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Perceived Body Mass Index, Body Image and Weight Control Behaviours among University Students in Johannesburg

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A research report submitted to the School of Social Sciences, Faculty of Humanities, University of the Witwatersrand in partial fulfilment of the requirements for the degree Master of Arts (MA) (Health Sociology).

Supervised by: Professor Lorena Núñez-Carrasco and Doctor Nellie Myburgh

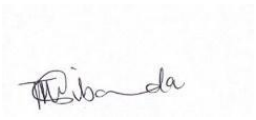
Johannesburg, 2025

DECLARATION

I **Thandazani Michelle Sibanda**, (student number) **1715697** declare that:

- This research report is my own original work and has never been submitted as part of any other degree or institution before.
- I have followed the required conventions in referencing the thoughts of others
- I am aware that plagiarism is wrong
- I understand that the University may take disciplinary action against me if there is belief that this is not my own work
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30th day of March 2025

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The best way to describe navigating this degree would be emotionally and physically draining. I am grateful and thankful to my support system for carrying me through:

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God, thank you for your faithfulness and love. I feel it everyday

ABSTRACT

This study investigates the relationship between body mass index (BMI), body image, and weight control behaviours (WCBs) among university students in Johannesburg, South Africa. According to a 2012 national nutrition report, 40.9% of South Africans were classified as obese, while the country also ranked fourth globally in eating disorder–related mortalities. These figures underscore the paradoxical coexistence of obesity and disordered eating within the same society, making South Africa a critical site for exploring how body ideals and practices are negotiated. Historically, larger bodies symbolised health, fertility, and prosperity in African contexts; however, processes of urbanisation, globalisation, and social media exposure have shifted ideals toward slenderness, curves, and muscularity. Universities represent an important context for examining these tensions, as students navigate independence, peer influence, and emerging adult identities while situated in environments that promote obesity. The study employed mixed-methods design, combining quantitative surveys and qualitative in-depth interviews with students at the University of the Witwatersrand. Quantitative data were analysed using SPSS to assess associations between BMI, sex, socioeconomic status (SES), media exposure, family and peer influence, and body image perceptions. Thematic analysis of interviews in ATLAS.ti provided deeper insights into how students internalise, negotiate, and resist body ideals.

Findings revealed striking gaps between actual BMI and perceived body size. Many students with normal BMI overestimated their weight and engaged in WCBs to lose weight. Others pursued WCBs mainly for aesthetic or social reasons. Contrary to much existing literature, sex and SES were not significantly associated with BMI. Instead, family and peer commentary influenced dissatisfaction and behaviours more than media exposure. Social media platforms like Instagram and TikTok subtly reinforced aspirational norms. Students articulated competing ideals. Some aligned with the ideals of thinness or muscularity prevalent in high-income societies. Others aspired to hybrid “slim-thick” body types, reflecting the negotiation between traditional African values and globalised beauty standards.

The study makes three key contributions to studies around body image and health. First, it challenges the adequacy of BMI as a single measure of health.

Dissatisfaction and WCBs extended across BMI categories. Second, it shows that interpersonal and cultural pressures outweigh biomedical framings in shaping body image. Third, it illustrates gendered renegotiation of ideals. Overall, the findings support moving beyond weight-centric discourses. There is a need for sociocultural informed approaches to body image and health in urban African contexts.

***Key Words**: body mass index, body image, weight control behaviours, mixed methods study, sociocultural influence*

Table of Contents

DECLARATION i
ACKNOWLEDGEMENTS ii
ABSTRACT iii
LIST OF TABLES viii
LIST OF FIGURES viii
LIST OF APPENDICES ix
ACRONYMS x
CHAPTER 1: INTRODUCTION AND BACKGROUND 1
1.1 Introduction 1
1.2 Background 1
1.3 Problem statement 2
1.4 Purpose of the study 4
1.5 Objectives 4
1.6 Definition of terms 5
Body mass index 5
Body image 5
Weight control behaviours 5
1.7 Assumptions 5
1.8 Overview of the structure of the paper 5
CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK 6
2.1. Introduction 6
2.2 Gender and sociocultural factors 6
2.2.1 Gender 6
2.2.2 Family, Peer and Media Influence 7
2.2.3 Socioeconomic status 10
2.3 Body Mass Index 12
2.3.1 The development of the BMI 12
2.3.2 BMI and body image 14
2.3.3 BMI in universities 15

2.3.4 BMI in Africa with South Africa in Focus 17
2.4. Body Image 18
2.4.1 Body Image and Weight Control Behaviour 19
2.4.2 Body Image in Universities 20
2.4.3 Body Image in Africa with South Africa in Focus 21
2.5 Weight Control Behaviours 22
2.5.1 WCBs and BMI 24
2.5.2 WCBs in universities 25
2.5.3 WCBs in Africa with South Africa as a Focus 26
2.6 Theoretical Framework 27
2.6.1 Symbolic interactionism 27
2.6.2 Postmodernism 29
2.7 Conclusion 31
CHAPTER 3: METHODOLOGY 32
3.1 Introduction 32
3.2 Research approach and design 32
3.3 Study settings 33
3.4 Study population 33
3.5 Quantitative approach 34
3.5.1 Sampling 34
3.5.2 Data Collection and Tools 34
3.5.3 Measurements 36
3.5.4 Data analysis 36
3.5.5 Validity and Reliability 37
3.6 Qualitative approach 37
3.6.1 Sampling 38
3.6.2 Data collection tool 38
3.6.3 Data collection 38
3.6.4 Data analysis 39
3.6.5 Trustworthiness 39
3.6.6 Reflexivity 39
3.7 Ethics considerations 40

3.8 Conclusion 41
CHAPTER 4: QUANTITATIVE RESULTS 42
4.1 Introduction 42
4.2 Demographics 42
4.2.1 Sex 42
4.2.2 Age 43
4.2.3 Geographical location 44
4.2.4 BMI scores 45
4.2.5 Socioeconomic status 47
4.3 Perceived body size 48
4.4 Weight control behaviours 52
4.5 Analysis of association 53
4.5.1 Sex 60
4.5.2 SES 60
4.5.3 Social circle and media exposure 60
4.5.4 Body Image Perceptions 62
4.5.5 WCBS 62
4.5.6 Relationship with the body 63
4.6 Conclusion 63
CHAPTER 5: QUALITATIVE RESULTS 64
5.1 Introduction 64
5.2 Demographic characteristics 64
5.3 Themes 65
5.3.1 Body satisfaction 65
5. 3. 2 Social exclusion and the fit of clothes 66
5.3.3 Family and friends as the foundation of body concerns 67
5.3.4 Airbrushed images: media's influence 68
5.3.5 Discipline equals success 69
5.3.6 Medicine's influence: weight as a health indicator 70
5.4 Conclusion 70
CHAPTER 6: DISCUSSION AND CONCLUSION 72
6.1 Introduction 72

6.2 Main Findings 72
6.3 Interpretation 73
6.3.1 Patterns Observed 73
6.3.2 Expected vs Observed Results 74
6.3.3 Comparisons with Literature Review 76
REFERENCE LIST 85
APPENDICES 105
APPENDIX A 105
APPENDIX B 107
APPENDIX B1: Perception Scale 115
APPENDIX C 116
APPENDIX D 118
APPENDIX E 120

LIST OF TABLES

Table 1: Different weight control behaviours 46
Table 2: Results from the chi-square test 48
Table 3: Questions relating to socioeconomic status 55
Table 4: Questions relating to media exposure 55
Table 5: Questions relating to family and peer influence 56
Table 6: Questions relating to body image perceptions 57
Table 7: Questions relating to weight control behaviours 57
Table 8: Descriptive characteristics of the qualitative sample 59

LIST OF FIGURES

Figure 1: Pie chart representing students' sex 36
Figure 2: Histogram showing the age of female participants 37

Figure 3: Histogram showing the age of male participants 37
Figure 4: Pie chart representing students' geo-background 38
Figure 5: Pie chart representing knowledge of weight and height 39
Figure 6: Bar graph showing the participants; BMI categories 40
Figure 7: Pie chart showing coverage of household needs 42
Figure 8: Pie chart representing university attendance 42
Figure 9: Figure rating scale 42
Figure 10: Bar graph showing who participants thought was thin 43
Figure 11: Bar graph showing who participants thought was fat 43
Figure 12: Bar graph showing who thought looked best 44
Figure 13: Bar graph on the image that looked like them 45
Figure 14: Bar graph showing who they preferred to look like 46

LIST OF APPENDICES

Appendix A: Participant Information Sheet I 97
Appendix B: Survey Questionnaire 99
Appendix B1: Figure scale 107
Appendix C: Participant Information Sheet II 108
Appendix D: Informed Consent 110
Appendix E: Interview Schedule 112

ACRONYMS

BMI	Body mass index
HIV	Human Immunodeficiency Virus
TB	Tuberculosis
UK	United Kingdom
USA	United States of America
WCBs	Weight control behaviours
WHO	World Health Organisation

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Introduction

This chapter provides a framework to guide the study and highlights its importance. It covers the background, purpose, aims, and objectives of the study theme. The chapter defines the main concepts, outlines the assumptions, and provides an overview of the chapters to follow.

1.2 Background

The ways in which people are socialised influence their ideas about the self, how they view others and the interactions between them (Mu & Wu, 2020). These ideas are often communicated through language, symbols and culturally specific beauty patterns, which are often upheld by family and friends (Mu & Wu, 2020). These patterns also manifest in tertiary institutions for young adults. Universities and colleges are transitional environments where students navigate academic, psychological, and physical changes, make their own decisions, and embrace social values that shape their choices about health (Joseph et al., 2014; Pengpid et al., 2015). Physical appearance is a significant determinant of peer acceptance and social inclusion in such contexts, leading students to adopt practices such as calorie counting and beautification processes to meet the standards of appearance (Chen & Yao, 2015). These practices reflect the concept of body malleability, where individuals reshape and alter their bodies to conform to social norms and form their identity. The body mass index (BMI) is one way to determine whether individuals need to alter their body sizes or not (Flegal, 2022). The BMI is a widely used health metric that categorises body size into underweight, normal, overweight, and obese categories in relation to height and weight (Toselli et al., 2016). While it is associated with health risks, research indicates that BMI scores can influence body satisfaction or dissatisfaction, which in turn can impact social behaviours and engagement in weight control behaviours (Alharballeh & Dodeen, 2021; Mu & Wu, 2020; Radwan et al., 2019). Among university students, research indicates that BMI scores can be correlated with body image dissatisfaction (Radwan et al., 2019). This dissatisfaction is then altered by engaging in weight control behaviour, mostly associated with exercise and eating disorders (Weissman, 2019).

While there are multiple aetiological factors contributing to eating disorders, cultural norms play a big part. Historically, the cultural norms associated with thinness have been discipline, success, and beauty. These were associated with young, Caucasian women in the Global North (Diedrichs, 2017; Gitau et al., 2014; Sharan & Sundar, 2015). In contrast, some societies in the Global South placed value on larger bodies, often associating them with health, wealth and fertility (Appiah et al., 2016). For example, during the HIV/ AIDS and TB syndemic in South Africa in the early 2000s, thinness represented the presence of disease, while larger bodies represented health (Mchiza et al., 2015). However, globalisation has led to cultural shifts in ideal bodies, with muscular and thin ideal bodies that were previously associated with the Global North being adopted by societies in the Global South. This leads to body discrepancies that impact body satisfaction and weight-related behaviours (Bosire et al., 2020; Senekal et al., 2016; Swami, 2015).

Research shows a complex link between BMI, body image, and weight control behaviours. Although studies in South Africa have examined eating attitudes, physical activity, and BMI (Phillips et al., 2016; Prioreschi et al., 2017; Mchiza et al., 2015), little is known about how these concepts relate among university students in a transitional phase that shapes their health behaviours and body perceptions. This study, therefore, explores the interconnection among university students in Johannesburg between BMI, body image, and weight control behaviours.

1.3 Problem statement

Body weight-related issues can manifest at two extremes, each with significant health implications: being overweight and underweight (Monyekiet et al., 2015; Uzogara, 2016). Obesity can lead to heart disease and diabetes, while an underweight status can lead to fertility issues and chronic fatigue (Dobner & Kaser, 2018). Historically, South African studies have been centred around obesity due to its prevalence and the assumption that thin ideals were confined to the Global North (Alaba & Chola, 2014; Micklesfield et al., 2018). However, studies show that exposure to other cultural norms can influence body image and weight-related behaviours among South African youth (Gitau et al., 2014; Mchiza et al., 2015). National health data support this complexity: the 2012 South African National Health and Nutrition Examination Survey reported a 40.9% obesity rate among individuals

aged 15–24 (Shisana et al., 2014), while Health Grove (2017) highlights that South Africa ranks fourth globally in mortality associated with eating disorders. Furthermore, a longitudinal hospital-based study in Tygerberg Hospital in Cape Town found that 40.1% of the patients had bulimia nervosa, suggesting an increasing prevalence of disordered eating within clinical settings (Williams et al., 2020). These indicate a widening gap between perceived and actual body weight, which has the potential to lead to body image issues and weight-control behaviours (Duarte et al., 2015). Health institutions, such as the World Health Organisation (WHO), contribute to the discrepancies by defining ideal body standards.

Between 1980 and 2000, the percentage of obesity in the United States of America doubled from 14.5% to 30.5% (Stokes & Preston, 2016; Uzogara, 2017). These statistics support the WHO's argument that obesity puts a strain on the economy and countries had to "tackle the epidemic," resulting in it being labelled as a public health emergency (Monaghan et al., 2013; WHO, 1975, cited in Hill, 2018). Using terms like epidemic that are used in disease outbreaks created a fear of obesity and popularisation of the use of the BMI (Sánchez-Carracedo, 2022; Fletcher, 2014). This, in turn, promoted a culture of thinness amplified by multi-billion-dollar industries that communicate beauty messages through cosmetics, fashion, food, and fitness and lead to eating disorders.

Although clinically diagnosed eating disorders are relatively low among students (Falvey et al., 2021; Mealha et al., 2013), studies have reported that body image dissatisfaction is prevalent among tertiary students. This, in turn, has led to changes in weight-related behaviours (Mchiza et al., 2015; Pattanathaburt et al., 2013; Radwan et al., 2019; Shagar et al., 2017). One reason for the low numbers of diagnosed students may be the under documentation or misdiagnosis of weight problems in this population (Falvey et al., 2021). Most studies on BMI, body image, and weight control behaviours have focused on high-income, developed societies, and results about their associations have been contradictory (Aljadani, 2019; Olatona et al., 2023; Radwan et al., 2019; Swaminathan et al., 2013). South African studies have mainly been quantitative and focused on obesity (Mchiza et al., 2015; Okop et al., 2019; Prioreschi et al., 2017), often neglecting how this translates into body image dissatisfaction and weight control behaviours. Thus, the body is viewed

as an interactive instrument capable of alteration that should be socially critiqued, especially in a South African context.

South Africa's dietary patterns exhibit a double burden of malnutrition, characterised by the coexistence of obesity and undernutrition (Muzigaba et al., 2016). Economic development and urbanisation are primary drivers of these nutritional shifts across sub-Saharan Africa (Mbogori et al., 2019). This has led to a rising prevalence of obesity and non-communicable diseases, with women in urban areas estimated to have a BMI score of over 30 (Muzigaba et al., 2016; Steyn & Mchiza, 2014). However, obesity has increased alongside micronutrient deficiencies partly due to changes in food environments and increased consumption of processed foods (Claasen et al., 2016). Dietary patterns, alongside socioeconomic status and culture, influence BMI scores and body image perceptions (Micklesfield et al., 2018; Dogan et al., 2018). From this, we can conclude that it is important to investigate how university students in an urban setting, such as Johannesburg, manage conflicting expectations regarding their body size. This motivated the research question: *To what extent are university students' BMI scores, body image perceptions and weight control behaviours associated with one another?*

1.4 Purpose of the study

This study aimed to investigate the relationship between BMI scores, body image perceptions, attitudes, and weight control behaviours in a mixed-methods sample of university students in Johannesburg. The research also examined the effectiveness of BMI as a tool for measuring health and body weight.

1.5 Objectives

i.) To explore students' body image perceptions in relation to their BMI, media influence, and social circles.

ii) To examine students' weight control behaviours and their relationship with body image perceptions and BMI.

iii) To investigate differences in BMI and weight control behaviours across sex, socioeconomic status, and geographical location.

1.6 Definition of terms

Body mass index

Body mass index (BMI) is a measure that classifies an individual's weight status based on their weight in kilograms per square metre (Toselli et al., 2016). A score less than 19 means underweight, 20-24.9 means normal, 25-29.9 means overweight, and anything more than 30 means obese.

Body image

Body image refers to the feelings and thoughts that an individual has about their appearance and how these perceptions influence their behaviour (Tomas-Aragones & Marron, 2016).

Weight control behaviours

The strategies that an individual might partake in to maintain, lose or gain weight (Stroebe et al., 2017). They can range from healthy to unhealthy, and examples are purging, dieting, taking laxatives and exercising (Santos et al., 2017).

1.7 Assumptions

It was assumed that the participants understood the purpose of the study, and the setting and procedures created an environment where they felt comfortable discussing body-related topics in a truthful manner.

1.8 Overview of the structure of the paper

There are six chapters in this thesis. Chapter 1 gives the background and outline of the study. Chapter 2 examines the existing literature on BMI, body image perceptions, and weight control behaviour, as well as the theoretical framework. Chapter 3 discusses the methodology and the recruitment process for study participants. Chapter 4 presents the quantitative results and Chapter 5 presents the qualitative results. The last chapter is the discussion and conclusion.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

This section reviews literature on BMI, body image, and weight control behaviours, highlighting key debates in the field. It first examines gender and sociocultural factors before addressing definitions and developments of BMI, body image, and WCBs, especially in university, African, and South African contexts. The theoretical framework draws on medical sociology. While this study focuses on sex, the literature mainly addresses gendered experiences of BMI, body image, and weight control behaviours

2.2 Gender and sociocultural factors

2.2.1 Gender

Wang et al. (2020) and Madan et al. (2018) found that women in many regions are taught from a young age to value appearance, linking it to success. Early exposure to beauty standards leads women to base self-worth on weight and shape, unlike men. In both American and Chilean contexts, women described thinness as a way to achieve social mobility (Wang et al., 2020; Robinovich et al., 2018). While women in the Global North often strive for thinness, some men struggle with muscle dysmorphia, becoming preoccupied with building muscle (Doyle & Engeln, 2014; Rodrigue et al., 2018). This highlights that body ideals differ by gender: women often desire thinness, while men focus on muscularity. Lyles (2014) argues that muscle dysmorphia is less of a health risk than thinness idealisation and does not lead to harmful self-objectification. However, this view can minimize the impact of body image issues among men.

A study conducted in the United Arab Emirates found that 36.7% of students reported negative body image, with the majority being young men (Alharballeh & Dodeen, 2021). This dissatisfaction was influenced by their BMI scores. Meanwhile, research from Brazil indicated that both men and women within the normal BMI category expressed dissatisfaction with their bodies (Chapuis-de-Andrade et al., 2017). Collectively, these findings demonstrate that body image dissatisfaction is not limited to women nor confined to the Global North. Furthermore, they illustrate

how measurement tools such as BMI shape the understanding and reporting of body image dissatisfaction across different contexts.

The concept of self-objectification is often linked to body image research among women (Chiodo, 2015; Jackson & Chen, 2015). This is when an individual treats themselves as an object that they are viewing from the outside (Jackson & Chen, 2015). This leads to body surveillance, shame, and regulation. These processes are thought to explain why women engage in weight-control behaviours. In Australia, female university students were asked to rate their ideal bodies and most chose underweight computer-generated bodies (MacNeill & Best, 2015). However, focusing only on the self-objectification of women runs the risk of depicting men as unaffected by body ideals. This raises the question of how South African university students negotiate body ideals along gender lines. Family, peer, and media influence are thought to exacerbate this (Jackson & Chen, 2015).

