

UNIVERSITY OF EDUCATION, WINNEBA

**WEIGHT MANAGEMENT PRACTICES AMONG FEMALE TEACHER-
TRAINEES OF OFFINSO COLLEGE OF EDUCATION IN GHANA**



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UNIVERSITY OF EDUCATION, WINNEBA

**ANALYSIS OF WEIGHT MANAGEMENT PRACTICES AMONG FEMALE
TEACHER-TRAINEES OF OFFINSO COLLEGE OF EDUCATION IN
GHANA**



**A thesis in the Department of Health Physical Education, Recreation and Sports
Faculty of Science Education, submitted to the school of
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of the requirements for the award of the degree of
Master of Philosophy
(Health Physical Education, Recreation and Sports)
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JULY, 2023

DECLARATION

STUDENT'S DECLARATION

I, Mary Opoku, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature:

Date:

SUPERVISORS' DECLARATION

We, hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

Dr. Yayra Kluboito (Principal Supervisor)

Signature:

Date:

Prof. Emmanuel Osei Sarpong (Co Supervisor)

Signature:

Date:

DEDICATION

To my husband, Mr. Emmanuel Gyimah- Ansah and our lovely children; Obaapa, Onyamedo and Mr. Adjei.



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I want to end by saying thank you to all the writers whose work I correctly cited.

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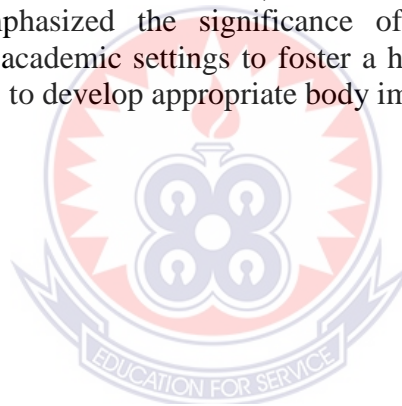
LIST OF ABBREVIATIONS

BMI	–	Body Mass Index
CoE	–	College of Education
OFCE	–	Offinso College of Education
PE	–	Physical Education
WHO	–	World Health Organisation
WM	–	Weight Management



ABSTRACT

Weight management poses a significant challenge for college students during their period of growth and development. As a result, this study was conducted to examine weight perception and weight management practices among female teacher-trainees at Offinso College of Education (OFCE). The study employed descriptive and correlational survey research techniques. A sample of 396 female teacher-trainees from OFCE was selected to participate in the study. Data was collected through the use of structured questionnaires. Findings indicated that majority (94.7%) of the female teacher-trainees were familiar with weight management issues. Among the various weight management behaviours identified, walking emerged as the most commonly practiced behaviour among the female teacher-trainees. There was significant difference ($\chi^2 = 17.73$, $p = 0.038$) between body weight satisfaction and perceived weight status of the participants. Majority of the participants (61.6%) were very satisfied with their body weight status. Among the female teacher-trainees who were very satisfied with their body weight, 13.85% perceived themselves to be underweight, 45.02% normal weight, 35.94% overweight and 5.19% obese. Significantly, positive association occurred between perceived weight and the actual weight status of OFCE teacher-trainees (Person's correlation = 0.203, P -value < 0.01). The study emphasized the significance of introducing educational and awareness program in academic settings to foster a healthy understanding of weight and encourage students to develop appropriate body image perceptions.



CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter consists of background to the study, statement of the problem, purpose of the study, objectives of the study, research questions which served as a guide for the study, significance of the study, delimitations and limitation of the study.

1.1 Background to the Study

For the majority of young adults, going to college is a crucial transitional stage that is frequently accompanied by an increase in body weight (Crombie et al., 2009; Vadeboncoeur et al., 2015). Studies have revealed that between 40% and 50% of college students are physically inactive (Keating et al. 2005). The sedentary activities that these students partake in for eight hours a day include studying, watching television, playing video games, using computers, talking while seated, shopping, and hanging out. As a result, people typically go through changes in their body composition, a decline in their level of physical activity, the adoption of poor eating and sleeping habits, and an increase in their alcohol intake (Lai et al., 2021; Xu, 2021). According to Racette et al. (2008) and Vella-Zarb & Elgar (2009), the alterations are mostly caused by elevated psychological stress and unhealthy eating behaviours, such as a rise in the intake of fast and substandard foods away from home.

Young people are often confronted with a wide range of conditions that need them to make substantial adjustments while learning to cope with novel challenges. Many young adults are forced to take responsibility for meal planning, purchasing and cooking for the first time. Individuals at this time also began to establish their views

on other aspects of life, including what constituted physical attractiveness. Because of the importance of one's outward appearance in social interactions, many young adults place a premium on altering or keeping up their physical appearance (Arnett, 2000). Numerous studies on weight perception and body ideals have been conducted globally, and it has been found that different regions tend to see different weights as desirable (Ali et al., 2013; Burke et al., 2011; Holdsworth et al., 2004). Although adolescent weight perceptions have been reported in many research (Dhungel & Bhattarai, 2020; Ganapathy et al., 2019; Lghoul et al., 2020; Wang et al., 2018; Yost et al., 2010), emerging adult weight perceptions (Decker et al., 2018; Eisenberg et al., 2021; Hymowitz et al., 2017; Quaidoo et al., 2018) have received less attention in fewer investigations. However, the majority of these studies have their roots outside of Africa.

People's mental health, weight-management efforts, and overall physical health are all significantly influenced by how they perceive their weight status (Dhungel & Bhattarai, 2020). A person's perspective of their physique mirrors their understanding of how their weight compares to their actual weight status. Individuals may be motivated to lose weight, gain weight, or maintain their current weight by their emotional reaction to their subjective judgement of their weight. This reaction might be perceived as falling anywhere on a spectrum from total happiness and contentment with one's physique to severe dissatisfaction and anger at one's physical form. Recent social changes may cause individuals to underestimate their actual weight, which in turn may contribute to a lack of desire to maintain a healthy weight and a rise in the number of people who are overweight or obese (Okop et al., 2019). When assessing their behaviour or health, people often look to others as benchmarks instead of objective criteria (Lee, 2021).

In general, people are less happy with their bodies when their body mass index (BMI) rises, and they engage in a variety of activities, including dieting and exercise, to achieve their ideal body shape (Volek et al., 2005). Weight perception has been discovered to be crucial to the efficacy of weight management (WM) techniques (Kim & Seo, 2021). The definition of weight perception used in this study is whether a person perceives themselves as underweight, normal weight, or overweight (Faber & Kruger, 2005). One's emotional reaction to their weight, as perceived by themselves, can significantly impact their efforts to maintain a healthy weight. There is a vast array of potentially dangerous (such as taking supplements or skipping meals) or potentially healthy (such as leading a balanced lifestyle) approaches that one might use to accomplish their personal weight goals. A person's physical and mental health may be affected by how effectively these strategies work. Women are more likely to diet than males (Gough, 2007), and males are more likely to engage in physical activity to alter their physique and shed extra pounds than females (Grogan & Richards, 2002). Women who work to improve their body image are also more able to exercise self-control when eating to lose weight (Carraça et al., 2011).

Dietitians play a pivotal role in advancing public health nutrition by combining scientific expertise with an appreciation of the social and cultural contexts in which food choices are made (Johnston et al., 2019). However, people choose WM methods they feel safest to use, which are within their financial means, and have a decent chance of success. Numerous methods, from the purely commercial to the more invasive and medical, have been implemented for WM (Kushner, 2014). Methods commonly employed to attain WM goals include lowering total caloric intake, skipping meals, fasting, using diet pills, and enrolling in weight loss programmes (Kruger et al., 2004); increasing physical activity, eating diet foods or products,

drinking a lot of water, and following a special diet (Lin et al., 2013); and substituting one or more meals with a meal replacement. Factors such as age and gender (Kruger et al., 2004; Moran et al., 2017), degree of education (Serdula et al., 1994), marital status (Klos & Sobal, 2013), socioeconomic position (Johnston & Lordan, 2014; Okour et al., 2019), peer pressure, and health have a role in how people choose to engage in WM practices.

Although a person's weight plays a major role in their physical appearance (Bevan et al., 2021), social norms and beliefs like collectivism may shape how people grow up to feel about their bodies (Renzaho et al., 2012). Benkeser et al. (2012), Abubakari et al. (2008) who studied older West African women, found that nearly half of the participants preferred a slimmer body size, even though Abubakari et al. (2008) noted that West Africans traditionally appreciated body types that equated what is called the overweight body type in developed countries. Most young people attempt to live up to the beauty norms of their society to avoid the stigma of being a certain weight. This wish might prompt people to try various WM practices in their quest for physical perfection (Coetzee et al., 2012; Kleisner et al., 2017). It is recommended that those looking to maintain or change their weight look for the healthiest alternatives available to reach their weight goals while maintaining their current level of nutritional health.

In this study WM is referred to the actions taken to control one's weight, either by gaining it, losing it, or keeping it constant (Vartanian et al., 2012). Some WM practices include sports, consumption of low fat, attending gym and meal replacement (Byaruhanga et al., 2020; Cook & Gazmararian, 2018; Handayani et al., 2021; Brown et al., 2020; Perdew et al., 2021) Understanding WM behaviours, such as how people

of different ages view their weight, is important for developing public health interventions that are novel, population-specific, and culturally acceptable to promote healthy weight within communities in light of the race-specific link between body size and beauty (Ali et al., 2013). Moreover, people are more likely to engage in healthful WM strategies when they have a realistic and positive outlook on their body, as this indicates an attitude of admiration, respect, and acceptance for oneself (Andrew et al., 2016; Maruf et al., 2012; Quick & Byrd-Bredbenner, 2014).

1.2 Statement of the Problem

Weight gain or loss is a major public health issue across the world, including Ghana (Gyamfi et al., 2019). Body weight issues can manifest as either excessive body fat (being overweight or obese) or an inadequate amount of body fat (being underweight) for an individual's height or physique. Both conditions are unhealthy for one's health (Bevan et al., 2021).

In middle-income countries, surveillance systems have found temporal trends of increasing weight gain (Quaidoo et al., 2018). Adults in Ghana were about 43% overweight or obese (Ofori-Asenso et al., 2016). Another worrying fact is that 45.6% of Ghana's adult diabetics were overweight or obese (Ofori-Asenso et al., 2016). Recent research also shows that women are more likely than males to be overweight or obese (Agyapong et al., 2020; Kumah et al., 2016). Traditional measures to reduce obesity focus on changing individual behaviours. Globally, childhood and teenage obesity rates have sharply increased in recent decades (Narciso et al., 2019; Tragomalou et al., 2020; Yoshida et al., 2020). A high prevalence of adolescent obesity and overweight cases has been reported in developing countries undergoing

nutritional transition (Tragomalou et al., 2020). These are also emerging as major public health problems in Ghana (Siriky et al., 2021).

The early stage of adulthood is characterised by a fast growth rate because of its dependence on genetic, hormonal, and dietary behaviours (Jain et al., 2010). Although the positive benefits of weight management (WM) practices are well documented, further cross-sectional study on college of education students could elicit depth WM practices in Ghana. Most studies either targeted school children or comprised small, non-representative samples from large cities in developed countries. For example, studies by Gyamfi et al. (2019) and Ganle et al. (2019) focused on obesity among school-going children and its health implications. There is little information on WM practices among college students in developing countries like Ghana.

Generally, females are more dissatisfied with their bodies than males (Richardson et al., 2019) and are more likely to engage in WM practice. Richardson et al. (2019) stated that females are more concerned about their bodies than males. Again, Radwan et al. (2019) concluded that weight control behaviours were more prevalent among women than men. During a health and physical fitness course, some students in the Offinso College of Education (OFCE) were overweight when their body mass index (BMI) was calculated. This has given credence to study weight management practices among the college's female students. Again, the information regarding emerging female adults in Ghana is scarce. Weight management practices among emerging female adults are a growing health concern in Ghana, the failure of which can cause disaster for our future generation (Ofori-Asenso et al., 2016). The ever-increasing phenomenon is of great concern for thorough research to assess weight perception and WM practices among female teacher-trainees in OFCE.

1.3 Purpose of the Study

The study sought to analyse OFCE female teacher- trainees awareness of the concept of weight management, weight management practices as well as perceived weight status, body weight and body satisfaction.

1.4 Objectives of the Study

The objectives of the study were to:

1. Analyse OFCE female teacher trainees' awareness of the concept of WM.
2. Examine the various WM practices engaged in by OFCE female teacher-trainees.
3. Study the association between body weight satisfaction and perceived weight status of OFCE female teacher-trainees.
4. Explore the relationship between perceived weight status and actual weight status of OFCE female teacher-trainees.

1.5 Research Questions

1. What is the level of awareness of the concept of WM among female teacher-trainees of OFCE?
2. What are the various weight management practices engaged in by female teacher-trainees of OFCE?
3. What is the association between body weight satisfaction and perceived weight status of teacher-trainees of OFCE?
4. What is the relationship between perceived weight status and the actual weight status of female teacher-trainees of OFCE?

1.6 Significance of the Study

College students are in a crucial period where their health-related behaviours and routines are likely to last into adulthood. Additionally, being overweight or obese can have detrimental effects on one's health, including a higher risk of cardiovascular disease, type 2 diabetes, and other long-term illnesses. Additionally, being overweight can have a negative impact on a student's academic performance, social interactions, and sense of self, leading to a vicious cycle of consequences. Therefore, encouraging appropriate weight management habits during this time can help their physical and emotional health in the long run.

College students are a diverse population, and weight management programs must be tailored to meet the unique needs and preferences of individual students. Understanding the different factors that influence weight management, such as gender, weight perceptions and practices, is crucial for developing effective and inclusive programs to help students achieve and maintain a healthy weight.

Assessing WM methods among teacher-trainees provides a foundation for the government to develop additional curricular policies to address the issues of obesity and its health consequences in schools. Hence this study serves as a wake-up call and influences policies among Ghana Education Service, Municipal and District Assembly's Stakeholders in health, food and nutrition education, sports, and physical education development. Moreover, the study is a resource for additional research and a reference tool for instructors, administrators, and policymakers in educational institutions.

1.7 Delimitations

The study was delimited to WM practices of female teacher- trainees of Offinso College of Education (OFCE) in the Offinso Municipality of Ashanti Region, Ghana.

1.8 Limitations

The study focused on only one College of Education (CoE) which provided a small number of participants. A small sample size may restrict the generalization of the study. Therefore, a cross-sectional survey could have been used to overcome this limitation. Another limitation was the challenge encountered during participants recruitment. Despite efforts to attract participants, the recruitment process proved to be challenging, resulting in a smaller sample size than initially anticipated. Also, some respondents were reluctant to answer the questionnaire. This limitation may have impacted the generalizability of the findings and limited the statistical power of the study.

