From Corpulence to Normal Weight-Practical Perspectives for Adopting Healthy Eating and Shopping Attitudes and Behaviors

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Abstract

World-wide efforts to reduce obesity amongst countries' inhabitants have failed. A widening gap has developed between theory and practice of how to improve this unwished for situation. This research focused on bridging this gap by developing practical and workable solutions for both the short- and long-term. The principal findings and recommendations of this research include government interventions to reduce the cost of healthy food and increase the cost of unhealthy food (long-term), accept obesity as a disease and change the word to corpulence (short-term), use a multitude of options to increase the chances of success (both short-and long-term) and help individuals to change their eating habits by adopting an eat-less-but-more-often diet plan (long-term).

1. Introduction

1.1 Introduction

According to the World Health Organization (WHO, 2021), obesity has increased dramatically

over the last 50 years world-wide. WHO defines obesity as an abnormal and excessive weight, with a body mass index (BMI) of 30 and over. Countries such as the United States report that over half of their adult population is obese. This is a worrying concern, considering that obesity is often associated with several medical diseases such as diabetes 2, cardiovascular problems and cancer. More direct help and interventions need to be planned and implemented to try and make more positive progress to improve the current undesirable situation. Any such approach must consider the current economic situation worldwide (rising food prices) and must develop solutions that will make an immediate difference to sufferers in economic and benefit/incentive terms. This research has investigated new perspectives on how these challenging targets could be achieved, by focusing on workable, practical, and realistic suggestions for improvement. Previous approaches appear to have failed in their endeavors, such as so-called shock tactics, treating obesity as a stigma, relying on the publications of recommendations how to eat healthy and achieve a balanced diet, and a lack of easy to understand and follow information that includes some simple and yet effective options for immediate improvement. This research has adopted the following definition of what is meant by health in the context of this research: 'Health is a state of well-being with satisfaction of physical, cultural, psychosocial, economic, and spiritual needs, not simply the absence of illness' (Marks et al., 2018), developed based on influences by Maslow's (1943) hierarchy of needs (Figure1), such as that a person can be considered to be healthy provided all of their needs are satisfied, ultimately leading to self-actualization (top of the Maslow pyramid).
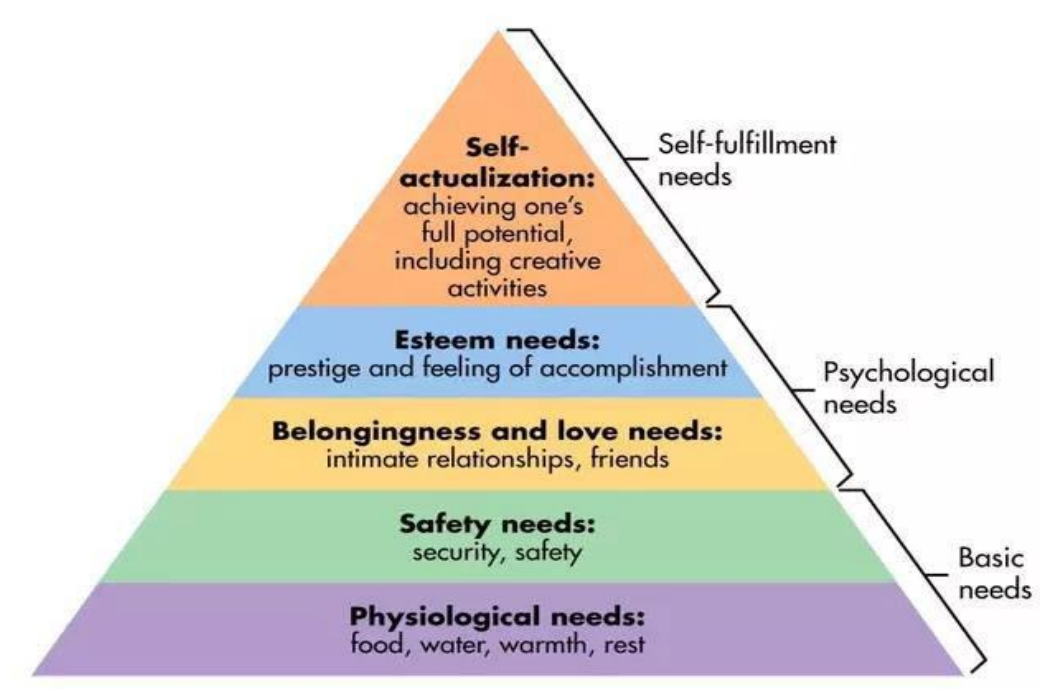

Figure 1. Maslow's hierarchy of Needs (1943)

Due to the complexity of human nature, every person appears to have a different psychological set up such as perceived control, self-efficacy, and attitude. One size does not fit all. It is for this reason that the researcher decided to sub-divide this research into several domains to allow an investigation that focused on a variety of potential approaches and solutions to address the

current world-wide obesity improvement challenge. It appears that many people across the world have failed in their endeavors to lose weight and to lead a healthier lifestyle. They are perhaps not doing things right or simply do not get appropriate help and support. The time for talking is over. A new approach is needed to renovate existing thinking and attitudes to produce a fresh and practical perspective that is fit for purpose within contemporary living environments.

The literature review for this research is presented next, including related research questions. It forms the theoretical framework of this research and is followed by methodology. Next are the results and discussion sections of what the research discovered. This is followed by conclusions and includes the research's limitations, suggestions for future research, and whether the main research questions have been answered.

1.2 Literature Review

1.2.1 Health Psychology (1975-2023)

Social psychologists argue that each person has a different set of psychological factors and processes, including perceived control (Rotter, 1982), perceived self-efficacy (Bandura, 1997), types of optimism-dispositional and unrealistic- (Klein & Weinstein, 1997) and personality-based factors (Krantz & Mc Ceney, 2002). Some research suggests that the development and maintenance of habits leads to behavior adoption (Stacey et al., 2000).

