate that female students aged 18-25 are significantly more likely to report high intentions regarding contraceptive use compared to low intentions. Additionally, Table 5 showed that female students between the age of 31-35 ($B = 0$) were equally likely to have a high contraceptive intent as younger students.

4.5 Diagnostic tests

4.5.1 Model fitting information

The model fitting information table below indicates how well the model fits the data and whether the selected variables contribute to explaining the outcomes. In the case of this study, the model-fitting information tables indicate whether the model fits the data used to explore the relationship between attachment styles and contraceptive intent. The model fitting in this study was tested using the Chi-square statistics.

Table 6: Model fitting information

Model	Model fitting criteria			Likelihood ratio tests		
	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept only	34.882	38.822	32.882			
Final	51.889	107.052	23.889	8.992	13	.774

Table 6 above shows the results of the Chi-Square statistics. The Chi-Square statistics value for this model was 8.992 and the P-value is greater than 0.05 (0.774), suggesting that the independent variables (attachment styles, age, education levels, and

relationship status) are not strong predictors of high contraceptive intent. Simply put, the Chi-Square value suggests that there are other possible factors that; combined with the attachment styles, age, education levels, and relationship status; could better explain the contraceptive intent that was not included in the model.

4.5.2 Goodness-of-Fit

The Goodness of fit in a multinomial logistic regression assesses how well the model fits the observed data. Contrary to the Chi-Square statistics value which suggested that the model does not fully predict the contraceptive intent, the Goodness of fit measure – as measured by Pearson and Deviance proved that the independent variables included in the model are indeed a good predictor of the high contraceptive intent. Both the coefficients of Pearson (1.000) and Deviance (1.000) are statistically insignificant as suggested by the measure's rule of thumb (see Table 7 below).

Table 7: Goodness-of-fit

	Chi-Square	df	Sig.
Pearson	9.265	42	1.000
Deviance	9.281	42	1.000

4.5.3 Pseudo R-Square

The Pseudo R-Square in a multinomial logistic regression measures the variation in the model and it contains Cox and Snell and Nagelkerke and McFadden. As shown in Table 8 below, the model accounts for 10.6% to 11.6% of the variance and represents relatively decent-sized effects.

Table 8: *Pseudo R-squared*

Pseudo R-squared	
Cox and Snell	.023
Nagelkerke	.116
McFadden	.106

4.6 Discussion of Findings

This study investigated the relationship between attachment styles and contraceptive intent among female University of Limpopo students, with specific hypotheses regarding the nature of these relationships. These hypotheses will be discussed in the following sections.

4.6.1 Secure attachment and contraceptive intent

Secure attachment has been associated with various positive outcomes such as better physical and mental health, more trust in relationships, and safer sexual behaviours (Campbell & Stanton, 2019; Kim & Miller, 2020; Sentino et al., 2018; Szepesnwol & Simpson, 2019). Studies such as Owino et al (2021) supported the hypothesis made in this study that secures attachment would be positively associated with high contraceptive intent. However, the results of the multinomial logistic regression indicated that female students with secure attachment styles were no more or less likely to have high contraceptive intent compared to women who have insecure attachment styles. Although this result seems contradictory to the literature, studies like those of Sentino et al. (2018) and Kim and Miller (2020) did not concisely conclude that secure attachment is

associated with safer sexual behaviours but rather that insecure attachment is not associated with safer sexual behaviours. Both studies concluded that more research is needed on how secure attachment influences sexual behaviour. The differences between the study sample (in terms of age, gender, and level of study) could also explain the difference in the results found in Owino et al. (2021) and this study. Furthermore, all four studies used different measures of sexual behaviour.