2.2.2 Family, Peer and Media Influence

The family unit can indirectly contribute to the development of eating disorders or weight gain, as it represents the primary environment for socialisation and the transmission of cultural messages regarding appearance (Kaziga et al., 2021). Families influence media exposure, dietary choices, and physical activity patterns (Kaziga et al., 2021). While beauty values were historically attributed to maternal influence, recent research indicates that fathers also express concern about their children's appearance, highlighting a gap in studies on paternal roles and body image (Horesh et al., 2015). Parental dissatisfaction can affect even young children, as preschool-aged children have been shown to compare their body size to that of family members and select silhouettes that reflect parental ideals (Kościcka et al., 2016). Notably, these studies were conducted in the Global North, raising questions about the generalisability of findings to other cultural contexts. A systematic review of twelve studies found that over 82% of young adults in the United States and United Kingdom reported family influence on dieting, whereas this effect was not observed in Australia, suggesting that family influence is culturally specific rather than universal (Marcos et al., 2013).

Peer groups are the second socialisation institutions that have an influence on weight, body image and WCBs. This typically occurs as children grow older, and

their peers begin to influence their decisions more than their family (Kenny et al., 2018). Peer groups have group norms and expectations that are transmitted through daily interactions (Marcos et al. 2013). These norms are shaped by intersectional factors such as gender and class within peer groups. Ganson et al. (2025) stated that muscle dysmorphia was due to peer pressure among young Canadian and American male students who used protein powders to achieve this look. Additionally, an American longitudinal study among college students found that exposure to peers who were dieting or exercising led young adults to also engage in these behaviours (Keel & Forney, 2013). However, another study found that young USA men with few peer relationships often engaged in excess training and the use of steroids to change their appearance, while those who had many peer relationships did not participate in these activities (Lin & DeCusati, 2016). These contradictions show that peer influence can lead to body dissatisfaction for some and protect others from it by resisting dominant ideals. On the other hand, Bair et al. (2014) concluded from their self-reported survey that existing body dissatisfaction influences the degree to which an individual's is influenced by peer groups. This shows that body image dissatisfaction influenced friendships and vice versa. Peer dynamics also extend into digital environments. In Ireland, adolescents reported dissatisfaction when comparing themselves to peers online and experienced cyberbullying if they did not conform to dominant appearance norms (Kenny et al., 2018). These examples underline the complexity of peer influence, which can both reinforce and challenge prevailing body norms.

Media can be defined as the different forms of communication that spread information to the masses. It encompasses films, television, radio, magazines, and social networking sites, such as Facebook and Instagram (Pratama et al., 2024). It serves multiple purposes, including informing, entertaining, and persuading the masses (Pratama et al., 2024). These are described as important in transmitting cultural norms by communicating messages to consumers worldwide (Wood-Barcalow et al., 2021). The messages and images that depict ideal bodies influence how audiences view themselves and what they believe ideal bodies should look like (Huang et al., 2020; Wood-Barcalow et al., 2021). For example, a study examining television exposure and nutritional status in three Nicaraguan villages found a shift in body ideals after participants were exposed to advertisements from European

and American clothing shops (Jucker et al., 2017). This assumes that audiences are passive consumers who absorb messages. However, audiences can interpret and resist these messages depending on their cultural contexts (Swami, 2015; Veldhuis, 2020).

The media's influence on body image can be traced back to the 1920s, when fashion magazines transitioned from illustrations to photographs, promoting an idealised pre-adolescent figure (Huang et al., 2020). From the Gibson girl of the 20th century (Simon & Mamp, 2021) to Twiggy in the 1960s (Wissinger, 2015) to today's Instagram-driven standards, ideals have undergone significant shifts. This highlights that body ideals are not structured and fixed. This suggests that body ideals should be studied not just as media products but also concepts situated within global political and capitalist systems (Veldhuis, 2020). The media's portrayal of beauty ideals continues to have far-reaching consequences for societal norms and individual self-perception. Research consistently shows that exposure to thin-ideal media images negatively impacts body image and mental health, particularly among adolescents and women (Munsch et al., 2021). Studies confirm that thin-ideal women portrayed in the media are typically 15% below the average weight, with 94% of female television characters being thinner than the average American woman (Javaid & Ahmad, 2014). This exposure to unrealistic thinness standards serves as a potent risk factor for body image dissatisfaction and can lead to feelings of unhappiness, shame, and low self-esteem (Javaid & Ahmad, 2014).

However, traditional media is slowly being replaced by social networking sites like Facebook and Instagram, easily accessible via phones, tablets, and laptops (Franchina & Lo Coco, 2018). Interactions can be facilitated through comments and reposting someone else's posts, enabling users to engage actively with the content they produce and the trends they follow creates comparisons and promotes unrealistic beauty standards, especially since most of the images are airbrushed and photoshopped (Holland & Tiggeman, 2016). Research consistently demonstrates that mass media perpetuates weight stigma through various mechanisms (Frederick et al. 2016). This is achieved through the commodification of physical appearance, with multiple campaigns promoting weight loss, reducing the intake of fatty and carbohydrate-filled foods, and encouraging more exercise.

Sharma and De Choudhury (2015) found that health and fitness posts on social media received higher levels of engagement, such as likes and retweets. Media content is often shaped by public opinion, as journalists and social media creators tailor material to audience preferences. Consequently, public perceptions of beauty are both constructed by and reinforced through media representations. The media also raises awareness of body size issues and promotes solutions, including weight loss products. However, research indicates that media influence on body image may be less significant than that of family and peers (Ferguson et al., 2014). The specific impact of family, media, and peer influences on university students remains underexplored.

2.2.3 Socioeconomic status

Socioeconomic status was found to have massive links to BMI scores, body image perceptions and weight practices (Tiwari & Kumar, 2015). Bourdieu's (2011) capital theory provides a helpful framework for explaining such inequalities by focusing on the distribution of economic, cultural, and symbolic capital. Research shows that these forms of capital shape health behaviours and outcomes. Economic capital determines a household's income, residence, and access to resources, while embodied cultural capital is associated with healthy lifestyles and nutritional knowledge (Mudd et al., 2023; Oude Groeniger et al., 2020). Symbolic capital, particularly aspects of discipline, refinement, and reflexivity, was associated with lower BMI in high-income societies (Oude Groeniger et al., 2020). However, applying these concepts across different contexts risks assuming that capital works the same way globally. For example, in resource-strained environments, people may find practising refinement and discipline irrelevant to securing sufficient food. This often leads to elevated BMI scores but shifts the meaning of capital towards basic survival (Mickelsfield et al., 2018; Tsolekile et al., 2014).

A South African study conducted in townships found that individuals from low-income households were more concerned with eradicating hunger than with nutritional value (Tsolekile et al., 2014). Therefore, the food often consumed was high in saturated fats, carbohydrates, and salts, but it is increasingly affordable and accessible to most households (Backholer et al., 2014). This emphasises that body size and body image cannot be understood in isolation from structural inequalities

that shape food availability. Similarly, Mickelsfield et al. (2018) reported that households with limited access to resources had an elevated BMI. International comparisons support these findings: in Hungary, elevated BMIs in low-income households were attributed to irregular eating patterns that encouraged fat storage (Jarosz, 2018). However, using BMI as the primary measure of nutritional status remains problematic, as it fails to account for cultural perceptions of body size or differences in fat distribution across populations.

The way SES status shapes body image is not uniform across societies. Women from South Africa and African Americans with lower SES had positive body image perceptions (Mchiza et al, 2015; Thomas & DeCaro, 2018). This suggests that cultural norms might precede body image dissatisfaction. Yet, in Brazil, adolescent girls from lower SES backgrounds reported higher incidences of restrictive eating and body dissatisfaction (Leal et al., 2020). These contradictions highlight the need for intersectional approaches, as the meanings of SES and body ideals are not consistent across contexts but are shaped by local cultural values, gendered expectations, and historical legacies of race and class.

Another aspect of symbolic capital is education, which influences BMI outcomes (von Hippel & Lynch, 2014). Studies in Argentina, Canada, Croatia, and the United States suggest that lower educational levels are correlated with weight gain, while higher education is associated with healthier diets and increased physical activity (Coogan et al., 2012; Sánchez et al., 2017; Milosavljević et al., 2015). Weight gain was associated with lower education levels among African American women (Coogan et al., 2012) and hospital patients in an Argentinian study (Sánchez et al., 2017). Conversely, a Croatian study examining the knowledge of nutrition among late adolescents found that those who had completed high school and were now enrolled in college engaged in more physical activities and consumed healthier foods, resulting in lower BMI scores (Milosavljević et al., 2015). In southern Brazil, another study found an association between higher BMI and obesity, as well as low area-level education (Boing et al., 2015). Another study conducted in rural Canada, comparing regional obesity levels, showed an association between low BMI scores and high educational levels (Chen et al., 2015). This suggests that education serves as a mediator between economic capital and health, equipping individuals with the

knowledge and resources to navigate food environments effectively. Yet, the assumption that education straightforwardly leads to healthier practices may overlook structural barriers: even with nutritional knowledge, households in disadvantaged contexts may lack access to affordable healthy foods or safe spaces for exercise. Geographical location is also associated with body size and body image.

Urban residents in low- and middle-income countries often have higher BMIs due to the availability of cheap, calorie-dense foods and limited access to physical activity spaces (Neuman et al., 2013). A systematic review of 73 studies across 21 African countries found that most females preferred normal or overweight body sizes, with factors such as rural residency and lower education associated with preferences for larger bodies, while higher socioeconomic status and urban residency were correlated with preferences for slimmer bodies (Pradeilles et al., 2022).In South Africa, young women from rural areas preserved traditional notions of larger bodies as beautiful and reported low levels of body dissatisfaction (Prioreschi et al., 2017). Conversely, middle-class urban adolescents adopted Western-influenced ideals of thinness and muscularity, leading to heightened dissatisfaction (Czyc et al., 2016). Such findings highlight that SES interacts with geography and cultural context in shaping body ideals, producing uneven experiences of body image within and across societies. This needs to be tested in a university setting where students come from different backgrounds.

2.3 Body Mass Index

2.3.1 The development of the BMI

Between the 1500s and 1900s, bigger bodies in both men and women were associated with wealth and power, distinguishing the upper class from the lower class (Fletcher, 2014). Thin bodies were once an indicator of poverty and disease, but this changed with industrialization as food became more accessible (Fletcher, 2014). According to Bordo (2023), the upper class had to find a new body ideal to distinguish themselves from the masses- the thin ideal was created. Thinness, thereafter, symbolised wealth and desirability, while being big or fat was associated with a lack of self-control (Bordo, 2023). During that time, the prevalence of infectious diseases such as cholera was spreading, and the medical focus shifted

from a curative view to a preventive perspective, where people were encouraged to reduce the risk of disease by following preventive measures, including vaccination programs and hygiene regimes (Simpson, 2020). Body size is a risk factor that preventive medicine considers.

Health insurance companies linked high body weight to chronic illnesses such as diabetes, cardiovascular disease, and a high risk for mortality (Fletcher, 2014; Gutin, 2018). The American insurance company, "Metropolitan Life Insurance," created a Table of Ideal Body Weight in 1985 that showed the statistics of what a healthy body should entail, using relative height. This legitimised obesity as a disease that had the risk of death (Gutin, 2018). Ross (2005) and Flegal et al. (2014), however, state that this risk of death was less compared to the risk of the company paying out for every 1000 people dead, which they were trying to avoid. The tabulation also provided legitimacy to them, charging those who were overweight more than the "healthy" clients or refusing to offer them insurance (Ross, 2005). This was the foundation that led to the use of the BMI to measure obesity, a method still in use today.

The Body Mass Index (BMI) was developed in the early 1830s by the Belgian mathematician Adolphe Quetelet (Gutin, 2018). It was previously named the Quetelet Index after its developer and was intended to predict the distribution of body mass across populations (Muscogiuri et al., 2023). The BMI is calculated using a formula that divides weight (in kilograms) by height (in metres) squared (Alharballeh & Dodeen, 2021). Its popularisation around America and Britain was influenced by Arnel Keys, a physician who identified the BMI as a more successful tool that could give more information about fatness than the Tables of Ideal Weight (Muscogiuri et al., 2023). This fatness information is derived from body density and thickness, which were simplified to quantifiable ranges (Fletcher, 2014; Gutin, 2018). Although the BMI is still being used today, its functionality is often questioned.

The first critique is that Quetelet never intended for it to be used to indicate individuals' (un)healthiness, and it reveals little to nothing about the relationship between body weight and mortality (Sorkin, 2014). It lacks clear reasoning for why cut-off points are set as they are and what constitutes being obese, overweight, normal, or underweight. For example, before 1998, the overweight cut-off point was

27.8 for men and 27.3 for women; however, this was later changed to 25 for both men and women (Nuttall, 2015). The criteria used for the change are unclear, as people who were previously normal were reclassified into the overweight category. Strings (2023) states that BMI scores affect how fat people and fat bodies are viewed and experienced and how fatness and fat people need to be prevented. Another critique is that genetics, social contexts, and technological advances have changed and enabling the detection of other morbidities while minimising the mortality risks of elevated weight (Blundell et al., 2014). Despite its limitations, BMI is still used today due to its affordability and easy accessibility to everyone outside the doctor's office, with calculators available online (Gutin, 2018). Places like New Zealand have policies that reject an applicant's residency permit if they have an elevated BMI score. Their claim is that obesity places a burden on their health systems (Pausé, 2020). MI needs to be studied alongside body image to determine its influence.

2.3.2 BMI and body image

BMI can affect how individuals perceive themselves and how they believe others perceive them. While BMI uses numbers to classify body weight, body image is concerned about a person's thoughts, emotions, and views regarding their physical appearance (Kimber et al., 2015). Body image can be positive (satisfaction) or negative (dissatisfaction) (Kimber et al., 2015). Thus, BMI is a medical categorisation system, while body image is influenced by sociocultural factors and geographical locations (Eshak et al., 2020). For example, women from urban areas in the Global North tend to idealise thinner bodies, whereas those in the Global South, among certain ethnic groups historically favoured larger bodies (Gitau et al., 2014). These differences, however, risk oversimplification as culture is always shifting with globalisation. Desiring a thin body might cause some women to overestimate their BMI and believe they are overweight when they are not (Cornelissen et al., 2022). This suggests that body image perceptions are influenced by personal interpretations. However, there are varied results concerning the correlation between BMI and body image, with some studies concluding that a relationship exists between the two, while others refute this statement.

A quantitative study examining BMI as a predictor of physical and mental health among Hawaiian college students found that an elevated BMI correlated with dissatisfaction (Wilson et al., 2013). Results from a self-reported survey in Jordan confirmed this when they found that women who had elevated BMI scores experienced psychological distress and body image dissatisfaction (Zawawi, 2014). However, according to Gruska et al. (2022), individuals with "normal" BMI scores may still experience dissatisfaction, while those who are classified as overweight might be satisfied with their body size. A study in Poland found that adolescent girls reported greater dissatisfaction than boys regardless of BMI (Kantanista et al., 2015). Likewise, Saudi Arabian women displayed high dissatisfaction (90%) despite relatively low obesity rates (Aljadani, 2019). This suggests that other factors may have a greater influence on body image than BMI scoring (Mchiza et al., 2015). BMI classification can have psychological effects, and an example is the young adults in the United States whose scores affected their self-esteem and motivated weight loss (Elran-Barak, 2019).

These contradictory findings illustrate that body image dissatisfaction cannot be straightforwardly explained by BMI. Instead, dissatisfaction may be shaped by cultural beauty norms, gendered expectations, and globalised media influences that transcend biological weight categories. Taken together, these inconsistencies raise important questions about the usefulness of BMI as a universal marker for understanding body image. Moreover, the dominance of research from North America, Europe, and the Middle East leaves significant gaps in Global South contexts, where localised understandings of body image may diverge from globalised ideals. Little recent research has addressed the relationship between BMI and body image in a South African university setting, where students negotiate both local cultural norms and internationalised beauty standards. Examining this intersection, therefore, provides an opportunity to situate BMI within broader sociocultural dynamics.

2.3.3 BMI in universities

As mentioned earlier, transitioning from high school to tertiary institutions is recognised as a period during which lifestyle changes occur that contribute to weight fluctuations and heightened concerns about body image (Pengpid et al., 2015).

University students are often identified as being at a higher risk of weight gain compared to other adult groups (Senekal et al., 2016). This is due to the obesogenic nature of university environments where cheap, energy-dense foods are available, alcohol consumption is common, and academic stress is known to exacerbate unhealthy eating patterns (Gradidge & Cohen, 2018). Biological factors also intersect with these structural ones, as many students are still experiencing hormonal changes associated with late adolescence that may predispose them to weight gain (Morassut et al., 2020). Existing literature supports these weight patterns.

In the USA, Fedewa et al. (2014) found that college students gained an average of 1.55 kg during their first year, with further gradual increases over their undergraduate degree. In South Africa, however, the prevalence of overweight and obesity is already significant by the time young people enter university with 27% of women aged 15–19 were classified as overweight or obese, rising to 52.2% among those aged 20–24 (Nwosu et al., 2022). This suggests that weight issues are embedded in broader national nutrition patterns, rather than arising solely at university. At the same time, students, especially women, face pressures to maintain thinness in contexts that promote weight gain (Mu & Wu, 2021). Thus, students experience a paradox of wanting to obtain a certain ideal body while weight patterns scale towards weight gain.

Studies outside of South Africa further add to the polarising findings. Research in Bangladesh found that while male students had an average BMI of 21 kg/m², with only 0.27% categorised as overweight, many still reported dissatisfaction with their bodies (Rahman et al., 2016). The same study reported an overall mean BMI of 19.8 kg/m² for male and female students combined, meaning that most students were underweight but overestimated their actual weights. This led to them having negative feelings towards their bodies or exhibiting signs of body dissatisfaction.

This raises the question of whether body dissatisfaction is more strongly tied to social comparison and cultural ideals than to actual body size, as the findings suggest instead that dissatisfaction can be pervasive across all BMI categories. However, this claim has not been adequately tested in a South African university context, where students occupy a unique intersection of late adolescence, shifting

cultural norms, and an urban environment that promotes obesity. Investigating this setting is therefore crucial to understand how pressures surrounding body size manifest in young adulthood and whether South African students' experiences align with or diverge from global patterns.

2.3.4 BMI in Africa with South Africa in Focus

The perception of BMI and body image in African contexts is deeply rooted in cultural traditions and societal norms. Historically, many African cultures valued bigger bodies, especially among women (Ogana & Ojong, 2013). Fattening rituals were commonly performed for coming-of-age women in their teenage years amongst the Kipsigis in Kenya and Annang in Nigeria (Adahada, 2020). Bigger bodies represented fertility, health, and beauty amongst these societies, as well as for Zulus in South Africa for women, while large bodies represented wealth in men (Addo et al., 2019; Ogana & Ojong, 2013). This highlights how body size was not just about aesthetics but was also linked to cultural systems that measured women's bodies in relation to their social value (Gitau et al., 2014). However, while these traditions demonstrate that African contexts have historically resisted thin body ideals, it is essential to acknowledge that body size ideals vary across ethnic groups, geographical locations, and are not static, especially with changes in food consumption patterns.

Nutritional transitions have reshaped these cultural norms, whereby many African countries have shifted from high-nutrient, largely organic diets to more affordable but less nutritious foods high in refined sugars, saturated fats, and carbohydrates (Mbogori & Mucherah, 2019). This has contributed to the so-called "double burden of malnutrition," where undernutrition and obesity coexist within the same populations (Agyemang et al., 2015). Before the 2000s, undernutrition was widespread, but obesity rates have since risen sharply, with Seychelles (64%), Mauritius (44.8%), Cameroon (43.9%), Botswana (41.6%), and South Africa (41%) among the most affected countries (Agyemang et al., 2015). These epidemiological changes intersect with cultural ideals in complex ways, where obesity shifts perceptions about larger bodies and presents public health concerns. On parallel lines, recent research suggests that African societies are not immune to globalised body ideals.

Studies have observed a trend among urban populations and youth, where there is a shift towards a preference for thinness in women and muscles in men (Gitau et al., 2014; Mchiza et al., 2015; Pradeilles et al., 2022). This reflects both acculturation and exposure to Western media but also reveals a negotiation between older traditions and newer global norms. For instance, women may experience conflicting pressures to maintain fuller bodies to align with local ideals while also aspiring to slimness in line with global beauty standards. Men, alternatively, might no longer consider bigger bodies a sign of economic status, but rather chase after toned bodies that represent present-day masculinity (Ammann & Stauacher, 2020; Toselli et al., 2016). The coexistence of traditional desires for larger bodies with growing aspirations for slimness or muscularity highlights how cultural meanings of body size are being renegotiated in response to nutritional shifts, urbanisation, and global media exposure. Research in this area must attend to the intersections of tradition, modernity, class, gender, and geography.