Albery & Munafo (2008) report that several studies in social psychology investigated the so-called attitude-behavior relationship. Ajzen (1991, Figure 2) developed a theory of planned behavior (TPB).
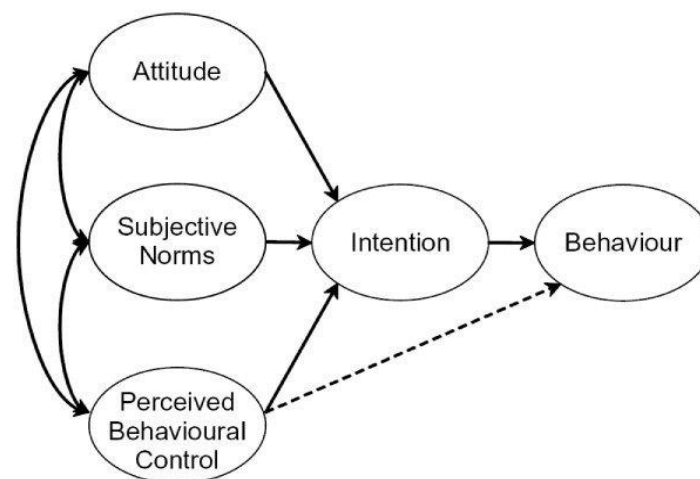

Figure 2. Theory of planned behavior (Ajzen, 1991)

The focus of this study was on how beliefs held by individuals affect their ultimate behavior towards an attitude object, plus how beliefs predict subsequent behavior.

A related important model, the health belief model (HBM), provides further evidence of how individuals cognitively represent health behaviors. It sheds light on understanding the decision-making processes relating to healthy behaviors. It appears that people apply some

form of rational thinking to balance their views on health matters that, for example, could include the consumption of healthy versus unhealthy food. According to Fishbein & Ajzen (1975), beliefs, attitudes, intentions, and behavior have a causal relationship. Beliefs lead to attitudes, and attitudes drive intentions and behavior.

In contrast, Fisher & Santana Gonzalez (2013) point out that attitude cannot always be applied to try and predict forthcoming behavior (people do not always do what they believe in). The same applies to people saying one thing, but then acting in a totally contradictory way. What really matters is that attitudes influence how people look at things. And this opens the door into people's perception/position, in the context of this research, regarding what they think and feel about food consumption. A persuasive approach/appeal can drive a change in people's attitude towards the subject matter. Fisher & Santana Gonzalez suggest that sometimes 'positive reinforcements are necessary to achieve repeat behaviors' (p. 74), an important consideration if changes in attitude and behavior are desired (Figure 3).

Figure 3. Cue-Routine-Reward Model (Duhigg, 2023)

The so-called health belief model (HBM, Janz & Becker, 1984, Figure 4) appears to be still valid in the 21st century to identify 'how individuals cognitively represent health behaviors and what the important elements are that establish self-protective health behavior.
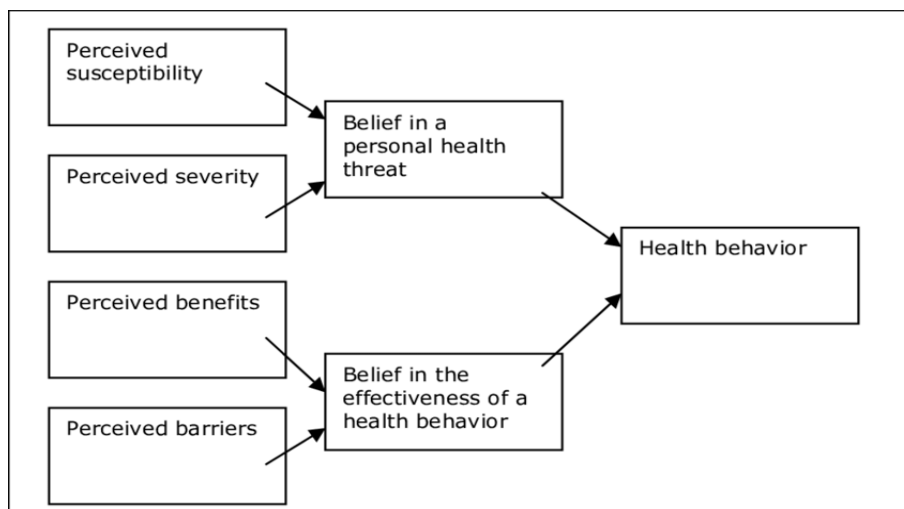
Figure 4. The Health Belief Model (HBM, Janz & Becker, 1984)