4.6.2 Anxious attachment and contraceptive intent

Anxious attachment has been associated with an increased likelihood of risky sexual behaviour in studies done by Owino et al. (2021) and Kim and Miller (2020) which informed this study's hypothesis that anxious attachment would be negatively associated with contraceptive intent. However, the results of the multinomial logistic regression indicated that anxious attachment was positively associated with high contraceptive intent. Although the association was small, any positive association is in contradiction to the literature. This could be explained by the differences among the study samples in terms of age, gender, and level of study. It could further be explained by how the parameters of risky sexual behaviour were defined in the studies. The current study focused on contraceptive use to prevent pregnancy whereas Kim and Miller (2020) focused on condom use and multiple sexual partners. Owino et al. (2021) used a risky sexual behaviour scale that focused on multiple and unknown sexual partners. Further research is required to determine the validity of the results.

4.6.3 Avoidant attachment and contraceptive intent

This study hypothesised that avoidant attachment would be associated with higher contraceptive intent, based on the work of Gagliardi (2021) and Sagone et al. (2023),

which suggested that individuals with avoidant attachment styles, due to their need for extreme independence, might be more vigilant about contraception use. This hypervigilance was thought to help them avoid the possibility of a long-term commitment in the event of an unexpected pregnancy. However, the results from the multinomial logistic regression revealed a strong negative association between avoidant attachment and high contraceptive intent. This finding aligns with the research by Owino et al. (2021), who found that avoidant attachment was linked to risky sexual behaviour. It's important to note, though, that Owino et al. (2021) defined risky sexual behaviour in terms of having multiple and unknown sexual partners, rather than specifically focusing on contraceptive use. Kim and Miller (2020) also found that avoidant attachment was associated with having multiple sexual partners but concluded that it did not predict a higher likelihood of engaging in condomless sex. The discrepancies between these findings may be due to differences in the study samples—such as age, gender, and educational level—or variations in the study parameters.

4.6.4 The influence of age, level of study, and relationship status on contraceptive intent.

A further hypothesis of the study was that contraceptive intent would be influenced by age, level of study, and relationship status as these factors can affect individuals' attitudes, knowledge, and readiness to use contraception (Ahinkorah, 2020; Aviisah et al., 2018; Hossain et al., 2018). Age plays a key role in shaping one's perspectives on family planning and sexual health, with younger individuals often being more focused on education or career goals rather than immediate childbearing (Ahinkorah, 2020; Aviisah et al., 2018; Hossain et al., 2018). As people mature, they may become more intentional

in their decisions regarding contraception, often considering the timing of parenthood concerning their life goals. The level of study could also significantly influence contraceptive intent as higher levels of education are generally associated with better knowledge of sexual and reproductive health, as well as a greater ability to navigate family planning options (Aviisah et al., 2018). Relationship status plays a similar role; individuals in stable, long-term relationships may be more likely to discuss and plan for contraception, especially if they are considering pregnancy or want to prevent it at specific points in their relationship (Ahinkorah, 2020; Hossain et al., 2018). Conversely, single individuals or those in less stable relationships may focus on contraception as a means of preventing unintended pregnancies or may not prioritise it to the same extent if they are not currently sexually active or not seeking a long-term relationship (Ahinkorah, 2020).

The findings of the study were varied in terms of the expected results. All relationship status options were negatively associated with high contraceptive intent. As relationship status does not indicate reproductive goals it is difficult to determine the validity of the results and whether it is in line with expected outcomes. However, Ahinkorah (2020) found that single women were more likely to use contraceptives to prevent pregnancy than married women which contrasts with the findings of the current study. This difference could be explained by differences in the samples used and the homogenous nature of the current study's sample.

The level of study associations was unexpected with first and third students being associated with a lower likelihood of having high contraceptive intent. The expectation is that students who are at an advanced level in their studies would be more likely to have a higher contraceptive intent to not interrupt their studies with unintended pregnancy.

Second-year students were found to be more likely to have high contraceptive intent and it could be theorised that this is because they are prioritising their studies. Hossain et al. (2018) found that contraceptive use did not increase with education level which is also confirmed by the findings of the current study. However, Aviisah et al. (2018) found opposing results which indicated that women with higher education levels were more likely to use contraceptives. Again, the differences between the findings of the Aviisah et al. (2018) study and the current study could be explained by the study sample and the lack of diversity in the current study sample.

