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The Experience of Self-Regulation Among Obese Adults During the COVID-19 Pandemic

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Obesity is considered a disease, an epidemic, and is a risk factor for the development of cardiovascular diseases, certain cancers, poor mental health, and low quality of life. It is also a leading cause of mortality. While it is difficult for obese adults to combat their condition, it was much more challenging during unprecedented times such as the COVID-19 pandemic. Annesi's self-regulation conceptual framework was used as a basis to ground this study. Research explains the importance of practicing self-regulation to increase physical activity. However, there is little research on the practice of self-regulation to increase physical activity and weight loss among obese adults during the COVID-19 pandemic. In this descriptive phenomenological qualitative study, the goal was to understand the experience of self-regulation among obese adults during the COVID-19 pandemic. This study's main research question was how self-regulation played a role in the lives of obese adults to increase physical activity and weight loss during the COVID-19 pandemic. Five participants for this study were selected by purposive sampling. The semistructured interviews that were conducted with these five adults were analyzed using Saldana's descriptive coding method, resulting in 29 codes, six categories, and two themes. The study's findings show that mindful awareness, self-reflection, self-talk, and commitment are crucial components needed to execute self-regulation to control weight and increase physical activity. The implication of this study is to impact positive social change by inspiring the development of intervention programs designed to increase awareness and encourage obese adults to implement self-regulation strategies to practice physical activities and ultimately, reduce the prevalence of obesity.

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Dedication

I dedicate this dissertation to my family, the world of health and research, and Walden University.

Acknowledgments

First and foremost, I would like to thank God for creating this path for me to follow. Next, I would like to thank my mother for the unlimited prayers and my father who told me to never give up. Ultimately, I would like to thank Dr. Jay Greiner and Dr. Carolyn King for their unyielding guidance and expertise throughout this milestone. Last, but not least, I would like to thank myself for the courage and determination to complete this journey.

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Chapter 1: Introduction to the Study

Practicing physical activity is the epitome of good health and physique. Research shows that physical activity improves health and lowers the risk of developing chronic and cardiovascular conditions (Pinckard et al., 2019). Physical activity is an exercise used to improve mental health and overall well-being, regulate the immune system, and encourage weight loss. Baillot et al. (2021) reported that even though the advantages of physical activity are widely recognized, obese individuals are disproportionately inactive.

Obesity is a serious health concern that is considered an epidemic. Studies indicate that the COVID-19 pandemic intensified the prevalence of obesity as a result of social restrictions that were put in place to lower the spread of the disease (Akter et al., 2022). While obesity is influenced by genetics, metabolism, behavioral, and environmental factors, it is a controllable and preventable disease. Dassen et al. (2018) determined that people with obesity experience self-control deficits when it comes to food inhibition and overall executive function. It is also reported that obese adults lack the motivation to perform physical activity to improve their condition (Baillot et al., 2021). However, self-regulation is recognized as an integral component of behavior change to improve participation in physical activity (Boyle & Mosewich, 2021).

The purpose of this study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. This chapter includes the following sections for discussion: Background of the Study, Problem Statement, Purpose of the Study, Research Questions,

Conceptual Framework, Nature of the Study, Definitions, Assumptions, Scope and Delimitations, Limitations, Significance, and Summary.

Background of the Study

In 2013, The American Medical Association recognized obesity as a disease and described the condition from the perspective of personal choice as a lack of willpower and constraint needed to make good health decisions (Charrow & Yerramilli, 2018). According to the Centers for Disease Control and Prevention (CDC 2022a), children and adults are affected by obesity, thus it is important to address the issue early on. Obesity is a medical health condition in which a person accumulates an excessive amount of fat. Obesity occurs when a person's weight is higher than expected for their height. With a body mass index (BMI) of 30 kg/m or more, this condition poses a serious health risk and can lead to the development of additional negative health conditions. Numerous factors, such as eating habits, physical activity levels, and sleep schedules, might lead to excessive weight gain. Genetics, some drugs, and social determinants of health are other factors that contribute to obesity (CDC, 2022a).

Research has displayed a connection between physical activity and good health. Generally, it has been demonstrated that regular exercise helps control and prevent noncommunicable illnesses like diabetes, heart disease, stroke, and several cancers (Saqib et al., 2020). Practicing physical activity is also known to lower blood pressure, strengthen bones and muscles, help to maintain a healthy weight, and enhance cognitive health, well-being, and quality of life (World Health Organization [WHO], 2022). While

practicing physical activity is recommended to maintain good health, even for those who are not obese, this action can be difficult without sufficient motivation.

In 1986, Badura developed the social cognitive theory and posited that learning occurs in a social setting with dynamic and reciprocal interactions between the individual, their surroundings, and their conduct (LaMorte, 2022). According to social cognitive theory, continual self-influence is a significant motivator and regulator of human action. The concept of self-regulation was derived from this theory and consists of behavioral and emotional dimensions. Behavioral self-regulation involves acting in your own best interest while emotional self-regulation relates to controlling your feelings and thoughts. Through behavioral self-regulation, humans can operate by three main subfunctions: self-monitoring to keep track of one's actions, their causes, and their results; evaluating one's actions according to one's standards and surroundings; and having a sentimental self-reaction (Bandura, 1991). Studies have shown a positive relationship between child development and self-regulation (Bai et al., 2021; Kybartas et al., 2021). Furthermore, self-regulation is reported to impact the health of adults, and has been suggested that executive function, physiological, and subjective markers can all capture self-regulation (Reed et al., 2020).

In December 2019, a novel virus, later identified on February 12, 2020, by the WHO as COVID-19, broke out in Wuhan, China (Zu et al., 2020). On March 11, 2020, the WHO deemed COVID-19 a pandemic after more than 118,000 cases in 114 countries and 4,291 fatalities (CDC, 2023b). The COVID-19 pandemic placed a major burden on social interactions and caused fitness centers to shut down because of the rapid spread of

the disease. Not only did this put a hamper on physical activity, but this posed mental health challenges and discouraged individuals from performing normal activities. Ai et al. (2021) stressed the importance of preserving mental health during the COVID-19 pandemic through self-regulation and physical activity. Although social restrictions were in place, remote means of practicing physical activity with social support were suggested to improve moderate-to-vigorous physical activity (McDonough et al., 2022).

The purpose of this study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. Although physical activity is one of the most simple, accessible, and cost-effective ways to enhance health, statistics reveal that only a very small percentage of middle-aged and older people obtain the recommended amount of regular exercise (Lachman et al., 2018). To address obesity, practicing physical activity is a difficult task alone; however, when considering the disruptions of a pandemic such as COVID-19, the need for self-regulation intensifies. Lachman et al. (2018) explained that through behavioral and motivational strategies such as self-regulation, adults can increase their activity levels, which will have a significant impact on the health and overall quality of life of individuals and the population. Additionally, Boat and Cooper (2019) recognized the importance of self-control and its ability to develop habitual physical activity behaviors. Furthermore, self-regulation has been shown to sustain physical activity. Once those skills have been developed in one aspect of positive behavior such as physical activity, those self-regulation skills can be transferred to another aspect of positive behavior such as positive eating behaviors (Annesi, 2021). However, little

research describes how obese adults describe their experience with self-regulation to increase physical activity and weight loss during the COVID-19 pandemic. The current study was needed to understand how obese adults use self-regulation to practice physical activity and increase weight loss, especially during difficult times such as the COVID-19 pandemic. This study may impact positive social change by inspiring the development of intervention programs designed to make aware and encourage obese adults to implement self-regulation strategies to practice physical activities and reduce the prevalence of obesity.

Problem Statement

The increased prevalence of obesity and obesity-related issues has become a significant public health issue. Other health issues that can result from obesity include cardiovascular disease, diabetes, osteoarthritis, depression, and inflammation, which increases the risk for the development of various types of cancer (Lin & Li, 2021). According to the WHO (2021), obesity is also one of the main causes of early death. Obesity not only presents a higher risk for developing other illnesses but is correlated with low self-esteem and overall low quality of life (Stephenson et al., 2021). Obesity is associated with reduced levels of self-regulation as practicing positive health behaviors to prevent the condition is clearly absent.