This health model has the potential to promote the adoption of certain health behaviors, for example, to instigate changes in existing eating habits, for example, in favor of a healthier alternative. The main strength of the HBM lies in its ability to turn theoretical concepts into actions that can be measured. The existing health action process approach (HAPA) developed by Schwarzer (2004, Figure 5) identifies two phases that an individual must pass through to 'adopt, initiate and maintain a health protective or promising behavior' (p.64).
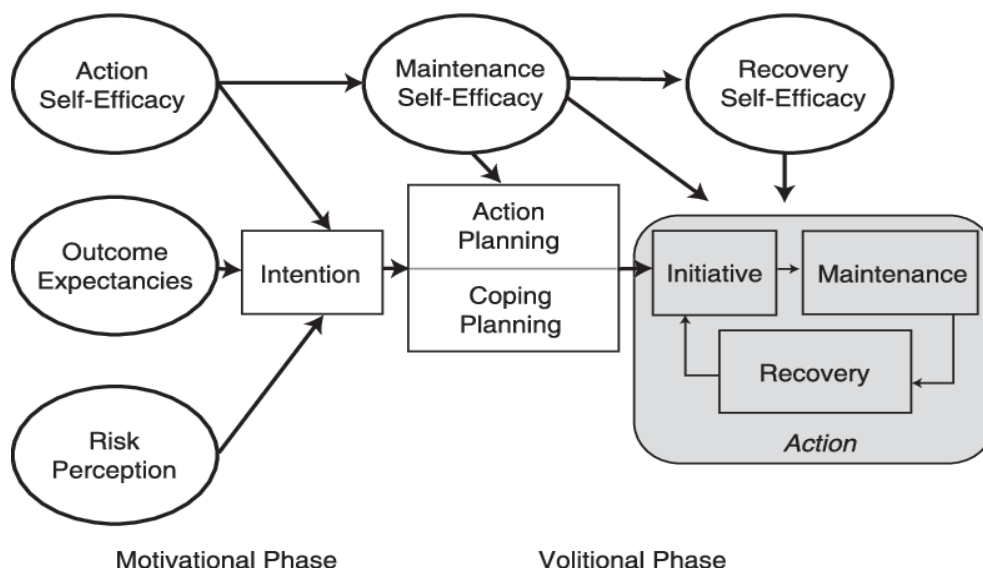

Figure 5. Health Action Process Approach (Schwarzer et al., 2011)

Albery & Mustafo suggest that belief-based behavioral change is feasible through the application of so-called fear appeals. The fundamental underlying reason for this supposition is that there appears to be a relationship between a person's fear evocation and their personal drive to take appropriate corrective action to protect the self. It appears that the concept of implementation intentions (making a link in the human mind between the situation and, for example, performing healthy eating habits), is an effective tool to adopt new behaviors (eating more healthy food, for example) or to change existing behaviors for better ones, such as focusing on a healthier diet. In addition, health behaviors are triggered by 'cues to action' (p.52) when people have certain health beliefs. For example, access to health-related advice has been the driving force because people follow instructions given by health-providers (Norman & Conner, 1993), such as reducing sugar intake, will improve the body's immune system, thus reducing the sensitivity to develop certain illnesses. Generally, people are perceptive to be concerned with health-related issues themselves (health motivation, Becker et al., 1977; Umeh & Rogan-Gibson, 2001). Martins (2016) reports that any actions to influence the desire of people to eat food (including shopping and eating habits), should consider the role of the anti-aging gene SIRTUIN 1 (SIRT 1). SIRT 1 is vital to maintain a healthy lifestyle through regular exercise and the consumption of healthy food. SIRT 1 activation is associated with low calorie diets. In contrast, when SIRT 1 is dormant, diseases develop such as obesity, diabetes and cardiovascular. Examples of healthy food that contains this gene include celery, strawberries, and kale. The way in which a person lives, such as eating and shopping and exercise habits, causes the activation of SIRT 1. It is relevant to losing weight and

time-restricted eating (TRE, see 1.2.5), as this activates SIRT 1, thus establishing the purpose of healthier lifestyles.

Rotter (1966) points out an important aspect of perceived control. Locus of control promotes the belief that people accept that, for example, health related outcomes are driven by both internal factors such as own actions and beliefs, plus external factors such as coincidence or sheer luck. Of particular interest is the view that people think that they have control over behaviors that are influenced by internal or external own reinforcements.

Albery & Munafo report that so-called health promotions have the benefit of designing interventions that drive cognitive and behavioral change in both individuals and groups. Health promotion activities have been around for many years. There appears to be no conclusive evidence that these health promotion campaigns have achieved their desired outcomes/targets in terms of effective health improvements in people.

According to Abraham& Michie (2008), it is imperative to understand who is likely to engage in so-called health behaviors. Such behaviors are driven by demographic, social, personality and cognitive factors (Conner & Norman, 2005). 'Any activity undertaken for the purpose of preventing or detecting disease or for improving health and well-being' (Connor & Sparks, 2005). Blaxter (1990) suggests that the economic or ethnic states of individuals often predict their behaviors towards diet, for example. It appears that, generally, wealthier, and better educated individuals are more likely to engage in health improving behaviors and less likely to engage in activities that are detrimental to health. Abraham et al. consider that the cognitive factors of health behavior such as knowledge and perceptions of health, appear to be the most useful approach for interventions that have been constructed to alter health behaviors.

1.2.2 Eating Habits (2004-2021)

Saguy (2013) holds the view that issues around obesity should be considered in context. So-called weight-based bullying must be avoided in addition to body-image issues that appear to be greater social problems. People, irrespective of their shape and size, have the right to be respected and shown dignity by other human beings. Based on human history, frames of fat were seen to be healthy, beautiful, and desirable. Saguy suggests that people should imagine a world in which being fat should be seen as just another form of human variation, like, for example, the color of people's eyes. It appears that some public campaigns against obesity provoked substantial controversy. So-called shock tactics backfired. For example, showing the picture of an overweight child with words such as 'Chubby Kid May Not Outlive Their Parents'.

Some public health experts point out that such posters would be counterproductive, as they reinforce the mark linked to obesity, thus reducing the likelihood that both parents and children should adopt a positive attitude towards weight reduction and take appropriate action to improve this. The focus of any such campaign should concentrate on fighting obesity, and not obese people. Obesity needs to be treated as an illness, and therefore help should be given to those who suffer from this illness. The focus should not be on what people look like but what they are suffering from, with a view to providing help and support to alleviate this situation.