The results of the study indicated that age is not a significant predictor of contraceptive intent, and most age groups had a positive association with contraceptive intent. Specifically, participants aged 18-25 were more likely to report high contraceptive intent. Participants aged 30-35 were equally likely to report high contraceptive intent as their older and younger counterparts. These findings are in line with Ahinkorah (2020) who reported women aged 20-25 were more likely to use contraceptives.

4.6.5 Validity of Findings

The model fitting measurements that were done to assess how appropriate attachment style is as a predictor of contraceptive intent indicate that attachment is not a good predictor of contraceptive use. The correlation analysis did not show a significant correlation between attachment style and contraceptive intent. Furthermore, the chi-square and pseudo-R tests also indicated that attachment style, age, level of study, and relationship status are not good predictors of contraceptive intent. This could explain the disparities found in the results of the study and the literature. This may further reflect the complexity of psychological factors influencing contraceptive behaviour and imply that

factors beyond attachment styles, such as personal beliefs, cultural influences, or peer norms, play a more crucial role in shaping contraceptive attitudes among this demographic. The statistically significant relationships found between being in a relationship or being single on contraceptive intent implies that attachment style could serve as a potential covariate for contraceptive intent, since it may affect both whether someone is in a relationship and the overall health of that relationship. Future research could investigate attachment style as a covariate in understanding contraception use.

One notable limitation of this study is the homogeneity of the sample, primarily consisting of female university students from similar racial and educational backgrounds. This lack of diversity may limit the generalisability of the findings to broader populations. Future research should aim to include a more diverse sample to better understand how different demographic factors interact with attachment styles and contraceptive intent.

In conclusion, while the hypotheses were not fully supported, the findings offer valuable insights into the dynamics of attachment styles and contraceptive behaviour. Understanding these relationships can inform future interventions aimed at promoting contraceptive use, particularly by addressing the unique needs and concerns of university students. Further exploration into the role of relationship status, educational level, and broader sociocultural factors is warranted to enhance our understanding of contraceptive intent among diverse populations.

4.7 Chapter Summary

This chapter presented and examined the study's findings on the relationship between attachment styles and contraceptive intent among female University of Limpopo students. It further discussed the statistical analyses, including chi-square tests and

pseudo-R-squared measures. The next chapter will present a summary of the findings, conclusion of the study, limitations of the study, and recommendations for future research.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents a summary of the main findings of the study as well as a conclusion, limitations of the study, and recommendations for further research.

5.2 Summary of main findings

The study investigated the relationship between attachment styles and contraceptive intent among female University of Limpopo students and yielded several key findings. Contrary to the initial hypotheses, which predicted positive correlations between secure attachment and high contraceptive intent, and various relationships between avoidant and anxious attachments with various intent levels, the results showed no significant overall correlation between attachment styles and contraceptive intent.

Multinomial logistic regression analysis indicated that avoidant attachment was linked to low contraceptive intent, while anxious attachment was associated with high intent. In contrast, secure attachment did not exhibit any significant effect on contraceptive use, and fearful-avoidant attachment was similarly associated with low intent.

Relationship status was found to not have a significant influence on contraceptive intent as all options for relationship status were found to be negatively associated with contraceptive intent. Age was found to influence contraceptive intent with younger participants (aged 18-25) reporting higher contraceptive intent compared to older participants. Level of study had varying influence on contraceptive intent with first- and

third-year students being less likely to have high contraceptive intent and second-year students being more likely to have high contraceptive intent.

Statistical analyses further indicated that these factors (attachment style, age, level of study, and relationship status) may not be good predictors of contraception use. Chi-square tests revealed a non-significant association (chi-square value of 8.992, $p = 0.774$), and pseudo-R-squared values suggesting a weak explanatory power of attachment styles regarding contraceptive intent. Additionally, the study's sample was predominantly homogeneous, consisting mainly of African female university students, which raises questions about the generalisability of the results. Overall, these findings indicate that attachment styles may not be reliable predictors of contraceptive intent, highlighting the need for further research into other influencing factors in this context.

