



Professional Research Thesis

Titled

**The positive Role of Healthy Diet in the Mitigation
of the Psychological and Social Effects
Associated with Obesity**

Researcher

Inas Nashaat Daoud Matta

Supervisor signature

2026



Introduction.

Obesity is one of the most common and serious chronic diseases of the present era. It is a complex disease in which the amount of body fat increases significantly. One might assume that obesity is related only to body shape; however, it is in fact a medical condition that increases the risk factors for many other diseases and disorders, which may include heart disease, diabetes, high blood pressure, high cholesterol, liver disease, and sleep apnea.

By obesity here we mean the excess weight resulting from the accumulation of fat in the body. This accumulation may occur in a specific area, such as the abdomen and hips, as is common, or it may affect the entire body.

World Health Organization statistics indicate that more than 1.9 billion adults are overweight and 650 million suffer from obesity. If the spread of obesity continues on its current trajectory, half of the world's adult population will be overweight or obese by 2030.

Body Mass Index (BMI) is the primary measure used to diagnose obesity.

To determine whether a person has obesity, BMI must be calculated by measuring height (in meters) and weight (in kilograms), then dividing the weight by the square of the height. The following outlines the BMI classifications:

- *Normal weight: 18.5–24.9 kg/m²*
- *Overweight: 25.0–29.9 kg/m²*
- *Obesity: 30–44.9 kg/m²*
- *Severe (morbid) obesity: > 45 kg/m²*

From this, numerous healthy dietary systems have emerged that help prevent obesity in all its forms, and which must begin at an early age and continue through childhood, adolescence, and into adulthood.

Research Problem.

Changes in food production methods and food systems, together with rapid urbanization and shifting lifestyles, have all contributed to a transformation in dietary patterns. Individuals have come to consume increasing amounts of highly processed foods that are high in unhealthy fats, free sugars, and salt/sodium, while consuming insufficient amounts of fruits, vegetables, and dietary fiber.

The central challenge, and the core problem addressed by this study, is convincing individuals — amid this abundance of processed and fast food, combined with the fast pace of daily life and the demands of long working hours — to adopt a sound, healthy diet that protects them from the risks of obesity.

Significance of the Study:

The significance of the present study lies in four fundamental principles that constitute a healthy diet:

- *Adequacy: Meeting the body's requirements of micronutrients and macronutrients without exceeding them, so as to prevent any deficiencies.*
- *Balance: Balancing total energy intake with energy expenditure, while maintaining an appropriate balance among the three primary energy sources — proteins, fats, and carbohydrates.*
- *Moderation: Limiting the consumption of foods that are harmful to health.*
- *Diversity: Including a wide range of nutritious foods.*

Objectives of the Study:

- *For the diet to achieve prevention of weight gain and obesity, as well as the diseases associated with it, such as diabetes, heart disease, stroke, and cancer.*
- *For healthy dietary practices to begin at an early age, from birth.*
- *For these healthy practices to continue through childhood and adolescence into adulthood.*
- *For any healthy diet to be grounded in the four fundamental principles: adequacy, balance, moderation, and diversity.*
- *For the healthy diet to be free of microbial and chemical contaminants.*
- *For the healthy diet to include a diverse range of minimally processed foods and foods low in unhealthy fats, free sugars, and sodium.*

Study Hypotheses and Questions:

Study Hypotheses:

- *The positive role of nutritional counseling in reducing obesity among women of childbearing age and in modifying related behaviors.*
- *The role of nutritional counseling in reducing the hormonal disorders associated with obesity, foremost among them polycystic ovary syndrome.*
- *The role of nutritional counseling in eliminating poor dietary habits and building a healthy lifestyle through healthy diets.*
- *The role of nutritional counseling in improving general health.*
- *Improving dietary behavior leads to alleviating the negative psychological and social effects associated with obesity.*

Study Questions:

- *What is the role of nutritional counseling in reducing obesity and preventing its negative effects?*
- *What is the role of nutritional counseling in reducing the hormonal disorders associated with obesity, foremost among them polycystic ovary syndrome?*

- *How effective is nutritional counseling in raising nutritional awareness and improving women's general health?*
- *Does adherence to dietary plans contribute to weight loss and reducing BMI among women with obesity?*
- *What is the role of nutritional counseling in modifying behaviors and misconceptions related to dietary habits in daily life?*
- *Is there a correlation between the implementation of healthy nutrition programs and improvement in the psychological and social condition of obesity patients?*

Study Methodology:

This study relies on the descriptive method, the experimental method, and the analytical method in examining the role of nutritional counseling in reducing the prevalence of obesity among women of childbearing age.

Scope of the Study:

Spatial Scope: Worldwide.

Temporal Scope: 2000–2026.

Study Plan.

The study plan is organized as follows:

Chapter One: Theoretical and Conceptual Framework.

Section One – The Concept of Obesity and Overweight.

Section Two – Types and Classifications of Obesity.