2.4. Body Image

Body image research gained prominence in the 1990s, largely due to increased interest in the clinical aetiology of eating disorders (Pausé, 2020). While early research framed body image within pathological contexts, more recent studies conceptualise it as a complex, multifaceted phenomenon involving psychological, emotional, and conceptual dimensions (Pausé, 2020; Brytek-Matera et al., 2015). The psychological component refers to perceptual processes, such as how the brain interprets body shape and size, while the emotional aspect reflects the attitudes, feelings, and satisfaction individuals attach to their bodies. The conceptual component, meanwhile, refers to the mental image of one’s body, which may be accurate or distorted depending on the discrepancy between actual and perceived body size (Bhurtun & Jeewon, 2013; Brytek-Matera et al., 2015). Therefore, body image is not merely about physical reality but about lived experience, perception, and attitudes. Body image can either be positive or negative where the former is when someone is satisfied with their appearance and has a positive attitude towards their body. A negative body image is characterised by distorted perceptions and dissatisfied feelings towards one's body (Brytek-Matera et al., 2015). However, body

image definitions oversimply an array of lived experiences that are not individual-centred.

Although previous studies focused on women when examining this concept, recent studies indicate that boys and men are now presenting this problem (Burlew & Shurts, 2013). This helps diminish assumptions that women were the only gender vulnerable to cultural beauty standards. Within high-income communities, the ideal of thinness persists for women as a dominant cultural norm, whereas men are more inclined to aspire to muscularity, with only a minority preferring to be thin (Burlew & Shurts, 2013). This observed distinction based on gender reveals that ideals are not alike and vary across groups and contexts, informed by differing views of femininity and masculinity. According to McGuiness and Taylor (2016), body image perceptions can lead to weight control behaviours (WCBs) such as dieting and over-exercising.

2.4.1 Body Image and WCBs

Body image and WCBs are deeply interlinked, with negative body image often serving as a catalyst for engaging in attempts to alter one's weight or shape. WCBs can include healthy practices, such as exercise and balanced nutrition, to more harmful strategies, like fasting, purging, or the use of diet pills (Schaumberg et al., 2014). Practices such as exercising and dieting lie between healthy and unhealthy WCBs as they can be good forms of movement and implementing healthy restrictions for items like sugar; however, an excess of these practices might lead to disordered eating and over-exercising. Mchiza et al. (2015) found that 27% of overweight women in South Africa engaged in dieting to get closer to their ideal physical body. This study can be critiqued for not examining why dieting is the common approach to achieving a certain body type. Similarly, Abraham et al. (2018) reported that American college students engaged in fasting and the use of diet pills. This context points to the cultural pressures in high-income societies to look a certain way and this is marketed through dieting pills and fasting. By contrast, Swaminathan et al. (2013) found in India that participants engaged in WCBs irrespective of their BMI status, suggesting that feelings and perceptions of the body, rather than objective BMI categories, are more powerful determinants of behaviour. This raises questions about the effectiveness of BMI in research on body image and

weight management. However, engagement in WCBs does not always lead to improved satisfaction.

On the contrary, Abraham et al. (2018) note that unhealthy practices can exacerbate negative perceptions of the body, particularly when the desired changes fail to materialise. For example, exercising without visible results may leave individuals feeling discouraged and depressed, thereby reinforcing the cycle of dissatisfaction. These studies reveal contextual differences in how WCBs are expressed across societies. At the same time, much of the literature tends to focus on individual behaviours and psychological processes, while neglecting broader structural and cultural forces such as economic inequalities. This gap suggests the need for more holistic approaches that situate WCBs within their sociocultural environments rather than treating them solely as individual-level responses.

2.4.2 Body Image in Universities

University students are at risk of experiencing body image dissatisfaction, as they navigate physiological changes of late adolescence and the psychosocial pressures of transitioning into adulthood (Abraham et al., 2018; Pengpid et al., 2015). The majority of young women become overly concerned with fitting in and maintaining an attractive body shape. In an Italian study, all students would overestimate their actual weight, but 13% of university students were content with their bodies, but 81% reported that they would like to be thinner (Zaccagni et al., 2014). Research on body image perception among Kuwaiti female students reveals concerning trends. Many students with normal BMI perceived themselves as overweight, while obese students often underestimated their weight (Kabir et al., 2013). Body image dissatisfaction is prevalent across BMI categories, with a growing desire for thinness in Kuwaiti society (Kabir et al., 2013). This reflects a complex dynamic where dissatisfaction is pervasive across weight categories, driven more by shifting cultural norms

In South Africa, findings are contradictory. Mwaba and Roman (2009) reported that black female students in the Western Cape expressed general satisfaction with their body image, though some engaged in unhealthy eating practices. By contrast, Puoane et al. (2010) found that female students based in the Western Cape also tended to overestimate their weight, even when they were in the normal category,

and reported low satisfaction levels. This is supported by Gitau et al. (2014), who reported that black female students had higher BMI and eating disorder risks from thirteen to seventeen years old, with rising weight loss practices over time. These contrasting results highlight the diversity of body image experiences within South Africa, which may be shaped by intersecting factors such as cultural norms, urbanisation, and socioeconomic status. Thus, traditional ideals of larger bodies coexist alongside the exposure and adoption of thin ideals. This reinforces the need for focused investigation in Johannesburg, a diverse and urbanised setting where multiple cultural ideals intersect. Such a study could provide insights into how South African students negotiate competing discourses of body size and attractiveness, and whether these negotiations produce distinctive patterns of satisfaction or dissatisfaction

2.4.3 Body Image in Africa with South Africa in Focus

Body image in most African societies is tied to cultural norms and traditions. Historically, it was reported that societies in the Global South placed little concern on thin and muscular body sizes (Toselli et al., 2016). However, processes of globalisation and acculturation have reshaped these views. This shift is particularly evident in studies comparing rural and urban populations. For example, research in Senegal found that fewer than 40% of men in urban Dakar with an average BMI of 27.5 kg/m² considered themselves overweight, compared to 50% of urban women and 30% of rural women (Macia et al., 2017). These findings highlight both gendered differences in body perception and the influence of urbanisation, where women appear more susceptible to pressures to have negative feelings towards their bodies.

Swami (2015) argues that the most significant differences now emerge between contexts of different geographical locations, with thin ideals most prevalent in urban, economically developed areas. Supporting this, Prioreschi et al. (2017) found that urban South African females were more likely to desire thinness compared to their rural counterparts, while Pradeilles et al. (2022) highlighted that across Africa, many communities still preferred normal or overweight body sizes, though adolescent girls in some settings expressed a preference for underweight figures. Within South Africa, this dynamic is particularly visible: in Khayelitsha, thinness was associated

with HIV/AIDS, leading many women to favour larger bodies as signs of health and attractiveness (Matoti-Mvalo & Puoane, 2011), whereas younger, urban populations increasingly aspire to slim and toned physiques aligned with globalised ideals (Mchiza et al., 2015). These contradictions contribute to widespread body misperceptions across the continent. For example, youths in South Africa often overestimate their size despite having normal or underweight BMIs (Mchiza et al., 2015), and students in Limpopo and the Western Cape reported distorted perceptions irrespective of actual measurements (Peltzer & Pengpid, 2012; Puoane et al., 2010). Even healthcare professionals are not immune, as distorted body image perceptions have been observed among South African healthcare workers (Phetla & Skaal, 2017). These findings suggest that cultural narratives reveal that African body image ideals are in transition: while some communities retain traditional preferences for fuller figures, others increasingly embrace thinness or experience body misperceptions, highlighting the importance of examining how these dynamics unfold in diverse urban contexts such as Johannesburg.

2.5 Weight Control Behaviours

The concept “weight control behaviour” (WCB) emerged in the 1990s, originally used interchangeably with “dieting behaviour” due to its early association with restrictive eating practices (Balantekin et al., 2015; Park & Lee, 2017). Over time, however, the term has broadened to encompass a spectrum of practices, ranging from health-promoting behaviours such as balanced eating and regular exercise to unhealthy practices such as purging, laxative use, excessive exercising, and restrictive dieting. WCBs can be framed as beneficial or harmful depending on intensity, motivation and context. Historically, disordered eating and WCBs were largely associated with white, upper-class women in high-income societies (Prioreschi et al., 2017). However, research now demonstrates that these practices are no longer confined to this demographic; WCBs are increasingly observed across genders and socioeconomic contexts worldwide (Gitau et al., 2014). Santos et al. (2017) conducted a systematic review of 72 studies involving over 1 million participants, finding that 42% of adults from general populations and 44% from ethnic minority populations reported attempting weight loss annually, with an additional 23% trying to maintain their weight. Emerging studies from the Global

South, like South Africa, indicate that restrictive eating behaviours are becoming more prevalent, even in contexts where undernutrition remains a concern (Senekal et al., 2016). This suggests that globalisation and the diffusion of thinness ideals may be reshaping body perceptions beyond country borders and, in turn, leading to more people engaging in WCBs.

Gender differences in WCBs further highlight the influence of social norms and gendered expectations. Women are more likely to engage in dieting and food-related behaviours, whereas men often pursue excessive exercise (Chapuis-de-Andrade et al., 2017). Holm et al. (2015) attribute this partly to gendered divisions of labour around food purchasing and preparation, which reinforce the cultural association of women with food regulation. These patterns suggest that WCBs are not purely individual “choices” but are embedded within broader gender stereotypes and cultural scripts around body ideals and domestic roles. Furthermore, public health campaigns and health promotion programmes often play a dual role in shaping WCBs. On the one hand, initiatives by organisations such as the WHO promote physical activity for the prevention of non-communicable diseases. Yet, as Pengpid et al. (2015) observe, many individuals engage in exercise not for health, but primarily to achieve socially desirable body shapes. Moreover, health campaigns and commercial industries frequently frame obesity as evidence of laziness or moral failure (Graham & Edwards, 2013), thereby stigmatising larger bodies. This moralising discourse not only intensifies body dissatisfaction but also risks pushing individuals toward unhealthy or extreme WCBs.

In addition, commercialised health promotion has transformed weight control into a consumerist enterprise. Fitness and beauty industries commodify health by marketing diet plans, supplements, gym memberships, and equipment, positioning slimness and fitness as purchasable ideals (Abdullah et al., 2019). This intersection of public health discourse and consumer capitalism frames their products and services as health-promoting but encourages consumerism. Therefore, the literature reveals that WCBs are socially embedded behaviours shaped by gender roles, cultural expectations, public health messaging, and commercial pressures. Exploring the concept of agency around body size is important for understanding

WCBs among university students in South Africa, who are simultaneously exposed to globalised ideals, local cultural norms, and commercialised health industries.

2.5.1 WCBs and BMI

Individuals across the BMI spectrum may engage in weight control behaviours for various reasons, including perceived health benefits, body image concerns, or social pressures (Sukamto et al., 2018). Literature suggests that WCBs are less a response to objective health measures and more tied to subjective interpretations of body ideals. A study of Californian teenagers found that participants with elevated BMI scores who joined the gym did so to try to lose weight (Gaylis et al., 2020). This aligns with a biomedical assumption that one would engage in WCBs if they have an elevated BMI score. Another study that supports this assumption is one from Malaysia, which showed that a high BMI score is correlated with high rates of weight control behaviours among students (Yeng & Sedek, 2012). In contrast, findings from Rio de Janeiro revealed that 93.58% of female students, regardless of their actual BMI, expressed dissatisfaction with their weight and sought to alter it through restrictive eating (Marques et al., 2014). Another study examining weight control behaviours, BMI, and weight-based evaluation in Brazil found that although overweight individuals exercised to manage their weight, 15% of women in the normal BMI category also participated in these exercises (Chapuis-de-Andrade et al., 2017). These reveal the pervasive reach of weight-related pressures, extending WCBs into groups who are not clinically overweight. The implication is that WCBs may be driven as much by perceived social stigma and internalised ideals as by medical necessity. The consequences of weight-based stigma also highlight the deeply social nature of WCBs. Nuttall (2015) argues that elevated BMI scores can carry economic and social penalties, including exclusion from jobs and romantic relationships. This reflects broader cultural narratives that equate thinness with discipline, employability, and desirability, while framing higher body weights as moral or personal failings. Thus, WCBs become not only health practices but also strategies for navigating stigma and gaining social acceptance.

Men’s engagement with WCBs provides another layer of complexity. While manual labour once played a role in shaping muscular physiques, the decline of such employment has not lessened cultural expectations that men should be muscular.

Instead, men increasingly rely on structured WCBs such as weightlifting to achieve these ideals (Lefkowich et al., 2017). This persistence of the muscular ideal reflects broader gendered discourses, where men value strength and size while women are disciplined into thinness. In both cases, however, WCBs function as responses to cultural constructions of “acceptable” bodies rather than solely medical imperatives. These findings warrant further study into the relationship between WCBs and BMI in a South African university, as the literature highlights contradictory correlations.

2.5.2 WCBs in universities

Transitioning to a higher education setting entails a substantial life transformation and may result in the emergence of unhealthy practices due to lifestyle stressors and wanting to fit in (Pengpid et al., 2015). Gendered differences in student responses to these pressures have been observed. Kim et al. (2015), for example, found that female students in American colleges primarily pursued dieting to lose weight, whereas male students invested significant amounts of time at the gym to increase muscularity. These findings reinforce the notion that thinness is a marker of feminine attractiveness and muscularity as a marker of masculine strength. These findings should be investigated in contexts outside of Western societies. Social media also appears as a key driver of WCBs.

Aljadani (2019) reported that 58.8% of Saudi Arabian university students engaged in weight-control practices, largely motivated by appearance-based ideals perpetuated online. This underscores the transnational influence of digital media, suggesting that WCBs are not merely localised responses to stress, but also part of a global circulation of aspirational body standards. Additionally, structural factors shape students’ eating habits. For example, Deliens et al. (2014) found that exam schedules, peer groups, and food pricing strongly influenced dietary choices among university students. While some of these choices could be classified as coping strategies in stressful contexts (e.g., irregular eating during exams), the study raises questions about where to draw the line between these strategies and unhealthy habits that could lead to disordered eating. This highlights the importance of context-sensitive interpretations. Finally, Zaher’s (2020) findings in a Palestinian university, where 36.9% of female students reported being overly preoccupied with food intake and engaged in risky behaviours such as starvation and extreme dieting, illustrate

the severity of body image concerns in Global South contexts. Such behaviours may reflect not only internalised thinness ideals, but also broader social anxieties tied to gendered expectations, family pressures, and transitional life stages. These studies show that while university students across diverse contexts engage in WCBs, the motivations and practices are shaped by intersecting pressures: academic, social, cultural, and globalised ideals. This underscores the importance of examining South African students.

2.5.3 WCBs in Africa with South Africa as a Focus

In the past, WCBs were under-researched, as they were believed to affect a small number of people; however, studies have emerged on eating attitudes and weight management routines. A cross-sectional study among undergraduates in Lagos, Nigeria, found that about 63.5% of students experienced body image dissatisfaction; 93.3% reported engaging in weight management practices, with dietary control being the most common strategy (Olatona et al., 2023). Additionally, in South Africa, research among female university students revealed that many who attempted weight loss had a normal BMI; while most strategies were considered healthy, some engaged in less healthy or extreme methods (Olatona et al., 2023). University students used weight loss products, such as Herbex and Herbalife, to attempt to achieve their ideal body size (Senekal et al., 2016). Findings from a study involving students at the University of the Free State revealed that many black students were active in moderate physical pursuits like dancing, water aerobics, and doubles tennis, whereas the majority of white students participated in more intense activities, including sports, squash, Zumba, and boot camps (Bloemhoeff, 2010). This has not been explored in a university in Johannesburg alongside BMI and body image perceptions.

In Limpopo, a study involving rural black employed women revealed that the women valorised bigger bodies, older, obese women indicated a strong desire to lose weight and were actively participating in WCBs to get results (Gradidge et al., 2020). This highlights how body ideals are shifting even amongst older generations. The literature still reveals gaps such as very few studies focus on large urban centres where globalized media and socioeconomic contrasts may intensify these tensions. Johannesburg’s universities represent a setting where students likely navigate both

longstanding cultural body ideals and newer pressures toward thinness or muscularity, against a backdrop of social inequality.

2.6 Theoretical Framework

The literature review examined the background and intersection of the concepts of BMI, body image, and weight control behaviours. It also examined how social institutions, such as the media and the family, contribute to shaping these concepts. Connecting the literature review with a section on theoretical frameworks helps to analyse the research problem in a sociological context. Symbolic interactionism and postmodernism are the theories that will be discussed.

2.6.1 Symbolic interactionism

Symbolic interactionism, rooted in the work of Mead, Cooley, and Blumer, is concerned with how individuals construct and make sense of the world around them through shared symbols, meanings, and social interactions (Barry & Yuill, 2016). Central to this theory is the idea that meanings are not fixed but negotiated in cultural, historical, and situational contexts. This is particularly relevant to body image and WCBs, as perceptions of health, illness, and bodily ideals are not objective realities but are shaped through everyday interactions on a micro level, involving family, peers, medical professionals, and the media (Byczkowska-Owczarek, 2020). In the South African context, for example, the studies showing how body size ideals differ between urban affluent and rural populations (Prioreschi et al., 2017) illustrate how cultural and situational contexts inform what is considered desirable or not. Symbolic interactionism, therefore, provides a valuable lens for understanding how these shifting meanings directly influence whether students internalise thinness, muscularity, or larger body ideals, and subsequently engage in WCBs.

A key assumption of symbolic interactionism is that identity and self-perception develop through ongoing social interactions (Seror, 2019). For students transitioning into higher education, negotiating their identity becomes particularly important. As previous literature has highlighted, universities can function as obesogenic environments where family opinions, peer comparisons, media exposure, and food availability all converge to shape students' views of their bodies (Gradidge & Cohen,

2018; Deliens et al., 2014). Symbolic interactionism helps unpack how students make sense of these pressures in interaction with others, such as dieting as a friend group or collective weight training. These interactions position students' bodies as ongoing projects to be monitored and managed, rather than as fixed biological entities.

Within health sociology, symbolic interactionism has often been applied to the distinction between sickness and illness (Castro-Vazquez, 2020; Conrad, 2005). Sickness is a socially acknowledged state of being unwell that is accompanied by support and care (Conrad, 2005). This concept was first explained by Parsons in 1952, when he coined the term "sick role," which describes an unwell person as not being responsible for their illness and exempt from social obligations, such as work, on the basis that they actively seek help for their condition (Conrad, 2005). Illness on the other hand, is the personal experience of not feeling well influenced by cultural environments. Illness may not indicate the presence of disease (abnormality within the body associated with a condition), but rather how an individual's subjective perception of feeling unwell (Conrad, 2005). This distinction highlights how bodily experiences are filtered through subjective and cultural meanings rather than being reducible to medical categories. The example of body image dissatisfaction among individuals with "normal" BMI (Gruska et al., 2022) illustrates this point: the discrepancy between medical classifications of health and the individual's self-perception demonstrates how illness is experienced socially, not merely biologically. Similarly, South African studies showing that thinness is associated with illness (HIV/AIDS) in certain communities (Matoti-Mvalo & Puoane, 2011) highlight how the meaning of body size can move away from biomedical frameworks. These examples underscore the importance of symbolic interactionism in interpreting BMI not as an absolute truth but as a symbol, legitimised through medical authority, that shapes social judgments about obesity and health.