1.9 Definition of Terms

Body Mass Index: A tool that measures the ratio of height to weight to estimate amount of body fat.

Body Satisfaction: The degree to which an individual is satisfied with his or her body shape, size, and weight.

Weight Management: Actions taken to control one's weight, either by gaining it, losing it, or keeping it constant.

Weight perception: Whether a person perceives themselves as underweight, normal weight, or overweight.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

This chapter reviewed the relevant literature and the researcher was aware of the fact that other authors have written on this topic. For this reason, it was necessary to review literature related to the topic. Information was gathered from journals, abstracts, the internet, books, and works people have done on weight management practices. For easy referencing, the literature was reviewed under the following sub-headings:

1. Theoretical perspective
2. Empirical studies covering obesity and weight gain, BMI, weight perception, body weight satisfaction and weight management practices.
3. Conceptual framework was analyzed in this chapter.
4. Summary

2.1 Theoretical Perspective

Using the presumptions and ideas of self-care theory and weight management research literature, Pickett et al. (2014) proposed the middle-range theory of weight management. Key concepts in weight management theory include a person's weight management actions, agency, the weight management context, and weight management control. Connections between the conceptual model and the intermediate theory are depicted both vertically and horizontally in Figure 2-1.

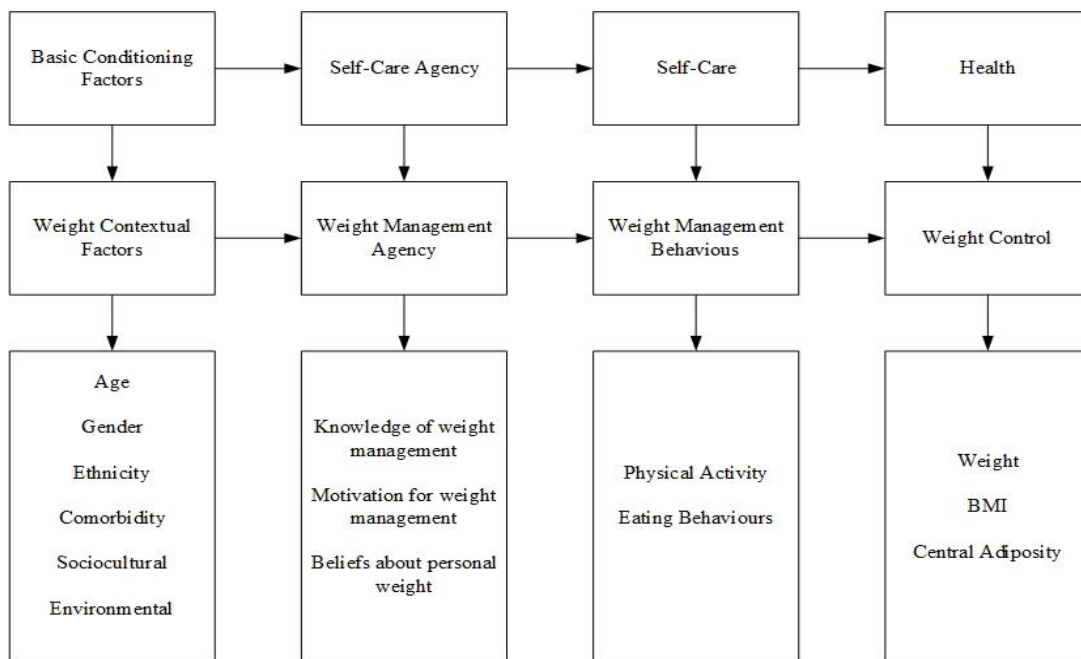


Figure 2-1: Model of the theory of weight management (Pickett et al., 2014)

2.1.1 Weight management behaviors

The idea of self-care is the foundation for weight management behaviour. Weight control practices include frequent physical activity (at work, play, or other leisure time) and eating behaviour patterns are necessary for caloric balance. By following generally recognised recommendations for obtaining and maintaining a healthy weight, these behaviours are frequently employed to protect health and wellbeing. These actions are planned and frequently repeated daily (Orem et al., 2001). Adults must engage in 75 minutes of strenuous aerobic activity, 150 minutes of moderate aerobic activity, or a combination of the two five days a week (Centers for Disease Control and Prevention [CDC], 2013). Aerobic exercise can be classified as moderate if it causes a moderate increase in heart rate, such as when you go for a brisk walk, or as vigorous if you go for a run (Hamilton et al., 2008). It is hypothesised that individual differences in adhering to recommended levels of physical activity and engaging in those levels are influenced by socio-cultural, environmental, and social support factors (Panter et al., 2013).

Incorporating more fresh produce, whole grains, high-fibre foods, and seafood into one's diet is a good way to promote health. Eating lean meats, animal alternatives, skim or low-fat dairy products, and avoiding meals with partly hydrogenated fats, added salt, and sweets are all ways to reduce fat intake (Centers for Disease Control and Prevention [CDC], 2013). Physical activity and healthy eating are effective ways to manage weight, but their effectiveness is highly dependent on several factors.

2.1.2 Weight management agency

Weight management agency refers to one's ability to engage in weight control techniques, as opposed to one's ability to engage in self-care agency. Personal weight beliefs (the agency's underlying disposition), the will to control weight (its power component), and a body of weight management information make up the agency's substantive structure (estimative self-care operation) (Pickett et al., 2014). Self-care practices that aid in transition and improvement may be inferred from behaviour. Thoughts about one's body shape and size may affect how one approaches weight management (James et al., 2012). Beliefs are the underlying cognitive component of attitudes, and they are conceptualized as a propensity to behave (Fishbein, 1963). These perspectives may originate through introspection, cultural learning, or inference from words and deeds. The awareness of one's health risks associated with excess weight is consistent with one's weight-related attitudes. A person's weight-control goals and willingness to accept responsibility for their behaviour are affected by these beliefs.

Depending on the client's cultural background, weight-management organisations offer various weight-loss incentives (Yannakoulia et al., 2019). African women's drive for weight management may be hampered by social norms stigmatising larger

bodies and encouraging underestimating one's weight. People who are self-conscious about their weight, however, are more inclined to try to cut back on calories and get in shape (Yannakoulia et al., 2019).

Thirdly, a weight management agency must engage in actions leading to the desired weight management habit (Pickett et al., 2014). To lose weight, one must first get informed on the most effective methods, then make a conscious decision to engage in those methods, and finally implement those methods into their daily lives. Various strategies for managing weight are available from a weight management organisation. The behaviours may reveal a person's agency in the weight control they engage in or refrain from. Weight management agencies are affected by internal and environmental factors that define an individual and influence their desire to lose weight. A subset of these factors includes weight-related context (Pickett et al., 2014).

2.1.3 Weight contextual factors

The concept of contextual weight variables is grounded in the conditioning elements of self-fundamental care (Pickett et al., 2014). Circumstances that pertain to the individual's weight play a role in determining their weight-related needs (intake of food, balance between activity and rest) (Pickett et al., 2014). The weight context factors include, for instance, socioeconomic and environmental variables representing local resources for physical exercise and the availability of nutritious meals. A person's weight-controlling abilities are affected by and constrained by numerous external factors. Males and females of varying ages have varied weight distributions (Andersen et al., 2014). The prevalence of obesity increased throughout middle age in both sexes and persisted in post-middle-age women (Ogden et al., 2016). These

results suggest that factors such as age and gender play a role in maintaining a healthy weight.

Comorbidities are a result of and contribute to, poor weight management practices. As was previously mentioned, many major health problems are associated with obesity (Cefalu & Rodgers, 2021). A person's capacity to exercise may be hindered by health issues such as osteoarthritis or cardiac difficulties (Bartels et al., 2016). People may give health reasons for wanting to slim down (Hunger et al., 2020; Mroz et al., 2018). Therefore, co-morbidities may have a considerable effect on weight-control routines.

Cultural norms may influence weight management. A person's weight may be affected by cultural norms that do not place a stigma on being overweight or encourage its decrease. For example, African American women may be less motivated to participate in weight-loss methods due to an aesthetic concern if they have a more welcoming attitude about larger body size (Befort et al., 2008; Hendley et al., 2011). Negative reinforcement and lack of encouragement from loved ones can also affect an individual's efforts to maintain a healthy weight, even if those efforts include increasing physical activity and cooking better meals (Munt et al., 2017). An individual's capacity to maintain a healthy weight may be affected by factors in their immediate environment. Environmental factors, such as a lack of access to facilities that promote exercise and healthy food, may impact people's ability to maintain a healthy weight (Darling et al., 2022). Numerous inner-city communities are thought to be underprivileged. As a result, many inner-city residents may be at risk for weight gain or obesity.

2.1.4 Weight control

Successful weight control is recognised as a vital part of overall wellness. In the self-care paradigm, health is characterised by structural or functional completeness or integrity (Orem et al., 2001). Achieving and maintaining a healthy weight is defined as having a body weight, BMI, and central adiposity within the healthy range.

2.2 Empirical Review

2.2.1 Obesity and weight gain

The medical community defines obesity as “a condition of increased body weight, primarily adipose tissue of sufficient quantity to induce unfavourable health implications” (Apovian, 2016). The World Health Organization (2021) defines obesity as "abnormal or excessive fat buildup that may impair health". The World Health Organization agrees that BMI is a useful tool for quantitatively defining, measuring, and classifying obesity. When a person's body mass index (BMI) reaches 30kg/m² or higher, they are considered obese (Apovian, 2016).

The World Health Organization (WHO) reports that obesity rates are rising worldwide and this epidemic "threatens to overrun both industrialized and developing nations." More than 1.9 billion people aged 18 and over were overweight in 2016. Over 650 million individuals were considered obese (WHO, 2021). Kelly et al. (2008) forecast that 3.3 billion people worldwide would be overweight or obese by 2030. Unexpectedly, women carry a heavier weight than males in adulthood, though children have the opposite load (WHO, 2021).

Systemic lipid- and glucose-homeostasis is known to be disturbed by excessive fat accumulation, especially in the visceral portion of the body (Apovian, 2016). An imbalance between energy intake and usage causes this anomaly. As a result, obesity

is considered a risk factor for type 2 diabetes mellitus, non-alcoholic fatty liver disease (NAFLD), cardiovascular disease, and other neoplastic disorders (Centers for Disease Control and Prevention, 2018). According to Apovian (2016), saturated fatty acid excess in the diet, inactivity, and lack of physical activity are the primary contributors to obesity.

2.2.1.1 Causes of obesity and weight gain

Different factors, such as one's surroundings, physical limitations, genetics, and other factors, contribute to obesity. A person's weight is a function of their dietary habits and their level of physical activity. The National Heart, Lung, and Blood Institute (NHIBL) states that “the same quantity of energy IN and energy OUT over time = weight remains constant.” Over time, more energy will come in than going out, which is equivalent to weight gain (Franko et al., 2008). The factors causing obesity and overweight are discussed in more detail below.

Environmental factors: These days, we have easy access to high-calorie, low-cost, and high-fat foods. These foods sell well and have a fair amount of flavour. Fast food is a major cause of obesity due to its high-fat content (Gearhardt et al., 2020). Fast food includes items like fried rice and croissants. There is a new fast-food chain that is quickly expanding across Ghana's urban centres and rural communities. Noddle prepared with eggs is commonly referred to as “indomie”. The high levels of fat in this dish are unhealthy.

Physical inactivity: Elevators, cars, trains, and other modes of mobility have reduced the amount of physical exertion required in daily life. The rise of convenient technological conveniences in the home, the workplace, and the commute has led to a dramatic increase in sedentary lifestyles, which has hurt public health (Kwong &

Fong, 2019). Too much time spent being sedentary, such as watching television or playing computer games, is a major contributor to the development of weight gain (Chaput et al., 2011). When people have nothing to do, they tend to gain weight. Each day, at least 30 minutes should be spent on moderate-intensity physical activity.

Genetics: Have you ever wondered why some people can eat everything they want and still stay slim while others have to fight their weight their whole lives? Probably, it's because of slight variations in our genetic makeup (Peters et al., 2020). Starr & McMillan (2015) stated that the hormones responsible for regulating hunger, fullness, and energy storage and utilisation are under the direct control of one's genes. The National Heart, Lung, and Blood Institute reports that an individual's genetic makeup can influence how much and where fat is stored in the body (Peters et al., 2020). Studies (Naukkarinen et al., 2012; Yamada et al., 2006) have shown that genes considerably impact a person's weight, even in identical twins raised apart.

Medications: It is possible that some medications can bring on weight gain. Medicines for treating depression and epilepsy are a couple of examples (Grundy et al., 2014; McIntyre et al., 2021). Fat is burned off at a slower rate when using these medications.

Pregnancy: Pregnancy and childbirth are major contributors to women's obesity. As the baby grows and develops, mothers, gain weight throughout pregnancy (Pinheiro & Goldani, 2018). Most women struggle to return to their pre-pregnancy weight after giving birth, which can lead to obesity and overweight.

Emotional problems: Stress and other negative emotions can significantly impact one's appetite and calorie intake. The anorexia nervosa causes its sufferers to consistently criticise their thinness (Tyszkiewicz-Nwafor et al., 2021). The vast

majority of these patients are young women, and they tend to overeat and exercise excessively, both of which can be harmful. There's also bulimia, to use another instance. According to Starr & McMillan (2015), bulimia is characterised by an “oxlike hunger”. They eat a lot, then throw up or take laxatives to get rid of it.

2.2.1.2 Obesity among college students

Racette et al. (2008) conducted a prospective, longitudinal study following 204 undergraduates at a private St. Louis Missouri University from their freshman through senior years. The first-year students were enlisted in either 1999 or 2000. The students were given several surveys to complete, including a demographics survey, an exercise survey to determine the frequency with which aerobic, strengthening, and stretching activities were performed, and a nutrition survey to determine whether or not they met the requirements of the 5 A Day program. Two-sample t-tests were used to determine the outcomes. The findings showed that just 5% of first-year students were classified as underweight, 80% as normal weight, and 15% as overweight or obese. But by the end of their senior year, 23% of students were overweight or obese. Both boys and girls had gains in weight, height, and body mass index (BMI) from freshman to senior year, albeit the increases varied widely. In addition, only 29% of the first-year students regularly engaged in physical activity, and only 29% regularly consumed the recommended amount of five servings of fruits and vegetables each day. 71% of students in their final year had not gotten the recommended amount of fruit and vegetable servings daily, and 25% had not exercised regularly throughout their school career. The average body mass index of the students increased significantly, if only slightly, throughout their four years at university. Fewer than a third of students reported consuming the recommended amount of fruits and vegetables during either of the two time periods in which data was collected from students in either their first

or fourth years of college. The researchers speculated that part of the subjects' weight gain could have resulted from the maturation and development processes that occur naturally over time. However, if these patterns continue into adulthood, rising rates of obesity will contribute to future health risks.