Gap

Studies show that obesity is associated with a deficiency in self-regulation and that obese individuals are more likely to reduce their physical activity during the COVID-19 pandemic (Prado et al., 2022). Studies also indicate a positive association between

self-regulation and physical activity (Bai et al, 2021). However, there is very little literature on understanding the experience of implementing self-regulation strategies to practice vigorous physical activity and achieve weight loss during the COVID-19 pandemic.

Research Problem

The specific research problem that I addressed through this study was that it is not known how obese adults describe their experience with implementing self-regulation to practice vigorous physical activity to achieve weight loss during the COVID-19 pandemic. This study was needed to obtain an understanding of the role of self-regulation in obese adults to increase physical activity and weight loss during the COVID-19 pandemic.

Purpose of the Study

The purpose of this qualitative study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic.

Research Questions

The following research questions were used to guide this study to understand the experience of self-regulation among obesity during the COVID-19 pandemic.

RQ1: What is the experience of obese people with self-regulation of body weight during the COVID-19 pandemic?

RQ2: What are self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic?

Conceptual Framework

The concept that grounds this study relates to the self-regulation of physical activity as proposed by Lachman et al. (2018) and Annesi (2021). Lachman et al. described self-regulation as a necessary strategy to change health behavior and increase physical activity. Annesi suggested that self-regulation skills are needed to sustain exercise, prior to applying those skills to control eating for weight loss. Many studies indicate the positive relationship between self-regulation and physical activity; however, it is important to understand the origin of self-regulation to understand the impact it has on obese adults to increase physical activity and weight loss during the COVID-19 pandemic.

The earliest development of self-regulation theory dates to 1870 when Bernard, through milieu intérieur, recognized the importance of the body's ability to maintain a stable internal environment, one that enables vital processes to function optimally during times of environmental fluctuations and perturbations (Ramsay & Woods, 2016). Bandura's (1991) self-regulation theory builds upon this idea by suggesting that self-regulation, which depends on self-efficacy, requires self-monitoring, self-judgment, and self-reaction. Additionally, Baumeister (2007) developed the strength model of self-control to explain how people may exert self-control over their actions, inclinations, and drives to accomplish long-term objectives and adhere to socially imposed codes of conduct and norms. Baumeister identified four elements of self-regulation: desirable behavior, motivation, monitoring, and willpower. The employment of self-regulatory techniques and self-efficacy are frequently linked to physical exercise behavior. Those

who exercise suffer from a range of challenges that call for self-regulation when trying to maintain an exercise regimen. The self-regulation theory deems the application of self-regulatory efficacy to manage the frequent practice of healthy behaviors, such as exercise, crucial. The concept of self-regulation will be discussed in greater detail in the next chapter.

Nature of the Study

In qualitative research, nonnumerical data are gathered and analyzed to understand the lived experiences of participants. Thoughtful, internally consistent, and rigorous, qualitative research encourages transformation and helps to generate new ideas for research (Tomaszewski et al., 2020). To address the research questions in this qualitative study, I used a phenomenological qualitative approach as described by Creswell and Poth (2018). This approach was used as it focuses on the lived experiences related to a concept, which results in a description of the commonality between all participants experiencing the same concept. In this study, the intent is to obtain the lived experiences of self-regulation amongst obese adults used to increase physical activity and weight loss during the COVID-19 pandemic.

For my research design, I recruited five participants from a social media group. Inclusion criteria for participants was that they were over the age of 18, were or had been obese, and practiced self-regulation strategies and vigorous physical activity to achieve weight loss during the COVID-19 pandemic. The semistructured interviews with each participant were conducted through Zoom.

For the data analysis I integrated first and second-cycle coding in accordance with Saldana's (2016) descriptive coding methodology. Words or phrases in the data were given labels using descriptive coding. Data were examined more than once using one or more forms of coding in the first and second cycles of coding. The categorization of codes entails the consolidation of their individual meanings. Themes, which are phrases or words that define a process deriving from the categories, were transferred from the categories. Using the descriptive phenomenology design was appropriate to understand how self-regulation plays a role in the lives of obese adults to increase physical activity and weight loss during the COVID-19 pandemic. The experiences shared by the participants were used to identify themes and develop generalizations amongst the participants.

Definitions

The following terms will be used during this study:

Body Mass Index: Body Mass Index (BMI) is a measurement method that combines height and weight information to assess if a person is healthy, overweight, or obese (Dewi & Wirjatmadi, 2023).

COVID-19: COVID-19 (coronavirus disease 2019) is a disease brought on by the SARS-CoV-2 virus. It can spread swiftly and is highly contagious. In the United States, COVID-19 has claimed the lives of more than a million people (CDC, 2023a). The respiratory symptoms that COVID-19 most frequently produces can resemble those of a cold, the flu, or pneumonia. More than just the lungs and respiratory system could be affected by COVID-19. The condition may also affect other areas of the body. Many

COVID-19 sufferers have minor symptoms, while a small number develop serious illnesses, some resulting in death.

H1N1 Flu: A communicable virus caused by Influenza A, a highly contagious, seasonal flu affecting the upper and lower respiratory tract. It has also been known as the Swine flu due to many of those infected being in contact with pigs (Jilani et al., 2022).

Obesity: Weight gain that causes abnormal or excessive fat accumulation and poses a health risk describes the terms "overweight" and "obesity." Overweight is determined as having a BMI between 25 and 29.9. Obesity is determined as having a BMI of 30 or greater (WHO, 2021).

Pandemic: When an epidemic consisting of an infectious disease crosses its geographic boundaries and starts to affect neighboring regions, it becomes a pandemic. A pandemic is one of the greatest dangers to the planet and is responsible for killing millions of people. It is well-recognized that pandemics generate widespread social unrest, economic loss, and general suffering. To be considered a pandemic, a disease must have never impacted the community, spread easily, and result in severe sickness and is potentially fatal (Shoals, 2019). It is a global disease that occurs over an entire nation at a certain time.

Physical Activity: Any movement that uses muscles and consumes more energy than resting is considered physical activity. Exercise includes activities such as dancing, swimming, walking, and jogging (National Heart, Lung, and Blood Institute [NHLBI], 2022).

Self-Regulation: Self-regulation refers to an individual's efforts to change thoughts, feelings, wants, and behaviors to achieve higher goals (Harada, 2022).

Vigorous Physical Activity: Vigorous physical activity refers to the intensity of the activity. During vigorous activity, the target heart rate is between 77-93% of the maximum heart rate (CDC, 2022b). At this rate, one would experience heavy breathing and sweating (American Heart Association, 2018).

Assumptions

There are several assumptions related to the outcome of this study. I assumed that obese adults or those who were considered obese were willing to communicate their experiences through semistructured interviews. I also assumed that the participants provided honest responses about their experience with self-regulation, physical activity, and weight loss during the COVID-19 pandemic. As the nature of the study encompasses self-regulation, physical activity, weight loss, and the COVID-19 pandemic, I assumed that the results of the study will narrow the gap in knowledge regarding the association of these components.

Scope and Delimitations

The scope of the study was to conduct a semistructured interview with five adults who were or had been obese to understand how self-regulation played a role in increasing physical activity and weight loss during the COVID-19 pandemic. The semistructured interviews were conducted online through Zoom.

The study consisted of five obese adults who were 18 years of age or older. It was required that the participants provide voluntary informed consent to be included in the

study. All personal details remained confidential. A sample size this small makes it difficult to generalize the findings (Hennink & Kaiser, 2022). However, the small sample size facilitated an effective analysis.

Limitations

There is not a single study that could encompass all relatable factors of a specific phenomenon. The first limitation of this study relates to the sample size. With only five participants, it would be difficult to generalize the findings to be relatable to a much larger population. Also, with such a small sample size, there is the possibility of obtaining little insight into a variety of undisclosed experiences. Additionally, I was not able to provide an understanding of the long-term experience of sustaining self-regulation to maintain physical activity and healthy weight.