5.3 Limitations of the study

This study has several limitations that should be considered when interpreting the findings namely:

- The study's quantitative nature limits its findings compared to a qualitative study, which could offer deeper insights into the participants' underlying motivations and experiences.
- The sample was predominantly homogeneous, consisting mainly of African female university students aged 21 to 25. This lack of diversity in race, age, and educational background may limit the generalisability of the results to broader populations.
- The reliance on self-reported measures for attachment styles and contraceptive intent may introduce response biases. Participants might not accurately reflect

their attachment behaviours or contraceptive intentions, potentially skewing the results.

- The cross-sectional design of the study restricts the ability to establish causal relationships; while associations can be identified, it remains unclear whether attachment styles influence contraceptive intent or vice versa.
- The study did not explore other relevant factors, such as relationship dynamics, access to sexual health resources, or educational interventions, which may play a significant role in shaping contraceptive decision-making.

These limitations suggest that further research with a more diverse and comprehensive approach is necessary to deepen the understanding of the factors influencing contraceptive intent.

5.4 Conclusion

This study explored the relationship between attachment styles and contraceptive intent among female university students, seeking to understand how psychological factors might influence reproductive decision-making. The findings revealed no significant overall correlation between attachment styles and contraceptive intent, challenging the initial hypotheses. Notably, while avoidant attachment was linked to low contraceptive intent and anxious attachment was associated with high intent, secure attachment did not show a significant effect.

These results indicate that attachment styles may not serve as reliable predictors of contraceptive behaviour in this demographic. The study's homogenous sample limits the generalisability of the findings, highlighting the need for future research involving more diverse populations. Additionally, the findings underscore the importance of considering

a broader range of contextual and social factors that may influence contraceptive intent. Ultimately, this research contributes to the understanding of the complexities surrounding contraceptive decision-making and emphasises the necessity for further investigation into the multifaceted influences on young women's reproductive health behaviours.

5.5 Recommendations arising out of the research

Based on the findings of this study, several recommendations can be made for future research and practical applications:

1. **Diversify Sample Populations:** Future studies should aim to include a more diverse participant pool, encompassing various races, ages, socioeconomic backgrounds, and educational levels. This will enhance the generalisability of findings and allow for a more comprehensive understanding of how different factors influence contraceptive intent across different demographics.
2. **Explore Additional Variables:** Researchers should investigate other contextual and social factors that may impact contraceptive decision-making. Variables such as relationship dynamics, access to sexual health resources, cultural attitudes toward contraception, and educational interventions could provide valuable insights into the complexities surrounding contraceptive intent.
3. **Longitudinal Studies:** Conducting longitudinal research would help establish causal relationships between attachment styles and contraceptive intent. This approach could provide a clearer picture of how these factors interact over time and inform strategies for promoting effective contraceptive use.

4. **Intervention Programs:** Based on the study's findings, developing targeted intervention programs that address the specific needs of different attachment styles may be beneficial. Programs could focus on enhancing secure attachment behaviours and providing comprehensive sexual education that incorporates emotional and relational aspects of contraceptive decision-making.
5. **Qualitative Research:** Incorporating qualitative methods, such as interviews or focus groups, could enrich the understanding of participants' experiences and attitudes toward contraception. This approach would allow for a deeper exploration of how attachment styles influence individual perceptions and choices regarding contraceptive use.
6. **Including Older Women:** Women over the age of 40 are often overlooked in research on sexual behaviour, particularly in relation to risky sexual practices and contraceptive use. Despite growing evidence that this demographic continues to be sexually active, studies consistently highlight a lack of attention to how women in this age group navigate issues like contraception, sexually transmitted infections (STIs), and the risks associated with unprotected sex. As fertility declines and menopause approaches, many women assume that contraceptive use is no longer necessary, yet the risk of STIs remains prevalent. Furthermore, social and cultural stereotypes around sexuality in older women often contribute to the underreporting and minimisation of risky sexual behaviours in this population. This gap in research hampers the development of tailored public health strategies, leaving many women without the proper guidance and support to make informed decisions about their sexual health.