Brunt & Rhee (2008) analyzed 585 college students' eating and exercise habits at a Midwestern university in the United States to determine if there were any significant differences. Students who did not provide information on their diet, alcohol consumption, smoking habits, calorie intake, and overweight/obesity were disqualified from the study. The students filled out the Diet Variety Questionnaire (DVQ), developed using data from a pilot study of seventy-five students' 24-hour meal recalls. The data were examined using descriptive statistics, such as mean, standard deviation, percentage, and frequency. The median BMI for the 585 children was 23.0 kg/m², and 25% of the students were overweight, 9% were obese, and 4% were underweight, per the statistics. According to gender and housing situation, different BMI groups were distributed differently. Males had a higher likelihood of being overweight or obese than females. These findings, however, might have been influenced by the fact that many male participants who majored in science had stronger bodies than those who studied other subjects. Off-campus residents had a higher prevalence of smoking and alcohol usage and the correlation between body mass index and tobacco use was negative for males. Students who lived on campus or at home ate more ice cream and milk desserts, green vegetables, white bread and other grains, and sweet baked goods than those who did not. However, people who lived away from the university consumed more alcohol and fewer fruits than those on campus. Those living on campus ate a wider variety of foods, including more fruits, vegetables, fruit combos, dairy products, cereals, and grains. Researchers found that

off-campus students, in general, were more likely to be overweight or obese, to smoke and drink heavily, and to eat a diet low in fruits and vegetables.

Sira & Pawlak (2010) utilised a cross-sectional survey to look into college students' perspectives on food and their rates of overweight/obesity. The researchers aimed to learn more about dietary patterns based on gender and race/ethnicity in addition to investigating weight status by body mass index (BMI) category. Five hundred and eighty-two undergraduates responded to a survey about their demographics and self-reported weight and height. The questionnaire also administered a condensed version of the Eating Attitudes Test to evaluate students' perspectives on food and eating (EAT 26) (Garner et al., 1982) or by asking questions on healthy diets. The EAT 26 assesses several indicators of anorexia and bulimia by asking the respondent 26 questions. 348 out of 582 pupils (60%) filled out the EAT 26, and 234 out of 582 filled out the healthy eating questions (40%). Descriptive statistics such as mean, range, frequency, percentages, one-way ANOVA, and chi-square were used to analyse the data. One in five children was underweight, 21.4% were overweight, and 10.8% were obese. Mean body mass index was substantially greater among males than girls and African American students compared to White pupils. Mean body mass index (BMI) was much lower among White women than among African American women, whereas it was similar among White and African American male students. Females reported more dieting habits than males, as indicated by a statistically significant difference between female and male EAT 26 scores (ranging from 0 to 51). In addition, among the sample of 348 pupils, 12.64% had EAT 26 scores higher than 20, which indicated disordered eating. More African American pupils than Whites were overweight or obese. More than 1 in 26 students in the EAT 26 sample had

unhealthy eating behaviours, and nearly two-thirds of female students who were already at a healthy weight reported dieting excessively.

Obirikorang et al. (2017) studied the incidence of overweight and obesity and the factors contributing to it among first-year students at Ghana's Kwame Nkrumah University of Science and Technology in Kumasi. A total of 300 undergraduates from various universities participated in this cross-sectional study between November 2013 and February 2014. A self-made questionnaire was used to collect socioeconomic and lifestyle parameters. The following were measured: blood pressure, weight, height, waist circumference (WC), and hip circumference (HC). Rates of overweight and obesity were 1.7% (5/300) and 16.0% (48/300) when using BMI, 13.3% (40/300) and 8.7% (26/300) when using WC; 19.0% (57/300) and 20.00% (60/300) when using WHR and WHtR, respectively; and 28.7% (86/300) when using WHtR. As a whole, women were more likely to be overweight than men. More significantly associated with overweight status than obesity itself was daily alcohol consumption of 2-4 bottles (40.0% vs 8.3%). Among college seniors, there has been an uptick in the prevalence of obesity. About 22.9% (11/48) of those majoring in Agric and natural sciences were overweight, while 40.0% (2/5) of those majoring in health science were obese. More people of Akan and Ga-Adangbe descent were found to be overweight or obese. The likelihood of being overweight or obese increased significantly for women. Findings from this study showed that the prevalence of obesity and overweight among college-aged women was higher than previously thought. When used with BMI, WC, WHR, and WHtR are crucial measures.

Amoh & Appiah-Brempong (2017) surveyed senior high school students in the Adansi North District of Ghana to determine the prevalence of obesity and the factors

that contribute to its development. Three hundred and six adolescents (ages 12–19) participated in a descriptive cross-sectional study. The students were selected from the five senior high schools in the district using a stratified random selection method. A standardised questionnaire and an anthropometric datasheet were used to collect the necessary information. The chi-square test found that pastimes like watching TV and playing video games were significantly associated with an increased risk of being overweight. Obesity was strongly related to dietary habits. As a whole, 47.1% of adolescents are overweight or obese. The survey found that, in comparison to rates in some industrialised nations, adolescent obesity was quite high in the area. It is crucial to prepare the most efficient and effective measures to guarantee food security. However, it is equally important to keep up healthy habits to reduce the prevalence of obesity among adolescents in the area and Ghana as a whole.

2.2.1.3 Obesity among women

Hu et al. (2003) investigated the link between sedentary behaviours like TV watching and the development of obesity and type-2 diabetes in women using a prospective cohort study design. The study's investigators recruited in the Nurses' Health Study and gathered information from 50,277 female participants. Women who had been previously diagnosed with cardiovascular disease (CVD), cancer, diabetes, or obesity were ruled out of the study. Participants reported their typical weekly amounts of time spent sitting due to watching television, sitting due to working, sitting due to being in a vehicle, sitting due to engaging in other sedentary activities at home, and standing due to engaging in ambulatory activities. Also, they were asked to report how often they engage in various forms of physical activity and for how long on average. An additional questionnaire, diagnostic testing, and hypoglycemic medicine were used to diagnose diabetes. The results showed that females who spent more time in front of

the TV engaged in less physical activity, more smoking, and more alcohol use. These women also ate more red meat, processed meat, refined grains, snacks, and sweets while consuming fewer fish, fruits, and vegetables, as well as whole grains. After being followed for six years, 3,757 women who were not obese at the study's outset in 1998 did gain weight to that level. Evidence suggested that TV time was associated with a higher chance of being overweight. Additionally, 1,515 women were newly diagnosed with type 2 diabetes throughout a 6-year follow-up. Being sedentary for long periods has been linked to an increased risk of getting type 2 diabetes. 30% and 43% of people with obesity or diabetes, respectively, were also found to have a connection between a more active lifestyle and a lower risk of developing these conditions. It has been observed that simple acts of standing or walking around the house have this effect.

Several studies in Ghana have focused on the issue of female obesity. For example, Tuoyire et al. (2016) examined the correlation between being overweight and having more children among mothers of both parity and none in Ghana. Ghana Demographic and Health Survey anthropometric data from 2003, 2008, and 2014 were examined using descriptive statistics and multivariate binary logistic regression. Statistics were collected that could be extrapolated to the entire nation. Overweight and obesity increased faster between 2003 and 2014; this trend was more pronounced among parous women than women who had never given birth. (about 30% in 2003 to 48% in 2014). The probability of being overweight or obese among women was positively related to age, income quintile, and marital status. However, the relationship between women who had given birth and women who had not varied depending on factors such as education, region, occupation, and race. The rising rate of obesity and overweight in Ghana requires coordinated efforts at the national level. When

developing such therapies, it is important to consider that parous and nulliparous women often differ in important ways.

Oyekale (2019) used body mass index (BMI) and arm circumference, two risk factors for hypertension, to analyse the prevalence of hypertension in Ghanaian women of reproductive age. The data was collected as part of the 2014 DHS (Demographic and Health Survey). Specifically, we looked at a sample of data collected from women aged 15 to 49. Blood pressure was taken from 9,366 people, with 93% of those asked giving consent. The data on body mass index and upper arm circumference were tested for endogeneity using an instrumental probit regression model. The study found that of the women who participated, 25% were overweight or obese, and 13% were hypertensive. Greater Accra had the highest prevalence of hypertensive females (18.15%), followed by Ashanti (15.53%) and Volta (15.02%). There was a positive correlation between endogenous body mass index and circumference of the arms and the risk of hypertension. Women were more likely to have high blood pressure if they were expecting a child, lived in a rural location, did not have regular access to healthcare, were unemployed, or ate a lot of broth cubes, processed can meats, salted meat, or fruits. Many factors have been linked to an increased risk of hypertension, including being overweight or obese, being older, and eating salted meats. It was emphasised that if Ghanaian women ate a balanced diet that contained less salty meat and more fruits, they might be able to manage their hypertension better.

Using data from Ghanaian women, Tuoyire (2018) discovered a correlation between watching TV and gaining weight. Descriptive statistics and binary logistic regression were utilised to examine the correlation between television viewing and overweight/obesity in a sample of 4158 Ghanaian women for the 2014 Ghana

Demographic and Health Survey (GDHS). Women who lived in households with televisions and were exposed to high levels of television were shown to be considerably more likely to be overweight or obese than women who did not live in such homes and were exposed to low levels of television, even after controlling for other factors (age, educational level, marital status, wealth quintile, occupation, location type, and parity). Women who lived in households with televisions and were exposed to high levels of television were shown to be considerably more likely to be overweight or obese than women who did not live in such homes and were exposed to low levels of television, even after controlling for other factors (age, educational level, marital status, wealth quintile, occupation, location type, and parity).

Asosega et al. (2021) sought to learn if there were significant variations in the number of overweight and obese women across geographic areas. The typical BMI was modelled using spatial regression, and the results were compared to those of a more traditional regression model. This study uses cross-sectional data from the Ghana Demographic and Health Survey in 2014. (GDHS). In 2014, the GDHS gathered information from 4,393 women of childbearing age (between 15 and 49). Body mass index (BMI) data from throughout the country were mapped into clusters to evaluate both global (Moran's I) and local (Gaussian distance) indicators of spatial dependence. Using an approximated spatial lag model, the authors could deduce the causes of the regional differences in the average female body size. Some 35.4% of reproductive-age Ghanaian women were overweight or obese, with the prevalence increasing with education, socioeconomic status, and urbanisation. Excess weight and obesity were most concentrated in the Ashanti region, the Greater Accra region, the Central region, and the Western region. Results from the likelihood ratio test, the Akaike information criteria, and the Bayesian information criterion all pointed to the

spatial lag model as the best fit. Women's average BMI clusters were significantly related to age and socioeconomic status. Overweight and obesity were more prevalent in the south, the middle, and the coast. The rising average body mass index (BMI) of pregnant women is a leading cause of maternal death and morbidity.

2.2.2 Body mass index (BMI)

The World Health Organization (WHO) suggests using the body mass index (BMI) to classify a person's weight. A person's BMI is found by dividing their weight by the square of their height (MacKay, 2010). A person's body mass index (BMI) measures their relative fatness by dividing their weight by their height squared. The body mass index (BMI) is utilised to classify people as underweight (less than 18.5 kilograms), normal weight (18.5-24.9 kilograms), overweight (25 kilograms or more), or obese (more than 30 kilograms or more) (Niedziela et al., 2014). Body mass index (BMI) is a statistic that allows for direct comparisons between people of different heights by normalising their weight to their height (Ogden et al., 2014).

Recognising obesity as a major societal concern was a prerequisite for developing effective methods of identifying, measuring, and monitoring the condition (Eknoyan, 2008; McPhail, 2009). It was first proposed in 1832 by Adolphe Quetelet, a Belgian painter and sculptor who became interested in the human body as a painter and afterwards a mathematician and statistician (Eknoyan, 2008). In his search for the defining characteristics of 'normal' human anatomy, he pioneered a cross-sectional analysis of the correlation between height and weight in infants and children. Later on in his study, he branched out to include adults. Except for brief periods of rapid development at birth and during puberty, he found that the average human's weight increases by a factor of a square root of height (the Quetelet Index, or QI) (Eknoyan

& Nagy, 2005). Since Quetelet was primarily concerned with the weight of people at different ages, he never intended to use this index to define or measure obesity (Eknoyan, 2008).

Although the medical world mostly ignored the QI, insurance companies used it to compile a database of "average" body weights for their policyholders (Eknoyan, 2008; McPhail, 2009). The medical community, which had long doubted the accuracy of the weight tables, settled on a definition of obesity as "anything from 20% to 30% beyond the recommended weights listed " (McPhail, 2009).

After World War II, there was a mad dash to find an accurate way to measure weight due to rising concerns about the correlation between obesity and cardiovascular disease (Eknoyan, 2008). Epidemiological research conducted in Cold War Canada attributed obesity to "anything from cardiovascular sickness to varicose veins, from accidents to suicides" (McPhail, 2009). The medical establishment's constant use of weight-for-height charts as a diagnostic tool for obesity further fueled power struggles and debates between the healthcare and insurance sectors (McPhail, 2009). The media's claims that "anything from one-fifth to half of Canadians was too obese" only served to inflame public concern over the issue (McPhail, 2009).

The hunt for a valid indicator of the QI's efficacy persisted. In the fourth series of the Framingham study, researchers conducted one of the "first examinations to validate the validity" of the QI (Eknoyan, 2009). People generally agreed that the Framingham Study's results were crucial to understanding cardiovascular disease (Mendis, 2010). An American researcher concluded that the QI was the most accurate indicator of fat percentage currently in use. After analysing previously used weight indicators, he

reaffirmed its accuracy in 1972 and dubbed it the body mass index (BMI) (Eknoyan, 2009).

The Body Mass Index (BMI) is used since it is quick, cheap, and easy to measure in this study. It's also helpful for checking the basics of weight classification. To calculate body fat percentage, this method is superior to simply weighing yourself. (Daniels, 2009). Results from the study by Donini et al. (2013) suggest that body mass index can be used as a useful statistic.

2.2.3 Weight perception

Due to modern culture's increased focus on having the "perfect" body, individuals are more likely to judge themselves and others based on their standards of what constitutes an ideal body type. One must take a psychological approach to the issue of weight perception, which may help shed light on the possible associations between one's perception of their weight and traits like low self-esteem (Obeid et al., 2018; Tenkorang & Okyere, 2022). This assumption highlights the significance of self-perception and erroneous feelings about weight perception. An individual's subjective evaluation of their body shape and look, as well as their self-worth and confidence, are all important in forming their judgment of their weight (Tenkorang & Okyere, 2022).