The medicalisation of obesity further illustrates the relevance of this theoretical lens. Conrad and Schneider's (1992) work on medicalisation argues that conditions once seen as social issues become reframed as medical problems requiring intervention. Obesity, framed as deviance from health norms, has been transformed into a "disease" to be diagnosed, managed, and treated. As studies in South Africa have

shown, the uptake of diet products like Herbex and Herbalife among students (Senekal et al., 2016) reflects not only individual health practices but also the influence of a broader medicalised discourse that equates engaging in WCBs with a certain body type and self-discipline. Symbolic interactionism explains how these meanings are spread across and internalised from families, peer groups, medical authorities and the media. Those who are deviant or break societal expectations are punished through discrimination and stigma. Weight stigma, conceptualised by Goffman (1963) as a disqualification from full social acceptance, is also critical here. Prior literature on family and peer influence (Horesh et al., 2015; Kenny et al., 2018) demonstrates how critical comments and teasing contribute to body dissatisfaction, while studies on social media (Holland & Tiggeman, 2016) show how symbolic exchanges like comments and likes on social media reinforce cultural ideals of the ideal body size. For students, the stigma attached to being outside of the normative body ideal, whether underweight, overweight, or not being muscular, creates powerful pressures to engage in WCBs. Symbolic interactionism helps situate these behaviours not simply as health practices but as socially negotiated responses to social. For the current study, which aims to investigate BMI, body image perceptions and WCBs among university students in Johannesburg, symbolic interactionism offers a framework that connects the individual-level experiences of body dissatisfaction with the broader cultural and interactional contexts shaping those experiences. Additionally, this theory allows for an understanding of how students' everyday interactions contribute to the meanings they attach to their bodies.

2.6.2 Postmodernism

Postmodernism, both as a historical period in the mid-20th century and as an epistemological framework, challenges dominant medical narratives by acknowledging the diverse explanations for societal phenomena (Dennett, 2000; Ellaway, 2020). For this study, the relevance of postmodernist perspectives lies particularly in Pierre Bourdieu's concept of habitus and Michel Foucault's notion of biopower. Both concepts enable an analysis that goes beyond the micro-level interactions emphasised by symbolic interactionism, to consider how larger structural, cultural, and institutional forces shape body ideals and WCBs.

Bourdieu's habitus refers to the embodied dispositions, tastes, and orientations that individuals acquire through upbringing and social class, which influence how they think, act, and perceive the world (Bourdieu, 2017). In terms of body image, habitus explains how societal norms around ideal body size are classed and contextual. For example, groups in urban middle and upper-class may value thinness in women and muscularity in men as markers of discipline and status, while rural or working-class groups may attach positive meanings to larger bodies as symbols of health or prosperity (Christensen & Carpiano, 2014; Prioreschi et al., 2017). This aligns with South African and broader African studies, which show that preferences for larger body sizes persist in some rural or lower-income contexts, while urban youth increasingly aspire to thinner, more globalised ideals (Mchiza et al., 2015; Radwan et al., 2019). Habitus, therefore, offers a way of understanding why students from different socioeconomic backgrounds within and outside Johannesburg may exhibit different body image perceptions and WCBs, depending on the symbolic capital attached to particular body types in their social environments.

Foucault's (2002) biopower, on the other hand, highlights how modern institutions regulate bodies at both individual and population levels. Through mechanisms such as public health campaigns, medical surveillance, and the normalisation of metrics like BMI, bodies are classified, disciplined, and brought under regimes of control (Foucault, 2002; Turner, 1992). This framework developed by Foucault in the 1960s is particularly useful for understanding how broader discourses about obesity and health promotion shape individual self-perception and behaviour. For instance, South African students' use of slimming products (Senekal et al., 2016) or dieting in response to health campaigns can be interpreted not only as personal choices but as outcomes of biopolitical pressures to conform to normative health ideals. The emphasis on BMI as a marker of "healthy" or "unhealthy" bodies illustrates the Foucauldian medical gaze, where the individual is reduced to a measurable body. This resonates with the earlier literature that revealed contradictions in body image research: for example, individuals with normal BMI often perceive themselves as overweight (Kabir et al., 2013; Puoane et al., 2010). Foucault's analysis helps explain how such misperceptions emerge from internalised surveillance and the societal labelling of "normal" versus "deviant" bodies.

When compared with symbolic interactionism, postmodernist theories add important layers of analysis. Symbolic interactionism privileges micro-level social interactions (family, peers, healthcare encounters) as the sites where meanings of the body are negotiated (Byczkowska-Owczarek, 2020). It is well-suited to examining how students in Johannesburg interpret comments from peers, family expectations, or social media messaging in shaping their body image and WCBs. However, symbolic interactionism can risk overlooking the structural and institutional dimensions of body regulation. This is where Bourdieu and Foucault are important. Habitus situates individual preferences within broader histories of class and culture, while biopower reveals how global and national institutions such as the media, government and health organisations set the boundaries of what counts as a "healthy" or "desirable" body. This triangulation of theories is important not only to analyse how Johannesburg students perceive their bodies and engage in WCBs, but also to understand why these perceptions and practices are shaped by intersecting micro-interactions, social structures, and institutional discourses.

2.7 Conclusion

This chapter examined the complex relationships among BMI, body perception, and weight regulation strategies, drawing on existing research and theoretical perspectives. The discussion began by addressing the influence of gender and sociocultural factors on body image perceptions and weight-related behaviours. While women are more likely than men to seek weight reduction due to internalised thinness ideals, men also experience body image concerns, particularly related to muscle dysmorphia. Family, peer, and media influences shape both body image perceptions and engagement in weight control behaviours. Socioeconomic status (SES) further affects these dynamics, as access to resources and education influences BMI scores and body image perceptions.

Subsequently, the chapter examined the development of BMI, body image, and WCBs, with a focus on university, African, and South African contexts. Body image is conceptualised as a multidimensional construct encompassing psychological, emotional, and cognitive components. The chapter highlighted the association between elevated BMI scores and negative body image, which can motivate both healthy and unhealthy weight management practices. The theoretical framework

integrates symbolic interactionism and postmodern perspectives. Symbolic interactionism emphasizes the role of social interactions in shaping body image and weight-related behaviours, while postmodern concepts, such as habitus and biopower, elucidate broader sociocultural forces influencing body standards and weight control strategies.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter details the methodological processes for this research, including the research approach and design, rationale, study setting, and population. The sample, data collection, analysis procedures, and measures for validity, reliability, trustworthiness, and ethics are also discussed. As a mixed-methods study employing both quantitative and qualitative methods, the research investigates associations between BMI, body image, and WCBs among university students in Johannesburg, as well as their lived experiences.

3.2 Research approach and design

A convergent mixed-methods approach was developed for comprehensive insight into complex phenomena like BMI, body image, and WCBs. Quantitative and qualitative data were collected concurrently, analysed separately, and later integrated for a fuller understanding of the research problem (Alwashmi et al., 2019; Creswell & Creswell, 2017).

The quantitative approach investigates numerical data and uses scientific explanations for phenomena (Clarke & Collier, 2015). It seeks to answer the "what" and "how many" questions, focusing on relationships within measurable variables. Therefore, problems are seen objectively by testing hypotheses through variables and numbers to get generalisation (Helmold & Helmond, 2019). On the other hand, the qualitative approach describes phenomena through non-numerical data and aims to capture participants' lived experiences (Oranga & Matere, 2023). Unlike quantitative data, it takes a subjective approach to problems and describes perspectives rather than testing hypotheses (Oranga & Matere, 2023). A mixed-

methods approach is important because it allows researchers to analyse two approaches within one study. It helps a researcher compare, contrast, or complement quantitative and qualitative results, which amplifies validity and helps the researcher gain a better understanding of the problem (Creswell & Clark, 2017). Triangulation merges quantitative methods with qualitative ones during the analysis stage. This approach was chosen as quantitative analysis measures BMI and associations with WCBs and body perceptions, while qualitative analysis uncovers underlying reasons and lived experiences; therefore, there would be better understanding of the study's topic.

3.3 Study settings

The research was conducted on the East and West campuses of the University of the Witwatersrand, in Johannesburg's central business district. The city is marked by high migration and socioeconomic inequalities (Vearey, 2017). Johannesburg has a poverty rate of 2.35 million and a Gini coefficient of 0.64, making it the world's second most unequal city (Statistics South Africa, 2012). These inequalities shape student experiences, including exposure to poverty, which affects academic life and health behaviours (Van Breda, 2017). The university was chosen for its diverse student population. Some students are from rural areas, others from urban areas, who rely on state funding like the National Student Financial Aid Scheme, and some come from middle-to-high income households. African students are the majority, making up 72.8% of the 2023 student count, but there is racial diversity. The university also attracts international students from sub-Saharan Africa (Wits, 2023). This diversity made it ideal for exploring different body ideals. The researcher's familiarity with the campuses made it easy to approach registered students, and it was cost effective as there were no commuting costs.

3.4 Study population

The target population was registered undergraduate and postgraduate students at the University of the Witwatersrand. Participants had to be over 18, as adults who can provide informed consent. Exclusion criteria included individuals under 18 years of age, unregistered students, and those who were uncomfortable discussing body-related questions. Restricting the population to registered students ensured that

responses came from the intended group. This was verified by checking age and registration status before participants signed the consent form.

3.5 Quantitative approach

This approach was used to capture socio-demographic information and provide a descriptive analysis of the participants, body image perceptions, and WCBs. It also aimed to determine associations with BMI. Data collection took place in February 2023 using a self-administered questionnaire on REDCap. The survey was chosen for being a quick, time-efficient way to gather information (Jones et al., 2013). The quantitative stage also identified eligible participants for in-depth interviews, held three weeks after the questionnaires.

3.5.1 Sampling

The sampling method used for the quantitative survey was stratified sampling. In stratified sampling, the population is divided into subgroups, or strata (Bless et al., 2013). This ensured both male and female students were represented. The sample was stratified by sex, then students were chosen by convenience sampling within each stratum. Participants were selected based on their availability to partake in the study.

3.5.2 Data Collection and Tools

The survey questionnaire was developed using available literature. The proposed questions were divided into four sections. The questionnaire was piloted before finalisation.

Pretesting the questionnaire

The survey questionnaire was piloted to verify that the questions were clear and to identify any potential issues before data collection. A link was sent to a group of friends who completed the survey and provided feedback. Additionally, four students (two male and two female) were asked at Wits' East Campus to participate in the pilot. None of the pilot participants took part in the main study. Unclear questions were rephrased. The approach to BMI was changed: instead of asking participants to use a graph, a formula in REDCap now calculates BMI after height and weight are entered. This change was made because the colour-coded chart included the

overweight and obese categories in red, which made participants uncomfortable. The new formula improved both ethical sensitivity and response validity.

The survey questionnaire

After the development of the questions, the survey that was created had four sections of closed-ended questions (see Appendix B attached). The first section included demographic questions, such as sex and age. A reason for using sex as a variable was the relatively small sample size; therefore, having multiple gender categories would have limited the statistical results. Additionally, BMI is influenced by biological factors such as hormones, fat and muscle, therefore it would have been appropriate to measure it against biological sex. However, participants could discuss their gendered experiences during qualitative interviews.

Race was not asked in the questionnaire as I decided that the sample size would be small to assume homogeneity within racial groups. The variables that were looked at were sex, family, and peer influence as well as SES (socioeconomic status). The second section was for the weight-related behaviour questions like the intention and methods used to try and lose weight. The third section was self-perception questions, and the last section included a figure rating scale (Appendix B1 attached). A figure rating scale is a visual assessment tool that presents images of bodies of various sizes; participants can choose the figure that most closely represents their perception or ideal, which helps in measuring attitudes towards different body sizes (Selman & Rushton, 2024). The scale that was used in this study is a modified and adapted version of the Stunkard's rating scale by Mooted (2014), with the silhouettes increasing in size; figure A represented the thinnest body type and H the biggest. The questionnaire was administered through REDCap because of its simple functionality and because this site offered secure and private storage of the data.

Since the sampling was stratified, male and female students were approached randomly for two days at the Matrix food centre on the east campus and Jimmy's food square on the west campus during lunch hour (12:00–14:30). As a result, students who spent more time in the food courts were more likely to be recruited than those who did not. This may have skewed the sample toward students with more disposable money to spend on food, while underrepresenting those without.

However, triangulating data with qualitative narratives strengthened validity by providing measurable associations between BMI scores, body image perceptions, and WCBs, and by exploring the social meanings of these associations.

Once the purpose and benefits of the study were explained (see Appendix A), the potential participants were given a phone that had a link to REDCap already open. This ensured that participation in the study was voluntary, and participants were informed that they could pull out of the study at any time but had to complete all the questions, as the following question only appeared once the preceding question was recorded. The first page of the survey had an informed consent form. Giving the phone to the participants ensured that I could not influence their responses and ensured confidentiality. Although they had to provide descriptive information and their phone numbers, no identifying information was accessible to anyone other than the researcher. The in-person surveys were conducted to ensure a higher response rate.

The total responses that were collected were sixty-six (N= 66). This number was deemed sufficient for the purpose of the research. The study population was drawn from one tertiary institution and thus, the focus was not on generating statistically representative findings at a national level but contextual meanings from this pool. Additionally, the sensitive nature of the study and time limitations contributed to the final sample size. After the completion of the survey, participants were informed if that there was a second stage to the study- the in-depth interviews. If they fit the criteria, they would be contacted through calls to take part in this next stage.

3.5.3 Measurements

BMI was calculated from the self-reported weight (in kilograms) and height (in centimetres), which were automatically computed on REDCap. The adapted figure scale (Appendix B1) was used to measure perceptions of body size and attitudes.

3.5.4 Data analysis

The survey responses were exported into the Statistical Package for Social Sciences (SPSS) version 18. A descriptive analysis section explained the characteristics of the sample such as age and sex. There were thirty-one (31) male students and forty-six (46) female students During this stage, the sample size

remained as N= 66. However, a decision was taken to exclude participants who did not know their height and weight from the analysis of the association part of the analysis. It was discovered that these responses were generating "missing values" on SPSS. This post hoc exclusion was implemented to ensure reliable and accurate results. This created a subset of forty-six participants whose responses were conducted through chi-square tests. Chi-square tests were chosen as they are appropriate for categorical data.

Responses along BMI categories to whether participants compared their bodies to those of others in media, their families and peers were used to determine the association between BMI scores and social influence. Responses along BMI categories, indicated whether participants were the first members of their families to attend university and could afford their basic needs, were used to determine the association between BMI scores and socioeconomic status. Differences in responses according to sex determined the association between BMI and sex, while responses to questions regarding their body perceptions were compared across BMI categories to evaluate body image. Statistical difference was calculated at $p<0.05$. The results are presented in tables and graphs.

3.5.5 Validity and Reliability

According to Heale and Twycross (2015), validity refers to the extent to which an individual can evaluate the proposed purpose of the study, while reliability can be defined as the extent to which a repetition of the study will yield the same results. This was achieved by creating an instrument inspired by existing literature, consulting with supervisors, and performing a pilot study to identify and rectify any issues. The removal of participants who did not know their weight and height measurements also ensured validity. Triangulation between survey and interview responses also strengthened validity and reliability.

3.6 Qualitative approach

According to Bless et al. (2013), qualitative research is used to discover the respondents' opinions on an individual level. One gets a view into the respondent's lives as they respond to open-ended questions in a semi-structured interview. This approach was chosen to better understand the social influences that shape body

image and WCBs. The qualitative stage of the data collection took place three weeks after the completion of the quantitative stage.

3.6.1 Sampling

Purposive sampling is the technique that was chosen for this part of the study process. It involves selecting participants who have specific characteristics or knowledge about a research problem (Klar & Leeper, 2019; Palinkas et al., 2015). This was to ensure the inclusion of participants with the most relevant experiences related to the topic, such as those who were actively engaged with changing their body size and therefore took part in WCBs. All the respondents took part in the quantitative survey questionnaire first and were chosen as key informants based on the following:

- knew their height and weight measurements.
- were available for a follow-up interview.
- wanted to lose or gain weight 12 months before the interview.

The final sample were eight respondents, that comprised of five female and three male students.

3.6.2 Data collection tool

A semi-structured interview guide (Appendix E attached) was drawn up as part of the study. It consisted of open-ended questions related to the survey questions. This was to get in-depth information to respond to the study's objectives. Interviews can help researchers gather information about a respondent's social and subjective experiences through direct interactions with participants (Bless et al., 2013; Monday, 2020). This was chosen as it allowed the respondents to air their opinions and influences on what shapes their body image perspectives and for the researcher to get more personal perspectives about body mass, body image and WCBs.

3.6.3 Data collection

Three weeks after the completion of the quantitative survey, respondents who satisfied the eligibility requirements for the qualitative phase were called to participate in a semi-structured interview. These interviews were conducted

individually in available Sociology tutorial rooms on the east Campus. Doing this facilitated quiet and private settings for detailed exploration of survey responses and privacy Each interview lasted close to 30 minutes, and all responses were captured in one day. Respondents were encouraged to elaborate on their experiences and perspectives related to WCBs and factors that influenced their body image perceptions. With informed consent (see Appendix D), all interviews were audio-recorded to ensure accurate data capture and allow for subsequent analysis of both verbal and non-verbal cues (e.g., pauses, tone, body language). Participants were informed of their right to withdraw or not answer any question at any time without consequence (this was stated in the second participation form or Appendix C); however, none did

3.6.4 Data analysis

The audio-recorded interviews were transcribed and uploaded into ATLAS.ti for the qualitative part. Initial codes were recognised and colour-coded before the themes were discovered. Thematic coding allows the researcher to identify patterns in the data that were organised depending on differences and similarities; this was why it was used (Williams & Moser 2019). The themes that emerged were body satisfaction, social exclusion and the fit of clothes, family, and friends as the foundation of body concerns, airbrushed images, discipline equals success and medicine’s influence.

3.6.5 Trustworthiness

To accurately represent the respondents' opinions and perspectives about body image, weight control behaviours and BMI, the interviews were audio recorded and transcribed verbatim.

3.6.6 Reflexivity

According to Heale and Twycross (2015), reflexivity is how much a researcher relates to the study and respondents in qualitative research. Being a student at the same institution facilitated access to participants. The shared identity might have minimised obstacles between researchers and subjects, cultivating trust and prompting more candid conversations. A potential difficulty, however, was participants' apprehension of being evaluated by someone sharing a similar social

context. Identifying and presenting myself as a female would have other female participants feel comfortable to show their stories with me but moderate male responses who did not want to discuss sensitive topics with a researcher that is woman presenting. In addition, I made a deliberate choice to wear non-fitted clothing throughout the interviews. This decision was made to minimise the influence of my own body presentation on participants' comfort levels and responses. Reflexivity was maintained throughout the study by keeping detailed notes on the researcher's own feelings, assumptions, and potential biases during and after each interview. These notes provided a space for the researcher to critically reflect on how my positionality as a female student in the same institution may have influenced the data. For instance, she considered whether participants' responses might have been shaped by shared cultural references, peer dynamics, or assumptions about her personal perspective on body image. By making these reflections explicit, the study acknowledges that the researcher is not a neutral observer but an active participant in the research process.

3.7 Ethics considerations

The School of Social Sciences Ethics Committee deemed this as a low-risk study and granted me permission to conduct the study. The purpose of the study was clearly stated when approaching potential candidates and verbally and written down scope of the study was stated. Participants were informed that issues around body size and body image would be discussed. A reason for this was that discussions on the two topics can sometimes evoke strong emotions and carry the potential of discomfort and discrimination. The informed consent gave participants a choice in whether they wanted to be involved in the study or not.

Participation in the study did not cause harm or discomfort, but participants could pull out of the study at any time. This ensured that they did not feel coerced to share any information that made them uncomfortable. The project was intended for research purposes and did not have any benefits. To ensure confidentiality, no traceable information could be exposed, and only the researcher had access to the participants' survey/ interview responses and audio tapes. Confidentiality was maintained as only the researcher had access to personal information such as phone numbers. Participants' identities were protected with pseudonyms, ensuring

that any disclosures could not be traced back to individuals. Data was stored securely and safeguarded. The concept of respect was honoured by first explaining the purpose of the study and having the participants sign an informed consent form, agreeing to participate in the study without coercion. the interview questions were framed in neutral and respectful manner. Terms like overweight and skinny were not used to describe individuals. Nobody withdrew from the study.