By implementing these recommendations, future research can build on the current study's findings and contribute to a more nuanced understanding of the factors affecting contraceptive intent among young women.

5.6 Chapter Summary

This chapter provided a summary of the findings of the study, limitations of the study, a conclusion of the study, and recommendations for future research.

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APPENDICES

Appendix A: Turfloop Research Ethics Committee clearance certificate



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TURFLOOP RESEARCH ETHICS COMMITTEE
ETHICS CLEARANCE CERTIFICATE

MEETING: 19 August 2024

PROJECT NUMBER: TREC/1549/2024: PG

PROJECT:

Title:	The Relationship between Attachment Styles and Contraceptive Intent among Female Students of the University of Limpopo, South Africa
Researcher:	C van Wyk
Supervisor:	Dr PM Mothapo
Co-Supervisor/s:	N/A
School:	Social Sciences
Degree:	Master of Arts in Clinical Psychology



PROF D MAPOSA
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0310111-031

Note:

- i) This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.
- ii) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.
- iii) PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Finding solutions for Africa

Appendix B: Gatekeeping permission request letter

GATEKEEPING PERMISSION REQUEST LETTER

TO: University of Limpopo registrar

SUBJECT: Request for gatekeeping permission

This letter serves as a request to gain access to all students' email addresses to conduct a study **TITLED:** The Relationship between Attachment Styles and Contraceptive Intent among Female Students of the University of Limpopo, South Africa.

Project Leader: Ms Charlaine VanWyk

Supervisor: Dr M Mothapo

School: Social Sciences

Degree: Master of Arts (Clinical Psychology)

Appendix C: Participant Information Sheet

INFORMATION SHEET

PROJECT TITLE: The Relationship between Attachment Styles and Contraceptive Intent among Female Students of the University of Limpopo, South Africa.

Project Leader: Ms C van Wyk

1. What is this study about?

The proposed study aims to investigate the relationship between attachment styles and contraceptive intent among female University of Limpopo students, in South Africa. As a female student at the University of Limpopo, you are invited to participate in the study.

2. What will I be asked to do if I agree to participate?

Several measures to assess contraceptive intent and attachment styles will be administered to you as a part of the demographic information form and consent form.

3. Will the information I provide to this study be kept confidential?

The researcher will protect the details of your contribution. The researcher will maintain confidentiality within the study by not requiring any identifying information from you as a participant so that you remain anonymous during the entire study process.

4. How does this research pose risks?

Almost every interaction with humans, including the sharing of personal information, involves some level of risk. In case of discomfort such as psychological or physical discomfort, the researcher will help you quickly. If further assistance or intervention is required, you will be referred to a professional who can help.

5. What are the benefits of this research?

As a result of the study, a comprehensive body of knowledge is expected to be compiled that will serve as an insight understanding of life history strategies, contraceptive intent, and attachment styles among female university students. The findings of this study can be used as a guide to policymakers to introduce programmes that will help with parent-child bonding, give insight into changes in birth rates, and help plan infrastructure needs in communities according to the attachment styles of these communities and for future research and applied to other contexts with similar characteristics in South Africa.

6. Do I have to be in this research, and may I stop participating at any time?

It is completely voluntary for you to participate in this research, and you have the right to stop participating at any time.

7. What if I have questions?

For questions regarding the actual project, you may contact Ms. C. van Wyk at 202277547@keyaka.ul.ac.za or Dr. M. Mothapo at maredi.mothapo@ul.ac.za.

8. The Turfloop Research Ethics Committee (TREC) has approved this research.

Appendix D: Consent Form

CONSENT FORM

PROJECT TITLE: The Relationship between Attachment Styles and Contraceptive Intent among Female Students of the University of Limpopo, South Africa.