Significance

This study is significant because it will fill a gap in understanding how those who were considered obese implemented self-regulation to practice vigorous physical activity and lose weight during the COVID-19 pandemic. It will also provide insight into why others lack motivation to engage in physical activity to address their overweight health issue. Prado et al. (2022) found that overweight individuals were more likely to reduce their physical activity during the COVID-19 pandemic. Lachman et al. (2018) discovered that self-regulation is necessary to increase physical activity. However, there is little research on the practice of self-regulation to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. The implication is to encourage obese adults to practice self-regulation to increase physical activity and weight loss. The

results of this study should aid in the development of mental training programs that can help people build self-regulation skills to practice positive health behaviors such as regular exercise. Blouin and Gyurcski (2019) stated that obesity is an epidemic alone, so this study can impact social change by addressing the obesity health issue, thereby, reducing overweight prevalence.

Summary

Chapter 1 of this study provides background information into the concepts needed to understand how self-regulation plays a role in the lives of obese adults to increase physical activity and weight loss during the COVID-19 pandemic. Physical activity is a recommended practice to maintain mental health and a healthy weight. While it is known that obese adults have a deficit of self-regulation, it is self-regulation that is integral to encouraging physical activity and weight loss during the COVID-19 pandemic. This chapter introduced the purpose, research questions, and significance of this study.

In the next chapter, the details of the search strategy used to conduct the foundational research which led to the identification of the gap presented in this study will be discussed. The next chapter will provide a brief historical overview of the theory of self-regulation. It will also include summarized literature review findings on the concepts of self-regulation, COVID-19, obesity, and physical activity.

Chapter 2: Literature Review

As previously identified, the purpose of this study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. Obesity is a public health concern that increases the risk of developing additional health issues (Liu et al., 2018). Being an epidemic, obesity is a challenge to address, especially during unprecedented times such as the period of the COVID-19 pandemic. However, obesity is a condition that can be prevented and overcome with self-regulation (Chew et al., 2022).

The literature review I conducted shows how physical activity and self-motivational levels are low during unprecedented times such as the COVID-19 pandemic, which makes it difficult to address obesity. A general search in the EBSCO database resulted in many articles that indicated that exercise promotes weight loss and that physical activity and motivation during COVID-19 are at reduced levels. Therefore, during the COVID-19 pandemic, it would be challenging to become motivated to address health issues such as obesity. However, additional research shows that with self-regulation strategies and interventions, obesity can be addressed successfully.

During this chapter, I describe the literature search strategies used to conduct the basis of this study. Additionally, a detailed overview of the conceptual framework of self-regulation, pandemics, COVID-19, and obesity is provided. I discuss the association between self-regulation and physical activity, self-regulation and obesity, and obesity and physical activity. Finally, I conclude the chapter with a summary and analysis of the literature review.

Literature Search Strategy

The purpose of this literature review was to illustrate how primary sources aided in comprehending the research problem. It eliminated redundant overlap in the study while highlighting any gaps that would require additional research. The three databases used include EBSCO and SAGE within the Walden Library, as well as Google Scholar. The terms that were used during the search included *self-regulation and obesity; obesity and physical activity and pandemic; self-regulation and vigorous physical activity; self-regulation theory and physical activity and pandemic;* and *self-regulation, obesity, and physical activity*. The research criteria included peer-reviewed articles that were published between 2018 and 2023. Self-regulation is a long-developed construct, so to provide a historical overview, the original works dating back to 1986 were considered during the search.

Conceptual Framework

The purpose of this study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss among obese adults during the COVID-19 pandemic. Obesity is a public health concern that negatively affects health and quality of life if not addressed (WHO, 2021). Lachman et al.'s (2018) concept of self-regulation was used to explore the experience of self-regulation in obese adults. The study presented by Lachman et al. resulted in a multicomponent framework to guide the construction of behavior alteration treatments to help increase and maintain physical activity among adults who are sedentary and others at risk for health issues. A tailored behavioral modification strategy combines social support, goal setting, and positive affect

which also includes cognitive rewiring of negative thoughts and self-defeating beliefs and attitudes. These tactics can raise exercise self-efficacy and control beliefs as well as self-management abilities including self-control and action planning, which in turn are anticipated to raise activity levels over the long run (Lachman et al., 2018).

Annesi (2021) conducted a study based on a 12-month cognitive-behavioral weight-loss program that emphasized developing the self-regulation needed to sustain physical activity. The study resulted in substantial increases in physical activity, mood, and positive eating behaviors. The self-regulation strategies included in Annesi's study were comparable to those of Bandura (1991) and Baumeister et al. (2007), which included setting goals, performance evaluation, assigning tasks to be graded, self-monitoring behaviors, the identification of barriers, and cognitive retraining.

Self-Regulation Theory (SRT)

An analysis of self-regulation theory conducted by de la Fuente et al. (2022) analyzed the development of self-regulation models as proposed in different psychology contexts. According to self-regulation theory (SRT), humans can exert control over their actions, emotions, and ideas. The personality-related phenomenon known as self-regulation has been described as the capacity to plan, monitor, and assess one's behavior. Through the concept of triadic reciprocal causality, Bandura's social cognitive theory suggested that there are interactions between personal factors such as cognitions, feelings, and skills; behavioral factors such as strategy use; help-seeking behaviors; and environmental factors such as classrooms, homes, and work environments, all of which affect the individual's functioning (de la Fuente et al., 2022). The triadic reciprocal

determinism of SCT presupposes interaction between environment, internal components, and behavior during the learning process. Therefore, self-regulation can influence physical activity, weight loss, and obesity.

Bandura (1991) reviewed evidence to support the role of self-regulatory systems in human action and motivation in various functional spheres. Several subsidiary cognitive processes, such as self-monitoring, standard setting, evaluative judgment, self-appraisal, and affective self-reaction, were found to be involved in the multidimensional phenomenon of self-regulation. Instead of relying just on a reactive negative feedback system, cognitive regulation of motivation and action heavily uses an anticipatory proactive mechanism. This provides support in which to overcome obesity during the COVID-19 pandemic, a strong mind and willpower are necessary. One must know that change is needed and be willing to practice behaviors to apply change. Self-regulation is an appropriate theory to explain this.

Baumeister et al. (2007) expanded on SRT and asserted that people tend to actively regulate their sense of self to bring that self into compliance with certain standards, to cope with difficult circumstances and promote social inclusion. Four components of self-regulation theory were developed. The first part is a standard of proper behavior, whether it is held by an individual or a group. The second part is a person's motivation to strive for and attempt to meet this standard. The third part relates to a person's self-monitoring of their progress, particularly instances where they break or fail to meet standards. Finally, the fourth part of SRT is willpower or the strength that allows people to control their desires (Baumeister et al., 2007).

In Lachman et al.'s (2018) study, self-regulation was a major factor that contributed to behavior change. Lachman et al. presented a discussion that changing the exercise behavior of adults who have been sedentary for many years is challenging; even more challenging is maintaining those changes long-term. This fact extends to obese adults because they have developed habits of overeating and physical inactivity. As Chew et al. (2022) mentioned, self-regulation relates to the control of attention as well as inhibitory control. In these instances of challenges, it is self-regulation that will have the most substantial impact to change negative habitual behavior to positive behavior (Boat & Cooper, 2019).

Self-regulation Strategies to Increase Physical Activity

Annesi (2019) recognized that there is minimal correlation between understanding the benefits of regular exercise, healthy eating, and sustaining healthy behaviors. Self-regulation is a process that functions as a feedback loop in which the current state is compared to the intended state and modifications are done when deviations from the goal occur. When people start a new physical activity regimen, they could encounter obstacles like weariness. Self-regulation would include deciding to push through feelings of exhaustion to complete an activity while keeping in mind that a goal has not yet been attained. In this case, pushing oneself is an example of using self-control to stick to a course of action (Castonguay et al., 2018). The development of self-regulation skills requires the practice of mindfulness and self-reflection. According to Annesi, self-regulation skills include goal setting and performance feedback, self-monitoring behaviors, cognitive restructuring, and relapse prevention.

Goal Setting and Performance Feedback

Setting goals is one such tactic that helps people decide which habits they want to alter and how to go about achieving it (Bailey, 2019). Goal setting is the process through which one chooses objectives and decides how they will be accomplished. Since there are several methods to enhance one's health, it is crucial to set precise and achievable objectives to encourage healthy behavior modification (Bailey, 2019). Feedback is a powerful technique for encouraging efficient conduct since it increases people's awareness of decision implications in challenging situations. Feedback is recognized as a process that alters behavior so that choices may lead to efficiency (Casal et al., 2017).