3.8 Conclusion

This chapter detailed how the approach taken to investigate the relationship between BMI, body image, and WCBs among university students in Johannesburg was a mixed-methods approach. It combined quantitative survey data and qualitative interviews to better understand the research problem better. Therefore, the self-administered questionnaire examined the relationship between BMI and sociodemographic factors and behaviours, while the qualitative interviews investigated the lived experiences and perceptions surrounding body image and WCBs. The chapter outlined the setting, population, and other methods on how the study was conducted. Furthermore, it addressed measures taken to ensure the research's validity, reliability, and trustworthiness, as well as the ethical considerations adhered to throughout the study process, including reflexivity on the part of the researcher. The following chapters will present the findings from both the quantitative and qualitative data analyses, integrating them to address the research questions and provide a nuanced understanding of the interplay between BMI, body image, and WCBs in this specific population.

CHAPTER 4: QUANTITATIVE RESULTS

4.1 Introduction

This chapter will present the quantitative results of the study according to the study objectives mentioned earlier. It will include a descriptive statistics section and an analysis of the association.

4.2 Demographics

This section of the chapter describes the composition of the full sample (N=66).

4.2.1 Sex

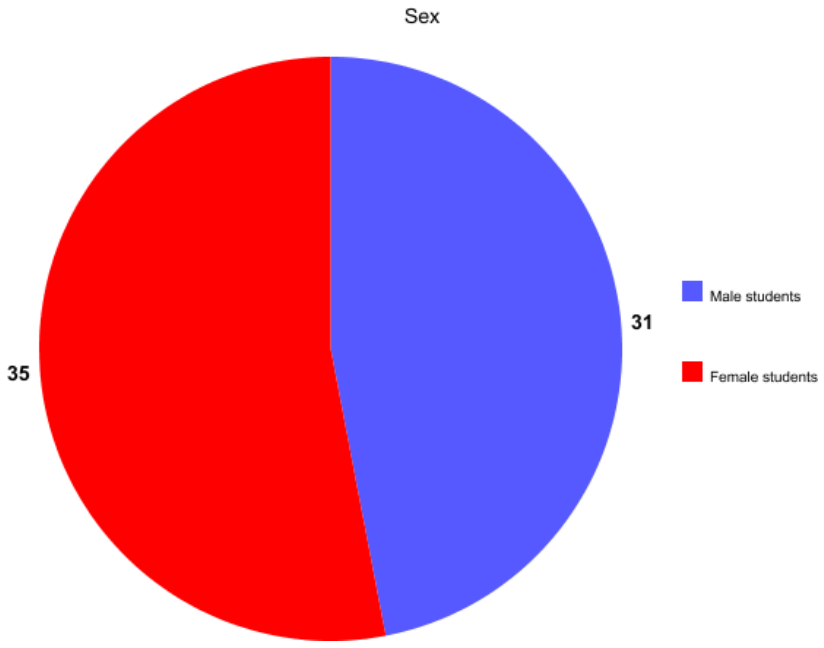


Figure 1: Pie chart representing students' sex.

This graph shows how the female and male participants were distributed in the sample size (N=66). 31 students (47%) were male and 35 (53%) were female.

4.2.2 Age

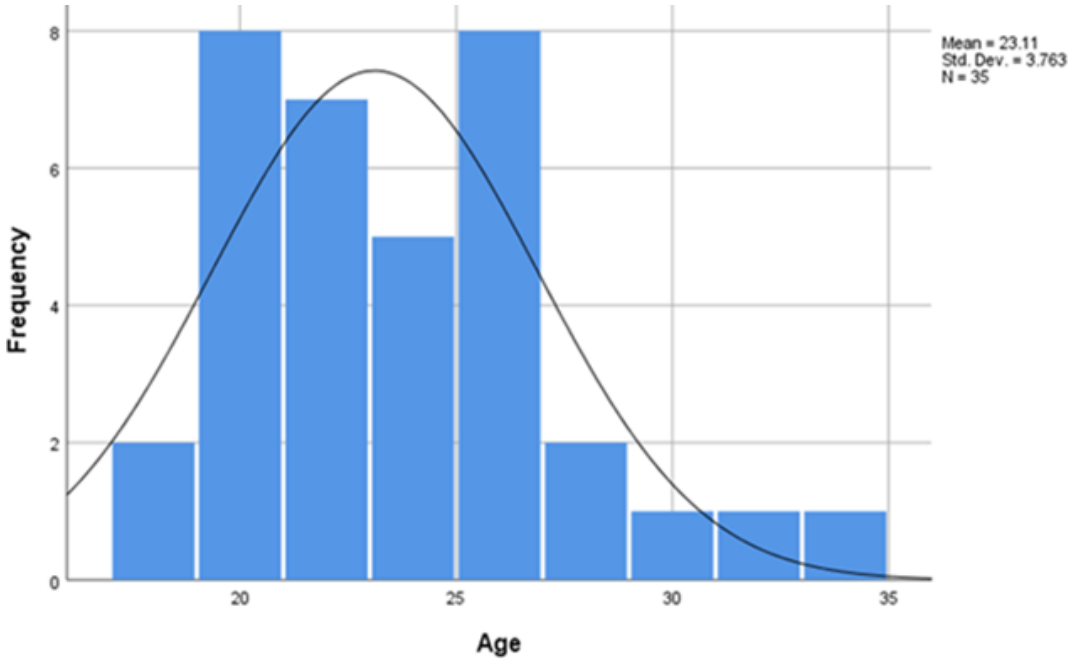


Figure 2: Histogram showing the age distribution of female participants.

Figure 2 shows the distribution of age among female students. The youngest participants were 18 years old, and the oldest was 35, with the mean age being 23 years old.

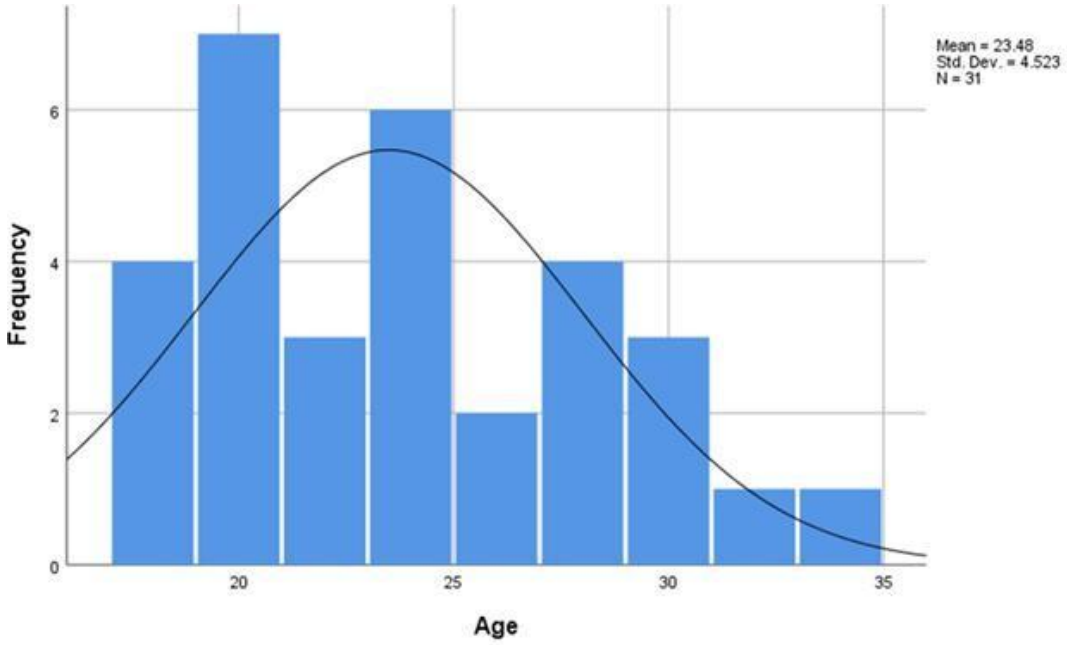


Figure 3: Histogram showing the distribution of age among male participants.

Figure 3 shows the distribution of age among males. The youngest participants were 18 years old, and the oldest was 35, with the mean age being 23 years old.

4.2.3 Geographical location

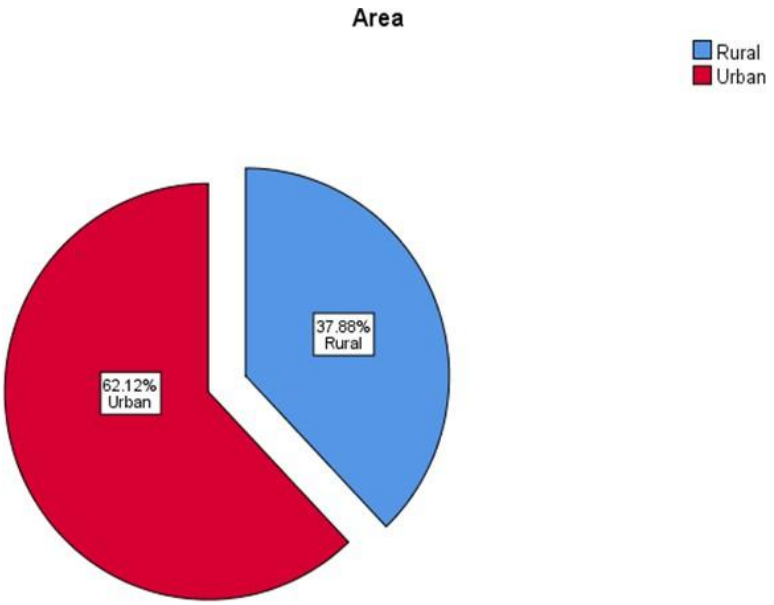


Figure 4: Pie chart representing the students' geographical location or background.

Figure 4 shows the participants' geographical background and where they live majority of their lives. From a sample size of sixty-six (N=66), 62% grew up in urban areas while 38% grew up in areas considered to be rural.

4.2.4 BMI scores

Knowledge of BMI metrics

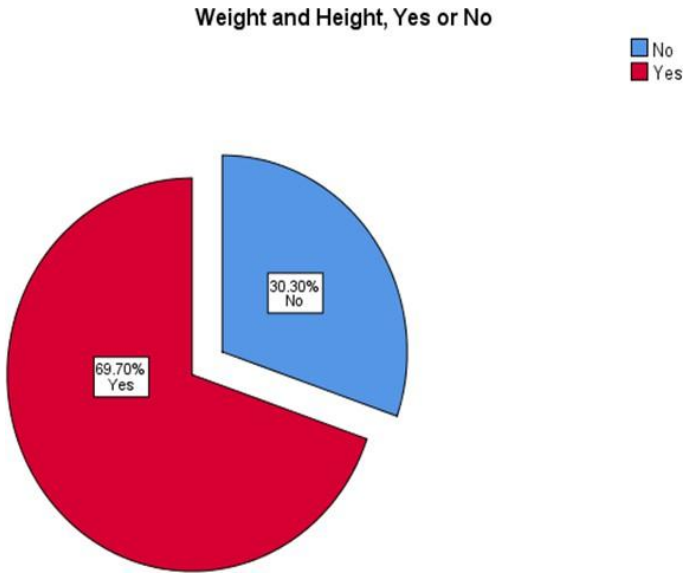


Figure 5: Pie charting showing the percentages of people who knew/ did not know their weight and height measures.

Sixty-six students who took part in the study were asked if they knew their heights and weights to determine their BMI score and category; 46 students (69.70%) responded "yes," while 20 students (30.30%) did not know their weight and height measures.

BMI categories

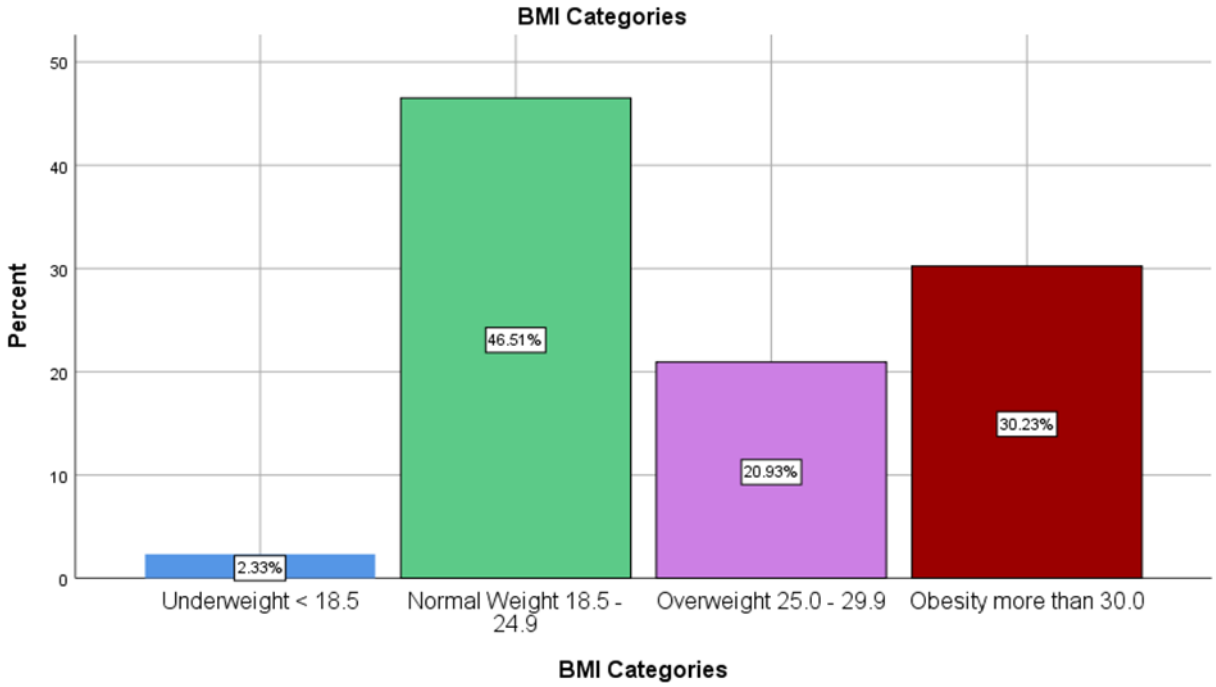


Figure 6: Bar graph showing the sample's BMI's scores.

A formula was created in REDCap that calculated the BMI scores of the 46 participants by using their height and weight measurements. The results showed that one person was underweight (2.33%), 21 participants were under the normal category (46.51%), 10 participants (20.93%) fell under the overweight category, and 14 participants were obese (30.23%).

4.2.5 Socioeconomic status

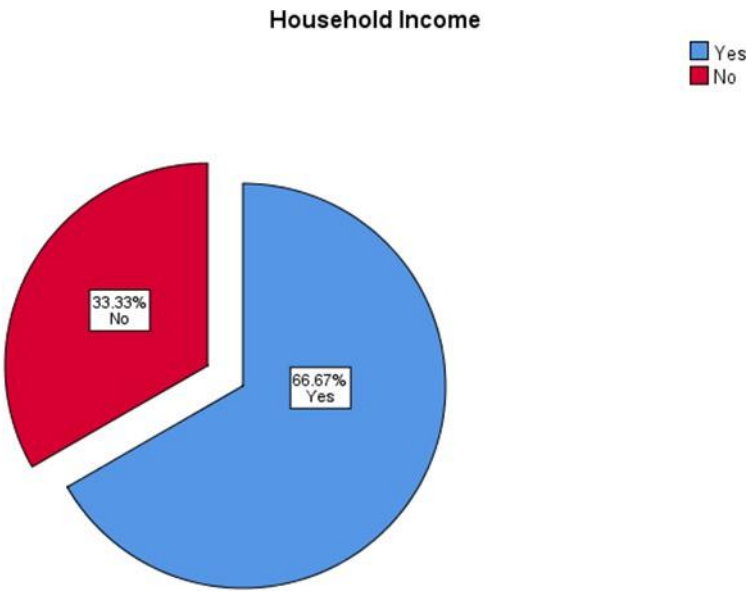


Figure 7: Pie chart showing how many of the participants had a household income that covered their needs.

Figure 7 shows that out of the sample size of 66, 44 participants (66%) of the participants had a household income that covered their needs, while 22 (33%) did not.

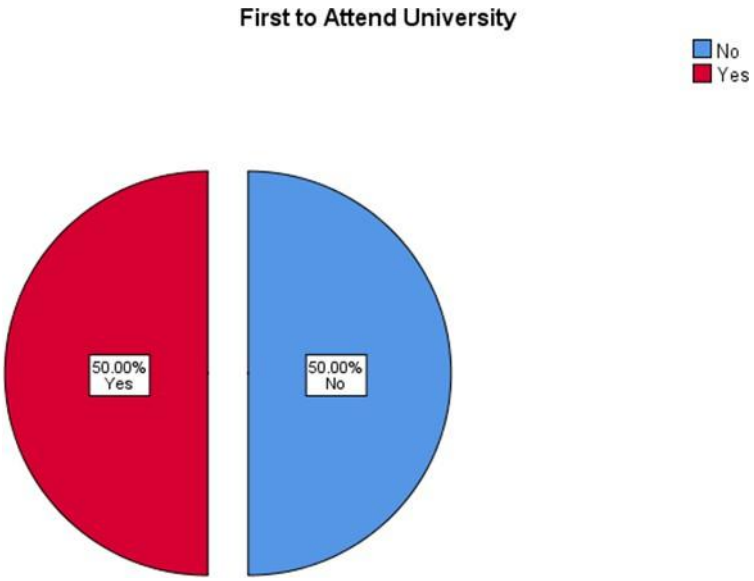


Figure 8: Pie chart showing whether the participants were the first in the family to attend university.

Out of the sample size of 66, 33 participants were the first in their family to attend university, but an equal number of participants (33) were not.

4.3 Perceived body size

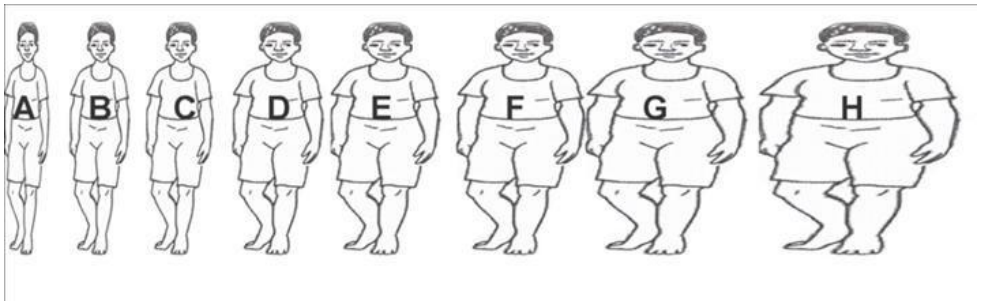


Figure 9: A figure scale used to answer questions about body perception (Mokotedi, 2014).

The figure scale above was used to answer questions pertaining to who the participants thought was thin or not and who they deemed closed to their body size.

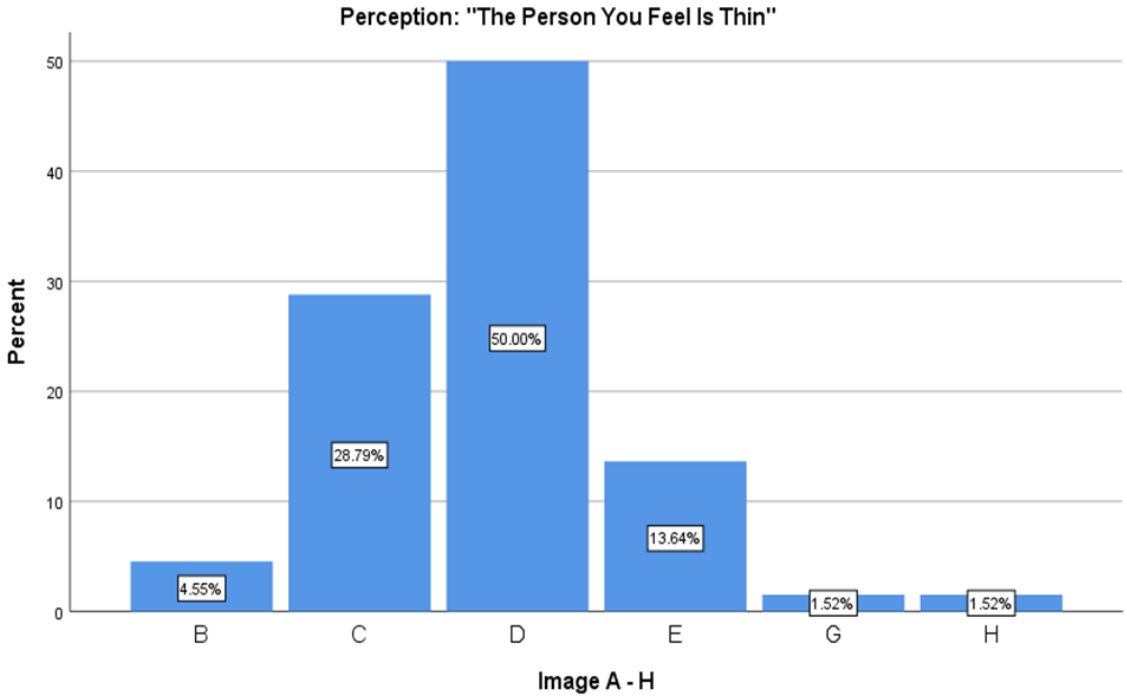


Figure 10: Bar graph showing who the participants thought was thin.