Saguy reports that many health policies are often targeted at poor or ethnic minorities, as these appear to be more dependent on assistance and most vulnerable to public monitoring. Obesity or fatness needs to be looked upon as another form of body diversity. The focus should not be on someone's inability to lose weight but on the potential to develop self-help in those who most need it, perhaps shifting the focus from weight to bullying. Further attention should be, for example, on food production and distribution, as many environmental toxins lead to weight gain.

New Food Magazine (2021) reports that healthier food appears to be three times as expensive as the equivalent unhealthy food. The report highlighted that the poorest fifth of the United Kingdom (UK) households would need to spend 40% of their disposable income on food to meet the recognized Eatwell Guide (2016, UK government publication that defines recommendations on eating healthy and achieving a balanced diet) recommendations. It further appears that many children in the poorest fifth of the UK households are most likely to be overweight/obese by age 4-6, compared to children in the least deprived fifth.

According to Chen & Antonelli (2020), the food choices people make are influenced by factors such as lifestyle, technology advances and the natural environment. It appears that people, generally, consume more processed food and animal proteins. As a result, the consumption of healthy food such as whole grains, legumes, and fiber has diminished. In addition, unhealthy buying of food and consumption have increased due to changes in the food supply chain. This had a major impact on the shopping and eating habits of people. It created a vicious circle between food choices and their health consequences. Processed food, for example, is closely associated with higher body mass index (BMI) levels and becoming obese. Brennan et al. (2020) suggest that young people, for example, have a poor perception of why adopting healthy eating habits should be important to them. Conducted research with young adults aged between 18 and 24 years confirms that this age group opens opportunities to exercise positive influence over the most easily influenced. This has the potential for young people to adopt intended attitudes and behaviors towards healthy eating, exercise, and lifestyle. It ensures that health service resources are used optimally towards those who are highly likely to take up healthier eating habits.

Herz (2018) reports that obesity in children in the United States in 2015 has doubled in children and quadrupled in adults. The Centers for Disease Control and Prevention (2023) officially announced that American teenagers obtained 16.9 % of their calories from fast food, and the children between the ages of 2 and 11 years of age, obtained 9% of their daily calories from fast food. Herz suggests that there is a link between human beings' senses desires (often misused by marketing companies) and the promotion of what level of exercise is needed to burn consumed food calories (leading to wiser food purchases). The so-called Mediterranean Diet (nuts, seeds, some plant oils, and fatty fish) is a plant-based eating plan. As a result, people who follow this type of diet, are less likely to have a heart attack, develop dementia or diabetes, or suffer death from a cardiovascular disease.

Herz considers that improved and more relevant advice needs to be given to those who wish to change to a healthier diet. Understanding better how aromas and flavors affect our eating habits

has the potential to make people change their food desires and focus more on what people intend to eat. 'Evidence from several different research avenues has shown that exposure to aromas may help people to lose weight' (p.111). Stronger food aromas appear to make people take smaller bits. And as portion size is a big weight control factor, even making minor adjustments, potentially leads to consuming less food overall. The consumption of grapefruit, for example, seems to lead to weight loss. Similarly, several medical studies report that extra virgin olive oil can reduce the risk of dementia and some cancers. In addition, human beings tend to eat more if they see more food. Eating fast has a negative impact on human beings' innate ability to judge when sufficient food has been consumed. The use of large plates for serving food has had a major impact on excess body fat in people. What used to be regular-sized plates, with regular-sized meals served on them, have been replaced by larger portions of food being served and consumed.

It appears that the more food people see, the more they underestimate how many calories the food contains. Small plates and small servings of food are highly desirable to control weight. In this context, overweight people order or consume large quantities of food due to their inability to estimate the calorie-count in large portions of food. Serving and eating large quantities of fruits and vegetables, therefore, on large plates, is perfectly acceptable. Herz proposes the idea of keeping, for example, sweets and snacks in cupboards, and out of sight. In contrast, fruits and vegetables should be kept within easy sight and easy reach. This appears to drive people towards the consumption of healthier food. Herz defines healthy food to mean 'good for the vitality of our body and mind (p. 189). Another important factor in healthy eating is that, for example, potatoes increase weight (they are not filling), whereas yoghurt and nuts lead to weight loss (they are filling).

1.2.3 Perception of Fat (1953-2023)

Boakes et al. (1987) suggest that the likes and dislikes of an individual's taste for food originate from their acquired eating habits. A further fact of life appears to be that generally, human beings eat more during the first 20 years of life to increase weight steadily. This is followed by a period of another 20 years of keeping the weight at a constant value, followed by a final period of too much weight for the rest of life. Inherited psychology plays an important role, too. People often compare someone's weight with that of the parents or hold observed opinions based on what people see others eat or drink. In addition, observing others' eating habits affects your people' acceptance or rejection of food.

According to Bennett (1987), obesity occurs when the amount of fat in a human body is excessively large. Obesity affects people's health and well-being such as reduced life-expectancy and the potential development of other illnesses such as cardiovascular and sudden death. There appears to be a relationship between an increase in weight and an increase in cancer risk. Obesity carries adverse social and psychological negative impacts on human beings. Other risks associated with obesity include developing diabetes, greater risks during operations including the application of anesthetic and gall bladder disease. On the positive side, the effects of obesity can be reversed. For example, reducing weight to normal levels increases life expectancy to normal levels (Dublin, 1953). An important consideration is that weight loss

has a positive effect on mortality and morbidity. Bennett suggests that this is a worthwhile endeavor.

