Obesity: Literature Review

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Obesity

Obesity is a serious public health issue because it is the world's fifth most significant cause of death (Shoneye et al., 2022). Being overweight or obese is an essential lifestyle factor contributing to numerous chronic diseases, such as cancer, diabetes, metabolic syndrome, and cardiovascular diseases (Shoneye et al., 2022). Researchers also predict that by 2030, lifestyle diseases will be responsible for 30% of fatalities globally (Shoneye et al., 2022). Healthcare providers can prevent these fatalities by effectively recognizing and treating pertinent risk factors and implementing behavioral engagement programs (Shoneye et al., 2022). As a result, it is crucial to acknowledge and address obesity as soon as possible (Shoneye et al., 2022). *Obesity* is an abnormal or excessive fat deposition that may have adverse health effects (Shoneye et al., 2022). It is an energy imbalance between calories ingested and calories expended, which are the leading cause of obesity and overweight (Shoneye et al., 2022). This study will assist current research, medical knowledge, and policymakers in identifying prospective elements that now affect and develop adult obesity and examine the critical illnesses, disorders, and other harmful health effects linked to obesity and excessive obesity (Shoneye et al., 2022). Utilizing literature reviews will also aid readers in understanding the state of the study, discussing significant material, and presenting their results in a written report (Shoneye et al., 2022). Literature reviews contextualize findings and broaden the body of knowledge in the study field, strengthen the research process, and narrow the focus of the research topic (Shoneye et al., 2022). Also, literature reviews assist decision-makers who want to understand how obesity affects population health in identifying solutions that directly involve public health and health authorities in minimizing risks and effectively guiding obese individuals worldwide (Shoneye et al., 2022).

Transition from metabolically healthy to unhealthy overweight/obesity and risk of cardiovascular disease incidence: A quantitative review

A healthy weight makes it possible for bones, muscles, the brain, the heart, and other organs to function appropriately and effectively for a very long period (Abiri et al., 2022). Excess weight, especially obesity, has a deleterious effect on almost every aspect of health, including reproductive, pulmonary, and cognitive function (Abiri et al., 2022). Numerous fatal and disabling diseases, including diabetes, heart disease, and several cancers, are made more likely by obesity (Abiri et al., 2022). It achieves this through several different methods, some as straightforward as the mechanical strain brought on by heavier weight and others involving complex adjustments to hormones and metabolism (Abiri et al., 2022). On the other hand, losing weight can lessen some risks related to obesity (Abiri et al., 2022). Obese people might experience considerable health advantages by decreasing just five to ten percent of their body weight, even if they never achieve their ideal weight or begin losing weight later in life (Abiri et al., 2022).

Key Points

Body mass index (BMI) exceeding 30 kg/m^2 for adults is a measure of obesity and has shown a sharp rise over the past twenty years in emerging nations (Abiri et al., 2022). According to researchers, the number of obese adults worldwide reached 641 million in 2014, up from just 105 million in 1975, an incredible growth (Abiri et al., 2022). More recently, researchers performed a statistical study, or meta-analysis, of the data following a systematic review of 89 trials on diseases associated with excess weight (Abiri et al., 2022). Compared to men and women in the normal weight range with a BMI of less than 25, diabetes was the weight-related

disease with the highest risk (Abiri et al., 2022). For men with BMIs of 30 or higher and women with BMIs of 30 or higher, the risk of developing type two diabetes was seven times higher and twelve times higher, respectively (Abiri et al., 2022). Even among women with BMIs that fall within the healthy range, weight gain during adulthood increases the risk of diabetes (Abiri et al., 2022). Additionally, there is a clear correlation between body mass index and several cardiovascular risk factors, such as coronary artery disease (CAD) (Abiri et al., 2022). Triglycerides, low-density lipoprotein cholesterol, blood sugar, inflammation, and blood pressure all rise along with BMI (Abiri et al., 2022). These modifications increase the likelihood of coronary heart disease, stroke, and death from cardiovascular causes (Abiri et al., 2022). Using data from 21 long-term studies that tracked more than 300,000 participants for an average of 16 years, the BMI-CAD Collaboration Investigators performed a meta-analysis (Abiri et al., 2022). Compared to people who were at an average weight, study participants who were overweight had a 32% higher chance of getting CAD, while those who were obese had an 81% higher risk (Abiri et al., 2022). Due to the higher prevalence of cardiovascular disease and obesity in obese patients, the p-value for these experiments was 0.04, indicating that they were statistically significant (Abiri et al., 2022). Even after adjusting for blood pressure and cholesterol levels, the risk estimates for obesity remained very considerable (Abiri et al., 2022). The researchers calculated that only approximately half of the increased risk of coronary heart disease associated with obesity is attributable to the impact of extra weight on blood pressure and blood cholesterol (Abiri et al., 2022). Obesity can cause diabetes, cardiovascular disease, and inherited factors (Abiri et al., 2022). Instead of being the only cause of obesity, genes appear to raise the chance of weight gain and interact with other environmental risk factors, like bad diets and sedentary lives, making healthy lifestyles more likely to offset these genetic effects (Abiri et al., 2022).