Majority of the population (50%) believed that Image D from the figure scale was the thinnest, followed by Image C that 28.79% chose.

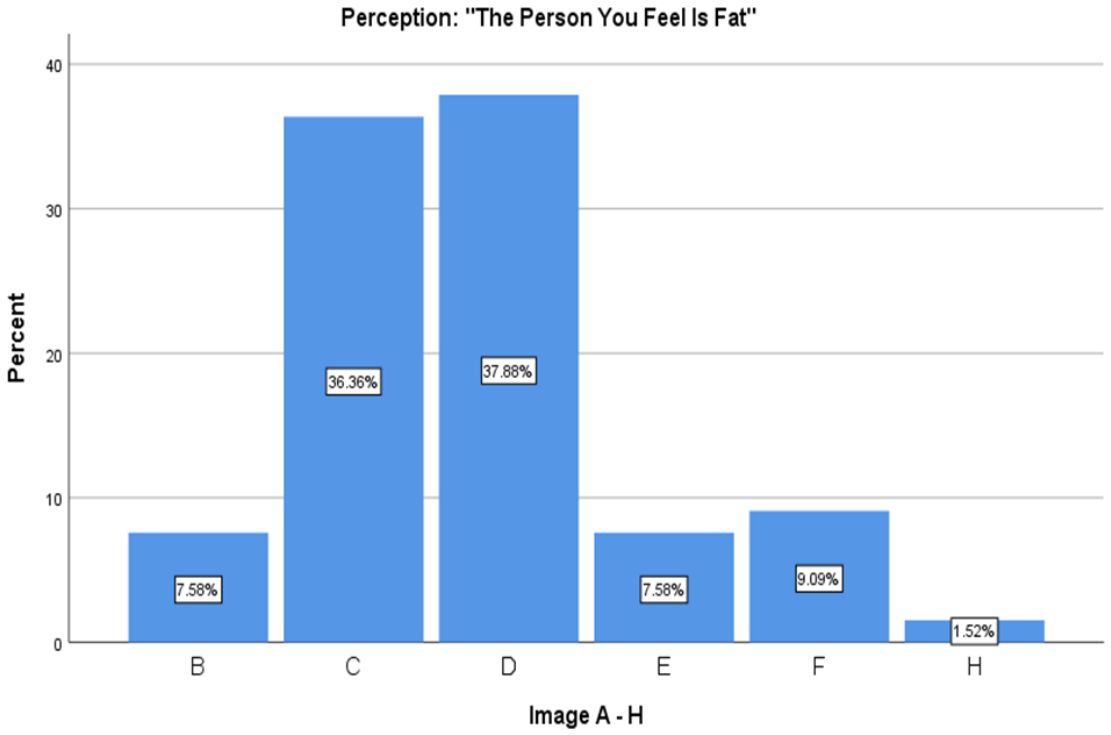


Figure 11: Bar graph showing who participants thought was fat.

At the same time, Image C and D were chosen from the figure scale as representing the person the participants thought was fat.



Figure 12: Bar graph showing who looked best.

Image E, F, G and H were chosen by 7.58% (individually) as the image participants thought looked the best while majority of the participants chose Image D as the person who looked the best.



Figure 13: Bar graph on image that looked like them.

Majority of the participants thought that they looked like Image C from the figure scale, while 9% thought that they looked like Image F and none thought they looked like Image H.

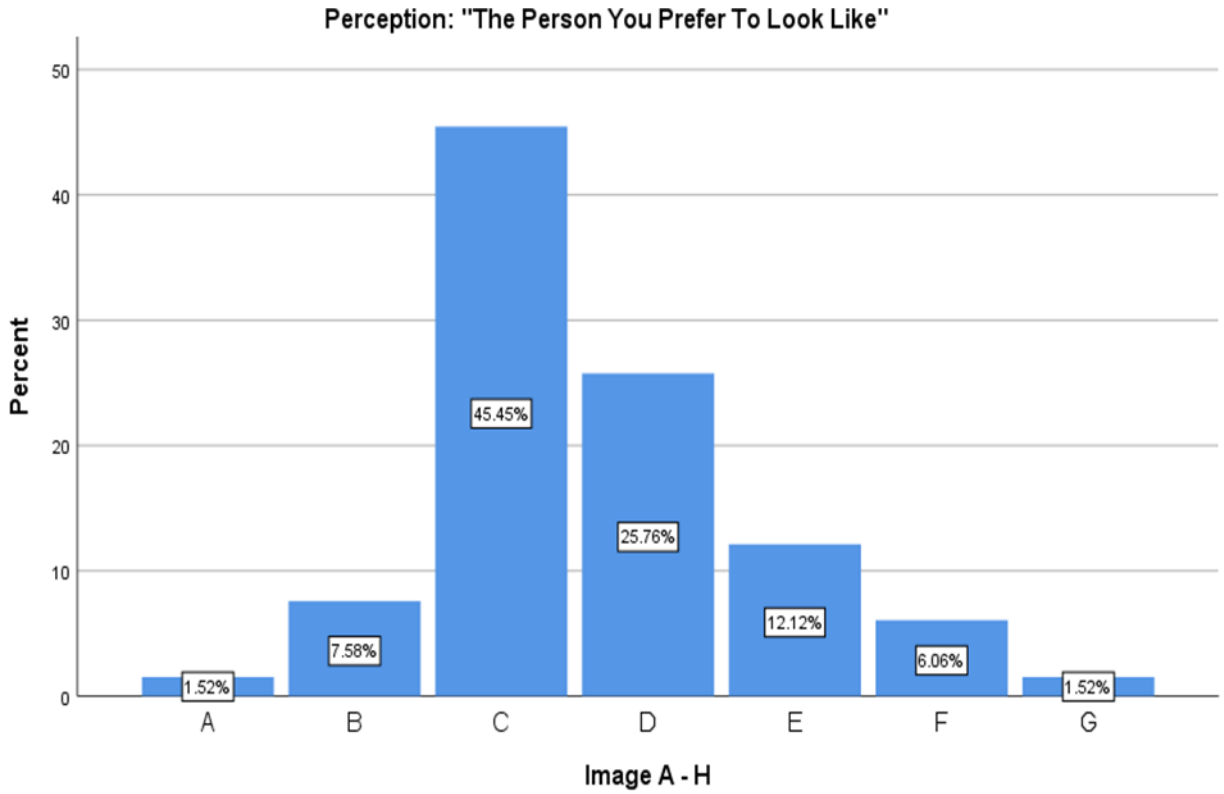


Figure 14: Bar graph showing their preferred to look.

Majority of the participants (45.45%) preferred to look like Image C, none wanted to look like Image H and only 1.52% wanted to look like Image A or Image G.

4.4 Weight control behaviours

	Freq. (N)	**Percent (%)**
Intention to lose weight		
Yes	28	42.4
No	38	57.6
Methods of Weight Loss		
Dieting	7	25.0
Taking Weight Pills	2	7.1

Exercising	12	42.9
Eating Less	6	21.4
All the Above	1	3.6
Intention to gain weight		
Yes	14	22.6
No	48	77.4
Frequency of Exercise		
Never	3	4.5
Rarely	17	25.8
Sometimes	24	36.4
Regularly	22	33.3

Table 1: the different weight control behaviours

Table 1 shows the different weight control behaviours that the participants engaged in among the sample size of 66. 28 participants (42%) had tried to lose weight in the past year, while 14 students had intentions to gain weight. The preferred methods to lose weight were dieting at 25% and exercising at 42.9%.

4.5 Analysis of association

	Underweight **< 18.5**	**Normal weight** **18.5 - 24.9**	**Overweight** **25.0- 29.9**	**Obese** **>30**		
					Chi-square	**Significance**
Sex					3.813	0.282

Male	1 (2.3)	12 (27.9)	4 (9.3)	4 (9.3)		
Female	0 (0.0)	8 (18.6)	5 (11.6)	9 (20.9)		
Intention to lose weight					9.426	0.024
Yes	0 (0.0)	5 (11.6)	4 (9.3)	10 (23.3)		
No	1 (2.3)	15 (34.9)	5 (11.6)	3 (7.0)		
Methods applied to lose weight					9.880	0.274
Dieting		0 (0.0)	1 (5.3)	6 (31.6)		
Exercising		2 (10.5)	2 (10.5)	1 (5.3)		
Taking weight pills		1 (5.3)	0 (0.0)	0 (0.0)		
Eating less		2 (10.5)	1 (5.3)	2 (10.5)		
All the above		0 (0.0)	0 (0.0)	1 (5.3)		
Intention to gain weight					8.102	0.044
Yes	0 (0.0)	7 (17.1)	1 (2.4)	0 (0.0)		
No	1 (2.4)	11 (26.8)	8 (19.5)	13 (31.7)		
Frequency of exercising					18.467	0.005

Rarely	0 (0.0)	4 (9.3)	0 (0.0)	3 (7.0)		
Sometimes	0 (0.0)	4 (9.3)	9 (20.9)	6 (14.0)		
Regularly	1 (2.3)	12 (27.9)	0 (0.0)	4 (9.3)		
How does your weight make you feel?					6.266	0.713
Insecure	0 (0.0)	2 (4.7)	1 (2.3)	3 (7.0)		
Uncomfortable	0 (0.0)	4 (9.3)	3 (7.0)	5 (11.6)		
Good	1 (2.3)	9 (20.9)	2 (4.7)	3 (7.0)		
Unconcerned	0 (0.0)	5 (11.6)	3 (7.0)	2 (4.7)		
What do you feel accurately represents your weight?					29.489	0.001
Underweight	1 (2.3)	2 (4.7)	1 (2.3)	0 (0.0)		
Normal weight	0 (0.0)	16 (37.2)	7 (16.3)	3 (7.0)		
Overweight	0 (0.0)	2 (4.7)	1 (2.3)	8 (18.6)		
Very overweight	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)		

Do you think you are thin?					17.416	0.135
Always	0 (0.0)	1 (2.5)	1 (2.5)	0 (0.0)		
Often	0 (0.0)	1 (2.5)	0 (0.0)	0 (0.0)		
Sometimes	1 (2.5)	8 (20.0)	2 (5.0)	0 (0.0)		
Rarely	0 (0.0)	2 (2.5)	5 (12.5)	6 (15.0)		
Never	0 (0.0)	7 (17.5)	1 (2.5)	5 (12.5)		
Family and friends think I'm thin					13.594	0.035
Never	0 (0.0)	7 (17.5)	3 (7.5)	8 (20.0)		
Rarely	0 (0.0)	4 (10.0)	5 (12.5)	3 (7.5)		
Sometimes	1 (2.5)	8 (20.0)	1 (2.5)	0 (0.0)		
Do you think you are fat?					26.391	0.002
Never	0 (0.0)	13 (32.5)	2 (5.0)	0 (0.0)		
Rarely	0 (0.0)	1 (2.5)	3 (7.5)	1 (2.5)		
Sometimes	1 (2.5)	4 (10.0)	4 (10.0)	5 (12.5)		

Regularly	0 (0.0)	1 (2.5)	1 (2.5)	5 (12.5)		
Family and friends think I'm fat					23.017	0.006
Never	0 (0.0)	11 (27.5)	4 (10.0)	1 (2.5)		
Rarely	1 (2.5)	2 (2.5)	4 (10.0)	1 (2.5)		
Sometimes	0 (0.0)	5 (12.5)	1 (2.5)	4 (10.0)		
Regularly	0 (0.0)	1 (2.5)	0 (0.0)	5 (12.5)		
Do you compare your body size to those in the media?					1.803	0.614
Yes	1 (2.3)	9 (20.9)	5 (11.6)	8 (18.6)		
No	0 (0.0)	11 (25.6)	4 (9.3)	5 (11.6)		
Do you compare your body size to that of your social circle?					2.689	0.442
Yes	0 (0.0)	11 (25.6)	4 (9.3)	9 (20.9)		

No	1 (2.3)	9 (20.9)	5 (11.6)	4 (9.3)		
Do you value other people's opinions on your physical appearance ?					1.239	0.744
Yes	1 (2.3)	10 (23.3)	5 (11.6)	8 (18.6)		
No	0 (0.0)	10 (23.3)	4 (9.3)	5 (11.6)		
What do you think causes body insecurity?					14.473	0.272
Family	0 (0.0)	6 (14.0)	0 (0.0)	4 (9.3)		
Friends	0 (0.0)	2 (4.7)	3 (7.0)	2 (4.7)		
Media	1 (2.3)	1 (2.3)	3 (7.0)	3 (7.0)		
Own perceptions	0 (0.0)	10 (23.3)	3 (7.0)	4 (9.3)		
Other	0 (0.0)	1 (2.3)	0 (0.0)	0 (0.0)		
What do you believe					7.254	0.950

influences body size?						
Medication	1 (2.3)	7 (16.3)	4 (9.3)	3 (7.0)		
Genetics	0 (0.0)	1 (2.3)	0 (0.0)	2 (4.7)		
Kind of food consumed	0 (0.0)	3 (7.0)	2 (4.7)	1 (2.3)		
Amount of food consumed	0 (0.0)	1 (2.3)	0 (0.0)	1 (2.3)		
Limited physical activity	0 (0.0)	2 (4.7)	0 (0.0)	1 (2.3)		
All the above	0 (0.0)	6 (14.0)	3 (7.0)	5 (11.6)		
How would you describe the relationship with your body					2.635	0.451
Positive	1 (2.3)	14 (32.6)	6 (14.0)	6 (14.0)		
Negative	0 (0.0)	6 (14.0)	3 (7.0)	7 (16.3)		

Table 2*: Results from chi-square tests looking at associations along BMI categories.*

This section shows the analysis of association conducted on the subset of 46 participants (N= 46). The main reason for the reduction of size was that the other 20 participants did not know their weight and height metrics. BMI scores generated

from these metrics were necessary in this small-scale study to conduct chi square tests. Table 2 shows the results of the chi-square tests.

4.5.1 Sex

H0: there is no association between the students' sex and BMI scores.

Ha: there is an association between the students' sex and BMI scores

The p-value or significance value of sex is 0.282> 0.05, therefore we can conclude that there is no statistically significant difference between the sexes. For this reason, the null hypothesis is not rejected but accepted. Overall, this means that there is not enough evidence to prove that there is an association between students' sex and BMI scores.

4.5.2 SES

H0: there is no association between the students' SES and BMI scores.

Ha: there is an association between the students' SES and BMI scores

Question	p-value
Did the household income cover all your needs?	0.478
Place of residency	0.149
Did your family afford the things you wanted?	0.478
Are you the first to attend university?	0.462

Table 3: Questions relating to socioeconomic status.

From the p-values, we can conclude that none of them are lesser than 0.05, therefore, we cannot reject the null hypothesis that states that there is an association between students' SES and their BMI scores. Thus, there is not enough evidence to show that there is an association between SES and BMI scores.

4.5.3 Social circle and media exposure

Media exposure

H0: there is no association between media exposure and students' BMI scores.

Ha: there is an association between media exposure and students' BMI scores

Question	p-value
Do you compare your body size to that of images in the media?	0.614
What do you think is the cause of body insecurity?	0.272

Table 4: *Questions relating to media's influence.*

From the p-value of the questions related to media (0.614 and 0.272), which are higher than 0.05. Therefore, we fail to reject the null hypothesis and can conclude that there is not enough evidence to show that there is an association between students' media exposure and BMI scores.

Family and Peer influence.

H0: there is no association between family and peer influence and their BMI scores.

Ha: there is an association between family and peer influence and their BMI scores

Question	p- value
Do you compare your body size to that of your social circle?	0.442
Do your family and friends think you are thin?	0.035
Do your family and friends think you are fat?	0.006

Table 5: Questions relating to family and peer groups' influence.

From the p-value of the questions related to family and peer groups, we can conclude that the majority are higher than 0.05. Therefore, we accept the null hypothesis and can conclude that there is an association between family and peer influence and BMI scores.

4.5.4 Body Image Perceptions

H0: there is no association between body image perceptions and BMI scores.

Ha: there is an association between body image perceptions and BMI scores

To evaluate the relationship between body image and BMI scores, the following questions were presented:

Question	p-value
How does your body size make you feel?	0.713
Do you think you are thin?	0.135
Do you think you are fat?	0.002
What do you accurately feel represents your weight?	0.001

Table 6: Questions relating to body image perceptions.

Majority of the questions (4/6) are lesser than 0.05. This means that we can reject the null hypothesis. To conclude, we can state that there is an association between body image perceptions and BMI scores.

4.5.5 WCBS

H0: there is no association between weight control behaviours and BMI scores.

Ha: there is an association between weight control behaviours and BMI scores

Question	p-value
In the past year, have your tried to lose weight?	0.024
Which methods did you use?	0.274
In the past year, have you tried to gain weight?	0.044
Frequency of exercising	0.005

Table 7: Questions relating to weight control behaviours.

The p value for those that tried to lose weight (0.024), tried to gain weight (0.044) and the exercising frequency (0.005) is less than the significance threshold (0.05),

therefore we reject the null hypothesis and state that there is an association between weight control behaviours and BMI scores.

4.5.6 Relationship with the body

H0: there is no association between a relationship with body and BMI scores.

Ha: there is an association between a relationship with body and BMI scores.

There was a question asking if the individuals had a negative or positive relationship with their bodies and the results from the chi-square show that the significance was 0.451. Thus, we fail to reject the null hypothesis and can conclude that there is not enough evidence to show that there is an association BMI scores and relationship with the body.

4.6 Conclusion

The quantitative findings of this study reveal significant correlations between BMI, body image perceptions, and WCBs. These results underscore the significant impact of body dissatisfaction on weight management practices. However, no significant association was found between gender or SES and BMI. Weight control behaviours were more linked to perceived body dissatisfaction than to actual BMI classification. These findings provide a foundation for further qualitative exploration to better understand the sociocultural dynamics underlying body image concerns and weight-related behaviours. They also lay the groundwork for the discussion chapter, where these results will be examined in the context of gender norms, social media and peer influence and health discourses.

CHAPTER 5: QUALITATIVE RESULTS

5.1 Introduction

The following chapter examines the responses given during the semi-structured interviews. Firstly, a description of the students' demographics is provided, followed by the themes that emerged.

5.2 Demographic characteristics

Eight participants were recruited to participate in the in-depth interviews. They were selected based on whether they knew the weight and height measurements, had been trying to lose or gain weight in the past year and were available to participate in the interviews. Pseudonyms were given to not infringe on their confidentiality.

Pseudonym	**Sex**	**Age**	**Body image perception and attitude**
Ronald	Male	24	Neutral but desires to tone up
Anastasia	Female	31	Had a negative body image in the past but now has a positive perception
Fatima	Female	25	Negative
Jana	Female	22	Negative
Nqobile	Male	23	Positive, previously dissatisfied
Mohammed	Male	20	Negative
Dimpho	Female	19	Neutral

Khethiwe	Female	27	Negative

Table 8: descriptive characteristics of the qualitative sample

5.3 Themes

5.3.1 Body satisfaction

Participants were asked to describe the relationship with their bodies and the theme that emerged was body (di)satisfaction. Some participants had positive ones while others felt negatively towards their bodies. Some expressed having negative attitudes in the past which have changed such as 31-year-old Anastasia who noted:

> *"I have a good relationship with my body, I am focused on making sure that she is happy and healthy. I was very critical of it in the past but now? I am grateful for what it does for me. I have a life because of my body and that's something not to be taken for granted."*

This shows that her body image evaluation moved from being aesthetic based to appreciating her body' functionality. Anastasia's age could be an influence for this transition.