The benefits of weight reduction differ from person to person and depend on people's personal and family history of illness, age, and gender. Early suggestions of what causes obesity include several factors: Genetic: often based on family history, implies inherited components (Foch & Mc Clean, 1980). Social: social and cultural factors need to be considered. For example, in poorer countries, obesity can often be associated with lower social classes. In some countries, such as India, the reverse is true (Siddama, 1979). Psychological: different reasons were identified in the 1970s (Bruch, 1973) as potential causes of obesity. This includes deep-rooted emotional problems driving people to commit to so-called comfort-eating. People are more likely to eat more when put under pressure. It is also likely that an increase in eating more when under stress developed from earlier eating habits/patterns. Energy Balance: another potential explanation for obesity is based on the notion that a higher level of energy intake, with lower level of energy expenditure, leads to an energy imbalance that augments an increase in weight. The outcome of some early research (Garrow, 1978, 1981) suggests that there is no conclusive evidence that obesity occurs as a direct result of a shortcoming in an energy balance.

Some research conducted during the late 1970s concludes that weight reduction is most effective for the treatment of hypertension (Andrews et al., 1982). Hamill (2023) reports, based on the outcomes of some research conducted with 1060 students from the Simon Bolivar University in Columbia between June and December 2018, that smartphone addicts are more likely to get fat and contract a deadly disease. Much of the early research established that there were no clear differences between obese and non-obese people in areas of energy intake, energy use and the control of the calorific flow. In addition, some of the early thinking suggests that obesity can be addressed/treated in several ways:

- Changes in the purchase, selection, preparation, and consumption of food

- Changing deeply embedded habits through appropriate behavior changes

- The introduction and application of so-called self-control techniques

- Encouraging mealtime eating behavior

- Cognitive control such as belief, expectation, and self-instructions

Marks et al. suggest that so-called victim blaming should be avoided at all costs. If, for example, people become ill, it is their own fault because they eat too much or unhealthy food. Many health policies often focus their main attention on blaming and shaming individuals rather than providing appropriate guidance that focuses on fixing any health issues. Many of the health campaigns aim to inform people that they can make informed decisions about their health or well-being. Behavior changes such as putting on weight are often associated with similar changes in who people interact with (social cognitive theory, Bandura, 1995). Leng (2014) suggests that 'Blaming the obese for their obesity is rather like blaming the poor for their poverty' (p.1101). It may be possible for obese people to do something about their condition. This is often not achieved easily in reality.

Marks et al. argue that it appears that despite best public health intervention, efforts for people to achieve weight loss and to keep their weight down, no evidence exists of any long-term ongoing weight loss as a direct result of such interventions (Foresight Report, 2007). Marks et al. report that obesity developed as part of the evolution of human beings. Early humans were hunters who often had to store fat to survive the long and cold winters. In addition, putting on weight appears to stem from being inherited outside anyone's control. It further appears that, for example, prolonged regular exercise does not actually contribute to weight loss as much as people think or hope (to lose 15 kg, a 100 kg person would need to run 5,000 km over 5 years (Hall et al., 2011). It is not an excess number of calories that causes obesity but rather the amount of consumed carbohydrates in terms of quality and quantity (Taubes, 2009). One important question that appears to remain open is: should interventions, designed to work in the past, that failed, continue to be offered to individuals creating false hopes in weight reduction?

According to the Harvard T.H. Chan School of Public Health (2023), it appears that genes are not the destiny of human beings, for example, many overweight people who carry so-called obesity genes do not become overweight. In addition, the outcome of some Harvard research suggests that healthy lifestyles can counterbalance any genetic effects. People are more likely to become obese through polygenic interventions. To become obese, generally, is driven by diet, lifestyle, or other environmental factors. The National Health Service (NHS, UK, 2023) suggests that obesity is usually caused by eating too much food and not performing sufficient exercises to balance input and output. If large amounts of sugar and fat are consumed and not burnt off, then the human body will store the surplus energy as fat.

In the United States, the Centers for Disease Control and Prevention (CDC, 2023) report that obesity is a serious health issue as it is associated with some leading causes of death not just in the United States but world-wide (diabetes, heart disease, stroke, and some types of cancer. It appears that obesity has mushroomed in countries where physical inactivity and increased consumption of high-calory foods are promoted. The CDC suggests that an improved explanation of the relationship between genes and environmental factors could encourage those who wish to reach and keep a healthy weight. Ontrackretreats (2023) promotes some approaches to reduce obesity. These include a reduced calorie-diet, an exercise plan, controlled eating (eat slowly), joining a local weight loss group and eliminating liquid calories.

1.2.4 Non-Medical Approaches (1987-2006)

Lave & Wenger (1991) consider that an adopted legitimate peripheral participation process guides people to work closely with practitioners, engaging in sociocultural practices within a given community (in the context of this research: eating healthier or losing weight). It appears to be an important step in becoming a part of the chosen community. Peoples' intentions to learn something new are engaged and the meaning of learning is arranged so that it fits in with becoming a full participant within the chosen community, evolving with this community. Identities are long term, they 'live' between people and within the community of practice. The researcher suggests that this notion needs to be considered when designing new approaches to

guide and direct people how to eat healthier and lose weight.

Willson (2006) reports that technology has made a major contribution to alienating people from the socially constructed world that people live in. Communications, generally, take place via technology and enable increased exposures to other cultures and open new avenues to understand life processes better, for example, through more scientific research outcome access and understanding. In contrast, the arrival of new technologies has provided enormous opportunities to make good use of enhanced ways of communication, for example, with individuals and groups of people. The widespread use of databases has enabled the control of information storage, analysis, and manipulation. Internet and social media have improved the so-called social interaction between people. Willson suggests that 'Norms, values, and attitudes are socially constituted and transmitted through communication processes and integrative practices' (p. 85). This is an important point to consider when designing a new approach to combat unhealthy eating and shopping practices.

Inglis & Hughson (2005) argue that how people view art, are conveyed in the most important aspects of people's social existence. This includes revealing, for example, personal social life preferences when people share their opinions. It appears that new ways of producing art changed in the nineteenth century (De Nora, 1991). Rather than producing art just for a single person, its focus changed to produce it for the art markets. The researcher suggests that appropriate artwork needs to be produced that underpins the aims and objectives of converting people to follow healthier eating and lifestyles.