Section Three – Factors Causing Obesity among Women of Childbearing Age.

Section Four – Health Complications of Obesity.

Chapter Two: The Effect of Obesity on Hormones in Women of Childbearing Age.

Section One – Understanding the Relationship between Hormones and Obesity.

Section Two – The Effect of Hormonal Imbalance on Women's Health.

Section Three – Polycystic Ovary Syndrome, Insulin Resistance, and Weight Gain.

Section Four – Obesity as a Risk Factor for Polycystic Ovary Syndrome.

Section Five – Hormonal Factors and Obesity in Polycystic Ovary Syndrome.

Section Six – Polycystic Ovary Syndrome and Its Relation to Weight-Loss Resistance.

Section Seven – Managing Obesity and Restoring Hormonal Balance.

Chapter Three: The Role of Nutritional Counseling in Reducing Obesity among Women of Childbearing Age.

Section One – Lifestyle Change.

Section Two – The Positive Role of Dietary Balance and Dietary Diversity in Reducing Obesity among Women of Childbearing Age.

Chapter Three: The Role of Nutritional Counseling in Building a Healthy Lifestyle.

Section One – Types of Healthy Diets that Contribute to Weight Loss and Reducing BMI among Women with Obesity.

Section Two – The Effect of Healthy Nutrition on General Health.

1. Physiological Factors Affected by Diet.

2. Effect on Obesity and Weight Gain.

3. Diet and Bone Health.

4. Diet and Reproductive Health.

Chapter Four: The Positive Role of Healthy Dietary Behavior in Alleviating the Psychological and Social Effects Associated with Obesity.

Section One – The Relationship between Obesity and Psychological and Social Status.

Section Two – The Effect of Obesity on Mental Health.

Section Three – The Effect of Improving Dietary Behavior on Alleviating the Negative Effects of Obesity.

Conclusion.

Obesity has today shifted from being a disease to becoming a societal obsession that not only drains family budgets but also causes psychological problems from which many women suffer. Addressing this problem depends on an accurate health and psychological assessment based on several factors:

First: Determining whether the obesity is accompanied by other conditions, such as diabetes, heart disease, or polycystic ovary syndrome, among others, and treating these conditions properly.

Second: Awareness of the problem of weight cycling, as studies have shown that repeated dieting — losing weight and then regaining it — makes the body more resistant to responding to diets.

Third: Relying on changes to daily lifestyle and following a regular daily exercise routine.

Fourth: Relying on a long-term diet that becomes a way of life, preferably a low-calorie, nutritionally balanced diet suited to the patient's preferences.

Fifth: Intermittent dieting may be used to improve psychological and physical wellbeing.

Sixth: Psychological support from family and specialists should be sought in some cases, in order to shift prevailing cultural attitudes toward beauty standards and ideal weight.

From this, it becomes clear that therapeutic nutrition is the cornerstone and the most sustainable solution in the management and treatment of obesity among women of childbearing age, moving beyond notions of “deprivation” toward the adoption of fundamental, sustainable lifestyle changes.

Following a balanced diet is not only about eating the right foods in the right amounts; it is also about adopting a sustainable, healthy dietary pattern that benefits the body, enabling us to enjoy a longer and healthier life.

It should be remembered that a balanced diet contributes to improved physical and mental health and overall quality of life. By following simple guidelines, creating balanced meal plans, and incorporating nutrient-rich foods, anyone can live a healthier and more vibrant life.

Findings:

- *Obesity is a disease of complex nature that extends far beyond the simplified concept of chronic excess caloric intake.*
- *Many healthy diets work by targeting accumulated fat, offering distinct pathways for restoring normal metabolic function.*
- *Healthy diets improve insulin sensitivity, enhance the hormonal regulation of appetite and satiety, reduce systemic inflammation, and help steer patients away from harmful fad diets.*

Recommendations:

For a dietary approach to be effective in the long term, it must be.

- *Sustainable.*
- *Nutritious, without being excessively high in calories.*
- *Enjoyable, without being excessive in pleasure or leading to dependency.*
- *Satiating, supportive of healthy gut bacteria, and adaptable to different cultures.*

Whole, natural foods meet all of these criteria at once, as they align with the cues to which human physiology has evolved to respond.

- *Effective dietary interventions must be individualized, recognizing that each patient requires an approach specifically tailored to their unique physiological, psychological, social, and cultural needs. To achieve this, healthcare practitioners should build a multidisciplinary framework that integrates nutritional science, behavioral therapy, and modern diagnostic tools to develop comprehensive, patient-centered care plans.*
- *When dealing with obesity patients, nutrition specialists should broaden their focus to include detecting and addressing metabolic dysfunction in all patients, regardless of weight, rather than focusing solely on body fat*

percentage. This approach contributes to a more comprehensive understanding of the disease.