Self-Monitoring Behaviors

Self-monitoring has been recognized as a viable behavior modification strategy to lessen adults' sedentary behavior. Self-monitoring is described as maintaining a record of a specific activity as a way of modifying behavior (Compernolle, 2019). Recent technical advancements have led to the emergence of physically worn electronic devices that enable self-monitoring of sedentary behavior. The use of these electronic tools has decreased the time and task demands of conventional approaches and enhanced assessment accuracy, which may have improved adherence and boosted the accomplishment of sedentary behavior objectives (Compernolle, 2019).

Cognitive Restructuring

Cognitive restructuring is a strategy performed in cognitive behavior therapy (CBT) that aids in changing a person’s style of thinking through improvements in optimistic feelings, sensible ideas, and adaptable behavior (Crum, 2021). It is a successful

approach to treating psychiatric problems, particularly anxiety, depression, obsessive-compulsive disorder, and eating disorders (Ungvarsky, 2023). This cognitive approach focuses on changing self-sabotaging thoughts as well as procrastination and addiction. Cognitive restructuring is a multistep approach that helps the person identify their negative thought patterns, assess their reliability, put those assessments to the test, assess the consequences, and adjust their thinking as necessary (Ungvarsky, 2023).

Relapse Prevention

Relapse rates are significant in behavioral and weight change therapies for those with obesity. Relapse prevention aims to reduce the risk of relapse following the reduction of negative behaviors (Menon & Kandasamy, 2018). Understanding the factors that predict relapse in weight loss maintenance behaviors is necessary to stop people from returning to harmful habits such as physical inactivity. Roordink et al. (2022) found that changes in daily routine, stress, unhealthy coping mechanisms, ingrained behaviors, and a lack of confidence in one's ability to maintain weight reduction were identified by practitioners as the most significant recurring predictors of relapse. When a new pattern of behavior is still developing towards automaticity and the likelihood of reverting to old behavioral patterns is still prevalent, self-regulation is especially important. Self-regulation is related to resisting temptation, navigating behavioral obstacles, controlling slip-ups, and preventing relapses (Roordink et al, 2023).

Literature Review Related to Key Concepts and Variables

The purpose of this study was to understand the experience of self-regulation to increase physical activity and weight loss amongst obese adults during the COVID-19

pandemic. The concepts that relate to this study, which are the COVID-19 pandemic and obesity, are discussed in this section.

What is a Pandemic?

A pandemic is like an epidemic but is significantly severe and can occur on a global scale. Essentially these diseases present a significant risk to humans because of their contagious nature. It is caused by an infectious agent and can be spread from human to human (Piret & Boivin, 2020). Typically, a pandemic can last for several years depending on the time it takes to develop a vaccine (Excler et al., 2021). During this time a specific type of disease can mutate into an endemic disease that circulates to a more manageable degree. A pandemic negatively affects a person's cognitive, healthy activities, and social interactions (Piret & Boivin, 2020). A pandemic can affect the public in multiple ways affecting mental health, social activities, and economic status such as job loss and financial hardship, and personal routines such as a simple visit with family.

Brief History of a Pandemic: Spanish Flu

One of the earliest and most severe pandemics occurred in 1918 and became known as the Spanish flu. The virus occurred during the First World War, creating an outbreak within the military (Martini et al., 2019). Caused by the H1N1 virus, the influenza virus spread vastly, infecting over 500 million people, and killing about 50 million people throughout the world (CDC, 2018). One unique fact about the virus is that it caused a high mortality rate in those between the ages of 20 and 40. Without sufficient pharmaceutical protection, nonpharmaceutical means had to be taken, which included

limitations of social interactions, quarantine, use of disinfecting products, and practicing sufficient personal hygiene (CDC, 2018).

Just as the Spanish Flu, many other pandemics like the plague, HIV, and Ebola resulted in fatalities, the overthrow of political governments, as well as economic and psychological hardships (Sampath et al., 2021). Nevertheless, they occasionally led to scientific breakthroughs. To contain any growing pandemic and stop the creation of a possible new one, it is essential to comprehend the mechanisms underlying their origins (Sampath et al., 2021).

COVID-19 Pandemic: Social Disruptions

During a pandemic, certain measures must be taken to mitigate the spread of disease. At the initial stage of COVID-19, Americans were under various social restrictions, which placed burdens on routine activities. From the beginning of COVID-19 and through 2022, lockdowns and stay-at-home orders caused many facilities such as schools, workplaces, and fitness centers to limit occupancy or close completely. People had to work from home or attend school remotely due to the high risk of spreading the disease (Jacobsen & Jacobsen, 2020). These unprecedented times created stress for Americans as job prospects and income became limited. Numerous lifestyle changes were brought about by these disruptions, which limited people's capacity to act as they did before the pandemic (Nikolaidis et. al, 2021).

The COVID-19 and Spanish flu pandemics had comparable detrimental effects on the world economy and experienced major delays in diagnosis, treatment, and vaccine development (Liang et al., 2021). While causing stress and affecting mental health, the

COVID-19 pandemic created a larger burden for obese people to become or remain motivated to practice physical activity, thus emphasizing the importance of self-regulation (Melamed et al., 2022).

COVID-19 Pandemic: Mental Well-Being, and Physical Health

Significant reductions in physical activity, as well as increases in sedentary behavior, are associated with COVID-19 (Park et al., 2022). Ai et al. (2021) investigated the connection between physical activity and mental health during the COVID–19 pandemic. Research shows that maintaining a regular exercise regimen is useful in the setting of COVID-19 and using alternative forms of physical activity is a crucial tactic to preserve mental health and wellbeing. Ai et al. presented three arguments. First, engaging in physical activity during COVID-19, especially under supervision, has been shown to increase happiness and improve mental health. Second, engaging in physical activity helps people feel less depressed and anxious during the COVID-19 pandemic. Third, the quantity and quality of physical exercise has an impact on the preservation and enhancement of mental health. Self-regulation relates to mental control. While preserving mental health is necessary during the COVID-19 pandemic, it is the mental health that supports behavior and behavior change that impacts physical health during the COVID-19 pandemic. This is indicative that physical health and mental health are reciprocal aspects needed to progress in life during the COVID-19 pandemic.

McDonough et al. (2022) studied the effects of self-determination theory-based, home-based, YouTube-delivered physical activity intervention on young people's free-living physical activity, sedentary behavior, and sleep quality. Moderate-to-vigorous

physical activity, sleep efficiency, muscle-strengthening physical activity frequency, non-regulation, integrated regulation, intrinsic regulation, and perceived physical activity obstacles all showed statistically significant interaction effects in the study, favoring the intervention group in all cases. McDonough et al. suggests that social support and networking can be an added factor in increasing motivation to practice vigorous exercise during the COVID-19 pandemic.

Effects of Obesity

Obesity is caused by several factors including environmental factors, heredity, poor nutrition, and physical inactivity. Many people who have obesity experience issues related to their attitude, body image, confidence, and overall quality of life. While mental health conditions can lead to obesity as poor health choices are made, obesity-related psychological effects are caused by the factors that lead to obesity. The CDC (2022a) describes mental illnesses such as anxiety, severe depression, and other mental disorders as risk factors for obesity. Additionally, low self-esteem, poor eating habits, and stress are psychological concerns for obesity (Chu et al., 2019). With the prevalence of psychological disorders in obese adults, the reduction of weight stigma as well as behavioral interventions are necessary to improve the quality of life for people with obesity (Wharton, 2020).

Obesity: An Epidemic during COVID-19 Pandemic

The continued prevalence of obesity has deemed the disease an epidemic (Lin & Li, 2021). Addressing an epidemic during a pandemic would require significant efforts and interventions. Robinson et al. (2021) examined weight-related behaviors and

obstacles to weight management among individuals in the UK during COVID-19. In comparison to before lockdown, participants reported engaging in less healthy eating and physical activity (56% reported snacking more frequently) and encountering difficulties managing their weight. Particularly among those with higher BMIs, these trends were more obvious. Higher BMI was linked to poorer levels of physical activity, a worse diet, and a higher reported frequency of overeating during lockdown (Robinson et al., 2021). There are many challenges that people face in caring for themselves during the COVID-19 pandemic. While these barriers exist during challenging times, it is self-regulation that must exist that promotes positive behavior change.