Inaccurate weight perception occurs when a person's weight estimates differ from their actual weight (Patte et al., 2021). People tend to have an inaccurate impression of their body size and shape when there is a large discrepancy between their self-reported weight and actual weight. As a result, some people may misinterpret their weight status and worry that they are overweight when they are underweight. Because of this, people may experience psychological distress, eating disorders, and

inappropriate measures to control their weight (Tuffa et al., 2020). Mchiza et al. (2015) found that most South African women had a misconception about their weight. They were less satisfied with their body weight the greater the difference between their actual and perceived weight. These are negative psychological and behavioural consequences of a distorted view of weight (Tenkorang & Okyere, 2022).

Peltzer & Pengpid (2012) conducted a study on students at the University of Limpopo using the Multidimensional Body—Self Relations Questionnaire (MBSRQ) to determine their body mass index. The majority of the students in their sample had an inaccurate perception of their body weight due to an inaccurate self-assessment, according to their findings. Mwaba & Roman (2009) found the same thing to be true among Black South African college students. There needs to be further study into the factors that cause people's perceptions of their body shape and size to differ from their actual sizes. Phetla & Skaal (2017) found similar results, demonstrating that even South African healthcare experts had inaccurate perceptions of their weight. These results show that despite the wealth of health information accessible, the prevalence of weight-related diseases continues to rise for unknown reasons.

Family, peers, gender, culture, ethnicity, and race are just a few of the social, cultural, environmental, and psychological factors that can affect one's body weight and how one feels about their weight (Quaidoo et al., 2018). Some research has found that both the parents' conscious and unconscious actions significantly affect their child's actual and perceived weight (Swaminathan et al., 2013). It was also found that more than half of the children of individuals who were both excessively weight conscious and worried shared these traits with their parents (Bornman, 1999). The implications of this finding are far-reaching, as they suggest a shift in perspective on the development

of weight perceptions and related disorders in infancy due to parental projections, criticisms, reinforcement, and positive feedback. The idea that weight perceptions and the challenges they bring are generational may be related to this.

In addition to the factors already mentioned, the media also plays a role in shaping people's ideas about what constitutes an ideal body weight and form, increasing the incentive to conform to these standards (Das et al., 2014; Voelker t al., 2015). The media presents an unrealistic standard of beauty by normalising the belief that one body type is superior to all others (Koyuncu et al., 2010). The media portrayal of the ideal body type promotes the Western cultural value of slenderness. This has served as a major source of motivation for many people, especially those from non-Western civilisations.

Many young people may feel insecure about their appearance if it differs from what the media and many celebrity role models depict as attractive, acceptable, and normal. This applies to portrayals of men and women equally (Tiggemann, 2006). This misrepresentation of healthy weight ranges might lead to emotional anguish for certain people (Geller et al., 2020). Wardle et al. (2006) found that college-aged students who were unhappy with their bodies had a discrepancy between their self-reported and actual body weight. This discrepancy is indicative of a widespread misconception about body mass. This suggests that both sexes may be more likely to suffer from low self-esteem and melancholy after being constantly bombarded by the media's emphasis on beauty and conformity. According to van Vonderen & Kinnally (2012), a lot of women look to the media for guidance on how they should present themselves. This reinforces many people's preconceptions that they should be a

certain weight and their fear of criticism and judgment if they do not conform to the acceptable body weight and form.

There appear to be major differences in how men and women view their bodies. The ideal weight for men and women was different in the study by Maruf et al. (2012). They uncovered evidence that the social construction of masculinity and femininity has a significant role in shaping the perception of what constitutes an attractive body type in a given context. It was also shown that men and women have different conceptions of health and wellness and successfully lose weight by employing different strategies. Swami & Tovée (2012) state that people of all sexes look to their peers for validation of their abilities and are affected by different forms of feedback, but this is more true of women.

Recent developments in online communities that promote an unrealistic standard of beauty may have contributed to the rise in the prevalence of eating disorders like anorexia nervosa. These communities give their members a sense of belonging because most of the people who visit them are desperate to lose weight and have found that using these websites has greatly benefited them in doing so (Borzekowski et al., 2010). Many of these websites offer tips on how to fast (and starve) safely, discuss extreme weight loss techniques like purging, and showcase shockingly skinny models and celebrities (Borzekowski & Macha, 2010).

People of different shapes and sizes are represented in the shared media, from those who appear naturally slim to those whose malnutrition is very obvious (Borzekowski et al., 2010). These online communities promote and encourage readers to achieve a body type known as "the skeleton frame." These sites encourage bad body image in both young and old, increasing the likelihood that someone will develop an eating

disorder and expose them to serious health risks. Anorexia nervosa and other eating disorders are normalised as personal decisions rather than serious medical diseases compromising a person's quality of life (Lewis & Arbuthnott, 2014).

A positive or negative opinion of one's weight is affected by many internal and environmental factors, some of which have already been described. A person's outlook on themselves significantly impacts their mood and behaviour. The cultural norms of our society may lead individuals to assume that it is better to blend in rather than stand out. The opinions of others appear to have a big role in determining whether or not a person is happy with their weight. This type of feedback could promote both good and harmful body image norms. What has been said suggests that people, rather than relying on scientific evidence, rely on their personal experiences, societal influences, and the opinions of others when determining what constitutes a healthy weight. While a scientific understanding of obesity is essential, it is limited by the fact that people's perceptions of their body size play a substantial part in the epidemic by shaping their weight-control strategies and emotional well-being.

2.2.4 Body weight satisfaction

Body satisfaction is defined by Burrowes (2013) as the degree to which an individual is satisfied with his or her body shape, size, and weight, whereas body image is defined by Tylka & Wood-Barcalow (2015) as a construct that includes various complex and interrelated factors of how people experience their own physical appearance. Tylka & Wood-Barcalow (2015) described good body image as a person's love, respect, acceptance, and admiration for his or her body. A favourable body image is associated with intuitive eating and higher self-esteem (Tiggemann & McCourt, 2013). In contrast, a poor body image is linked to depression, eating

disorders, and low self-esteem (Nikniaz et al., 2016). Body satisfaction is described as a positive mindset concerning one's personal features and is the result of a perceived gap between one's real body image and their ideal body image. A person's body image consists of their positive and negative self-perceptions and attitudes (i.e., thoughts, emotions, and actions) towards their own bodies. The term encompasses a vast array of mental processes, from emotional to cognitive to behavioural to perceptual. Shagar et al. (2017) revealed that body dissatisfaction is a significant risk factor for the development of eating disorders in teenagers. It should be mentioned that among overweight and obese people, little is known about the connection between body image and size. Biological variables including gender, age, race, weight fluctuations, and sociocultural influences are among the causes of the development of body image disorders.

Mwaba & Roman (2009) examined body image satisfaction among 150 black South African female university students. A redesigned Body Shape Questionnaire was used to gather data (Cooper et al., 1987). According to the findings, the majority of women were happy with their body image. However, there was a subset of people who participated in poor eating habits.

Body image satisfaction and weight concerns were explored in a Mediterranean adult sample (Bibiloni et al., 2017). A cross-sectional survey was conducted in the Balearic Islands, Spain (2009-2010). A random sample of 1081 young (18-35-year-old) and middle-aged people (36-55-year-old) were interviewed and anthropometrically examined. Women were more unsatisfied with being overweight, less dissatisfied with being underweight, and more concerned about weight increase than males. Middle-aged individuals were unhappier with their bodies and underestimated their

weight than younger ones. Active individuals reported lower body weight and higher body image satisfaction than sedentary ones.

Plichta et al. (2019) examined the relationships between orthorexia nervosa (ON) tendency, dietary patterns (DPs) and body satisfaction. The information was gathered in 2017 using a questionnaire survey of 1120 students enrolled in health-related and other academic programs at seven Polish institutions. The link between ON tendency, body satisfaction variables, and DPs was confirmed using logistic regression analysis. Students with health-related majors were more likely to have an ON tendency than students with other majors (35.9 vs. 37.2; $p < 0.001$). Women were unhappier with their bottom physique and weight than males (0.001). The greater the BMI, the more persons were unhappy with their 'Bottom Body & Weight' ($p < 0.001$). There were more students with ON tendency who were happy with their 'Upper body' than those who did not have ON tendency, but there were no differences in ON tendency in terms of 'Bottom body & weight' satisfaction.

College students' WM techniques, body image, exercise routines, and body composition were evaluated by Richardson et al. (2019). 81 female and 20 male volunteers (age: 21 ± 1 years, BMI: 23 ± 3 kg/m², body fat percentage (BF percent): $22 \pm 5\%$) were employed. The following questionnaires were administered to participants: the 69-item Multidimensional Body-Self Relations Questionnaires (MBSRQ-69), the Weight Control Practices (WCP), the Exercise Dependence Scale (EDS), and the Sedentary Behaviour Questionnaire (SBQ). Participants were separated into four groups based on BF percent gender categorization. The MBSRQ subscales of Appearance Evaluation, Fitness Evaluation and Orientation, Overweight Preoccupation, Self-Classification of Weight, and Body Area Satisfaction were

substantially different ($p < 0.05$) across groups. Furthermore, there was a significant difference in WCP ($p = 0.004$) but not in EDS or SBQ ($p > 0.05$). Participants with a greater BF percentage participated in more WCP. College students who had a greater body fat percentage were less happy with their bodies and hence participated in more weight-control behaviours.

Body satisfaction, weight stigma, positivity, and happiness were investigated in Spanish persons who were overweight or obese (Godoy-Izquierdo et al., 2020). Participants reported little excess weight, moderate body satisfaction, low-to-moderate weight-related stigma, and higher optimism and happiness on average. These characteristics were impacted separately by BMI and gender/sex, however there were no significant interaction effects. Furthermore, those who were overweight or obese and had greater body satisfaction and positivity were more likely to report being happy, regardless of their age, gender/sex, weight, or weight-related stigma. In addition, mediation effects for body satisfaction and positive were discovered in the association between weight and happiness.

According to the literature, perceptions of poor body image could impact on an individual's psychological wellbeing, and thus, be associated with unhealthy WM behaviours (Ren et al., 2018). Distortion of and dissatisfaction with body image may form a link between overweight and obesity, as excessive preoccupation with appearance and pursuit of the ideal lean body can produce negative feelings and devaluation, resulting in changes in eating behavior, leading to overweight (Park, 2018). Body image concerns can also negatively affect social interaction, job opportunities, productivity, socioeconomic status, and psychosocial performance

(Justino et al., 2020). Body dissatisfaction is consistently rated as being among the foremost concern for young people (Shagar et al., 2017).

2.2.5 Weight management practices

People engage in weight management strategies, including dieting and exercise, to achieve various health and aesthetic objectives (Darling et al., 2022). People who struggle with their weight need to pay special attention to their diet and exercise routines because being overweight can have serious consequences for one's health if it isn't managed (Senekal et al., 2016). To address physical problems (physical impairment), psychological problems (restoring healthy self-esteem), social problems (participating in social activities), and economic problems, weight management may be helpful.

Some people mistakenly believe that "weight management" refers exclusively to trying to lose weight. Still, it's a matter of sticking to a healthy routine in which you exercise and eat right if you want to keep the weight off. People who are overweight need to reduce their weight, and those who are underweight should increase theirs. However, an individual's view of their weight, their certainty that they have a weight problem, and their emotional response to that perception all play a significant role in their decision to engage in weight management techniques (Chongwatpol & Gates, 2016).

The self-discrepancy hypothesis proposes that people are driven to engage in weight management activities to close the gap between their perceived and ideal body weights (Vartanian, 2012). The goal of weight management strategies is to lessen the psychological toll of a perceived weight discrepancy by bringing the individual's perceived weight closer to the ideal weight. As a result, you might start to appreciate

your body more generally. This sense of contentment, however, is not always indicative of pristine physical condition (Walcott-McQuigg, 2005). Even though being overweight is incredibly unhealthy, some people may be satisfied with their size. Supporters of anorexia, for instance, may take pride in their slim physique and not mind the risks they're putting themselves through.

A healthy and reasonable response to the feeling that one is overweight or unfit is to act in the form of weight control strategies like improved dietary habits and regular physical activity. Methods can range from those that are healthy and productive, like making lifestyle changes, to those that are harmful and counterproductive, like abusing laxatives or diet pills (Walcott-McQuigg, 2005). Physical and mental well-being may suffer from procrastinating on weight-related issues.

This emphasises that people's impression of their weight may be more convincing in their decision to use weight management strategies to gain or lose weight than their actual weight status implies. Since anorexia and bulimia are also mental eating disorders defined by an inaccurate self-perception of body weight, this idea can shed light on these conditions as well (Sharan & Sundar, 2015). People with these conditions often resort to extreme measures like purging or starvation to maintain a healthy weight. Extreme calorie restriction and an obsessive focus on weight loss may be symptoms of subclinical eating disorders caused by this distorted view of one's body weight.

Alfermann & Stoll (2000) claim that one's outlook on weight and level of contentment with weight are the two most important elements in predicting weight management behaviour. It has been stated that people who are overweight are more likely to resort to unhealthy measures to reduce their weight. It appears that being

unhappy with one's weight is a driving factor in the employment of possibly dangerous weight control measures. This is in line with the findings of Bruce (2016), who found that unhappiness with one's weight was associated with a greater propensity for unhealthy weight control practices among South African undergraduates. This was coupled with the idea that healthier methods took longer than hazardous ones, leading people to prioritise speed in their weight loss or growth efforts. Problems arise when people engage in unhealthy methods of controlling their weight, such as restricting their calorie intake or utilising diet pills (Werner et al., 2013).

Consequences of inadequate weight management include malnutrition, eating disorders, and breathing problems (Kreipe & Palomaki, 2012). Peltzer & Pengpid (2012) found that students who attempted to lose weight by unhealthy means also experienced medical complaints such as low blood pressure, cognitive difficulties, dizziness, and fatigue. People who have used diet pills, reduced caloric intake or skipped meals frequently report these side effects. The effectiveness and health of individuals are profoundly affected by these strategies.

While the medical community has developed numerous drugs to combat the obesity epidemic, many come with undesired side effects that compromise health and render them ineffective over time (Woodard et al., 2020). Many people, especially those whose primary goal is weight loss, find the necessity of making changes to their lifestyle and diet to be a daunting task. Individuals on a weight-loss mission may be tempted to turn to the wide variety of weight-loss aids available, including both over-the-counter and prescription options. These methods of weight loss may interfere

with the way the body normally operates. Dependence and nutritional deficits have also been related to prolonged use of these medications. (Kumar et al., 2020).