- *Dietary interventions should aim to reduce harm, prioritizing achievable and sustainable improvements over rigid, idealized dietary targets.*
- *Finally, it is essential to eliminate prejudice and stigma in the management of obesity, as patients' struggles often reflect structural challenges within modern food environments rather than personal shortcomings. Empathy and guidance can empower individuals to make meaningful changes while addressing the root causes of metabolic disorders.*
- *Restoring physiological balance through sustainable, individualized dietary strategies based on whole foods remains one of the most effective means of combating obesity and its associated diseases. Promoting this comprehensive, compassionate approach is essential to advancing the care of obesity patients and improving their long-term health outcomes.*

References.

1. Lecorguillé M., Camier A., Kadawathagedara M. *Weight Changes, Nutritional Intake, Food Contaminants, and Supplements in Women of Childbearing Age, including Pregnant Women: Guidelines for Interventions during the Perinatal Period from the French National College of Midwives. J. Midwifery Womens Health. 2022.*
2. Ramakrishnan U., Grant F., Goldenberg T., Zongrone A., Martorell R. *Effect of women's nutrition before and during early pregnancy on maternal and infant outcomes: A systematic review. Paediatr. Perinat. Epidemiol. 2012.*
3. Gómez G., Nogueira Previdelli Á., Fisberg R.M., Kovalskys I., Fisberg M., Herrera-Cuenca M., Cortés Sanabria L.Y., Yépez García M.C., Rigotti A., Liria-Domínguez M.R., et al. *Dietary Diversity and Micronutrients Adequacy in Women of Childbearing Age: Results from ELANS Study. Nutrients. 2020.*
4. Milman N., Taylor C.L., Merkel J., Brannon P.M. *Iron status in pregnant women and women of reproductive age in Europe. Am. J. Clin. Nutr. 2017.*
5. Tinker S.C., Cogswell M.E., Devine O., Berry R.J. *Folic acid intake among U.S. women aged 15–44 years, National Health and Nutrition Examination Survey, 2003–2006.*

6. Rich-Edwards J.W., Spiegelman D., Garland M., Hertzmark E., Hunter D.J., Colditz G.A., Willett W.C., Wand H., Manson J.E. Physical activity, body mass index, and ovulatory disorder infertility. *Epidemiology*. 2002.
7. Gibney M.J. Ultra-processed foods in public health nutrition: The unanswered questions. *Br. J. Nutr.* 2023.
8. Barrea L., Caprio M., Camajani E., Verde L., Perrini S., Cignarelli A., Prodam F., Gambineri A., Isidori A.M., Colao A., et al. Ketogenic nutritional therapy (KeNuT)-a multi-step dietary model with meal replacements for the management of obesity and its related metabolic disorders: A consensus statement from the working group of the Club of the Italian Society of Endocrinology (SIE)-diet therapies in endocrinology and metabolism. *J. Endocrinol. Investig.* 2024.
9. Jones G., Riley M.D., Dwyer T. Maternal diet during pregnancy is associated with bone mineral density in children: A longitudinal study. *Eur. J. Clin. Nutr.* 2000.
10. Łagowska K. The Relationship between Vitamin D Status and the Menstrual Cycle in Young Women: A Preliminary Study. *Nutrients*. 2018.
11. Tahreem A, et al. Fad diets: Facts and fiction. *Frontiers in Nutrition*. 2022.
12. Aggarwal M, et al. Controversial dietary patterns: A high yield primer for clinicians. *American Journal of Medicine*. 2022.

13. U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020–2025. 9th Edition. December 2020.*
14. Dinu M, et al. *Effects of popular diets on anthropometric and cardiometabolic parameters: An umbrella review of meta-analyses of randomized controlled trials. Advances in Nutrition. 2020.*
15. WHO. *Obesity and overweight. [updated 2023; cited 2023 01-03-2023].*
16. Astrup A. *The role of dietary fat in obesity. Seminars in Vascular Medicine. 2005.*
17. Pirozzo S, Summerbell C, Cameron C, Glasziou P. *Should we recommend low-fat diets for obesity? Obesity Reviews. 2003.*
18. Ivanova S, Delattre C, Karcheva-Bahchevanska D, Benbasat N, Nalbantova V, Ivanov K. *Plant-based diet as a strategy for weight control. Foods. 2021.*
19. Thomas DE, Elliott EJ, Baur L. *Low glycaemic index or low glycaemic load diets for overweight and obesity. Cochrane Database of Systematic Reviews. 2007.*
20. Barber TM, Franks S. *Obesity and polycystic ovary syndrome. Clin Endocrinol (Oxf) [Internet]. 2021.*

21. Barber TM, Hanson P, Weickert MO, Franks S. Obesity and polycystic ovary syndrome: Implications for pathogenesis and novel management strategies. *Clin Med Insights Reprod Health [Internet]*. 2019.

22. Walley AJ, Blakemore AIF, Froguel P. Genetics of obesity and the prediction of risk for health. *Hum Mol Genet [Internet]*. 2006.