Obesity and Recommended Physical Activity

Obesity is associated with body aches, poor mental health, and difficulty with functioning physically (Smart et al., 2022). These factors alone give an obese person a negative mindset as they begin to doubt there is anything they can do to correct their condition. The fear associated with pain increases sedentary behavior in obese adults (Rogers et al., 2022). However, it is recommended that adults perform a minimum of 150-300 of moderate physical activity per week, 75-150 minutes of vigorous physical activity, or a combination including both (Yang, 2019). According to Barrow et al. (2019), weight loss and the musculoskeletal complaints associated with obesity can both be effectively treated with an exercise regimen that includes moderate-intensity activity for 30 to 60 minutes, three times per week.

Prado et al. (2022) conducted a study to confirm the relationship between changes in physical activity levels in people with normal weight and those who are overweight or

obese during the COVID-19 epidemic and the role that sex played in this relationship. It was found that overweight and obese people engaged in less moderate to vigorous physical activity than people of normal weight. When age, education level, social isolation, and prior physical activity level were controlled for, there were connections between women and men with overweight/obesity and the impact of COVID-19 on the practice of physical activity compared to those of normal weight.

Kuswari et al. (2022) examined the impact of tele-exercise length on the fitness level of obese employees due to the significance of human health, the expense to employers of raising employees' physical fitness levels, and the restricted time available to office workers. Except for cardiovascular fitness, research has indicated that 60-minute exercise sessions improve fitness more than 30-minute sessions. In this article, Kuswari et al. presents evidence that practicing physical activity for just 30 minutes longer helps to improve fitness. This also implies that vigorous exercise will improve fitness at a quicker rate than moderate exercise for obese adults.

Obesity and Self-regulation

Studies show that a significant contributor to obesity is inadequate self-control. Making plans, selecting among options, controlling urges, stifling unpleasant thoughts, and controlling social behavior are all made possible through self-regulation. According to research, obese people display low self-regulation as they struggle to manage their eating habits and cannot exert high energy activities (Mehta & Singh, 2018).

Chew et al. (2022) reviewed self-regulation tools, challenges, and motives in a multiethnic Southeast Asian population with overweight and obesity. The study resulted

in six themes and fifteen subthemes. Participants were motivated to lose weight based on desires to feel normal, and a sense of responsibility to family. The authors paired self-regulation obstacles with corresponding tactics to identify four overarching themes: habitual overindulgence (mindful self-control); accessibility and convenience of food (mental tenacity); temporary lack of motivation and sense of control (motivational boosters); and overeating triggers (removing triggers). In this study, Chew et al. presents motivational and self-regulating themes that encourage people to lose weight. This supports the fact that to lose weight one must be self-motivated and practice self-regulation.

Summary and Conclusions

Self-regulation is an integral component for obese adults to increase physical activity and weight loss during the COVID-19 pandemic. Despite adults being aware of the benefits of physical activity, the prevalence of obesity continues to rise. The exploration of the relationships between obesity, physical activity, and self-regulation suggests that self-regulation is needed to encourage positive behavior change during the COVID-19 pandemic. SRT is an essential construct that impacts motivation to change habitual negative health behaviors and increase physical activity (Lachman et al., 2018). Unfortunately, the COVID-19 pandemic placed burdens on the ability of individuals to perform normal activities, which created stress and posed a negative impact on mental well-being (Nikolaidis et. al, 2021). Despite social restrictions, social support and networking were possible with the integration of social media and virtual platforms (McDonough et al., 2022). Although these options were available, it was found that obese

adults practiced much less physical activity than adults with normal weight (Prado et al., 2022). Chew et al. (2022) discovered many reasons for obese adults to be inactive and motivational factors to encourage the implementation of self-regulation strategies. Additionally, Annesi (2021) found that once self-regulation skills have been developed for exercise, those skills would also be transferrable to other health behaviors. However, the gap to understand is the experience of self-regulation in obese adults to increase physical activity and weight loss during the COVID-19 pandemic, which was the purpose of this study.

In the next chapter, Chapter 3, the details of the alignment of the study and how the chosen methodology was appropriate for the study will be discussed.

Chapter 3: Research Method

The purpose of this descriptive qualitative study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. The goal of this chapter is to describe the methodology and practices that were used throughout the study. Annesi's (2021) along with Lachman et al. (2018) frameworks for self-regulation were used as a foundation for this study as they both imply that self-regulation is needed in obese adults to increase and maintain physical activity. Annesi's study included a treatment protocol that integrated various strategies necessary to develop self-regulation skills. However, the four strategies that ground this study, which are comparable to Baumeister's (2007) self-regulation strategies, are standards of desirable behavior, motivation to meet standards, monitor behavior and thoughts, and cognitive restructuring (Annesi, 2021). Additionally, Lachman et al. (2018) presented similar strategies of goal setting and cognitive reconstruction to reverse negative self-talk and self-defeating attitudes.

This chapter includes a discussion on the research design and rationale, the role of the researcher, and methodology, which includes an outline of the procedures used to recruit participants and collect data. There is also a discussion on issues of trustworthiness and then I conclude the chapter with a summary.

Research Design and Rationale

The purpose of this descriptive qualitative study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. In this study, the lived experience of

developing and implementing self-regulation strategies that encourage physical activity among obese adults were explored. The descriptive qualitative design allowed for the study to explore the characteristics of this phenomenon.

Neubauer et al. (2019) explained that a descriptive (or transcendental) phenomenological qualitative design is a common research approach in social and health sciences to describe lived experiences of specific phenomena. The use of this design helped to alleviate bias and preconceived assumptions. Neubauer et al. also confirms that this method puts the researcher in a blank state that allows the researcher to capture the essence of the participants' experience for understanding. The semistructured interview process in this design allowed for open-ended interview questions. This type of interview process does not limit the participant's responses and allows for in-depth data collection (DeJonckheere & Vaughn, 2019). Considering the benefits of this design and the purpose of this study, which was to understand the experience of self-regulation to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic, this research design was appropriate.

Role of the Researcher

My role as the researcher was simply to collect the data from participants using a semistructured interview and then analyze the data. Qualitative research provides insight into the lived experience of individuals regarding a specific phenomenon (Creswell & Poth, 2018). The researcher must design a study that will allow for the collection and analysis of the data to derive a consensual conclusion based on the analysis. The researcher must ensure that all ethical procedures are followed and that all participants

provide voluntary informed consent (DeJonckheere & Vaughn, 2019). Another responsibility of the researcher is to safeguard the data provided by the participants, in which safeguards must be outlined and communicated to the participants.

Researcher Bias

Researcher bias occurs when a researcher incorporates previous knowledge of phenomena to into a current study, which influences the interview or analysis. Throughout the interview and analysis, the researcher must understand and refrain from including any opinions and biases that may negatively influence the study (Mackieson et al., 2019). In qualitative research, bias can occur unintentionally and can lead to misleading results. Therefore, it is necessary to recognize the bias that may exist to prevent its influence (Šimundić, 2013). To avoid researcher bias, it is necessary to be self-reflective and transparent. The descriptive phenomenological design of the study helped to alleviate biases as primary data collections derived from the semistructured interviews. The interview questions were consistent with each participant. During the data analysis process all codes were generated directly from the interview responses, limiting researcher bias.

Methodology

Participant Selection

The target population for this study included adults over the age of 18 who are or were obese and practiced self-regulation for physical activity and weight loss. As this study was descriptive phenomenological, purposive sampling was appropriate. In qualitative research, purposive sampling helps to increase the understanding of the

phenomena. Purposive sampling is a sampling method used to select specific participants mostly related to a subject that will provide the most useful data (Campbell et al., 2020). In a study conducted by Hennink & Kaiser (2022), five participants is the lowest sample size to reach saturation for qualitative study. While it may present challenges with validity, larger-than-needed sample sizes could raise ethical concerns.