Quaidoo et al. (2018) state that people's reasons for losing weight are not uniform and that this leads to a wide range of approaches to the problem, each with its own set of benefits and drawbacks. For instance, a person who is striving to improve their lifestyle might approach weight reduction differently than someone who is just looking for a fast cure. Crash diets primarily focus on calorie and food restriction, but a healthy lifestyle demands a balanced diet and regular exercise (Alqahtani et al., 2017). Crash dieters may achieve weight loss results far more quickly than individuals making healthy lifestyle changes. A return to pre-loss levels generally follows weight loss achieved by dangerous techniques, but weight maintenance is often maintained after adopting a healthier lifestyle (Alqahtani et al., 2017). The functional and physical well-being of the individual using each weight-management strategy varies. Rao & Singh (2022) believed that a well-rounded lifestyle is beneficial because it allows the body to operate at its peak while admitting that malnutrition and poor performance may result from a lack of nutrients due to a crash diet.

Recent developments in weight reduction have included surgical procedures. Weight loss surgeries such as gastric bypasses, bariatric surgery, intragastric balloons, and laser and surgical liposuction have been shown to be on the rise (Dong et al., 2018). Some of the drawbacks associated with these surgical treatments include loose skin, mental health difficulties, eating disorders, unhealthy eating habits, and sluggish healing times (Ames et al., 2009). In a society with difficulty postponing satisfaction, weight loss surgery has emerged as one of the most popular and successful methods

for shedding excess pounds quickly and permanently. Although it may help you lose weight quickly, it comes with serious, even fatal risks (Dong et al., 2018).

Many different weight loss methods are available to the general population, from diets to drugs to surgical procedures, all with the promise of quick and permanent weight loss. These products and assurances reinforce the impression that there is a “correct” weight and physique that everyone should strive towards. It also plays a role in the individual’s pressing desire to improve their outward appearance and internal perception of their body composition. Dissatisfaction with one’s body image might reduce motivation to engage in healthy behaviours like dieting and exercise. People feel pressured to alter their looks if it deviates from their ideals. This discrepancy might lead to feelings of inferiority and dissatisfaction with one’s life.

2.3 Conceptual Perspective

2.3.1 Body satisfaction and weight perception

Almost all communities have constructed standards of beauty and attractiveness that are frequently extraordinarily difficult, if not impossible, to fulfil. Traditionally, it was believed that the media had a significant influence in generating a highly desirable, thin physique, particularly in women, in Western society (Clay et al., 2005). Viewing exceptionally beautiful persons is supposed to trigger a social comparison process, which, according to Myers & Crowther (2009), is connected with increased body dissatisfaction in both men and women. However, it has been proposed that the media does not cause the development of body dissatisfaction, but rather reminds people of their pre-existing body dissatisfaction (Stice et al., 2001). It has also been argued that the negative consequences of idealized pictures are restricted to women who are more neurotic (Roberts & Good, 2010). Furthermore, Patrick et al. (2004) shown that

women who rely their self-worth on variables had a greater influence on self-perceived attractiveness from appearance-related comparisons.

Wardle et al. (2006) discovered that most of the young women attending college in their study were unhappy with their weight. There was underlying unhappiness because of a discrepancy between their self-perceived weight and their ideal weight. That is to say, the female students' perceived weight was either inaccurate or discordant with the ideal weight and body type. Because of their dissatisfaction, they either stopped attempting to lose weight or started eating more. As a result, the study established a connection between weight satisfaction/dissatisfaction and weight control actions Wardle et al. (2006). Compared to those who are comfortable with their weight, those who aren't are more likely to engage in weight management techniques to affect a change in their weight.

According to studies, women, whether active or sedentary, are more likely than males to have body dissatisfaction and disordered eating (Gutgesell et al., 2003; Hautala et al., 2008; Hoerr et al., 2002; Johnson et al., 2004). Those who perceive themselves to be overweight are more likely to engage in physical activity to lose weight than those who do not perceive themselves to be overweight, whereas weight misperception among overweight and obese adults is associated with a lower likelihood of interest in or attempts at weight loss, as well as less physical activity (Duncan et al., 2011). According to Zaccagni et al. (2014), only 13% of females were content with their body weight, and the majority of them (81%) would prefer to be slimmer than their perceived weight status.

Conflicts in the perception of body weight may have far-reaching consequences for human behaviour. People with normal weight who perceive themselves to have extra

body weight may be motivated to engage in healthy behaviours such as dietary adjustments or frequent physical exercise (Gruszka et al., 2022). While a person with obesity may see their own body size as too large to begin obesity therapy, they may perceive it as too little to begin obesity treatment. A comparable impact seems to influence the amount of body dissatisfaction. Significant body dissatisfaction may function as a drive for engaging in WM behaviours. Considering the above discussions, this current study postulates that there is an association between body weight satisfaction and perceived weight status of OFCE female teacher-trainees.

2.3.2 Weight perception and actual weight status

The definition of weight perception used in this study is whether a person perceives themselves as underweight, normal weight, or overweight (Faber & Kruger, 2005). Perceptions about one's weight do not appear to be an adult-only problem, but rather one that begins at a young age and is more severe as people get older and have greater exposure to media and resources (such as the internet and social media) for managing their weight (Staiano et al., 2021). Gyamfi et al. (2019) found that teens in Ghana want to slim down to fit into small sizes of trendy clothing because they consider thinness a sign of beauty. Even at this formative juncture in adolescence, one's weight has become a major focal point, having profound effects on one's sense of self-worth and one's perception of what is desired.

Studying how people feel about their bodies, Swaminathan et al. (2013) found that many people engaged in weight-loss activities regardless of their actual body weight. Participants may try to lose weight if they consider themselves overweight, even though their actual weight falls within the normal range. This further highlight that people are typically motivated by a desire for an ideal physique rather than health

issues. Wharton et al. (2008) found that some of their subjects, while being underweight, nevertheless tried to lose weight because they thought they were overweight. Several people in the underweight group also reported dieting, suggesting that factors other than actual weight status are at play and emphasising the importance of weight perceptions. This shows that these persons may meet the criteria for an eating disorder, even if they may not recognise a problem with their behaviour. This further supports the idea that some people with an eating problem may be unaware of the seriousness of their disease despite a diagnosis. Based on the above discussions, this current study contends that weight perception can have a significant influence on the actual weight status of OFCE female teacher-trainees.

2.3.3 Weight management practices

Actions taken to control one's weight, either by gaining it, losing it, or keeping it constant, are referred to as WM strategies. (Vartanian et al., 2012). These actions might range from beneficial to detrimental and even dangerous. Exercise and eating a low-fat diet are two healthy ways to manage your weight. Unhealthy practices include self-induced vomiting, overuse of laxatives, and skipping meals. The WHO developed a global strategy to encourage international partners to take many levels of action to improve diets and physical activity patterns across demographic groups while fully understanding the influence of the environment on food consumption and weight control (DiPietro et al., 2020). Several weight-loss methods have since focused on diet and exercise. However, specialists acknowledge that current weight-management techniques need to be improved because 50% of the initial weight loss is frequently regained in just one year (Curioni & Lourenço, 2005; Kouvelioti et al., 2014). The effectiveness of different weight-management strategies may be increased in the short and long term by knowing which components are most crucial.

Although combining eating and exercise led to a larger initial weight loss, the two behaviours' effects are not equivalent (Lara & Amigo, 2011; Miller et al., 1997; Shaw et al., 2006). Shaw et al. (2006) analysed data from 43 randomised controlled studies and concluded that nutritional therapies are more potent than physical activity interventions in causing an energy imbalance. Furthermore, research revealed that overweight and obese people require more daily physical activity than is often advised to prevent weight gain (Mekary et al., 2010; Saris et al., 2003). Saris et al. (2003) determined that 60 to 90 minutes of moderate to high-intensity exercise per day—more than twice as long as is often advised by healthcare professionals—is required to sustain weight loss. It is also acknowledged that maintaining such amounts of everyday physical activity would demand great effort over time (Mekary et al., 2010; Saris et al., 2003). The advantages of a well-designed dietary intervention outweigh the effect of exercise intensity on the extent of weight loss (Shaw et al., 2006). Although increased physical activity may have cardiovascular benefits for all people (DiPietro et al., 2020), it seems reasonable to concentrate research efforts on enhancing the efficacy of dietary strategies for weight loss as this may produce more encouraging results for overweight and obese people (Shaw et al., 2006).

Research over the previous 55 years has shown that cognitive-behavioural therapy (CBT) is necessary as a therapeutic approach for weight loss and weight control (Kirschenbaum & Krawczyk, 2021). The effectiveness of this therapy, which was created in the 1960s, has increased with time (Vassilopoulou et al., 2019). These programmes have been recommended as successful strategies for modifying obese people's behaviour. The focus of obesity CBT is on the causes and types of obesity (Castelnuovo et al., 2017). This type of treatment instructs patients on leading healthy lifestyles using social, cultural, biological, and psychological principles. With this

approach, obesity therapy will result from long-term lifestyle adjustments (Castelnuovo et al., 2017; Kirschenbaum & Krawczyk, 2021; Vassilopoulou et al., 2019). Traditional CBT for weight management includes self-monitoring, goal-setting, stimulus control, behavioural replacement, and cognitive restructuring (Dalle Grave, Sartirana, et al., 2020).

Several weight management strategies have been identified in the literature. Table 2-1 presents the weight intervention practices used in this current study.

Table 2-1: Some weight management strategies

WM strategy	Definition	Examples	Literature
Nutrition	Nutrition comprises following an appropriate dietary plan and receiving advice to reach a healthy body weight.	<ul style="list-style-type: none"> • Consumption of a high-protein diet • Consumption of a low-fat diet • Meal replacements • Consumption of fewer/high calories • Subscribing to a special diet 	(Brown et al., 2020; Huang et al., 2013; Kim, 2018; Perdew et al., 2021; Qi, 2014)
Physical activity	The term “physical activity” refers to any body movement involving skeletal muscles resulting in an outflow of kinetic energy. It comprises physical tasks such as playing, working, commuting, housework, and leisure activities that require body movement.	<ul style="list-style-type: none"> • Joining the gym • Leisure exercises such as walking, sports, cycling, and wheeling. 	(Byaruhanga et al., 2020; Cook & Gazmararian, 2018; Handayani et al., 2021; Jaminah & Mahmudiono, 2018; Martina & Adisasmita, 2019)
Cognitive-behavioural therapy	Cognitive-behavioural therapy is a strategy based on mental impacts used to create certain changes in individuals and alleviate emotional, behavioural, social, and intellectual deterioration.	<ul style="list-style-type: none"> • Psychoeducational intervention • Self-monitoring of daily food intake • Mindful exercises • Relearning adaptive eating habits 	(Alimoradi et al., 2016; Castelnuovo et al., 2017; Dalle Grave et al., 2020; Vassilopoulou et al., 2019)

Source: Author's own construct.

Based on the discussions of the preceding subsections, the study presents a conceptual framework to depict the conceptual perspectives of the research objectives. Figure 2 shows the conceptual framework of the study.

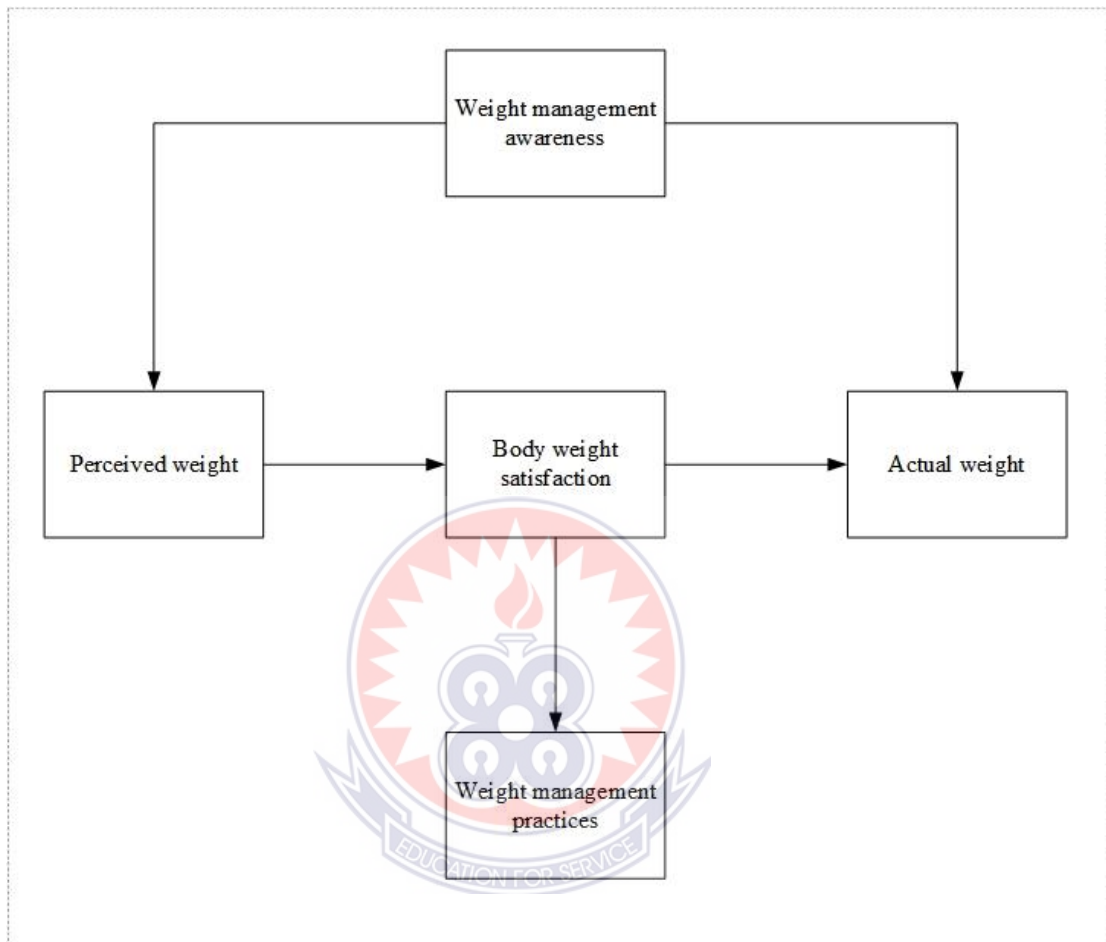


Figure 2-2: Conceptual framework

Source: Author's own construct.

2.4 Chapter Summary

The middle-range theory is a useful theoretical tool that can examine the relationships among body weight satisfaction, perceived weight status and actual weight status and investigate some weight management practices engaged in by OFCE female teacher-trainees. The core insight of the middle-range theory is that key concepts such as an individual's weight management actions, agency, the weight management context, and weight management control are interconnected and depend on each other.