Maturana & Varela (1987) claim that the world people live in is a world of certainty, of resolute perceptions. People's daily routines are based on their convictions that what people see is what they believe to be true (confirmed convictions). All cognitive experience involves people at a personal level. All these experiences of certainty are outside the cognitive acts of others. It is, therefore, imperative that people interact with others so that their cognition of what true knowledge is goes beyond their own limitations and extends to include the perceptions of others. The researcher purports this to be an important insight to consider when designing appropriate approaches to tempt people to join a group of others who wish to lose weight or change to a healthier diet.

1.2.5 2023 Obesity Perspectives

Henry et al. (2023) report that an overwhelming number of people in the United Kingdom (UK) have been trying to lose weight at any time (Piernas et.al, 2016). Of paramount importance appears to be an approach that supports people to achieve desired/set weight loss goals through planned eating and food purchasing programs of between 3 months and 12 months duration. A so-called cognitive and behavior-based approach was analyzed to assess the viability and success of such an intervention. The outcome of the research suggests that there is an association between the use of food purchasing and planned eating strategy patterns, leading to additional weight losses compared to other methods such as people self-managing their body weight. It is the type of weight loss strategy that is most important, not how many cognitive and behavioral strategies are applied.

In contrast, Luli et al. (2023) consider that obesity is not formally recognized in the United Kingdom as a disease. This has a major impact on obese people in terms of their attitude and behavior towards losing weight and funding being made available to address this issue. In addition, many general practitioners (GPs) appear to be treating obesity as a low priority as it is not considered to be a disease. Luli et al argue that the recognition of obesity as a disease would raise the priority level of obesity treatment amongst clinicians. The NHS in the United Kingdom spent a total of £166b in 2021 on the treatment of obesity and overweight. Changing the perception of obesity could have a major impact on patients' behavior change and the provision of care for those who wish to lose weight. It would also contribute towards removing the stigma that is often associated with the word 'obesity'.

Keramat et al. (2023) record, based on the outcome of some research conducted in Australia between 2013 and 2021, that insufficient or low-quality sleep 'is associated with negative health outcomes such as obesity and reduced longevity' (p. 56). The study confirmed that too much or too little sleep or poor-quality sleep increases the risk of obesity, and that the opposite is true for those who had good quality and sufficient sleep. It is, therefore, of paramount importance to control obesity irrespective of geography. Many chronic health conditions are associated with obesity such as cardiovascular diseases, depression, type 2 diabetes, and different types of cancer. In addition, Keramat et al. report that obesity does not just carry any health consequences. Financial and economic implications are staggering. It appears that health care costs rise substantially when the general population of a country has a Body Mass Index (BMI) over 35 (Kent et al., 2017). It is of paramount importance to understand the link between sleep length, sleep quality, and obesity. People who lack good and sufficient quality sleep are more likely to consume high sugar and high calorie food (Ferranti et al., 2016).

Pronk et al. (2023) proclaim that, in the United States (US), obesity is a difficult to control public health and medical problem. It carries substantial personal and economic costs (Ward et al., 2021; Finkelstein et al., 2009). Efforts to improve this situation have been unsuccessful, in the context of the obesity prevalence rate (number of cases divided by total population) rising globally across all geographies and cultures. The Roundtable on Obesity Solutions (ROOS, 2014) comprises multi-sector participants from across industries. ROOS produced a Systems Map of obesity drivers and solutions. This strategic map shows the prioritized drivers for action in a sequential order. It appears that ROOS has not made any significant progress towards reducing the current obesity situation in the US (Table 1 shows ROOS's prioritized drivers from their strategic plan).

Table 1. Rank order of the ROOS thirteen prioritized drivers for action in the strategic plan

Drivers of obesity
1. Structural racism and social justice
2. Biased social norms and mental models
3. Effective health communications
4. Evidence-based prevention
5. Evidence-informed policy, systems, and environment

6. Clinical-community linkages
7. Federal Nutrition Assistance Programs such as Healthy Hunger-Free Kids Act, expansion of Child and Adult Care Food Program (CACFP)
8. Healthcare coverage and reimbursement such as comprehensive benefit programs
9. Evidence-based interventions in healthcare and community settings
10. Schools and childcare (interventions) such as an expansion of head start
11. Mental health
12. Healthcare delivery such as access to health care and training
13. Healthy food and activity systems (or broader food system) such as availability of healthier food and beverage options

Alhasan et al. (2020) suggest that the concept of neighborhood social cohesion (nSC) has the potential, when applied appropriately and effectively within neighborhood social environments, to improve the current obesity circumstances in the United States. Rosenblatt et al. (2021) define nSC as 'the network of relationships as well as the shared values and norms of residents in a neighborhood. Higher nSc has been associated with improved cardiovascular health amongst some community groups. It appears that metabolism is affected by the social environment in which people live, work, and play. This is due to the individual eating, physical activity, and sleep behaviors that, in turn, are affected by the socioenvironmental factors that exist within a given neighborhood.

Hempler et al. (2023) presents a Danish perspective on losing weight and gaining weight control. Recommendations to treat or prevent overweight are usually based on limiting energy consumption and following a balanced healthy diet. A time-restricted eating (TRE) approach encourages the consumption of food and beverages within certain set time daily time frames, such as 4-10 hours. Within this time frame, food restrictions are lifted. This approach has been identified as requiring participants to have less nutritional knowledge compared to other dietary interventions (Hawley et al., 2020; Parr et al., 2020). Bjerre et al. (2023) argue that an important aspect of TRE is to maintain it. A flexible approach appears to be more successful in its application than enforced rigid control. Results based on the outcome of some research suggest that this kind of approach carries greater weight loss results. For TRE to work long term, consistency in areas such as regular meal patterns, support from others and the elimination of feelings of guilt are a must. TRE needs to become a part of people's daily life and routine for it to work as intended.