Participants were recruited from a social media group on Instagram. Invitations were posted and consent forms were provided, which were returned before setting an interview. Data were collected during the semistructured interview, transcribed, coded, and categorized into themes.

Instrumentation

A semistructured interview entails a conversation between the researcher and the participant, aided by a flexible interview methodology and enhanced by follow-up inquiries, inquiries into further information, and comments (DeJonckheere & Vaughn, 2019). The data collection conducted in this study consisted of a questionnaire and a semistructured interview with open-ended questions. The initial data collection began with a basic questionnaire, which was used to obtain background information on the participants such as demographics. The nature of the semistructured interview helped to learn of the participant's experiences of self-regulation as it relates to the practice of physical activity and weight loss during the COVID-19 pandemic.

Procedures for Recruitment, Participation, and Data Collection

Each semistructured interview, which consisted of open-ended questions, were conducted a single time via Zoom to gain insight into the experience of self-regulation as

a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. Approval from the Walden University Institutional Review Board (IRB) was received before conducting interviews. The participants received details of the study, invitations, and consent forms through email. The interviews were conducted in a nonjudgmental and active listening manner and took approximately 30 minutes (see Jamshed, 2014). The interviews were audio recorded and transcribed verbatim (see DeJonckheere & Vaughn, 2019). Once transcribed, the interviews were coded to identify themes, compare responses, and derive a conclusion.

Data Analysis Plan

This study's descriptive qualitative design was used to obtain the lived experiences of self-regulation of physical activity and weight loss among obese adults during the COVID-19 pandemic. This design required that the phenomena be understood by conducting interviews, which were the main source of data collection. The data collected provided information on the background and demographics of the participants as well as their experience with self-regulation as a strategy to increase physical activity and weight loss during the COVID-19 pandemic. The analysis of the data took place in three steps. First, I prepared and organized the collected data by transcription with accuracy. To ensure the accuracy of the transcription, member checking was used in which the participants received a copy of the summary and provided approval (see Johnson et al., 2020). Next, the data was reduced into categories and themes by coding each response using a descriptive coding method (see Saldana, 2016). Lastly, the data were presented in the form of discussion and visuals (see Creswell & Poth, 2018).

Issues of Trustworthiness

The research of a qualitative study must be conducted in a consistent, precise, and detailed manner to be accepted as trustworthy (Nowell et al., 2017). Trustworthiness exists when readers can interpret qualitative research and have confidence in the results (Stahl & King, 2020). As the results of a qualitative study depend on the data collected from the interview process, it is important to build trust and rapport with the participants to ensure that accurate and detailed information is provided (McGrath et al., 2019). The short time frame to conduct the study limits the amount of time needed to build rapport. Providing participants with background on the study and what would be expected from them helped to create trust. It was also necessary to display knowledgeability and provide a comfortable interview environment to help develop the participants' confidence in the study (McGrath et al., 2019). In all, these actions helped to obtain accurate information from the participants, which enhanced the trustworthiness of the study. Trustworthiness in qualitative research consists of credibility, transferability, dependability, and confirmability.

Credibility

Credibility relates to the accuracy of a study's findings without bias (DeJonckheere & Vaughn, 2019). As such, I ensured the readers that the results accurately represent the phenomena that were studied (see Johnson et al., 2020). Conducting an open-ended interview increases credibility within qualitative research (Johnson et al., 2020). During the interview, I listened attentively without interrupting or judging the respondent (see DeJonckheere & Vaughn, 2019). Recording and transcribing

verbatim the interviews also increased the credibility of the study. Member checking is a validation method in which the results are communicated with the respondent for confirmation and feedback (Johnson et al., 2020). Applying these methods enhanced the credibility of the study.

Transferability

Although the intent of qualitative research is not replication, transferability is a factor for trustworthiness (Stahl & King, 2020). Transferability is demonstrated by displaying that the study's conclusions could be applied to other contexts. Researchers who focus on the qualitative method argue that patterns and descriptions from one setting may be used in another (Stahl & King, 2020). However, transferability is only possible through thick descriptions in which contextual information is rich enough to provide a comprehensive understanding (Stahl & King, 2020).

Dependability

Dependability refers to the consistency and sustainability of findings over time (DeJonckheere & Vaughn, 2019). Dependability represents the degree of replication in which separate researchers would generate the same results. To guarantee dependability, the research methodology must be described thoroughly so that the reader can confirm that the right research procedures have been followed and that subsequent researchers can replicate the study (Johnson et al., 2020). Another best practice to increase dependability is to establish an audit that provides a detailed record of the data collection process (Forero et al., 2018).

Confirmability

Confirmability is the degree of assurance that the study's conclusions are supported by the information provided by the participants as opposed to any researcher biases (Johnson et al., 2020). During the interview process, I refrained from interruptions and judgment to allow the participant to fully respond to each question. Member checking is a best practice here as well, as participants were allowed to confirm that the transcripts accurately and thoroughly captured the meaning and intent of their contribution (Johnson et al., 2020). Researcher reflexivity was not only necessary for me to acknowledge that my role as the researcher was to simply conduct the interview, but also to be aware of any preconceptions and biases that existed which could have influenced the research process (see Johnson et al., 2020).

Ethical Procedures

Confidentiality, informed consent, the researcher's role, and potential influence on the study are ethical concerns in qualitative research. Whenever data is gathered using qualitative methods, direct interaction is required with participants. The data collection would entail acquiring personal information about people's lives, which highlights ethical issues for qualitative research (Sanjari et al., 2015). To ensure that research is ethical, adhering to the guidelines required by IRB is imperative. Before conducting the study, the precise participant selection and data-gathering techniques were approved by the IRB, which ensures compliance. To interview participants, their voluntary involvement was provided by informed consent. The informed consent forms were distributed to participants through email. The participants replied with “I consent”. The participants

were given full disclosure of the details regarding the study, assured that their information would remain confidential, and that their participation would not pose any risk.

Summary

This chapter presented the research methodology that was used to understand the experience of self-regulation as a strategy to increase physical activity and weight loss among obese adults during the COVID-19 pandemic. The use of purpose sampling, semistructured interviews, and descriptive coding was implicative of the alignment with the research question. Understanding the role of a researcher and being aware of the biases that may exist helped to reduce the researcher influence on the study. This also extended to the trustworthiness of the study, which provides readers with confidence in the results. To ensure that the study was ethical, approval from the IRB was received before conducting interviews with the participants, and informed consent was obtained from the participants.

Chapter 4: Results

The purpose of this descriptive qualitative study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. The following research questions were explored:

RQ1: What is the experience of obese people with self-regulation of body weight during the COVID-19 pandemic?

RQ2: What are self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic?

To answer these questions, a phenomenological approach was used to gain a deeper understanding of the factors and strategies that contributed to the experiences that promoted weight loss and increased physical activity or lack thereof of the participants. The data were analyzed with an inductive data analysis approach based on Saldana's (2016) descriptive coding method. This chapter starts with a description of the interview setting and the demographics of the participants that volunteered for the study. I present an overview of the data collection and analysis process, as well as themes that developed. This chapter also includes evidence of trustworthiness, results, and concludes with a summary of key findings of the study.

Setting

The semistructured interviews for this study took place online using Zoom. All five participants opted for this platform as it was a commonly known platform. Each participant was able to complete the interview during a time convenient for them and in

their own personal setting. Before the interview began on Zoom, each participant was made aware that the interview would be recorded and that they could stop at any time. Upon completion of the transcription of the interviews, each participant was given the opportunity to review their transcript for accuracy.

Demographics

This study was conducted with five African American participants. The participants consisted of four females, and one, of which was in a younger age group between 18 and 23. The age of the other female participants ranged between 24 and 41. Although generalizability is not a goal of qualitative research, the participants provided a reasonable combination in terms of educational level and relationship status of a single ethnicity group for such a small sample. Although quantitative analysis would not be appropriate in this study, it is noteworthy that two of the participants who are living with a partner have a higher educational level. These same two participants also displayed a higher commitment level to behavior change and achieving weight loss goals. Table 1 presents the characteristics of the participants for this study.