Empirical studies have indicated that women, regardless of activity level, are more prone to body dissatisfaction and disordered eating compared to men. Researchers have also found that individuals who are dissatisfied with their weight are more likely to engage in weight management techniques to change their weight. This dissatisfaction is often influenced by discrepancies between self-perceived weight and actual weight. Also, the literature revealed that weight perception begins at a young age and becomes more severe with increasing exposure to media and resources for weight management. The desire for an ideal physique, rather than health concerns, motivates individuals to engage in weight-loss activities.

The literature review emphasizes that the majority of research on weight management behaviours has been carried out in developed countries. While the positive outcomes of weight management practices are extensively documented, there exists limited knowledge regarding the weight management practices of college of education students in Ghana. Previous studies have mainly focused on older adults, school children or included small, non-representative samples from major urban areas in developed countries. Consequently, there is a dearth of information concerning weight management practices among emerging adults, particularly female college students, in developing countries such as Ghana.

CHAPTER THREE

METHODOLOGY

3.0 Overview

The purpose of this chapter is to provide the detail description of the methodology that was used in the study. Research design, target population, sampling techniques, sample size selection, and survey instrument development are deliberated on in this chapter. The chapter further describes the statistical techniques for data collection, data analysis and the ethical considerations addressed throughout the research procedure.

3.1 Research Approach and Design

The quantitative research approach was used in this investigation. A descriptive survey, in particular, was found adequate for investigating and explaining the objective of this study. The choice of this design is influence by Fraenkel et al. (2000) assertion that when trying to define current situation of a phenomena, descriptive survey design is the most appropriate. As a result, the descriptive survey was used in this type of inquiry. The researcher employed this design to extract information on how OFCE female teacher-trainees perceive weight management at the time of the study in order to identify the participants' weight status and weight management practices (Check & Schutt, 2017).

3.2 Population

This study's population was all female teacher-trainees of the 48 Colleges of Education (CoE) in Ghana. The accessible population was estimated to be 823 female students of OFCE. These persons were undergoing a three-year Diploma in Basic Education (DBE) curriculum previous to the current changes, which got underway in

2014. The Colleges of Education Act 847 was enacted to elevate CoE into tertiary institutions. Following this legislation and with effect from October 2018, the CoE were upgraded to four-year degree awarding institutions and no longer three-year diploma awarding Colleges.

The study was carried out at Offinso College of Education (OFCE). OFCE is a teacher education college in Offinso (Offinso Municipal, Ashanti Region, Ghana). It was founded in 1955 as a female teacher training institution by the Gold Coast District of the Methodist Church. The College was transformed into a mixed-gender institution in September 1971. It became associated with the University of Cape Coast in September 2007 and achieved tertiary-level accreditation.

This population was targeted because of how the new four-year program of CoE has caused sedentariness among students, which makes them a suitable population. The new four-year college education life can be demanding, with academic pressures, deadlines, and personal challenges. Increased stress levels can lead to emotional eating or the consumption of comfort foods, which may contribute to weight gain (Lai et al., 2021). Additionally, some students may turn to food as a coping mechanism for stress or other emotional factors (Racette et al., 2008). Moreover, extended periods of studying, attending lectures, or working on assignments can involve prolonged sitting and reduced physical activity. During a health and physical fitness course, some female students in the Offinso College of Education (OFCE) were found to be overweight when their body mass index (BMI) was calculated. This has given credence to studying weight management practices among the college's female teacher-trainees.

3.3 Sample and Sampling Procedure

The participants for the study were OFCE female teacher-trainees. A census approach was used to select the participants. This helped eliminate sampling error, providing data on all the individuals in the study (Singh & Masuku, 2014). The study participants were 443 OFCE female teacher-trainees comprising level two hundred (n=239;54%) and level three hundred (n=204;46%). Out of the 443 questionnaires, 18 were incompletely filled and 29 were not returned. Therefore, a Sample size of 396 female teacher-trainees were used for the study. Levels hundred and four hundred female students were excluded from this study because of their inaccessibility when conducting this research. The level hundred students were in the house due to the shift system in the current CoE. Level four hundred students were also not part of the study because they were out for their internship program.

3.4 Research Instruments

The respondents' weight (in kilograms) and height (in centimetres) were measured using a digital weight scale and the Frankfurt horizontal plane, respectively. For the survey, questionnaire was the instrument used. This questionnaire was divided into four sections: respondent background, WM awareness, weight perception, WM practices, and WM goals.

The study adapted the weight perception measurement from Shrestha et al. (2021) to measure weight perception. Items demanded participants to assess themselves according to four groups: underweight, normal, overweight and obese. To explore the WM practices adapted by the participants, the study adapted the instruments used by these studies (Alqahtani et al., 2017; Attlee et al., 2017; Chongwatpol & Gates, 2016). These instruments contained 23 questions on dietary and non-dietary practices

undertaken by individuals when trying to lose or control their body weight. Alqahtani et al. (2017) employed twenty-three questions in their study to examine WM practices between normal and obese groups. Also, Attlee et al. (2017) utilized twenty-one common WM practices that cover the broad range of WM goals of losing, maintaining, or gaining body weight to measure WM among adults in United Arab Emirates. Chongwatpol & Gates (2016) on the other hand, assessed twenty WM practices based on a modified version of a similar question from the National Health and Nutrition Examination Survey (NHANES) (CDC National Center for Health Statistics, 2018).

The questions on WM practices from these studies were merged and modified to suit the context and culture of the study area. Some practices such as “Bariatric surgery”, “Purging (vomiting)” and “Smoking” do not apply among the study participants. Therefore, these practices were removed during the finalization of the study questionnaire. As a result, thirteen WM practices were adopted in the final questionnaire. This scale asks about WM practices used by the participants to lose weight, maintain weight or gain weight by asking, ‘Have you done any of the following practices? If yes, please indicate the purpose of each practice you have done.’ Examples of WM practices are increasing physical activity, eating less fat, replacing foods, and joining a wellness centre. To measure body weight satisfaction, a 4 point- Likert scale was employed. The scale indicated “unsatisfied, not very satisfied, partially satisfied and very satisfied.

3.5 Data Collection Procedure and Ethical consideration

Data was collected in a three week- period. Before the data collection, an introductory letter was obtained from the Department of Health, Physical Education Recreation

and Sports (HPERS), University of Education, Winneba (UEW) to Offinso College of Education.

The researcher administered the questionnaire with the help of two research assistants who had been trained for two days. The two research assistants assisted in arranging the classroom and the distribution of the questionnaires. The female teacher-trainees were assembled in a classroom and briefed on the reason for carrying out the research work. The participants were also informed about the need to respond to the items on the questionnaire. The questionnaires were given to them and they had sufficient time to respond. Participants stood up straight with their backs against a wall and their heads in the Frankfurt horizontal plane while the researcher and two field assistants measured their height using a portable wall-mounted Stadiometer. Participants wore light clothing and were barefoot while their weight and height were assessed using a digital weighing scale. Body mass index (BMI) was then calculated by dividing weight (kg) by the height (m) squared. BMI was categorized according to WHO guidelines: underweight (BMI < 18.5 kg/m²), normal weight (BMI 18.5–24.9 kg/m²), overweight (BMI 25–29.9 kg/m²) and obesity (BMI > 30 kg/m²) (World Health Organization, 2000). Participants were informed that the data would be private and not shared publicly. Much attention was paid to the issue of confidentiality to protect participants' right.

3.6 Reliability and Validity of the Instrument

The researcher's supervisor and other lecturers from the Department of Health physical Education Recreation and Sports examined the content and face validity of the instrument, eliminating any ambiguities. Before the main study, a pilot test was conducted at Wesley College of Education in the Ashanti region of Ghana to assess

the validity and reliability of the instrument. This test aimed to ensure that the questionnaire items were appropriately worded and understandable to the respondents. By doing so, weaknesses, inadequacies, or ambiguities in the items were identified and corrected. The decision to use female teacher-trainees from Wesley College of Education was based on their similarity to the respondents sampled for the study.

The collected data was processed using IBM SPSS version 21.0, and the reliability coefficient of the instrument were determined using Cronbach's coefficient alpha. The questionnaire demonstrated an internal consistency reliability coefficient of 0.799, which was considered acceptable and reliable. Researchers (Bonett, 2010; Cronbach & Shavelson, 2004) recommend a reliability coefficient of at least 0.70, preferably higher, further supporting the instrument's reliability.

3.7 Data Analysis

Data screening was conducted to identify incompletely filled questionnaires and prepared the data for statistical analysis. The questionnaire was numbered and coded to allow easy entry of the items into the computer. Data were analysed using Statistical Package for the Social Sciences (SPSS) version 21.0. Section A of the questionnaire covered background data of the participants and this was analyzed using frequency and percentages. Data from research question one (What is the level of awareness of the concept of WM among female teacher- trainees of OFCE?) was analyzed using descriptive statistics of frequency counts and percentages. Data from research question two (What are the various weight management practices engaged in by OFCE female teacher-trainees?) was analyzed using descriptive statistics of frequency counts and percentages. Data from research question three (What is the association between body weight satisfaction and perceived weight status of teacher-

trainees of OFCE?) was analyzed using Chi square. Inferential statistics were conducted at an alpha level of $p \leq .05$. Data from research question four (What is the relationship between perceived weight status and the actual weight status of female teacher-trainees of OFCE?) was analyzed using the Pearson's correlation coefficient since the data was on an interval scale.



CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Overview

This section concentrated on the analysis of the data that had been gathered. In this part, the strategy for data analysis and the presentation of the results were explained. Also, there were discussions on the findings of the results.

4.1 Participants' Characteristics

Due to the absence of both level one hundred and four hundred teacher-trainees on campus a total of 443 questionnaires were distributed to participants. Out of this number, 29 questionnaires were not returned and 18 incomplete questionnaires were discovered during screening for entry and were not entered into the software for data analysis. Therefore, data from 396 (89.4%) remaining questionnaires were entered into SPSS and further screened for incorrect entry and missing data.

Demographic data of the participants were analyzed using frequencies and percentages and results are presented in Table 4-1.

Table 4-1: Descriptive characteristics of the participants

Attributes		Mean \pm SD	
Age (years)		23.24 \pm 2.44	
Height (cm)		163.36 \pm 6.76	
Weight (kg)		61.69 \pm 9.70	
BMI (kg/m ²)		23.21 \pm 4.00	
Actual weight status	No.	%	
Underweight	69	17.4	
Normal	243	61.4	
Overweight	45	11.4	
Obese	39	9.8	
Perceived weight status			
Underweight	50	13.3	
Normal	169	45.1	
Overweight	133	35.5	
Obese	23	6.1	
Body weight satisfaction			
Very satisfied	231	61.6	
Partially satisfied	63	16.8	
Not very satisfied	51	13.6	
Unsatisfied	30	8.0	
Eating Habit			
Yes	346	92.3	
No	29	7.7	
Food preference			
Yes	336	89.6	
No	39	10.4	

Source: Field survey (2023)

Of the 396 participants, 197 (49.7%) were second-year students, and 199 (50.3%) were third-year students. The participants were 23 years old on the average (SD = 2.44). The participants' average height and weight were 163.36 cm (SD = 6.76) and 61.69 kg (SD = 9.7) respectively. The participants' average BMI was 23.21 kg/m² (SD = 4.0), which is within the normal range as BMI between 18.5 kg/m² and 24.9 kg/m² is considered a healthy range (Biritwum et al., 2005).

The weight status of the participants showed that 17.4% are underweight, 61.4% are normal, 11.4% are overweight and 9.8% are obese. The results revealed that 13.3% of the participants perceived themselves as underweight, 45.1% normal, 35.5% overweight and 6.1% obese. Regarding their body weight satisfaction, 61.6% were very satisfied, 16.8% were partially satisfied, 13.6% were not very satisfied and 8% were unsatisfied.

Among the participants, 89.6% reported being concerned about the kind of food they consume, while 10.4% reported otherwise. Additionally, the majority of individuals (92.3%) reported having certain eating habits, suggesting that they have developed dietary and nutritional routines or patterns. The other 7.7% of students, in contrast, claimed not to have any particular eating habits.

4.2 Research Question One: What is the Level of Awareness of the Concept of Weight Management among OFCE Female Teacher-Trainees?

This research question intended to find out the level of awareness of the concept of WM among OFCE female teacher-trainees. During the survey period, the majority of the participants acknowledged knowing about weight management. Results are displayed in Figure 3 below.

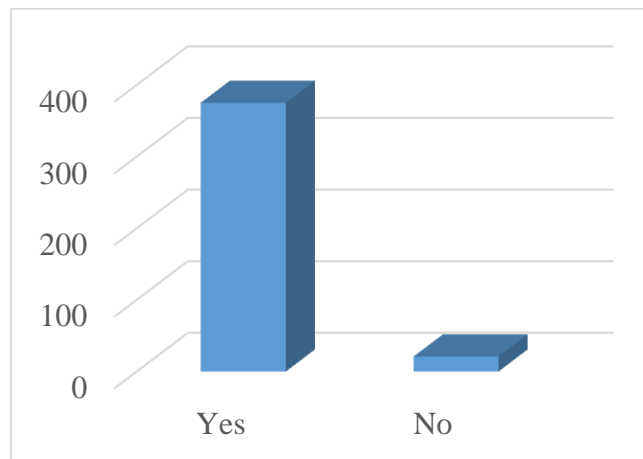


Figure 4-1: awareness of the concept of weight management

Source: Field survey (2023)

Out of 396 participants, 375 (94.7%) knew about WM, and 21 (5.3%) did not at the time of the study. This information shows the degree of WM knowledge and awareness among OFCE teacher-trainees. Those 375 participants who knew about WM served as the basis for the remainder of the analysis.

4.3 Research Question Two: What are the Various Weight Management Practices Engaged in by OFCE Female Teacher-Trainees?

This research question sought to find the various weight management practices engaged in by OFCE female teacher-trainees. This section of the study focused on the different WM practices used by the participants and their WM goals. Results are shown in Table 4-2 below.