Most people's decisions about what to eat and how to spend their time affect their physical and social surroundings (Abiri et al., 2022).

Assumptions

Numerous studies have shown that obesity is a complicated health issue caused by a mix of personal variables like genetics and learned behaviors and structural causes like bad societal or cultural eating habits (Abiri et al., 2022). Most studies also concur that, despite genetic and epigenetic implications, obesity is an acquired disease that mainly depends on lifestyle variables, including personal decisions, such as low rates of physical exercise and persistent overeating (Abiri et al., 2022). It has become increasingly common to hold negative opinions toward obese people (Abiri et al., 2022). Stigmatization of overweight people does not help the public health effort to combat obesity; instead, it endangers their health, creates health inequities, and hinders successful interventions in tackling obesity (Abiri et al., 2022). These findings demonstrate the importance of weight stigma as a social justice issue and a public health priority (Abiri et al., 2022).

Deficit/Conclusion

Obesity has a detrimental impact on nearly every aspect of health, including sexual, respiratory, and mental health (Abiri et al., 2022). Additionally, it reduces life expectancy and raises the risk of developing chronic conditions like diabetes and cardiovascular disease (Abiri et al., 2022). The accepted authors' thinking also suggests that the obesity epidemic need not continue indefinitely (Abiri et al., 2022). Diet, exercise, medication, and even surgery are all effective ways to lose weight (Abiri et al., 2022). Though significantly more complex than gaining weight, losing it is a challenge (Abiri et al., 2022). According to the article, preventing

obesity might considerably improve individual and social health, minimize suffering, and reduce annual healthcare spending by billions of dollars if it were implemented early in life and continued throughout one's career (Abiri et al., 2022). To effectively fight the obesity epidemic and improve public health, it is essential to challenge widely held social ideas that perpetuate the stigma attached to being overweight and prioritize discourse about prevention and awareness of obesity (Abiri et al., 2022). If the nursing profession had not acknowledged the causes and preventions of obesity, the consequences would have included stigmatizing obese people as lazy, weak-willed, unsuccessful, and lacking in self-discipline (Abiri et al., 2022). Obese patients would have worsened already-existing health conditions, leading to ineffective patient compliance since they would not feel comfortable asking for assistance and would be less likely to do so, resulting in a decrease in quality holistic care (Abiri et al., 2022).

Metabolic syndrome, obesity and cancer risk

Obesity is a chronic, multifactorial condition that can result in excessive body fat and, occasionally, poor health (Belladelli et al., 2022). Although body fat in and of itself is not a disease, when the body has too much additional fat, it can alter how it works (Belladelli et al., 2022). These changes are gradual, have the potential to get worse over time, and may harm health. The majority of people can reduce their health risks by shedding some of their extra body fat (Belladelli et al., 2022). Even slight weight changes can significantly impact the health of an individual (Belladelli et al., 2022). Although not all weight reduction techniques are successful for everyone, and most individuals have attempted to lose weight more than once, keeping the weight off is just as crucial as losing it in the first place (Belladelli et al., 2022). Patients who are obese run the risk of developing undesirable health issues, which are sometimes treatable and reversible (Belladelli et al., 2022). A five to ten percent weight loss can dramatically reduce

health risks and prevent or stop the progression of diabetes, metabolic syndrome, and fatty liver disease (Belladelli et al., 2022).