Table 1

Participants' Characteristics

Participant	Gender	Age group	Ethnicity	Education level	Relationship status
P1	Female	36-41	Black or African American	Master's degree	Living with partner
P2	Female	30-35	Black or African American	High school diploma	Single
P3	Female	36-41	Black or African American	Associate's degree	Divorced
P4	Female	24-29	Black or African American	Master's degree	Living with partner
P5	Male	18-23	Black or African American	Associate's degree	Single

Data Collection

This study was approved by the Walden University Institutional Review Board (IRB) and assigned an IRB approval number of 11-17-23-1081162. Purposive sampling was used to identify potential participants that met the inclusion criteria. A social media invitation to the study was posted within a specific health group on social media. Within a couple of days, participants began to reach out to me with interest. Once voluntary informed consent was obtained, the questionnaire was sent out and a date was scheduled for the interviews. The interviews were conducted between November 30, 2023, and December 29, 2023.

The data for this study was collected by interviewing five participants. The participants' identities remained confidential; thus, the participants were assigned a name of P1, P2, P3, P4, and P5, which is how the data is reported in this study.

The semistructured interview was conducted online using Zoom, which was audio recorded by Zoom. The semistructured interviews were guided by a list of 23 questions I created, which lasted between 30 and 40 minutes for each interview. While there were minor connectivity issues that delayed two of the interviews by only a couple of minutes, there were no major issues that affected the virtual interview process. The recordings were transcribed using Notta, a transcription service. I went through each transcription while listening to the recorded audio to make corrections and label the speaker of responses as 'R' for myself and P1, P2, P3, P4, and P5 for the respective participants. The data collection procedure that was described in Chapter 3 was followed. By actively

listening to the participants, I was able to obtain some surprisingly in-depth responses and was pleased with the participant's willingness to share their experiences.

Data Analysis

For this study, I analyzed the data using Saldana's (2016) first and second cycle descriptive coding process. During the first cycle, the two research questions were used as topics to generate the codes from the data. From the research questions, topics included "experience of obese people with self-regulation of body weight during the COVID-19 pandemic" and "self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic". Based on the participant responses, codes were created and placed within the appropriate topic to summarize the participant's responses. I used NVivo 14 qualitative data analysis software to assist with coding the interview transcripts. After a complete analysis of the semistructured interview responses, the iterative first cycle coding process resulted in 29 codes, with 14 codes being related to the topic of the experience of obese people with self-regulation of body weight during the COVID-19 pandemic, and 15 codes being related to self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic. These 29 codes prompted the generation of six categories in the second cycle, and further, two themes to inform of the topics of interest of this study, which was the experience of obese people with self-regulation of body weight and self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic. Using NVivo 14, each response was read, analyzed, and dragged into a code. Completing this process in a second round resulted in no new codes.

Table 2 displays the 29 codes relating to the participants' experience of self-regulation of body weight and self-regulation strategies used to practice physical activity during the COVID-19 pandemic.

Table 2

Interview Codes, Example Direct Quotes, and Counts

Codes	Example direct quotes	Participant count	Frequency count
Experience of obese people with self-regulation of body weight during the COVID-19 pandemic			
Accessibility	P2: I didn't have like resources to, or we couldn't even go to the gym.	3	6
Behavior change	P1: I have limited my intake because, you know, I do love my ice cream, but I've limited my intake of sugars and, you know, fattening foods.	4	21
Challenges with physical activity	P2: And also being lazy, like it was some days when I was supposed to work out and I couldn't. P3: So I had a knee injury. And that was, it's always been a challenge because, you know, the way it healed and everything. For me, it kind of stopped physical activity. It wasn't null and void, but it was a bare minimum.	4	10
Feelings about the pandemic	P3: No longer being able to do the things that you normally would do on a day-to-day basis. It was depressing.	4	13
Gym closure	P4: It was definitely disappointing and discouraging because the gym was also kind of just like my sanctuary outside of my home. Like when I did find out the gym was closed, but finding just like different ways to check in with myself. And so like, Hey, like just because I can't physically go to the gym doesn't mean I have to like, you know, stop from working out.	5	17
Healthy eating awareness	P1: Um, healthy eating, um, means that you know, you, you pretty much eat healthy foods. Um, you know, foods that does your body good. And I guess, um, to avoid, you know, any, any foods that, you know, have like negative impact on your health overall, such as like sugars and, you know, fat, fattening foods. So healthy eating, um, I would say, you know, getting all your vitamins, you know, fruits and vegetables. So things of that nature.	5	9

Codes	Example direct quotes	Participant count	Frequency count
Influence on others	P2: of course. Yeah, so I have kids So I try to make sure that my you know my bad food choices don't you know affect them? So yes, like we'll have like salad.	1	1
Motivation to lose weight	P1: So that health scare alone, you know, kind of made me put my health into, uh, perspective, but then once the, you know, COVID hit, like at the, I believe it was like the end of 2019. Like once it hit, like the news just kept, you know, telling everyone like, okay, if you have like underlying health conditions, then you're, you know, more at risk for, you know, um, I guess getting the worst end of COVID-19 or the COVID disease. P2: Walking up the stairs and getting out of breath.	5	21
Safety precautions	P2: Really like you have to survive during that period of time. So really turned on like survival skills. Really made me more safer, definitely just being more healthy and such as like, you know, hand washing. More aware, definitely. Yeah, it was kind of made us nervous because couldn't breathe in those things. Then I wear glasses. So a mask with some glasses on was just like, was horrible.	3	5
Self-awareness	P1: So I would say, yeah, just that alone, just being overweight alone was enough to be like, okay, every day. I just talk to myself, tell myself like, nope. If I don't feel like getting up, nope, get up. I talk to myself a lot in my head. Like I have to tell myself every time I look at, you know, an ice cream bar or a cookie or something, I'll have to tell myself like no, no, like, I just have to think. It's like you're constantly thinking about, you know, the negative aspect of what you're putting in your body or if you're sitting down, it's like you have to constantly be aware that, you know, okay, you're sitting here, but it's not helping you. It's making it worse. So it's like, I have to tell myself constantly. No, you got to get up. Nope. You can't eat that No, no, no, you know, it's just I would say like a self-motivation.	5	27

Codes	Example direct quotes	Participant count	Frequency count
Social distancing impact	P2: So I was kind of scared. I had to take more precautions of course because I'm a mom. We have to go through like, we have to just change the way we live. It was really a scary period of life. P5:So like during the pandemic, like, you know, everybody wanted to keep each other safe. We didn't wanna get sick, you know, we all had like grandparents and stuff, so like we stayed in they reduced like social activity, you know, no walks to the parks, you know, no, no gyms, no, no schools, no physical activity at all.	4	13
Unhealthy eating behaviors	P2: a lot of snacks a lot of fast food Didn't do too much Home meals just a lot of like restaurant food a lot of snacks You know just not so healthy. It was a really lazy time for people So I took I took heed to that and I was really lazy, especially with my healthy choices of eating	2	5
Weight gain	P2: One month, I was like 160, like 165. Then a few months later, I was all the way up to 180. I had no idea how I got there. But I can blame it on all the snacks that I kept getting when I was bored.	5	17
Weight loss	P2: Yes, definitely weight loss. Um, when I started taking my workout videos seriously, when I actually scheduled two days to workout, which is my Mondays and Fridays.	5	7
Self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic			
Accomplishment	P2: Definitely. And I saw, I saw a tremendous, tremendous change. And I'm so proud of myself because I was so chubby. P4: I gave myself, like a little small incentives, like, you know, if you work out for 45 minutes today, like you can do 45 minutes of Gray's Anatomy. Kind of just keeping myself going.	4	6