Just like Anastasia, Nqobile, a male student aged 23, struggled with how their body looked in the past but has come around to appreciate it. He stated how his weight gain might have helped with this:

> *"It might have been gaining some weight or finally accepting that this is my body and there is not much I can do to change it. I would like to gain more weight, but I am happy with the body I have now."*

Anastasia and Nqobile's statements reveal negotiation strategies where the past negative feelings they had changed to embracing self-acceptance.

Some participants were dissatisfied with their body sizes. Male students like Ronald (24) and Mohammed's (20) dissatisfaction were rooted in feeling compelled to be bigger and muscular. Ronald was dissatisfied with his body and stated:

> *"I would not say that I am satisfied with my body right now. I want to tone up my arms and quads.*

Mohammed's statement aligns with Ronalds in that he believed he was too skinny and wanted to buff up to:

> *"People will ask you how you how you will carry your girlfriend if you are skinny, a man should be manly*"

Another student, Khethiwe (27, female) voiced frustration over specific body areas:

> *"My tummy is my problem area…I can diet and exercise, but it won't go away. Lesisu (stomach) makes me self-critical whenever I look in the mirror or wear fitted clothes"*

Meanwhile Jana, a 22-year-old female student stated how she was dissatisfied with her body size:

> "*If I could take a scissors and cut the parts I don't like, I would…within a heartbeat."*

These statements link the theme with objective two that sought to link body image dissatisfaction with WCBs. These responses show that body dissatisfaction happens among all genders on different levels but puts an emphasis on how body ideals are gendered, and body image concerns are socially constructed. The female participants indicated wanting a body preference that was a hybrid mix of the voluptuousness that was often associated with most societies in the Global South and slenderness associated with ideals from the Global North. This speaks to how young women are active participants and negotiate body ideals to fit into their contexts. Feelings of dissatisfaction are embodied with examples such as being annoyed with some parts of the body and mirror checking. This makes body image satisfaction and dissatisfaction embodied social judgements which speak to symbolic interactionalism (Barry & Yuill, 2016).

5. 3. 2 Social exclusion and the fit of clothes

Clothing emerged as a symbolic site of inclusion and exclusion. The way clothes fit played an influence in how participants perceived their body image. Dimpho, a 19-year-old female student who works as a micro-content creator highlighted how the fit of clothes impacted work opportunities.

“There seems to be a correlation between physique and how many clothing gigs I book. The agencies want you to look good in their clothes, so there have been times when I have lost out on gigs because a jean or two did not look good on me.”

Khethiwe, a female student aged 27 spoke about how the fitting clothes would make her feel anxious in addition to feeling left out in other places:

“*I think there are some places where I will get there and instantly feel like people give me bad energy and I believe it is because of my weight. But I think trying on clothes is the one instance that makes me feel stressed and anxious because I can go shopping and come home empty handed because nothing fit.”*

Bodily practices such as trying clothes on, shopping and public visibility are scrutinised as the fit of clothes can be the factor in inclusion and exclusion in social spaces. This ties in well with objective 1 that states that social contexts shape body image and objective 3 that links differences to socioeconomic status and environments. Thus, Bourdieu’s (2011) cultural and social capital applies. Students with more resources can buy special sizes and pay for gym memberships, those without this encounter exclusion. The way that clothing fits also affects economic and social opportunities.

5.3.3 Family and friends as the foundation of body concerns

Most of the participants voiced how social interactions with families were the ones that encouraged weight loss or gain. They were the first ones to notice any change regarding body size and would say comments that affected the respondents. Friends were another cause in this encouragement. Jana expressed that body size made her feel alienated at home:

“I unfortunately am the only big child in the house, my mother and siblings are skinny. It knocks your confidence down because I always get weird comments from the people who should love me unconditionally. People always say that body size is genetic, but can we use that in my case where the rest of the family is skinny?”

Nqobile on the other hand, emphasised how his family are always affirming him, and this has created a shift where he appreciates his body more. This reinforces that body image (dis)satisfaction is rooted on the influence of social circles.

Peer groups also played a part in influencing body image satisfaction and dissatisfaction. Ronalds stated that:

> *"There is pressure from the gents at res to look a certain way. I find that I started comparing myself to my friends and gym buddies and would notice things that I liked or did not like about my body"*

This speaks to how opinions and criticism about body size often starts at home and within peer groups. Furthermore, Dimpho shared how ideal body ideals are inconsistent and often attainable.

> *"You grow up with family members telling you that you are too skinny and should gain weight but when you gain the weight, they tell you that you are too big. A friend will make a comment in passing that stays with you…Aiii chomi ngathi suyanona manje (mimics friend telling her that she is gaining too much weight now)."*

Social influences are part of objective 1 and 3 which speaks about differences across cultural backgrounds. Bourdieu's (20170 habitus is relevant as students' dispositions carry family values into the new field of university life, where bodily norms are contested are embraced. Thus, students must choose whether to align with family habitus of ideal bodies and/ or those of their friends.

5.3.4 Airbrushed images: media's influence

Although many participants acknowledged that media images were unrealistic, they still found themselves influenced by it. Fatima admitted that:

> *"Sometimes I am one of those people who cannot tell the difference…I tend to follow accounts that don't make me feel bad about my body".*

Anastasia noted how:

"Bodies have different trends, so any new beauty trends come with a new body. Skinny is making a comeback but in the last five years, curvy bodies were in fashion."

Both these statements highlight how individuals are aware that images are digitally manipulated but this knowledge does not affect the media's impact on body image. This theme aligns objectives 1 and 2 of media's influence and motivation for WCBs. Additionally, certain body sizes trending and being in "fashion" show how ideal body sizes are all contextually constructed. From a Foucauldian lens (2002), social media functions as a technique of surveillance and self-discipline. Users internalise what the algorithm values and self-regulate accordingly. The existence of social media platforms like TikTok and Instagram amplifies these messages. Trends and challenges on social media such as dieting and food related content, encourage WCBs. Because these practices are public and performative, they are reinforced by likes/comments and may be pursued for social validation as much as for health. However, as Fatima noted, she follows accounts that do not make her feel bad about herself. This acts as a pushback where she resists body related contents and curates what she wants to see.

5.3.5 Discipline equals success

The participants were asked about their issues with maintaining or losing weight stated that discipline was the one thing that was needed to be successful when trying to lose weight. This equating of body size to self-discipline reinforces that weight is seen as personal responsibility and holds moral value. Fatima stated.

"If I was not such an extremist in that I starve myself or binge- I would have good ways to maintain my shape. I just don't have good discipline."

Mohammed's statement aligns with this:

"I need to be disciplined when it comes to exercising and how many calories I eat. I believe this will be the only way I can be successful when trying to gain weight. I need to be mindful of how much weight training I'm doing and my protein intake"

This theme frames weight as a character trait that speaks to self-discipline and control and aligns with objective 2 on WCBs and 3 of how SES and gender influence the moral framing of weight. This aligns with Foucault (2002) and Turner's (1992) concepts or control and self-management.

5.3.6 Medicine's influence: weight as a health indicator

The views of participants varied significantly concerning the impact of the medical profession in defining societal norms related to body image. Some saw doctors as providing necessary guidance, as Ronald noted:

> *"Prevention is better than cure. I think it's good that doctors have these conversations about weight with people and assess their risks of developing other diseases. Obesity leads to many other problems, not just health wise but in your social life like being excluded from gatherings. Society needs to be aware and warned about the dangers of elevated weight."*

However, others felt that medical professionals perpetuated stigma. Dimpho countered:

> *"Many South Africans naturally have bigger bodies… it's highly irresponsible to consider someone unhealthy because they visually look big."*

These accounts highlight contradictions between biomedical classification and lived experience. While BMI served as a trigger for anxiety or behaviour change, many students resisted its authority, instead defining health in functional or holistic terms. This theme supports Objective 2 (relationship between BMI, body image, and WCBs) and Objective 3 (variation across gender and cultural backgrounds).

5.4 Conclusion

This chapter detailed the results from the semi-structured interviews that were conducted shedding light on the respondents' lived experiences related to BMI, body image and WCBs. Several key themes emerged from the data-family criticism and opinions significantly impacted body image, alongside social media, and clothing pressures. Participants had mixed body image experiences, with some positive and others critical of specific body parts. Media was seen as unrealistic, yet influential. Doctor's interventions were viewed with varying opinions. All themes

linked directly to this study's objectives showing how body image perceptions are shaped by multiple influences, how dissatisfaction drives WCBs, and how differences emerge across cultural and socioeconomic contexts. Some participants may have withheld sensitive disclosures due to perceived judgment, while others redirected discussions to issues like mental health, broadening the scope of data. Reflexive journaling mitigated bias but could not remove it entirely. Despite these limitations, the interviews produced narratives that reveal how students negotiate and resist pressures around body image, BMI, and weight control. The themes identified in this chapter will be further discussed in the subsequent chapter, where they will be integrated with the quantitative findings to provide a more comprehensive understanding of the research problem.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.1 Introduction

This chapter synthesises and interprets the findings from both the quantitative and qualitative phases of the study. By doing so, it situates the results within broader sociological debates on body image and health. This chapter highlights the expected and unexpected findings, compare previous literature and suggests implications for policy and future research.

6.2 Main Findings

From the quantitative results, we can conclude that:

- there was no association between sex and students' BMI scores.
- there was no association between SES and students' BMI scores.
- there was no association between media exposure and students' BMI scores
- there was an association between family and peer influence and students' BMI scores.
- there was an association between body image and students' BMI scores.
- there was an association between WCBs and students' BMI scores.
- there was no association between students' relationship with their bodies and their BMI scores.

The qualitative themes that emerged were:

- Body satisfaction where students expressed concerns of satisfaction with their bodies.
- Social exclusion and the fit of clothes which spoke to the perceptions of belonging shaped by appearance.
- Family and friends as the foundation for body concerns, with interpersonal comments exerting stronger influence than media.
- Airbrushed images: media's influence is present, but students resist some of its messages.

- Weight as a health indicator where BMI and health advice were both internalised and resisted
- Discipline equals success where self-regulation through diet and exercise was framed as moral responsibility.

Given the increasing concerns about weight related diseases such as obesity and eating disorders, the study sought to examine the relationship between body mass index (BMI), body image and weight control behaviours (WCBs) among university students in Johannesburg. The study objectives included examining students' body image perceptions with relation to their BMI, investigating how body image and WCBs correlate while also investigating how family influences them, peer groups, media, and SES. The key findings revealed that participants with elevated BMI scores reported having body dissatisfaction and engaged in WCBs such as exercising and dieting to lower these scores. However, this was not just a concern that involved only them. Students in the normal weight category overestimated weight and perceived themselves as obese or overweight which resulted in their participation in WCBs. Media exposure did not have an association with BMI scores while family and peer influence did. Family and peer influence also emerged as a factor shaping body image perceptions. There was no significant relationship between students' sex and BMI scores, as well as their SES. Some participants expressed in the interviews that they were satisfied with their body size and appearance, while some expressed dissatisfaction. Reasons for these were due mostly to the opinions and comments of family and peer groups and how clothing fit.

6.3 Interpretation

6.3.1 Patterns Observed

The patterns that were observed in this study reveal important trends in the relationship between BMI scores, body image and weight control behaviours among university students in Johannesburg. The first notable thing is that a significant number of participants engaged in WCBs despite the BMI categorisation, with 42% having attempted to lose weight through exercising (43%) and dieting (25%) while a smaller proportion (7%) tried to lose weight by consuming weight loss pills. Participants in the overweight and obese BMI categories engaged in WCBs;

however, some participants outside of these categories also engaged in WCBs. Participants who exercised regularly were more likely to have a BMI score that placed them in the normal category. Qualitative accounts showed that these behaviours were not confined to those with elevated BMI scores; even students in the normal range engaged in weight management practices.

The second pattern showed that although, majority of the students made attempts to lose weight, WCBs were not only concerned about weight loss. 23% of students wanted to gain weight from the survey results. During the interviews, male respondents emphasised wanting a more muscular body while some female participants aspired for a “slim-thick” physique which is a slim waist and big curves. These narratives show that ideals of masculinity and femininity intersect with health behaviour and body image concerns are not only related to intention and practices to lose weight, but with weight gain as well. Thirdly, was the distortion of self-perception across BMI categories. The students that were in the normal BMI category overestimated their weight and reported themselves as overweight while some individuals in the overweight BMI category underestimated their weight and felt that they were in the normal BMI category. There was no significant association between participants BMI scores and their body image perception and the qualitative results back this claim. Participants reflected on how clothing fit, and peer comparisons were stronger triggers of dissatisfaction than medical feedback.

Finally, family and peer influence emerged as more significant than media in shaping BMI associations. Quantitative findings showed a direct link between family/peer influence and BMI, while qualitative insights revealed that critical comments from family or exclusion by peers strongly affected body image. Yet, social media platforms such as Instagram and TikTok were described as spaces where students encountered aspirational, airbrushed ideals. Interestingly, many students recognised this content as unrealistic but still internalised it.

6.3.2 Expected vs Observed Results

There are certain results from the study that aligned with previous research around BMI, body image and WCBs. Consistent with global literature, students with elevated BMI scores often reported dissatisfaction and engaged in WCBs such as dieting or exercise (Elran-Barak, 2019; Wilson et al., 2013; Gaylis et al., 2020). In

line with Yam et al. (2013), participants in the normal BMI range frequently overestimated their size, which aligns with the sentiments from students were dissatisfaction was expressed through frustration with clothing fit or peer comments. This suggests that dissatisfaction is not exclusively tied to clinical overweight status but is widespread across categories.

Some results, on the other hand, were not expected. The lack of significant association between sex and BMI contradicted studies emphasising that women report higher dissatisfaction and internalise thin ideals more strongly than men (Chiodo, 2015; Jackson & Chen, 2015). Instead, both male and female participants in this study articulated concerns, though in gendered forms; women emphasised slimness with curves while men highlighted muscularity. This supports Doyle and Engeln's (2014) claim that men's dissatisfaction increasingly takes the form of muscle dysmorphia. This suggests that body image concerns are not exclusive to females and that the influence of gendered expectations may extend beyond biological sex, affecting both male and female students in ways that differ from past research.

Another unexpected result was the lack of association between media, SES and BMI scores. Literature states that unrealistic body ideals and self-perception are often influenced by the media (Holland & Tiggeman, 2016; Jucker et al., 2017; Munsch et al., 2021) however family and peer groups had more of an impact on BMI and body image in this study and proved more statistically significant. However, participants mentioned the role of social media platforms like TikTok in shaping comparisons, even while acknowledging their edited nature. This suggests that media operates less through BMI-linked outcomes and more through symbolic frameworks of desirability, which are then reinforced by family and peers. The findings that SES was not associated with BMI was unexpected as it contradicts existing research that states that individuals from lower SES are more likely to have higher BMI scores due to limited access to healthy food and fitness facilities (Mickelsfield et al., 2018; Tsolekile et al., 2014). This might be due to the students having the same access to food and exercise facilities at a university setting regardless of their socioeconomic class. Another finding was that students who grew up in rural areas partook in weight loss practices just like those in urban areas.

This contradicts studies that state that individuals from rural areas uphold traditional body (Prioreschi et al., 2017; Pradeilles et al., 2022) size ideals and could indicate that acculturation is happening in these areas

6.3.3 Comparisons with Literature Review

Gender

Existing literature consistently frames body image dissatisfaction as more prevalent among women, with thin ideals dominating feminine aspirations (Chiodo, 2015; Jackson & Chen, 2015). In contrast, men are often described as less vulnerable to dissatisfaction or as primarily pursuing muscularity (Doyle & Engeln, 2014). This study utilised sex due to its sample size and found no significant association between sex and BMI, challenging assumptions This lack of association and the findings from the interviews suggest that both men and women experience body image concerns. These findings align with the Brazilian study, where both men and women under the normal weight category felt dissatisfied with their bodies (Chapuis-de-Andrade et al., 2017). While women primarily express dissatisfaction with the thin ideal, men often grapple with muscle dysmorphia and societal expectations to be muscular (Alharballeh & Dodeen, 2021). The qualitative results clarify this as male students voiced dissatisfaction about not being muscular enough and female students through how clothes fit. While the study measured sex (male/female), it is important to recognise that gendered social norms play a role in shaping body image perceptions, which may explain why previous research has shown disparities between men and women in body dissatisfaction.

Family, Peer, and Media Influence

Literature stresses media's role in producing unrealistic ideals (Holland & Tiggemann, 2016). Yet, this study found no statistical association between media exposure and BMI, while family and peer influence showed significant correlations. Qualitative accounts; however, revealed that social media structured comparisons even while, acknowledging editing. This divergence underscores that direct interpersonal comments carry more weight than mediated images in shaping BMI-linked dissatisfaction. Kenny et al. (2017) and Marcos et al. (2013) argue that family and friends' comments strongly shape body perceptions; the interview responses

confirmed this, with several participants attributing dissatisfaction to relatives' remarks. Additionally, they acknowledge how their peers and friends have an influence in how they view their bodies as well as the WCBs they engage in. Therefore, students' body image emerged through the meanings attached by others in their intimate social circles. This aligns with symbolic interactionism.

Socioeconomic Status

Existing research indicates that there is an association between BMI scores, body image, WCBs and SES (Oude Groeniger et al., 2020). It states that individuals from lower SES usually have higher BMI scores due to food insecurity, limited access to healthy food options, and restricted opportunities for physical activity (Mickelsfield et al., 2018; Tsolekile et al., 2014). However, this study found no significant relationship between SES and BMI, which could be due to university students, regardless of their SES, have equal access to food and fitness facilities. Additionally, studies state that individuals from low-income South African households usually have positive body image (Mchiza et al, 2015) but this study did not find such a correlation. One possible reason for this difference is the expanding reach of digital media across various socioeconomic levels, which introduces individuals to alike beauty ideals and body standards, regardless of their financial situation.

BMI and Body Image

This study's findings align with existing research on BMI and body image. Previous studies stated that elevated BMI scores often led to body image dissatisfaction (Elran-Barak, 2019; Wilson et al., 2013) so results from the study are similar to this. Additionally, according to Yam et al. (2013) and Gruszka et al. (2022), individuals in the normal BMI category overestimated their body size and would experience body image dissatisfaction. These findings are similar to the ones from the study where participants in the normal BMI category believed that they were overweight. This belief would make them experience negative body image perceptions, while some in the overweight category would believe that they are in the normal weight range and would be satisfied with their body size. Qualitative themes such as "social exclusion and clothing fit" deepen this finding as social belonging and job

opportunities were mediated through clothing and peer judgement. Symbolic interactionism explains this.

WCBs and BMI

Existing literature states that university students are at risk of gaining weight and being obese due to the obesogenic environment that they are in. They have easy access to energy-dense, processed foods and their schedules do not always allow for them to engage in any physical activity (Gradidge & Cohen, 2018; Senekal et al., 2015). It is reported that American university students gain an average of 1.55kg in their first year while 27% of young women in South African universities were reported to be struggling with obesity (Fedewa et al., 2014). Global studies show that elevated BMI correlates with dieting, exercise, and restrictive behaviours (Gaylis et al., 2020). This study supported that finding but also revealed that students in the normal BMI range engaged in WCBs. This aligns with findings from Elran-Barak (2019), Radwan et al. (2019) and Wilson et al. (2013) who stated that the primary motivator for weight WCBs seems to be personal dissatisfaction with body size and not weight status. One key finding was that physical exercise emerged as the primary source for weight management, rather than extreme dietary restrictions or medication.

However, the study's findings indicate a shift towards negotiated beauty ideals from the Global North, where women believed smaller body sizes were attractive while men desired muscular bodies. This resulted in them engaging in WCBs such as exercising and dieting. This aligns with research stating that globalisation and media exposure create a shift in culturally accepted bodies and dominant norms from high-income countries get adopted in other societies (Mchiza et al., 2015). Another key finding is that female participants have not entirely stopped desiring large bodies but now want a hybrid body type which consists of a slim body with big curves and butts. While international literature often emphasises extreme practices (purging, diet pills) (Elran-Barak, 2019), Johannesburg students mainly favoured exercise over dietary restrictions. This may reflect cultural norms that value fitness and energy, aligning with Gradidge & Cohen's (2018) observation that South African students live in obesogenic environments but simultaneously engage in physical activity.