Key Points

Healthcare professionals frequently use the Body Mass Index (BMI) to categorize obesity in the general population (Belladelli et al., 2022). The BMI calculates the ratio of average body weight to moderate height (Belladelli et al., 2022). Healthcare professionals often consider a BMI of 30 or higher to be obese (Belladelli et al., 2022). Although BMI has its limits, it is a simple to-measure metric that can assist patients in becoming aware of the health concerns associated with obesity. At an average weight, obesity is also a possibility (Belladelli et al., 2022). Weight stigma, which encompasses stereotypes, prejudice, and discrimination, is not limited to the healthcare industry—numerous studies look at the connection between BMI class and encountering discrimination in medical care (Belladelli et al., 2022). The technique used in this study included a logistic regression analysis in determining the likelihood that adults will self-report experiencing discrimination in the health care system (Belladelli et al., 2022). Specifically, the adult population of 18 years of age and older who fall into the categories of not being obese (BMI less than 30 kg/m2), obese class I (BMI equal to 30 kg/m2), and obese class II (BMI greater than or equal to 35 kg/m2) referenced the guidelines of the research (Belladelli et al., 2022). A statistical analysis technique called logistic regression uses previous observations from a data set to predict a binary outcome (Belladelli et al., 2022).

Data from the Canadian Community Health Survey (CCHS) rapid response module on everyday prejudice from 2018 were carefully examined by researchers (Belladelli et al., 2022). The CCHS is an annual cross-sectional survey conducted by Statistics Canada that draws data on

health determinants, health status, and health care from a sample of the population living in communities at least 18 years old and is nationally representative (Belladelli et al., 2022). Eight hundred seventy-six people made up the sample for the study, who were both male and female volunteers, at least 18 years old, married, with some degree of education, and from a range of economic levels (Belladelli et al., 2022). Respondents questioned their experiences using healthcare services and how they felt about prejudice in their daily lives (Belladelli et al., 2022). The locations could have been a doctor's office, community health center, walk-in clinic, hospital emergency department, or other medical facilities (Belladelli et al., 2022). According to the data, 6.4% of the adult population reported encountering prejudice in a healthcare setting, while 32.7% of adults reported experiencing discrimination in their daily lives (Belladelli et al., 2022). Of those surveyed, 29% specifically mentioned less-than-ideal treatment in the healthcare industry but did not mention common prejudice (Belladelli et al., 2022). With a p-value of 0.5, this study's hypothesis is statistically significant, and substantial evidence supports the null hypothesis (Belladelli et al., 2022).

Furthermore, weight stigma leads to poor physical and mental health outcomes (Belladelli et al., 2022). After correcting for sex, economic group, and other social and demographic factors, heavier individuals were much more likely to report experiencing discrimination in the healthcare system than those whose body mass index fell into the not obese category (Belladelli et al., 2022). Stigma in the medical field jeopardizes diagnosis, therapy, and good health. Medical treatment avoidance, provider mistrust, pharmaceutical nonadherence, disordered eating, inactivity, and worsened mental health are a few effects of weight stigma (Belladelli et al., 2022). Numerous cardiometabolic abnormalities, such as atherosclerosis,

cardiovascular diseases, diabetes, and biological stress, have been linked to experiencing weight stigma (Belladelli et al., 2022).

Assumptions

Policy and practice recommendations made via the lenses of health promotion, equity, and social determinants are increasingly advocating the need to pay attention to the effects of systemic weight bias (Belladelli et al., 2022). The likelihood of discrimination in a healthcare context decreased by being male (Belladelli et al., 2022). Depending on the measure of socioeconomic status studied, these potentially contradicting patterns of self-reported discriminatory encounters may reflect underreporting due to a lack of awareness or excessive heightened focus on their social identity status (Belladelli et al., 2022). These findings highlight practitioners' need to modify potentially harmful attitudes and behaviors (Belladelli et al., 2022). However, weight bias has received little attention in the teaching and training of health professionals (Belladelli et al., 2022). Although a solid provider-patient relationship is crucial for attaining favorable results, it is also necessary to appreciate the trust and manage the power dynamic (Belladelli et al., 2022).