Arayees et al. (2023) report a Dutch perspective that overweight and obesity in children are often the result of a complex imbalance between taking in calories and burning calories. This imbalance is influenced by parents through their own ways of doing things whilst raising children. It includes activities such as open/hidden control over what children eat and the encouragement of any physical activities. It appears that parents play a major role in influencing the eating and physical activity habits of their children. The research outcome concludes that parents of overweight and obese children apply a different control over the eating habits of their children, compared to parents of children with a healthy weight.

Wahab & le Roux (2023) present an Irish perspective on the growing concern about obesity

as a chronic disease that increases the risks of morbidity and mortality. The conducted research's major focus was on the relationship between cardiovascular improvements and obesity treatment. Evidence from the controlled trials suggests that obesity treatment has positive effects on cardiovascular outcomes. Actions that lead to these improvements included lifestyle changes, taking relevant medications and stomach-shrinking surgery (bariatric procedure).

1.3 Main Research Questions

The main research questions for this research are:

1. What is known about corpulence in individuals? What is the current knowledge/thinking?
2. Is there a relationship between a lack of nutritional education and the eating habits of overweight people?
3. How could eating habits of children be changed to achieve higher levels of healthy food consumption?
4. Is nutritional education improvement sufficient to reduce the number of overweight children? What else should/could be done to deliver long-term solutions?
5. Why have existing approaches failed? How could these be modified to make them work? What else could be/needs to be done, how and why?

2. Research Methodology

A qualitative research approach seemed most appropriate for this research to ascertain what is already known about the subject matter under investigation. The researcher divided the literature review into five topic domains (Table 2, health psychology, eating habits, perception of fat, non-medical approaches, and 2023 obesity perspectives, with clearly defined publication dates (between 1953 and 2023) to establish both historical and contemporary insights. The selected literature included a good and relevant range of publications to generate valid and reliable data. This approach made it possible to answer the main carefully designed research questions (1.3).

The researcher's target was to organize, analyze, and interpret both the theoretical and practical applications to design suggestions for practical actions that ultimately will improve the eating, shopping, and exercise habits of people, to reduce obesity. An applied limited thematic analysis identified common themes and relationships between the chosen domains to enable the researcher to use subjective experience to interpret the data. This quasi-thematic analysis approach (the amount of generated research data did not warrant the use of coding) allowed the researcher to separate relevant and irrelevant research data for this research.

The primary focus of the research findings was based on an evidential analysis and interpretation of all the research data. It was thus possible to assign meaning to the data to arrive at justified conclusions. Some predictive analysis was used to allow the researcher to make additional suggestions on how to address obesity issues more effectively.

3. Results (Quasi-Thematic Analysis of the Literature Review)

Advances in the fight to reduce obesity substantially have been slow and sporadic. Efforts to lower Body Mass Index (BMI) levels have been unsuccessful worldwide, at great expense. The outcomes from this research suggest that not sufficient progress has been made to address obesity through appropriate practical, flexible, and realistic approaches. The generation of so-called health models such as health belief (Figure 4) appears not to have made a sufficiently significant impact on people's eating, shopping, and exercise habits. Shock tactics failed equally. A fresh look at establishing new ways of addressing the identified issues is, therefore, justified in generating more practical and realistic solutions to reduce the rising numbers of corpulent people of all ages.

A mixed method approach appears to be most suitable to develop options that have a much better chance of success because they appeal more to people. It provides an opportunity to explore and exploit, for example, current technological advances (Artificial Intelligence, AI, and Virtual Reality, VR) and non-textual materials (artwork) such as illustrations, caricatures, and drawings for application in obesity therapies. Every human being is different. This means that one solution will not fit every person. Highly desirable are positive repeat behaviors. These, in turn, have the potential to change people's attitudes towards losing weight and leading a healthy lifestyle. This contrasts with the notion that changes in attitudes always lead to changes in behavior. More educational approaches are needed to support people from different ethnic origins to change the way they think about excess weight as an acceptable social status symbol. Financially less well-off people have a tendency not to engage in health improvement activities. More interventions are needed to rectify or improve this shortfall.

In countries where obesity is not formally recognized as a disease, less funding and fewer health practitioner resources are made available to support sufferers. Obesity is not acknowledged as just another human variation like eye color or hair color. Healthier food is generally more expensive than the equivalent unhealthy food. This is an important point to consider in the current world-wide economic circumstances.

Poorer households appear to be receiving insufficient help and support to successfully change their eating habits. The word obesity carries a stigma. Obesity is reversible. Controlled eating such as following a reduced-calorie diet, regular exercises, and membership of a weight loss group (group cohesion) will ultimately lead to substantial weight losses. People generally focus their attention on blaming overweight people for being obese rather than focusing on the actual health issues.

Self-management appears to be less effective than following a controlled and planned diet. Improving sleep quality (more and higher quality) reduces obesity. So does time-restricted eating (TRE, for example, eating and drinking only within a specified time frame. There is increasing pressure on countries' health services to review the education support provided to people who suffer from obesity and those who wish to avoid it. Table 2 presents a summary of the literature review analysis.

Table 2. Summary of the Quasi-Thematic Analysis of the Literature Review

Health Psychology

Every human being is different, habits drive behaviors, beliefs affect behavior, rational thinking affects health views, positive repeat behaviors are essential for losing weight/healthy lifestyle, fear and personal drive affect actions to protect the self, stimuli to action drive health behaviors, health promotions often fail, people's ethnic origin affects their diet attitude, well off and educated people engage more in health improving activities, positive influences drive the adoption of health behaviors.