Turner's (1992) "controlled body" framework is useful here as exercise is framed as discipline, linking health to moral success.

Body Image and WCBs

The study's exploration of body image and WCBs shows alignment with various aspects of existing research, but it also uncovers some contradictions. Weight control behaviours were significantly related to body image dissatisfaction in the study, with many participants engaging in weight management practices based on perceived weight rather than actual BMI scores. Body dissatisfaction was present across BMI categories, suggesting that individuals engage in weight control behaviours not necessarily due to health reasons but for societal and individual body size expectations (Radwan et al., 2019; Wilson et al., 2013). Furthermore, the study also showed that there were some of the participants under the normal BMI category who also engaged in weight control behaviours, in line with Puoane et al.'s (2010) and Mchiza et al.'s (2015) contention that even among individuals with a "healthy" weight, body dissatisfaction persists.

Additionally, the study indicates a high level of discrepancy in weight management practices. Literature situated in high-income countries associate attempts at weight loss with restriction and extreme measures such as purging and diet pills (Elran-Barak, 2019), whereas in this study, the most common method among the participants for weight management was exercise. This suggests that cultural influences have a role to play in the acquisition of weight control behaviours, and South African students might prefer exercise over restrictive eating as a weight regulation method.

BMI as a Medical Tool

The results from this study challenge medical perspectives which aligns with existing literature that critiques it's use. In the field of medicine, a greater BMI is often correlated with unfavourable health results, leading to the belief that losing weight is a vital intervention (Gutin, 2018). However, this study found that BMI scores were not always a factor in individuals' body image perceptions or choice to engage in WCBs. Thus, body image perceptions are more socially inclined rather than medical defined. Additionally, participants had varying responses to how

medical officials influence society's view on body size and whether BMI was a good metric to measure healthiness. Many participants stated that they believed medical settings and public health messages were behind the stigmatisation of body size, with some reporting that doctors focused on weight as the root of all medical issues rather than considering a comprehensive approach to diagnosing. This aligns with previous literature that found BMI to be an oversimplistic diagnosis tool and criticised the medicalisation of body weight (Gutin, 2018; Simpson, 2020). According to Pause (2020), medical officials overlook other determinants of health such as environmental factors, lifestyles, and genetics by focusing on weight as the primary issue of health and illness. Some participants, did, however, state that they believed public health messages and doctors' concerns were part of preventative health to reduce the risk of chronic diseases associated with obesity. This highlights the tension between lived experiences and public health objectives. Foucault's (2002) notion of the medical gaze that he developed in 1963 is evident here with BMI classifications positioned bodies as normal, which students then internalised or resisted. For some, BMI became a regulatory discourse pushing them toward WCBs, while others reframed health in broader terms, rejecting BMI's authority. This duality highlights BMI's function as a regulatory tool rather than a purely medical metric.

6.4 Implications

The findings from this study have important implications for individuals, populations, and the broader field of medical sociology. At the individual level, the results show that body image is not simply determined by BMI categories but emerges through interactions with peers, family, and mediated audiences. Students internalised body ideals through everyday encounters such as comments about clothing fit, peer comparisons, or implicit expectations and these shaped their sense of self more powerfully than medical classifications. Symbolic interactionism helps explain this process, showing how self-concept is constructed rather than biologically determined. At the same time, Foucault's notion of biopower was evident in the ways participants monitored diet, exercise, and appearance as practices of self-discipline, aligning their bodies with social norms. Yet, resistance was also visible. They did this by pushing back against expectations of what a healthy body is and not by not

agreeing with BMI as a tool for indicating health, curating their social media feeds. These negotiations reveal that body regulation is not simply about compliance but also a field of agency, where students reinterpret discipline and their lived realities.

At the population level, the universality of body dissatisfaction across BMI categories demonstrates that body concerns extend beyond obesity prevention. Students with both higher and lower BMI scores engaged in weight control behaviours, with some seeking to lose weight and others aspiring to gain or sculpt it, reflecting the influence of multiple, sometimes contradictory, body ideals. Here, Bourdieu's concept of habitus provides a useful lens. Students occupied a cultural space where traditional idealisation of fuller bodies intersected with globalised ideals of slimness and muscularity, producing hybrid aspirations. For women, the emerging preference was for slim yet curvaceous figures, for men, muscular but lean physiques. These ideals cut across socioeconomic lines, suggesting that cultural capital, not economic capital, now drives the reproduction of body norms within urban student populations. While dissatisfaction motivated some toward healthier practices such as regular exercise, it also led others to adopt harmful methods, including diet pills and starvation, illustrating the double-edged nature of body management. Universities therefore represent critical spaces where identities and health behaviours are shaped, contested, and potentially transformed.

From a policy and theoretical perspective, these findings challenge the continued reliance on BMI as a central health measure. Students' narratives revealed that BMI was experienced less as a neutral diagnostic tool and more as a regulatory discourse that reinforced stigma, echoing Foucault's concept of the medical gaze. Public health messaging and medical encounters that focus narrowly on weight risk alienating students and overlooking the complex factors shaping body image. Policy interventions should therefore move beyond weight-centric approaches and adopt holistic strategies. For medical sociology, this study reinforces critiques of BMI as an oversimplified tool while deepening theoretical understandings of body image as socially constructed and regulated. Symbolic interactionism, biopower, and habitus together show how body ideals are mediated through social interaction, internalised as discipline, and shaped by cultural capital. Within this framework, shifting body

ideals underscore the importance of viewing body image as embedded in wider cultural and political dynamics.

6.4.1 Key Insights

The relevance of this study is that it contributes to the continuous discourse surrounding body image and health. The results highlight the significance of this study for understanding how South African students navigate contested and hybridised body ideals in an urban, globalised setting. By demonstrating that dissatisfaction and weight control behaviours cut across BMI categories, the study disrupts conventional health discourses that equates health risks only with obesity. It also reveals how students exercise agency by negotiating, and reframing societal pressure by sometimes reproducing dominant ideals, other times reshaping them to fit their own identities. This duality underscores that body image is not a rigid, but a dynamic process shaped by family, peers, media, and health discourses, and that these processes cannot be divorced from broader questions of power, culture, and identity. In situating Johannesburg students at the centre of this analysis, the study not only fills a critical empirical gap but also offers theoretical insights that advance debates in medical sociology about the social construction and regulation of bodies.

6.5 Conclusion, Limitations and Recommendations

This study set out to investigate the relationship between BMI, body image perceptions, and weight control behaviours (WCBs) among university students in Johannesburg. By adopting a mixed-methods design, it revealed how biomedical metrics, sociocultural influences, and digital environments converge to shape how students understand and regulate their bodies. The quantitative findings demonstrated that BMI was significantly associated with body image, family and peer influence, and WCBs, but not with sex, socioeconomic status (SES) or media exposure. The qualitative results offered deeper insights, bringing out themes of body dissatisfaction, social exclusion related to clothing fit, family and peer pressure, the influence of airbrushed media images, the medicalisation of weight, and the moralisation of discipline as a marker of success. Taken together, these findings underscore that body dissatisfaction cuts across all BMI categories, that WCBs are undertaken for both social and health-related reasons, and that while

media does provide templates of ideal bodies, family and peers exert more immediate and lasting influence.

The study also demonstrated that while BMI classifications frame the body within biomedical discourse, students' lived experiences of health and appearance often diverged from these medical categories. Many students resisted the authority of BMI, reframing exercise as stress relief or personal care rather than weight management, while others embraced BMI as evidence of discipline. Theoretical engagement helps to explain these dynamics. Symbolic interactionism shows how students' body image is constructed through interactions with peers and family, as judgments about clothing fit or attractiveness become internalised as part of the self. Bourdieu's concept of habitus highlights how hybrid body ideals emerge from the interplay of local cultural values and globalised media norms. Foucault's concept of biopower illuminates how BMI functions as a regulatory tool, encouraging students to self-monitor, self-discipline, and align their bodies with societal expectations. Within this context, femininity and masculinity ideals in Johannesburg appear to be shifting with young men aligning with muscular ideas that are synonymous with hegemonic masculinity.

Despite these contributions, the study is limited by several factors. The quantitative sample was small, which restricts the generalisability of the findings and the use of other statistical tests to detect associations. BMI was calculated largely from self-reported height and weight; measurement inaccuracies are possible. Media exposure was measured crudely and did not distinguish between different platforms or the intensity of engagement, meaning the influence of media may have been underestimated. Nonetheless, the convergence of quantitative and qualitative results strengthens the claim that body dissatisfaction is widespread, BMI is best understood as a regulatory rather than medical tool, and family and peer influences are more powerful than media alone in shaping students' self-perceptions. The implications are significant for individuals, populations, and policy. For individuals, the study shows that body dissatisfaction is not an inevitable outcome of BMI but is mediated through interactions, comparisons, and negotiations. Students exercise agency by resisting certain pressures, reframing exercise as empowerment, or redefining health in personal terms, but they are also constrained by social judgment

and cultural ideals. For the student population, the findings highlight the universality of body image concerns across BMI categories, with both weight loss and weight gain pursued in accordance with gendered ideals of femininity and masculinity. These hybrid ideals suggest that globalisation and digital media are producing new forms of body capital that circulate across class lines in Johannesburg.

For policy and practice, the results suggest that public health frameworks should avoid overreliance on BMI as a measure of health and instead adopt multidimensional approaches that incorporate psychological wellbeing, social support, and cultural norms. Universities, as transitional spaces, have a critical role to play. Health promotion programmes should prioritise body acceptance, critical engagement with media, and accessible fitness and nutrition opportunities that are culturally inclusive. Since family and peers exert significant influence, community-based interventions that encourage supportive dialogue may be more effective than top-down messaging. Public health policy should also consider regulating harmful online content and investing in media literacy campaigns that help young people resist algorithm-driven exposure to unrealistic body ideals.

In terms of medical sociology, this study contributes to ongoing critiques of BMI, illustrating that body weight is not a neutral biomedical fact but a socially constructed category that regulates and disciplines individuals. It demonstrates how symbolic interactionism, Bourdieu's habitus, and Foucault's biopower can be applied together to explain how body image is negotiated within everyday interactions, cultural practices, and institutional discourses. Future research should build on these findings by recruiting larger and more diverse samples across South African institutions and by adopting longitudinal designs to examine how body image concerns evolve over time. More precise measures of media engagement, including platform-specific should be incorporated to capture the full impact of social media on body ideals. Intersectional approaches are needed to explore how gender, race, sexuality, and class intersect in shaping experiences of the body. In conclusion, this study demonstrates that body image dissatisfaction among university students in Johannesburg transcends BMI categories and is driven less by medical definitions of health than by social and cultural interactions and students engage in weight control behaviours to try to rectify this.

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APPENDICES

APPENDIX A

Participant Information Sheet I

Dear Participant,

Thank you in advance for taking the time to read this, as well as for the time volunteered.

PURPOSE OF THE STUDY

The purpose of this study is to find out whether BMI affects body image and weight control behaviours.

BMI measures body fat using a person's height and weight.

Weight control behaviours include exercising, dieting and fasting

THE PROCESS

You will be asked to complete a 5-minutes survey questionnaire. You may also wish to agree to a follow-up interview to find out more about your perceptions and feelings.

SAFEGUARDING, RISKS AND BENEFITS

Taking part is not anticipated to cause any harm or discomfort, but you can pull out at any time. The project is intended for research purposes and does not have any benefits.

CONFIDENTIALITY

All the information collected will be kept strictly confidential. You will not be identified in any reports. This information will be kept in a safe place which will be destroyed after two years.

Feel free to ask any questions at any point throughout the process.

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APPENDIX B

Survey Questionnaire

Section A: Participant Characteristics			
Questionnaire number		**Date conducted**	
1.Participant's age			
2. Do you know your weight and height		Yes	
		No	
[If yes] a) Participant's weight			
b) Participant's height			
c) BMI score *(BMI is a calculated field from the previous weight and height questions)*			
For the following items below, indicate your response with an (X) in the appropriate box			
3. Sex		Male	
		Female	
4. Would you consider the area you grew up in as …		Rural	
		Urban	
5. Where do you currently stay		On campus residence	

	Off campus student apartment	
	Student commune	
	Private accommodation	
	At home (with family)	
	Other (please specify)	
6. Growing up, the household income covered all your needs	Yes	
	No	
7. Growing up, your family could afford the things you wanted	Yes	
	No	
8. I am the first person in my family to attend university	Yes	
	No	
SECTION B: Behaviour		
9. In the past year, have you tried to lose weight?	Yes	
	No	
10. If yes, which methods did you use?	Dieting	

	Taking weight pills	
	Exercising	
	Eating less	
	Smoking	
	All of the above	
	Other (please specify)	
11. In the past year, have you tried to gain weight	Yes	
	No	
12. How often do you exercise?	Never	
	Rarely	
	Sometimes	
	Regularly	
SECTION C: Self-perception on body weight		
13. How does your weight make you feel?	Insecure	
	Uncomfortable	
	Good	
	Unconcerned	
14. What do you feel accurately represents your weight?	Underweight	
	Normal weight	

	Overweight	
	Very overweight	
15. Do you think you are thin	Always	
	Often	
	Sometimes	
	Rarely	
	Never	
16. Your family and friends tell you that you are thin	Never	
	Rarely	
	Sometimes	
	Regularly	
17. Do you think you are fat	Never	
	Rarely	
	Sometimes	
	Regularly	
18. Your family and friends tell you that you are fat	Never	
	Rarely	
	Sometimes	
	Regularly	
19. Do you compare your body size to images in the media?	Yes	
	No	

20. Do you compare your body size to that of your social circle (family and friends)?	Yes	
	No	
21. Do you value other people's opinion on your physical appearance?	Yes	
	No	
22. If you have been insecure about your body, what do you think the cause is?	Family	
	Friends	
	Media	
	Own perceptions	
	Other (specify)	
23. What do you believe influences your body size?	Medication	
	Genetics	
	The kind of food you eat	
	The amount of food you eat	
	Smoking and drinking	
	Limited physical activity	
	All of the above	

	Other (specify)	
24. How would you describe your relationship with your body?	Negative	
	Positive	
SECTION D: Perception scale **For the following, please refer to the image to answer the questions**		
25. The person you feel is thin is…	A	
	B	
	C	
	D	
	E	
	F	
	G	
	H	
26. The person you feel is normal weight is…	A	
	B	
	C	
	D	
	E	
	F	
	G	

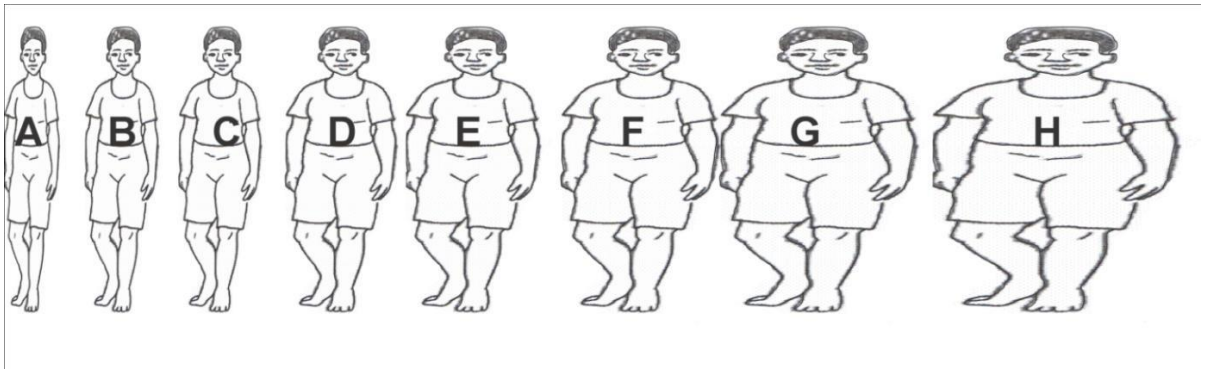
	H	
27. The person you feel is fat is…	A	
	B	
	C	
	D	
	E	
	F	
	G	
	H	
28. The person who looks best is…	A	
	B	
	C	
	D	
	E	
	F	
	G	
	H	
29. The person who gets more respect is…	A	
	B	
	C	
	D	
	E	
	F	

	G	
	H	
29. The person who looks like you is…	A	
	B	
	C	
	D	
	E	
	F	
	G	
	H	
30. The person you prefer to look like is…	A	
	B	
	C	
	D	
	E	
	F	
	G	
	H	
31. The person your siblings would want to look like is…	A	
	B	
	C	
	D	

	E	
	F	
	G	
	H	
32. Your friends would want to look like…	A	
	B	
	C	
	D	
	E	
	F	
	G	

Thank you.

APPENDIX B1: Perception Scale



APPENDIX C

Participant Information Sheet II

Dear Participant,

Thank you in advance for taking the time to read this, as well as for the time volunteered.

PURPOSE OF THE STUDY

The purpose of this study is to explore what young adults think of BMI scores, weight control behaviour and body.

BMI measures body fat using a person's height and weight.

THE INTERVIEW

You will be required to participate in an interview that will take +/- 45 minutes in a safe environment at the University of the Witwatersrand. The interviewer will ask you a set of open-ended questions, to which there is no right or wrong answer – just your own personal experience. The interview will be digitally audio-recorded.

SAFEGUARDING, RISKS AND BENEFITS

If at any point you feel distressed or cannot carry on with the interview, feel free to ask for a break or to leave. You can withdraw at any point and you will not be asked to provide a rationale for your decision. No adverse effects are expected from participating in this study. However, speaking about a potentially sensitive matter may bring about feelings of anxiety, vulnerability or distress. If this is a great level, the interview will be stopped and the interview might advise you to contact the Counselling and Careers Development Unit/ CCDU (WITS) for further support. There are no immediate benefits for those participating in the interview, but your response will contribute to research on body image, weight related behaviour and the concept of BMI.

CONFIDENTIALITY

Any information you provide will be confidential and no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be released. Any mentions of names will be hidden, changed, or muted out of recordings to ensure that no personally identifiable information will link you with the recording. This information will be kept in a safe place and destroyed two years after the study.

Feel free to ask any questions at any point throughout the process.

Interviewer/Researcher: Thandazani Michelle Sibanda

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APPENDIX D

Informed Consent

Project Title: *Perceived BMI scores, body image and their relation to weight-controlled behaviour.*

I agree to take part in the above research project. I have had the project explained to me, and I have read the explanatory statement, which I may keep for my records. I understand that agreeing to take part means that I am willing to:

• be interviewed by the researcher and allow the interview to be audio-taped

Data Protection

This information will be held and processed for transcription and analysis by the researcher. I understand that any information I provide is confidential and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published. The identifiable data will not be shared with any other organisation.

I agree for the researcher to record and process this information about me. I understand that this information will be used only for the purpose(s) set out in this statement.

Withdrawal from study

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project up to one week after my interview without being penalized or disadvantaged in any way.

Participant's Name:

.....

Participant's

Signature: ..... Date:

.....

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APPENDIX E

Interview Schedule

Thank you for agreeing to be interviewed today. Your responses are confidential and will have no identifying information. To ensure that I am able to capture accurate and complete responses, I would like to record this interview.

Question 1

How would you describe the relationship with your body?

Prompt: how does your body size make you feel?

Question 2

What caused you to have these opinions about your body?

Prompt: do you think it would have been better if you were not exposed to this and why?

Question 3

What are the difficulties you face when trying to maintain or lose weight?

Question 4

Have you ever been in an instance where you were treated different because of your body size? Why do you think that is and how did you navigate that?

Question 5

What are your opinions on how bodies are portrayed in media?

Question 6

What are your opinions on the conversations your social circle (friends and family) have about body size and weight loss?

Question 7

How do you think agents in the medical field (doctors, nurses, pharmacists etc) influence society's views on body size and give your opinion on BMI as a health indicator.

Question 8

Do you think there is a relationship between body mass, body image and weight control behaviours such as exercising? Why is that?

Question 9

Is there anything else you would like to add?

Thank you for your time and responses

End of interview