Table 4-2 Distribution of weight management practices

WM practice	Adopt		WM goal		
	Yes n (%)	No n (%)	Lose weight n (%)	Maintain weight n (%)	Gain weight n (%)
Consumption of high protein	268 (71.5)	107 (28.5)	53 (19.8)	165 (61.6)	50 (18.6)
Consumption of low fat	247 (65.9)	128 (34.1)	145 (58.7)	94 (38.1)	8 (3.2)
Meal replacement	186 (49.6)	189 (50.4)	127 (68.3)	40 (21.5)	19 (10.2)
Special diet	207 (55.2)	168 (44.8)	55 (26.6)	146 (70.5)	6 (2.9)
Eating fewer calories	203 (54.1)	172 (45.9)	136 (67.0)	42 (20.7)	25 (12.3)
Gym	194 (51.7)	181 (48.3)	92 (47.4)	92 (47.4)	10 (5.2)
Visiting wellness centre	161 (42.9)	214 (57.1)	46 (28.6)	105 (65.2)	10 (6.2)
Walking	336 (89.6)	39 (10.4)	262 (78.0)	72 (21.4)	2 (0.6)
Sports	217 (57.9)	158 (42.1)	181 (83.4)	21 (9.7)	15 (6.9)
Cycling	172 (45.9)	203 (54.1)	39 (22.7)	133 (77.3)	0 (0)
Educational information and support	233 (62.1)	142 (37.9)	38 (16.3)	188 (80.7)	7 (3.0)
Self-monitoring	311 (82.9)	64 (17.1)	75 (24.1)	214 (68.8)	22 (7.1)
Relearning adaptive eating behaviour	127 (33.9)	248 (66.1)	42 (33.1)	71 (55.9)	14 (11.0)

Source: Field survey (2023)

WM practices were widely adopted by majority of the participants. The highest practice recorded is walking (89.6%), followed by self-monitoring (82.9%), consumption of high protein (71.5%), consumption of low fat (65.9%), obtaining educational information and support (62.1%), engaging in sporting activities (57.9%), eating special diets (55.2%), eating low calories (54.1%), and attending the gym (51.7%). Moreover, results depict that most participants 262(78%) engaged in

walking to reduce their weight, 214 (68.8%) resorted to self-monitoring to maintain weight, and 50 (18.6%) adopted a high protein diet to gain weight.

4.4 Research Question Three: What is the Association between Body Weight Satisfaction and Perceived Weight Status of OFCE Teacher-Trainees?

This question sought to find the association between body weight satisfaction and perceived weight status of OFCE teacher-trainees. Table 4-3 below presents the results. The Chi-Square analysis shows the significant body weight satisfaction differences among perceived weight status of the participants ($\chi^2 = 17.726$, P -value = 0.038).

Table 4-3 Body weight satisfaction and perceived weight status

		Body weight satisfaction				Total
		Very satisfied	Partially satisfied	Not very satisfied	Unsatisfied	
(Pearson Chi-Square 17.726, P -value = 0.038)						
Perceived weight status	Underweight	32	13	2	3	50
	Normal weight	104	34	19	12	169
	Overweight	83	13	24	13	133
	Obese	12	3	6	2	23
Total		231	63	51	30	375

Source: field survey (2023)

The outcome showed that there are significant differences in body weight satisfaction among perceived weight status of the participants ($\chi^2 = 17.726$, P -value = 0.038). Furthermore, the result depicts that most of those who were very satisfied (45.0%) with their body weight perceived their weight to be normal. Also, most of those who were partially satisfied (53.9%) with their body weight had a perceived normal weight. In contrast, most of those who were not very satisfied (47.1%) with their body

weight had a perceived overweight. Again, most of those who were unsatisfied (43.3%) with their body weight had a perceived overweight.

4.5 Research Question Four: What is the Relationship between Perceived Weight Status and the Actual Weight Status of OFCE Female Teacher-Trainees?

According to the BMI of the participants, actual weight status was categorized into underweight, normal, overweight and obese as shown in Table 4-4 below:

Table 4-4 Correlation between perceived weight status and actual weight status

		Perceived weight status (N)				Total
		(Pearson correlation 0.203, P -value < 0.01)				
		Underweight	Normal	Overweight	Obese	
Actual weight status	Underweight	7	57	5	0	69
	Normal	23	98	102	7	230
	Overweight	9	8	21	1	39
	Obese	11	6	5	15	37
Total		50	169	133	23	375

Source: Field survey (2023)

There is a significant correlation between perceived weight status and actual weight status (Person's correlation = 0.203, P -value < 0.01). This result implied that there is a weak but statistically significant positive correlation between how participants perceived their weight status and their actual weight status, indicating that, on average, participants tend to accurately assess their own weight status to some degree. From the results, 37.6% of participants perceived their weight status correctly, while 16.5% underestimated and 45.9% overestimated it. When comparing participants' perceived weight to their actual weight, 89.9% of those classified as underweight overestimated their actual body weight. Additionally, among those who were grouped

as normal, 10.0% underestimated and 47.3% overestimated their current body weight, respectively. In comparison to participants who were classified as underweight, normal weight, and obese, those who were labelled as overweight by their BMI displayed a higher percentage of accuracy (53.8%). Participants with obesity cannot overestimate their body weight status since there are no status categories above the impression of obesity (such as morbid obesity). Despite the aforementioned, 59.5% of participants who were obese underestimated their actual body weight.

4.6 Discussion

This study analysed OFCE female teacher-trainees awareness of the concept of weight management, weight management practices as well as perceived weight status, body weight and body satisfaction.

4.6.1 Participants characteristics

The findings from Table 4-1 revealed that the majority of respondents are quite young. Younger generations are more flexible and adventurous than older ones (Larose et al., 2013). Younger adults are more likely to use appropriate weight management techniques like increasing physical activity, modifying food, and enrolling in weight loss programs (Donnelly et al., 2003). This is because they are more energetic and might gain health advantages from maintaining a healthy weight. Younger people are also more willing to try new things, such as a different diet or exercise regimen. This willingness to try new things can aid WM by facilitating the discovery of powerful new techniques. The availability of advice and assistance from family members and medical professionals may increase young people's chances of successfully managing their weight.

Again, the findings in Table 4-1 showed that the participants' average BMI is within the normal weight range. The World Health Organization (WHO) BMI recommendations provide the basis for classifying underweight, normal weight, overweight, and obese people. Underweight is defined as having a BMI of less than 18.5 kg/m^2 , normal weight is between 18.5 kg/m^2 and 24.9 kg/m^2 , overweight is between 25 kg/m^2 and 29.9 kg/m^2 , and obesity is defined as having a BMI of 30 kg/m^2 or higher (Biritwum et al., 2005). According to the study's findings, the majority of participants (61.4%) had a normal weight based on their BMI. This result is comparable to that of Quaidoo et al. (2018), who found that emerging adults in the Accra Metropolis had normal weight status. This is encouraging since it can be observed that most OFCE teacher-trainees have a healthy weight status. Having a normal weight status can have significant positive implication for both physical and mental health, and can help the OFCE teacher-trainees lead longer, healthier lives.

The findings in Table 4-1 also revealed different weight perceptions among the participants. Perceived weight status refers to an individual's subjective perception of their own weight status. This can be influenced by various factors, such as cultural and societal norms, personal experiences, and media representations. The implications of perceived normal weight status can vary depending on whether an individual perceives themselves as being at a normal weight or not. If an individual perceives themselves as being at a normal weight, it can have positive implications for their mental health and overall well-being, including: improved body image, reduced risk of disordered eating and improved mental health (Swencionis et al., 2013; Whatnall et al., 2022). On the other hand, if an individual perceives themselves as being overweight or underweight when they are actually at a normal weight, it can have

negative implications for their mental health and overall well-being, including: poor body image, increased risk of disordered eating and negative impact on mental health.

Concerning the participants' satisfaction with their body description, more than half of the participants were satisfied with their body weight. Contrary to the findings of Richardson et al. (2019), the outcome of this current study is in line with the previous studies (Koyuncu et al., 2010; Mwaba & Roman, 2009; Plichta et al., 2019) which revealed that most of the students in their study expressed satisfaction with various aspects of their bodies as well as with their overall body image. These findings imply that the majority of OFCE teacher-trainees are satisfied with their body descriptions, which may have a number of positive implications for their overall well-being. As a result, most teacher-trainees are likely to feel more confident and positive about themselves, which can boost their self-esteem. Also, being content with one's own body weight can reduce stress and anxiety, and may even lower the risk of developing depression. Female teacher-trainees feeling good about their body can make them more comfortable and confident in social situations, leading to better relationships with others.

The findings in Table 4-1 showed that a sizable percentage of participants were concerned about their food and nutrition in terms of controlling their weight. Additionally, the majority of individuals reported having certain eating habits, suggesting that they have developed dietary and nutritional routines or patterns. The other minority of students, in contrast, claimed not to have any particular eating habits. These findings can serve as a springboard for further exploration of students' worries or unhappiness with their physical appearance. They could be applied to

creating focused interventions to deal with any problems relating to body dissatisfaction.

4.6.2 Weight management awareness

According to the findings from Figure 4-1, majority of the participants acknowledged being aware of WM behaviours. This is good news for OFCE because the female teacher-trainees being aware of WM behaviours may go a long way to improve their mental and physical well-beings which will translate into their academic lives (Pellegrini et al., 2021; Whatnall et al., 2022). The prevalence of health and wellness programs such as physical education (PE) lessons taught on college campuses may be the cause of participants' knowledge and awareness of WM. Since college students are frequently in a stage of life where they are starting to take responsibility for their health and fitness, they may be more encouraged to look for information and tools on WM (Senkowski & Branscum, 2015). It is feasible that a college's social and cultural environment would motivate students to prioritise their looks and personal hygiene. Individuals can make more informed decisions about their lifestyle and behaviours, resulting in better weight control, by having information about diet, physical activity, and WM.

4.6.3 Weight management practices and goals

Walking more often to increase physical activity was the most widely employed strategy, according to 89.6% of participants. This shows that most participants were aware of the value of regular exercise for This weight management and were trying to move more throughout the day. The second most utilised technique was self-monitoring. This suggests that many participants were conscious of the significance of paying attention to their eating behaviours and were making efforts to hold

themselves accountable. The third and fourth most common tactics were eating a lot of protein and consuming less fat. Both of these tactics are useful for controlling weight since they can increase feelings of fullness and lower daily caloric consumption. Obtaining educational information and support, engaging in sporting activities, eating special diets, eating low calories, and attending the gym were also popular strategies among the group. These practices are also commonly used for weight management and can be effective when combined with other methods, such as increased physical activity and self-monitoring.

Participants used walking, according to the study's findings, to lose weight. Walking can help with calorie burn and weight loss. Cross-sectional studies have demonstrated a relationship between walking and increased physical activity and a decreased body mass index (New & Borer, 2022; Richardson et al., 2008). In New & Borer's study, the impact of walking speed on the total and regional body fat in women was studied and it was found that slow walkers in the residual group progressively lost a significant percent of total body fat over 30 weeks while no such loss occurred after 15 weeks in fast walkers in either group. Walking, a low-impact exercise, has been demonstrated to promote weight loss by raising the metabolic rate and enhancing calorie expenditure. The quantity of calories burned when walking depends on several factors, such as the time and intensity of the walk, the person's weight, and the amount of muscle mass (New & Borer, 2022). Additionally, walking can encourage satiety and lower daily calorie intake. Participants' adoption of walking can be a successful long-term WM method for weight loss.

According to the study's findings, participants used self-monitoring to maintain their weight. Self-monitoring has been shown to be effective in managing and preventing

weight gain. According to research, those who closely monitor their eating patterns and exercise routines are more likely to be successful at maintaining a healthy weight (Bandura, 2007; Burke et al., 2011; Farage et al., 2021). A systematic review and meta-analysis conducted by (Cavero-redondo et al., 2020) revealed that twenty studies investigated yielded a moderate decrease in weight and higher adherence to intervention of behavioural weight management interventions using lifestyle and Health self-monitoring. Participants who used self-monitoring, therefore, had a better likelihood of maintaining a healthy weight status. Self-monitoring helps increase behavioural awareness and identify areas where one's diet and level of physical activity might be improved. Through Self-monitoring, OFCE female teacher-trainees can manage their behaviours which will result in greater adherence to weight management goals. In conclusion, self-monitoring is linked to maintaining a healthy weight, and regular self-monitoring can improve the effectiveness of weight-management strategies (Lichtman et al., 1992).

The study showed that participants employed a high-protein diet to increase their weight. Because protein is calorie-dense and can increase total calorie consumption, a high-protein diet contributes to weight gain. According to recent studies, eating a lot of protein may contribute to weight gain (Hernández-Alonso et al., 2016). Compared to plant-based diets, animal protein, which makes up more than half of a high-protein diet, is linked to increased weight gain (Pedersen et al., 2013). Although protein is an essential component for maintaining a healthy weight, it is not always obvious how much protein should be consumed daily. Participants' consumption of a high-protein diet can aid in weight gain by boosting calorie consumption and muscle growth. However, some protein sources, like red meat, are also high in saturated fats, which, if consumed excessively, can have harmful effects on health (Pedersen et al., 2013).

Although protein is necessary for healthy bodily function, it is also important for OFCE female teacher-trainees to monitor their protein intake and choose high-quality protein to prevent overeating. OFCE female teacher-trainees should seek advice from health professionals on consuming high-protein diets for weight gain.

These findings indicate that OFCE female teacher-trainees are more concerned about their body weight and are trying to either reduce or maintain their weight by adopting various WM practices. In doing so, teacher-trainees should seek advice from health professionals on the appropriate WM behaviours to adopt which are in line with their WM goals.

4.6.4 Association between body weight satisfaction and perceived weight status

The findings of Table 4-3 depicted significant body weight satisfaction differences among perceived weight status of the participants. According to the findings participants who perceived to have normal weights were more satisfied than the remaining groups. In contrast, those who perceived to be overweight were unsatisfied with their body weight status. This finding is similar to the study of Richardson et al. (2019). In their study, Richardson et al. (2019) assessed weight control practices, body image, exercise habits and body composition among college students. The authors found that college students perceived to have higher body weight were unsatisfied with their body image and hence participated in more WM behaviours.

Research (Gruszka et al., 2022; Stice et al., 2001) has shown that there is a strong association between body weight satisfaction and perceived weight status. Gruszka et al. (2022) investigated the perception of body size and body dissatisfaction in adults with normal weight, overweight and obesity using Stunard's Figure Rating Scale and found that there were statistically significant differences in the distribution of body

dissatisfaction according to the weight in both women and men. In the end, the authors concluded that normal-weight people less often than overweight and obese were dissatisfied with their own body size. When individuals perceive their weight status to be in line with what they believe is healthy or desirable, they are more likely to feel satisfied with their body weight. On the other hand, when individuals perceive their weight status to be above what they believe is healthy or desirable, they are more likely to feel dissatisfied with their body weight (Clay et al., 2005).