Deficit/Conclusion

The authors' line of thinking is acknowledged because effective interventions must address weight's negative value, such as unjustified presumptions and judgments about a person's health, beauty, and controllability difficulties (Belladelli et al., 2022). Anti-stigma education strategies support anti-weight discrimination legislation, antibullying regulations, and culture change as the science of anti-weight stigma intervention advances to ensure enduring and

perceptible effects (Belladelli et al., 2022). Additionally, using neutral terminologies like "higher-weight" in health promotion, research, and provider-patient communications is one of the ways to promote a respectful and safe environment for discussion with the ultimate goal of eradicating weight-stigmatizing beliefs and behaviors in the medical field (Belladelli et al., 2022). The findings of this study, which showed the persistence of weight stigma in the provision of health services, are anticipated to support decisions based on evidence that targets both the structural and individual levels of the health system environment's policies and practices that direct the provision of care (Belladelli et al., 2022). If nursing rejects this line of thinking, the consequences could include increased weight stigmas in the COVID-19 pandemic era, when people may devote increased media and social media attention to weight gain amid associated lockdowns (Belladelli et al., 2022). Many researchers have also emphasized worries among heavier people about being watched when eating, exercising, and doing their food shopping and about being stigmatized by healthcare professionals as a detrimental and long-lasting barrier to receiving care (Belladelli et al., 2022).

Short term effects of semaglutide on emotional eating and other abnormal eating patterns among subjects living with obesity

Individuals consuming more calories than the body can use results in obesity. Obesity influences various factors, such as lifestyle choices and personal behaviors (Nicolau et al., 2022). Others incorporate societal frameworks on a global, regional, or family scale. In certain aspects, actively combating these various causes is necessary to prevent obesity (Nicolau et al., 2022). Fast food, convenience foods, excessive sugar intake, marketing and advertising, psychological elements, hormones, and specific drugs are all potential contributors to increased calorie intake

(Nicolau et al., 2022). Screen culture, employment shifts, weariness, neighborhood design, childcare trends, and disability are among the factors that could reduce the number of calories everyone burns (Nicolau et al., 2022). In addition, when people consume large amounts of energy—especially fat and sugar—without expelling the same quantity through exercise and other physical activity, the body stores a large portion of the excess energy as fat (Nicolau et al., 2022).

Key Points

Obesity is a significant public health issue, and populations that are overweight and obese are growing everywhere (Nicolau et al., 2022). Diet and exercise-related behaviors are essential to the emergence of obesity (Nicolau et al., 2022). People who are overweight or obese engage in disordered eating behavior, particularly emotional eating. Emotional eating is a strange reaction to unfavorable emotions like fear, anger, or anxiety (Nicolau et al., 2022). The learning theory and how defensive behaviors are picked up in the family of origin form the basis of the affect phobia theory (Nicolau et al., 2022). It discusses the use of obsessive actions and coping mechanisms to manage to suffer (Nicolau et al., 2022). The affect phobia theory also asserts that more emotional eating episodes are likely due to the negative feedback loop created by the subsequent secondary emotions of guilt or shame against oneself (Nicolau et al., 2022). Strategies for raising awareness of behavioral patterns and reducing emotional eating must be in weight management interventions (Nicolau et al., 2022). To challenge a person's willingness to confront negative affect, mindfulness-based therapies for obesity-related behaviors help treat emotional eating (Nicolau et al., 2022). The following hypotheses used a cross-sectional quantitative approach which includes healthy attitudes toward emotional expression are directly

and inversely related to emotional eating, and emotional eating is directly linked and positively associated with BMI (Nicolau et al., 2022).

One hundred persons who were attending clinics for weight management were participants (Nicolau et al., 2022). Adults determined to be overweight or obese volunteered for the experiment. Participants ranged in age from 18 to 72, and none self-identified as transgender (Nicolau et al., 2022). According to BMI estimations, 4% of the sample's participants were of average weight, 50.5% were overweight, and 45.5% were obese (Nicolau et al., 2022). Participants were asked to complete the Emotional Eating Subscale of the Dutch Eating Behavior Questionnaire, and clinical measures of body mass index were also recorded (Nicolau et al., 2022). According to the study's findings, 43% of participants were very prone to eat emotionally. The study's p-value was 0.01, which is considered statistically significant (Nicolau et al., 2022). Age, gender, and BMI contributed to the explanation of 8% of the variation in emotional eating. The belief that showing emotion is a sign of weakness and the idea that showing emotion will result in rejection from others are the attitudes toward emotional eating that account for 39% of the variance (Nicolau et al., 2022). In addition, BMI was favorably and directly related to views toward emotional expressiveness and eating (Nicolau et al., 2022). Emotional eating may contribute to the emergence of obesity and, as a result, raise the risk of the emergence of a variety of chronic medical disorders (Nicolau et al., 2022).