Project Leader: Charlaine van Wyk

I, _____ (participant's full name), hereby voluntarily consent to participate in the following project: The relationship between attachment styles and contraceptive intent among female University of Limpopo students, South Africa. I have been given a comprehensive description of the study in terms that I understand. I understand that the Ethics Committee approved attempts to approach individuals for participation in the study. In participating in the study, I am aware that I can withdraw from the study at any time. I understand that the information I provide will remain confidential. Should counselling services or emergency intervention be required during my participation in this study, I am aware that I need to contact the researcher or her supervisor for referrals or debriefing. It has been made clear that if inquiries about, or complications involving the study arise following my participation in the study, I may contact Ms. C. van Wyk at 202277547@keyaka.ul.ac.za or DR M. Mothapo at maredi.mothapo@ul.ac.za.

Signature of Participant _____ Date _____

Signature of Researcher _____ Date _____

Survey/Data Collection Instruments

Appendix E: Questionnaire Protocol

Questionnaire: Contraceptive Intent and Attachment Styles at the University of Limpopo

This questionnaire seeks to gather information about the University of Limpopo's female students' contraceptive intent, and attachment styles. Upon completion of this questionnaire, the responses will be made available to legitimate and interested stakeholders to establish partnerships for establishing strategies related to motivations of childbearing. It is very important that you answer the questions honestly. Remember that no answer right or wrong. Your answers and identity will remain anonymous and confidential. You should participate freely, and you can withdraw from the study at any time. Please never write your student number or name anywhere on the questionnaire. Thank you for participating in this study.

Section A: Demographic Questions

Instructions: This section is aimed at gathering your demographic information. Please select the applicable answer.

Demographic questionnaire	
1. Home language	English Sepedi Tshivenda Xitonga Other
2. Level of study	1 st year 2 nd year 3 rd year 4 th year Post-graduate
3. Gender	Female

4. Relationship status

Male
Other
Single
In a Relationship
Married
Divorced

5. Age

18-20
21-25
26-30
31-40

6. Ethnicity

African
White
Coloured
Indian
Other

Section B: The Experiences in Close Relationships-Revised (ECR-R)

Questionnaire

Instructions: This section is designed to gauge your feelings regarding your romantic relationship. Your answers will remain confidential so please be honest. Using the 1 to 7 scale, after each statement select a number to indicate how much you agree or disagree with the statement, with the number 4 being a neutral response. **Note:** No answer is right or wrong.

The Experiences in Close Relationships Revised

Questions	1 = Strongly Disagree 7 = Strongly agree						
	1	2	3	4	5	6	7
1. I am afraid that I will lose my partner's love.	1	2	3	4	5	6	7
2. I often worry that my partner will not want to stay with me.	1	2	3	4	5	6	7
3. I often worry that my partner does not love me.	1	2	3	4	5	6	7
4. I worry that romantic partners will not care about me as much as I care about them.	1	2	3	4	5	6	7
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.	1	2	3	4	5	6	7
6. I worry a lot about my relationships.	1	2	3	4	5	6	7