Additionally, the differences between body weight satisfaction and perceived weight status can have significant implications for a person's mental and physical health (Bhatt-Poulose et al., 2016; Justino et al., 2020; Lessard & Puhl, 2021; Park, 2018; Ren et al., 2018). When individuals are dissatisfied with their body weight, they may be more likely to engage in unhealthy weight control behaviors such as restrictive eating or excessive exercise, which can lead to physical health problems such as malnutrition, dehydration, and injury. Furthermore, negative body image and dissatisfaction with weight can also lead to mental health problems such as depression, anxiety, and low self-esteem (Bhatt-Poulose et al., 2016). On the other hand, individuals who are satisfied with their body weight and perceive themselves to be at a healthy weight are more likely to engage in healthy behaviors such as regular exercise and balanced nutrition, which can promote physical health and well-being. Additionally, positive body image and satisfaction with weight can improve mental health outcomes such as self-esteem and overall happiness (Justino et al., 2020). In a nutshell, the association between body weight satisfaction and perceived weight status underscores the need for a comprehensive approach to promoting healthy weight management and body image. This approach should consider the complex interplay of individual, social, and cultural factors that shape perceptions of body weight, as well

as the potential impact of these perceptions on mental and physical health. In light of these, it's important for OFCE teacher-trainees to prioritize their mental and physical health, and to adopt a holistic approach to WM and body image. This may involve seeking support from friends, family, or mental health professionals, as well as engaging in healthy behaviours such as regular physical activity and balanced nutrition. Additionally, OFCE teacher-trainees can work to challenge negative body image and societal pressures related to appearance by promoting body positivity and self-acceptance.

4.6.5 Relationship between perceived weight status and actual weight status

Perceived weight status of participants was found to have a significant positive relationship with actual weight status of participants. This finding is similar to those of Mills & Cooling (2020) and Mills & Watson (2021) who also found a positive correlation between the two variables. McComb & Mills (2021) determined the correlation between actual and perceived BMI using a 3D Avatar within female athletes. Their results indicated that a paired student *t*-test set at $p < 0.05$ suggested a significant difference between actual and perceived BMI ($p = 0.023$), and a Pearson Correlation Coefficient test confirmed a strong correlation of $r = 0.875$. The positive relationship between perceived weight status and actual weight status refers to the propensity for people to appropriately estimate their own weight status, such that those who are overweight or obese are more likely to view themselves as such than those who are normal weight.

The study findings showed that participants tend to accurately perceive their own weight status to a significant degree, with overweight and obese individuals more likely to recognize their excess weight than those who are of normal weight. This is

true for the current study as about 53.8% of overweight participants accurately perceived their weight status. In contrast, individuals who are underweight are more likely to perceive themselves as being of normal weight or even overweight. There are several reasons why this positive relationship exists. First, the social stigma surrounding being overweight or obese may make it more salient to those individuals, leading to greater awareness of their weight status (Thedinga et al., 2021). Second, individuals who are overweight or obese may experience more physical discomfort or health problems related to their weight, which may make them more aware of their size. (Keramat et al., 2020) Overall, the positive relationship between perceived weight status and actual weight status suggests that individuals may be able to accurately assess their own weight status, which can be an important first step in making positive changes to improve their health.

Additionally, findings from Mills & Cooling (2020) are similar to this current study, who found a value of $t = 0.81$ and $r = 0.68$, suggested a significant difference between actual and perceived BMI ($P < 0.001$). The major findings of this study showed that fewer than half of the participants correctly judged their weight status. This result is congruent with that of Kim & Lee (2010), who found that only 33.5% of female students accurately identified their body weight category in their study. The majority of participants had inaccurate perceptions of their current body weight, and among those who did, the vast majority tended to overestimate their weight status. This result suggests that there were differences between the participants' actual weight status and perceived weight. Participants' perceptions of their current weight status may be influenced by culture, cultural norms, and comparisons to their local environment. A similar discrepancy was found among Black South African university students, according to Mwaba & Roman (2009). In their research, Mchiza

et al. (2015) found that most African women had a misconception about their weight. Young women in college exhibited a considerable gap between their self-reported and real weights, according to Wardle et al. (2006), and this discrepancy was linked to feelings of body dissatisfaction. In this current study, most participants misperceived their physical weight and this may have a detrimental effect on their mental and behavioural health.

The disparity reveals a pervasive misunderstanding about body weight. This shows that women may be particularly susceptible to the harmful consequences of media saturation, which include sadness, a desire to fit in with societal norms, low self-esteem, and low body image. Females usually go to the media for advice on how they should display themselves, claim van Vonderen & Kinnally (2012). Therefore, OFCE teacher-trainees may experience pressure to maintain a specific weight and shape and worry that others will think poorly of them if they don't.

Additionally, it was shown that overweight participants' accuracy was higher than that of the other groups. Identifying as overweight is associated with an increased risk of developing depression and trying suicide, according to a recent meta-analysis (Haynes et al., 2019). Therefore, those who are accurately recognised as overweight in this study will benefit from WM techniques to combat not only their weight but also their mental health issues.

Also, the study found that most obese participants underestimated their actual weight status. According to research, a considerable number of obese people underestimate their real body weight, which is a critical public health concern and a major barrier to effective weight control (Johnson et al., 2008; Kuchler & Variyam, 2003). This line of reasoning is congruent with the notion that knowledge about a medical condition is

essential for effective therapy or treatment, which is a tenet of various theoretical models of health behaviour (such as the health belief model and the trans-theoretical model of change) (Muttarak, 2018). This claim holds that OFCE female teacher-trainees may fail to act to improve their diet or level of physical activity if they do not appropriately estimate their weight. This may result in maintaining an unhealthy body weight or even weight gain.

The findings indicate that OFCE female teacher-trainees should be encouraged to compare their bodyweight status to public health standards rather than their perceptions of other people's body weights or "beauty parlour" standards because doing so may result in unjustified under- and overestimations of weight status. As a result, health practitioners working to prevent obesity and overweight may think about including weight awareness techniques in their programmes. Giving teacher-trainees feedback on their objective weight status should also be standard procedure, with the idea being that erasing misconceptions about their weight status will encourage them to control their weight more effectively.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Overview

This chapter consists of the summary of the study, the key findings, conclusions and recommendations based on the findings.

5.1 Summary of the Study

The study investigated OFCE female teacher-trainees awareness of the concept of weight management, their weight management practices as well as their perceived weight status, body weight and body satisfaction.

The study employed a quantitative research method, specifically descriptive and correlational analyses. The survey included 396 female OFCE teacher-trainees. The researcher used questionnaires to collect data on female OFCE teacher-trainees' understanding of the idea of weight management, weight management methods, as well as their reported weight status, body weight, and body satisfaction. SPSS was used to analyse the data. The degree of awareness of WM among female teacher-trainees of OFCE, as well as the different weight management methods engaged in by female teacher-trainees of OFCE, were described using descriptive statistics of mean, percentage, and standard deviations. The Chi-square test was used to examine the relationship between body weight satisfaction and perceived weight status among OFCE teacher-trainees. In addition, the Pearson correlation coefficient was employed to examine data on the relationship between perceived and actual weight status of OFCE female teacher-trainees.

5.2 Key Findings of the Study

- 1) The research findings revealed that the majority of the participants had normal weight status and were aware of WM issues. WM is a regular occurrence among college of education students. This finding is not surprising given that college students are usually in a time of life where they are beginning to take responsibility for their health and fitness, and so may be more encouraged to seek out WM knowledge and tools. Furthermore, the popularity of health and wellness activities on college campuses, such as PE sessions, may give increased information and comprehension of WM concerns.
- 2) According to the study, more than half of the participants were engaged in nine WM activities. Walking is the most popular of these nine WM behaviors among female teacher-trainees. This was followed by self-monitoring, eating a high protein diet, eating less fat, acquiring educational information and support, participating in sports activities, eating special diets, eating low calories, and going to the gym. Furthermore, it was shown that the majority of female teacher-trainees walked to lose weight, self-monitored to maintain their weight, and consumed a high-protein diet to gain weight. These strategies are often employed for WM and can be helpful when implemented in a systematic manner.
- 3) The study found significant differences between female teacher-trainees' body weight satisfaction and perceived weight status. The findings revealed that female teacher-trainees who perceived to have normal weights were more satisfied than their counterparts. In contrast, those who perceived to be overweight were unsatisfied with their body weight status. These findings provide a starting point for future investigation of students' concerns or

dissatisfaction with their physical appearance and eating habits. In summary, the link between body weight satisfaction and perceived weight status emphasizes the necessity for an all-encompassing strategy to supporting healthy WM and body image. This approach should consider the complex interaction of individual, societal, and cultural variables that determine views of body weight, as well as the possible mental and physical health effects of these beliefs.

- 4) The researcher discovered a substantial positive relationship between female teacher-trainees' perceived weight and their actual weight status. The Person's Chi-square test revealed substantial differences between the two variables. According to the findings, less than half of the participants properly identified their weight status. Furthermore, the majority of female teacher-trainees had false views of their present body weight, and the great majority of those who did, tended to overestimate their weight status. Again, it was discovered that the accuracy of overweight female teacher-trainees was greater than that of the other groups. Finally, the majority of the obese female teacher-trainees underestimated their weight. Misperceptions regarding female teacher-trainees' actual weight status are a big worry, since they can lead to low self-esteem, health problems, and poor weight-control behaviors.

5.3 Conclusions

According to the findings, majority of the participants were aware of weight management issues. This finding is not surprising since college students are frequently in stage of life where they are starting to take responsibility for their health and fitness. Also, from the findings it can be concluded that majority of student engage in WM practices. These findings indicate that OFCE female teacher-trainees

are more concerned about their body weight and are trying to either reduce or maintain their weight by adopting various WM practices. In doing so, teacher-trainees should seek advice from health professionals on the appropriate WM behaviours to adopt which are in line with their WM goals. Again, there are differences in OFCE female teacher-trainees perceived body weight and actual body weight. The female teacher-trainees of OFCE do not compare their bodyweight status to public health standards. Some of these students need education to create awareness and knowledge on weight management to encourage a healthy weight concept and enhance students' understanding of appropriate body image perception. Lastly, some female teacher-trainees were dissatisfied about their weight. Those who perceive to have normal weight are more satisfied than their counterparts.

5.4 Recommendations

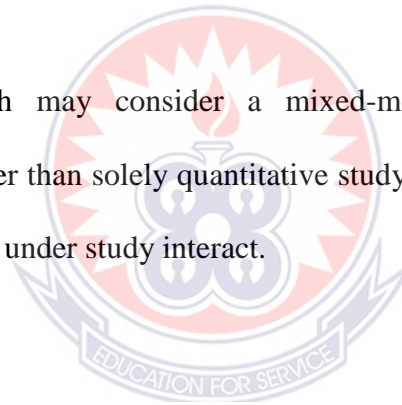
- 1) Female OFCE teacher-trainees could be taught to compare their bodyweight status to public health standards rather than their perception of other people's body weights or "beauty parlour" standards.
- 2) In academic contexts, education and awareness initiatives could be conducted to foster a healthy weight concept and improve students' comprehension of proper body image perception.
- 3) Because many participants had wrong perceptions of their actual weight status and were actively attempting to change their weight despite having normal weight statuses, open discussions with nutrition professionals about healthy weight and effective weight management practices would benefit this age group.

- 4) Colleges of education must have enough sporting facilities, such as basketball courts, football fields, badminton courts, volleyball courts, and running tracks, to allow students to engage in a variety of activities.

5.5 Suggestions for Future Research

Future studies should consider the following:

- 1) This particular work was focused on female teacher-trainees of OFCE. However, future studies should broaden the study participants to include male teacher-trainees as well.
- 2) Future studies should also focus on the comparative analysis between male and female weight perceptions and how it affects WM practices and actual weight status.
- 3) Future research may consider a mixed-methods research design or a qualitative rather than solely quantitative study to gain a deeper knowledge of how the factors under study interact.



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APPENDIX A

QUESTIONNAIRE SCHEDULE

My name is Mary Opoku. I am an MPhil student at the University of Education Winneba. As part of my program, I am assessing weight management practices among female teacher-trainees of Offinso College of Education (OFCE).

Please, this study is strictly for academic purpose and as such, all information obtained through this medium shall be treated as confidential and used for the purpose for which it has been collected.

I would like you to honestly express your opinion on the questions to help the research.

Thank you.

SECTION A. BACKGROUND INFORMATION

1. How old are you?

2. What is your level in school?

One hundred Two hundred Three hundred Four hundred

3. Height

4. Weight

5. Body Mass Index

SECTION B. WEIGHT MANAGEMENT

6. Do you have any knowledge about weight management practices and weight control?

Yes No

If you choose “Yes”, please proceed to answer the rest of the questions.

7. How satisfied are you with your body weight?

Unsatisfied Not very satisfied Partially satisfied Very satisfied

8. Do you have certain eating habits?

Yes No

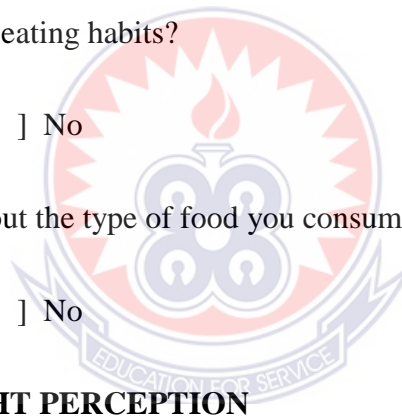
9. Are you concern about the type of food you consume?

Yes No

SECTION C. WEIGHT PERCEPTION

10. How do you describe yourself?

Underweight Normal Overweight Obese




SECTION D. WEIGHT MANAGEMENT PRACTICES

11. Have you engage in any of the following practices? please tick (✓) “yes” or “no.”
If yes, please indicate (✓) the purpose of each practice you have done.

Weight Management Practices	Yes	No	Weight Management Goals		
Nutrition			Lose weight	Maintain weight	Gain weight
Consumption of a high protein diet					
Consumption of a low-fat diet					
Meal replacements					
Subscribing to a special diet					
Consumption of less/high calories					
Physical Activity			Lose weight	Maintain weight	Gain weight
Joining gym					
Joining wellness centre					
Walking					
Sports					
Cycling					
Cognitive Behavioural Therapy			Lose weight	Maintain weight	Gain weight
Receiving educational information and support on weight management					
Self-monitoring of daily food-intake					
Relearning adaptive eating habits					

APPENDIX B

INTRODUCTORY LETTER



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Our ref: FSE/DHPERS /L3/VOL.2.18 *Date: 16th February, 2023*

TO WHOM IT MAY CONCERN

Dear Sir/ Madam,

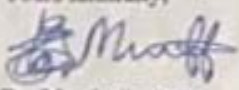
LETTER OF INTRODUCTION

We humbly write to introduce to you **Ms. MARY OPOKU**, a Master of Philosophy in Health, Physical Education, Recreation and Sports (HPERS) at the University of Education, Winneba with index number 202113659.

She is doing her research work on the topic "Weight Management Behaviour Among Female Teacher - Trainees of Offinso Collage of Education"

This introductory letter is for you to grant her the necessary assistance to collect data to help her complete his academic work.

Thank you.

Yours faithfully,

Dr. Munkaila Seibu
Ag. Head of Department