Eating Habits

Focus on weight, not the person, weight is another form of human variation, obesity needs to be recognized as an illness, people's self-help ability is paramount, healthier food costs more than unhealthy food, focus needs to be on poor households, the word obesity carries a stigma, better dietary advice is needed, more advice is needed regarding food portions and how to serve food, encourage more fruit and vegetables, reduce sweets and treats.

Perception of Fat

Obesity carries negative social and psychological impacts, obesity is reversible. avoid victim blaming, guidance must focus on fixing health issues, obesity is driven by lifestyle, diet, and environmental factors, reduced calorie intake, more regular exercises, controlled eating and being a weight loss group member reduce obesity.

Non-Medical Approaches

Technology has both positive and negative effects on life processes, engaging with health practitioners adds value to eating healthier and losing weight, appropriate artwork has the potential to influence people to lead healthier lifestyles, group cohesion is vital for converting individuals to take up healthier eating/lifestyles.

2023 Obesity Perspectives

A controlled and planned eating approach is more effective than self-management, funding is made available where obesity is recognized as a disease, including obesity treatment, changing the perception of obesity will impact behavior and attitude change, lack of sleep/poor sleep quality leads to obesity and a reduced life expectancy, efforts to reduce BMI levels across populations have been unsuccessful and costly. neighborhood social cohesion can reduce obesity, time-restricted eating can lead to weight loss, a flexible approach to losing weight is more successful than a rigid approach, parents influence the eating and exercise activities of children, lifestyle changes, stomach-shrinking surgery, and taking regular medications have a positive impact on obesity.

4. Discussion

There is a widening gap between the effectiveness of the application of theoretical models such as the health belief and action process approach models and the achievements of associated practical solutions to reduce obesity levels world-wide. Whilst it appears that some of the cognitive behavior models are still relevant and applicable today, particular emphasis should be given to contemporary technologies such as VR and AI. These applications have the potential to turn 'talkers' into 'doers' (Fisher and Satana Gonzalez, 2016) and replace what appears to be ineffective tables and figures on how to eat healthier food and lose weight. This approach, with its practical implications and potential, is more likely to succeed where theory has failed. People need to have more than just intentions-they need to have realistic and achievable goals, seeing the fruits of their labor. Long-term solutions are desirable. Short term fixes are undesirable. They may offer some short-term gains but generally fail to succeed in the long term. Motivation to succeed needs to be continuous for this approach to be successful. Regular checks/reviews need to be conducted to ensure continuity. A benefit realization plan could be used to measure how successful planned changes have been. Key is to maximize change rather than focus on what needs to be changed.

The word obesity needs to change. The researcher suggests that the stigma associated with the word obesity could be removed by adopting a more sympathetic description such as corpulence or being corpulent. Being overweight needs to be instilled in people to mean just another form of human characteristic, like people's eye or hair color. Focus should be on addressing the overweight problem and not on fighting corpulent people. The appearance of people as such is irrelevant. Attention needs to be paid to what people are suffering from.

Given the current economic and financial situation worldwide, a marked effect on corpulence would be if healthy food were made cheaper and unhealthy food more expensive. This would encourage/drive people to change their shopping habits and lead to an increase consumption in healthy food. To achieve this shift in buying habits would require country governments to work closely with food suppliers, distributors, and shops.

The true cost of corpulence, in any country, should be offset against the cost of taking constructive action to improve current situations. Potentially, the cost of rolling out anti-obesity-actions can be recovered/financed by the anticipated savings due to improving the general health of people. This could be the potential driving force behind any planned activity to reduce people's weight and turn them into healthier individuals.

It appears that people have adopted some unhealthy eating habits and routines such as eating three big meals a day, often eating dinner late in the evening. The consumption of so-called pre-meals at breakfast, lunch, and dinner reduces the craving for more food whilst eating the main meals. It is much healthier to have six smaller portion size meals a day instead of eating three large meals. People tend to eat more when they see more food. Keeping fruit and vegetables within easy reach and sight has the potential to encourage healthier in-between meals snacking and keeping sweets and treats out of sight as far away as possible is another healthy eating improvement approach.

And finally, not getting enough or sufficient quality sleep affects not only people's mental abilities but also affects their physical health. This includes weight gain due to some chemical imbalance that makes people believe that they have not consumed sufficient food, so they continue to eat even when the stomach is full.

5. Conclusions

Obesity is reversible. To achieve weight reductions and healthier lifestyles, it will be necessary to approach any such endeavors from different angles. Local health service providers need to invest more time and effort to create fit for purpose solutions that are conducive to encourage overweight people to adopt different approaches to reduce their weight. Focus and attention needs to be on stimulating/motivating people emotionally to increase their levels of positive beliefs. Previous theoretical improvement approaches need to be strengthened with considered new approaches that include the following (in priority order) recommendations from this research:

1. Reduce the cost of healthy food and increase the cost of unhealthy food.

2. Accept obesity as a disease. Change the word obesity to corpulence.

3. Increase support and focus on less well-off people.

4. Apply a multitude of options to improve the current shortfall (short- and long-term strategy).

5. Educate people of all ages more about how to reduce and avoid corpulence.

6. Retrain people of all ages to change to a six but smaller meals a day diet.

This is a long-and short-term investment. The introduction of a benefit realization process is highly recommended. It enables health service providers to monitor, track, and manage the benefits associated with any health improvement initiative plan.

This research was limited to insights from many publications. It would have been beneficial to interview a few practicing nutritionists to produce further and deeper understandings from the community of practice. It is confirmed that the research questions from Section 1.3 have been answered.

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