7. When my partner is out of sight, I worry that he or she might become interested in someone else.	1	2	3	4	5	6	7
8. When I show my feelings for romantic partners, I am afraid they will not feel the same about me.	1	2	3	4	5	6	7
9. I rarely worry about my partner leaving me.	1	2	3	4	5	6	7
10. My romantic partner makes me doubt myself.	1	2	3	4	5	6	7
11. I do not often worry about being abandoned.	1	2	3	4	5	6	7
12. I find that my partner (s) do not want to get as close as I would like.	1	2	3	4	5	6	7
13. Sometimes romantic partners change their feelings about me for no apparent reason.	1	2	3	4	5	6	7
14. My desire to be very close sometimes scares people away	1	2	3	4	5	6	7
15. I am afraid that once a romantic partner gets to know me, he or she will not like who I am.	1	2	3	4	5	6	7
16. It makes me mad that I do not get the affection and support I need from my partner.	1	2	3	4	5	6	7
17. I worry that I will not measure up to other people.	1	2	3	4	5	6	7
18. My partner only seems to notice me when I am angry.	1	2	3	4	5	6	7
19. I prefer not to show a partner how I feel deep down.	1	2	3	4	5	6	7
20. I feel comfortable sharing my private thoughts and feelings with my partner.	1	2	3	4	5	6	7
21. I find it difficult to allow myself to depend on romantic partners.	1	2	3	4	5	6	7
22. I am very comfortable being close to romantic partners.	1	2	3	4	5	6	7
23. I do not feel comfortable opening up to romantic partners.	1	2	3	4	5	6	7
24. I prefer not to be too close to romantic partners.	1	2	3	4	5	6	7
25. I get uncomfortable when a romantic partner wants to be very close.	1	2	3	4	5	6	7
26. I find it relatively easy to get close to my partner.	1	2	3	4	5	6	7
27. It is not difficult for me to get close to my partner.	1	2	3	4	5	6	7
28. I usually discuss my problems and concerns with my partner.	1	2	3	4	5	6	7
29. It helps to turn to my romantic partner in times of need.	1	2	3	4	5	6	7
30. I tell my partner just about everything.	1	2	3	4	5	6	7
31. I talk things over with my partner.	1	2	3	4	5	6	7
32. I am nervous when partners get too close to me.	1	2	3	4	5	6	7
33. I feel comfortable depending on romantic partners	1	2	3	4	5	6	7
34. I find it easy to depend on romantic partners.	1	2	3	4	5	6	7
35. It is easy for me to be affectionate with my partner.	1	2	3	4	5	6	7
36. My partner understands me and my needs.	1	2	3	4	5	6	7

Section C: Contraceptive Intent Questionnaire (CIQ)

Instructions: This section is designed to assess your contraceptive use. Your answers will remain confidential so please be honest. Choose the appropriate answer from the provided Likert-scale. **Note:** No answer is right or wrong.

The Contraceptive Intent Questionnaire			
1. How important is it for you to get further along in your life, like finish school, get a job, or make more money, before you have a child or your next child?	Not important at all.	Somewhat important.	Very important.
2. Do you think the person you have sex with is against you using birth control?	Probably not.	Probably yes.	Definitely yes.
3. How important is it for you to avoid you or your partner getting pregnant now?	Not important at all.	Somewhat important.	Very important.
4. How important is it for you to use birth control now?	Not important at all.	Somewhat important.	Very important.
5. When do you plan to have a child or your next child?	In less than 1 year.	In 1-2 years.	Don't know.
6. How happy would you feel if you or your partner got pregnant in the next year?	Somewhat happy	Happy.	Very happy.
7. How sure are you that you will use birth control for the next year?	Not at all sure.	Somewhat sure.	Sure.
8. Do you think it will be hard for you to use birth control correctly?	Definitely yes.	Probably yes.	Probably not.
9. How sure are you that you could plan ahead to use birth control?	Not at all sure.	Somewhat sure.	Sure.
10. How upset would you feel if you or your partner got pregnant in the next year?	Not at all upset.	Somewhat upset.	Upset.
11. How sure are you that you could resist having sex if your partner did not want you to use birth control?	Not at all sure.	Somewhat sure.	Sure.
12. Do you think birth control will do more harm than good for you or your partner?	Definitely yes.	Probably yes.	Probably not.
13. Do you think you (or your partner) will get pregnant if you use birth control correctly?	Definitely yes.	Probably yes.	Probably not.
14. How important is it for you to use birth control when you don't have sex very often?	Not important at all.	Somewhat important.	Very important.

15. How sure are you that you could stop yourself from having sex once you were highly aroused or turned on if you weren't using birth control?	Not at all sure.	Somewhat sure.	Sure.
16. Do you think birth control will cause you (or your partner) to have bad side effects?	Definitely yes.	Probably yes.	Probably not.

Your time is appreciated in completing this survey. Please accept our sincere appreciation for the time you have given us to participate in our research. We shall use the information gained to inform worthwhile improvements in interventions aimed at understanding contraceptive intent and attachment in university settings. We will share the results of this research endeavour with you through the university website, or it can be requested by contacting Ms. Charlaine van Wyk at 202277547@keyaka.ul.ac.za or Dr. Maredi Mothapo at maredi.mothapo@ul.ac.za.

We thank you once again for contributing to this project.