Assumptions

The current study emphasizes how everyday emotional eating is in people that are overweight or obese (Nicolau et al., 2022). According to the authors, emotional eating significantly contributes to body weight. The study found that emotional eating is fundamentally influenced by attitudes about emotional expression, supporting recent advancements in the affect

phobia model of emotional eating (Nicolau et al., 2022). The model's validation might give upcoming researchers and clinicians a foundation for creating and putting into practice weight management strategies (Nicolau et al., 2022). In the context of weight control strategies and, in general, emotional eating is a significant risk factor for overweight and obese people. It is essential to recognize this population's vulnerability (Nicolau et al., 2022). Emotional eating has also led to less successful weight loss and dropout rates from weight management programs (Nicolau et al., 2022). Additionally, researchers found that behavioral weight control regimens are complex and largely ineffective for people who participate in emotional eating, creating a barrier to successful weight management (Nicolau et al., 2022).

Deficit/Conclusion

The current study emphasizes the significance of challenging unfavorable attitudes toward emotional expression and the development of adaptive emotion regulation strategies in populations with high rates of disordered eating in clinical settings, which is consistent with the author's line of thought (Nicolau et al., 2022). The current study may have consequences for an increased risk of developing several chronic health disorders, given the rising global trend of obesity and the strong correlation between emotional eating and BMI (Nicolau et al., 2022). As part of evidence-based practice, future weight management therapies should evaluate disordered eating (Nicolau et al., 2022). Those of average weight and those who are overweight or obese support the rule of emotional eating, defined as overeating in response to unpleasant emotions (Nicolau et al., 2022). Emotional eating can lead to weight gain and make it more challenging to lose weight for certain people (Nicolau et al., 2022). Emotional eaters who struggle to maintain a

healthy weight could benefit from programs encouraging exercise, mindful eating, emotion regulation, and good body image (Nicolau et al., 2022).

Conclusion

The obesity epidemic is worsening and is now a problem for public health (Nicolau et al., 2022). An interprofessional team composed of a bariatric nurse, surgeon, primary care physician, and pharmacist works well to manage and prevent obesity (Nicolau et al., 2022). There is no known treatment for obesity, and practically all of them have drawbacks and potential side effects (Nicolau et al., 2022). The aim is to inform the patient of the significance of lifestyle modifications (Nicolau et al., 2022). It is the responsibility of every clinician who treats obese patients to tell them of the dangers associated with their conditions (Nicolau et al., 2022). If the patient is inactive, no intervention will be effective. Exercise is required to prevent weight gain even after surgery (Nicolau et al., 2022). There is currently no cure-all for obesity; all treatments have high failure rates and some, like surgery, also have potentially fatal side effects (Nicolau et al., 2022). Obese people can reverse their weight gain with a lifestyle change, but most people lack the motivation to exercise (Nicolau et al., 2022).

References

Abiri, B., Koohi, F., Ebadinejad, A., Valizadeh, M., & Hosseinpanah, F. (2022). Transition from metabolically healthy to unhealthy overweight/obesity and risk of cardiovascular disease incidence: A quantitative review. *Nutrition, Metabolism, and Cardiovascular Diseases*, *32*(9), 2041–2051. https://doi.org/10.1016/j.numecd.2022.06.010

Belladelli, F., Montorsi, F., & Martini, A. (2022). Metabolic syndrome, obesity and cancer risk. *Current Opinion in Urology*, *32*(6), 594–597. https://doi.org/10.1097/MOU.0000000000001041

Nicolau, J., Pujol, A., Tofé, S., Bonet, A., & Gil, A. (2022). Short term effects of semaglutide on emotional eating and other abnormal eating patterns among subjects living with obesity. *Physiology & Behavior*, *257*, 113967. https://doi.org/10.1016/j.physbeh.2022.113967

Shoneye, C. L., Kwasnicka, D., Mullan, B., Pollard, C. M., Boushey, C. J., & Kerr, D. A. (2022). Dietary assessment methods used in adult digital weight loss interventions: A quantitative review. *The Official Journal of the British Dietetic Association*, *23*(3), 112-117. https://doi.org/10.1111/jhn.13101