Codes	Example direct quotes	Participant count	Frequency count
Commitment	P1: Because once it started, like I was, I was pretty much, I had tunnel vision, just going, going down. P2: Like I want to, I want to lose this weight. Like I got to at least commit to two days a week if not three. P5: I just wanted to like, once I, you know, get into the groove and once I like got consistent with it, you know, it was hard, you know, to stop.	5	9
Goal setting	P1: I have a set schedule for my workouts so that I, you know, I stick to those. And even if I can't make one of them, like I'll make it up. And then I have a certain, like I said, I have a certain weight that I'm trying to reach. So that helps as well. And then, um, just making sure that I don't overeat or, um, like I just eat a little or I don't eat a full plate of anything. I don't overindulge in like, sugars. P4: I had a goal. I wanted to lose 10 pounds. And so it was easier for me to like monitor. And so I would kind of just keep that goal in mind	5	19
Home vs Gym workout routine	P1: Um, no, the only thing is that I was able to do it earlier like I was able to work out earlier. Because like I said, I can get up out of bed, do a little stretching, and then go right to my gym. I don't have to get ready and go outside. P4: Yeah. And I just felt like I was more productive at the gym like being able to go to a place where I can kind of just like release versus being in my like home all the time. So I feel like that made a difference.	5	19
Home workout	P1: I did. I had so much space I didn't even realize. But yeah, like I said, I really was okay with the gym closing because it enabled me to invest in my own workout facility right within my own comfort zone.	4	12

Codes	Example direct quotes	Participant count	Frequency count
Home workout equipment	P1: And, you know, I invested in a treadmill. I had a little gym going on and, you know, it's decent. I have a treadmill, I have some dumbbells, and I have like a jump rope, my little yoga mat. So Yep, I have enough space for it.	3	8
Inspiration	P1: I'll watch some videos sometimes just to get like some inspiration on any different types of, you know, workouts just so that I don't get, you know, bored. P4: A lot of hip hop music. And I also did like some gospel music, like on those low motivation days that kind of keep me going.	5	36
Maintain behavior change	P3: So a lot of it is willpower. If you're willing to do something, if you're willing to make a change, I believe the mind and the body will follow. P5:So it became like a healthy habit. So I guess for me, it actually, I guess it kind of came naturally. You know once I started to not stop.	3	6
Regular physical activity	P1: I mean as far as like exercise like practicing those types of um those types of movements um that increased but I would say like my walking and just moving around was kind of kind of the same I would say maybe even a little less only because it was that I didn't have to go outside and go to work.	5	12
Social support	P4: FaceTime was really good. FaceTime group. So we'll get on the FaceTime group. And then like I said, we had a group message going where we'll send each other just like workouts and we'll just kind of actually send the videos. Like, hey, I did my session today. Here's my 10 push-ups, do yours. And so the first couple of months into like COVID it was non-existent. But once we found out there were like other ways that we can stay active and there were like great ways that we can stay in touch. We kind of just picked up on those ways. We kind of just like kept it going.	5	17

Codes	Example direct quotes	Participant count	Frequency count
Supplements	P5: Yeah, so during the pandemic, I started using a Whey protein. You know what I'm saying? It could be found like, it's protein, it could be in chicken, we can find it in eggs, but you know, it's just so it could also supplement it. You could also use it when you eat that stuff. So it's supposed to help you gain mass and enhance your performance in the gym.	1	1
Types of exercises	P1: Yeah. And I like I said, do the treadmill, like I'll start off with like a, a, a paced walk. I'd say maybe about five or 10 minutes and then I'll break out into a run. I'll do my like I'll do stretches and I'll do the squats. Then I'll do some dumbbells and then I'll do my pushups.	5	39
Workout frequency	P1: So like right before COVID-19 hit during that time, I was actually in the gym. I would say I would go twice a week. So not, you know, not too frequently, but I was in there twice a week and I would stay for like an hour each time. And then I actually ended up working out more so during COVID. Like I said, I was inspired. The news helped a lot as well with all of the negative instances. So I, you know, I was working out maybe about four times a week at home.	3	6
Workout length	P4: My workouts were definitely between 45 minutes and an hour. The hours always like go for me. I feel tapped out. I feel like I'm complete after my workout, more energized, but I never want to go under 30 minutes. So just depending on the day, like I'll be good with a 45-minute session. But if I'm not feeling that workout, I'll go to an hour.	5	22
Workout time of day	P1: During the week, I would incorporate it like right before I go to leave for work. So if I'm, if I have to go into the office, like I'll work out, I would say like around six a.m. So sometimes from like six to seven. And then I'm getting ready for the day. And then if I'm, if I'm at home, then I, you know, if I work from home, then it's probably about eight-ish, seven or eight-ish when I start my workout, but it's always in the morning.	5	10

Once the codes were identified, I exported them into a Word document and combined into categories in a separate table using an interpretive, thematic analysis process. For example, the codes that comprised the "awareness of healthy behaviors" category were behavior change, healthy eating awareness, influence on others, self-awareness, and unhealthy eating behaviors. The codes that comprise the "restrictions and challenges" category were accessibility, challenges with physical activity, feelings about the pandemic, gym closure, safety precautions, and social distancing impact. The goal of the second cycle method was to logically link unrelated facts into categorical organization from first cycle codes (Saldana, 2016). While progressing through cycle coding, the number of codes lessened (Saldana, 2016). Thus, performing the second cycle coding produced six categories from the 29 codes that were generated in the first cycle, while keeping in mind the two primary topics derived from the two research questions.

Table 3 displays the six categories that were generated from the 29 codes recognized in the first cycle coding method.

Table 3

Combining Interview Codes into Categories

Category	Codes (From Table 2)	Description	Participant count	Frequency count
Experience of obese people with self-regulation of body weight during the COVID-19 pandemic				
Awareness of healthy behaviors	Behavior change Healthy eating awareness Influence on others Self-awareness Unhealthy eating behaviors	The beliefs and actions regarding the participant's health and well-being	5	63
Motivations for a healthy weight	Motivation to lose weight Weight gain Weight loss	The participants describe experiences that encouraged their decision to want a healthy weight	5	45
Restrictions and challenges	Accessibility Challenges with physical activity Feelings about the pandemic Gym closure Safety precautions Social distancing impact	Feelings about how the pandemic and other challenges affected the participant's ability to maintain healthy actions	5	64

Category	Codes (From Table 2)	Description	Participant count	Frequency count
Self-regulation strategies of obese people used to practice physical activity during the covid-19 pandemic				
Develop and commit to a workout routine	Commitment Home vs gym workout routine Home workout Home workout equipment Regular physical activity Supplements Types of exercises Workout frequency Workout length Workout time of day	The participants describe the aspects of their workout routine whether at home or at a gym, the workouts they enjoy, staying active during a pandemic, and the importance of being committed	5	138
Maintain behavior change	Accomplishment Maintain behavior change	For behavior change to be effective, it must be maintained. Goals that have been accomplished should be recognized and awarded to maintain behavior change.	5	12
Think positive and set goals	Goal setting Inspiration Social support	Setting goals provides a focus point. Finding inspiration and having social support facilitates the attainment of those goals.	5	72

Two themes emerged from the categories recognized in the second cycle. The theme “increasing awareness to overcome obesity” consists of categories of awareness of healthy behaviors, restrictions and challenges, and motivations for a healthy weight. The theme “implementing strategies to increase physical activity” is comprised of categories

think positive and set goals, develop and commit to a workout routine, and maintain behavior change. Performing the thematic analysis generated two themes from the six categories, of which there were three categories in each theme.

Evidence of Trustworthiness

I used the strategies described in Chapter 3 to ensure the study's improved credibility, transferability, dependability, and confirmability.

Credibility

Each interview began with thanking the participant for volunteering for the study and general questions such as "How was your day today" to build rapport and allow the participants to relax and feel comfortable. There were 23 interview questions, so I used active listening skills and asked the participants follow-up questions for clarification if needed. To further enhance credibility, the audio-recorded interviews were transcribed verbatim using Notta. The transcriptions were reviewed, edited, and cleaned up for accuracy.

Transferability

While generalizability is not a goal of qualitative research, transferability was improved by obtaining an in-depth understanding of the participant's experience of which the conclusions could be compared to other contexts. The purpose of this study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. The semistructured interview questions that were created were designed to guide the participant's responses to achieve the desired comprehension.

Dependability

The data collection process that was outlined in Chapter 3 was approved by IRB before conducting the study. The dependability and consistency of the study were increased by adhering to the outline. Additionally, the informed consent process was completed as described so that the inclusion of each participant was voluntary. The participants were informed that their identity would remain confidential, thus their responses were labeled as P1, P2, P3, P4, and P5.

Confirmability

To ensure that the transcripts accurately expressed the participants' responses, member checking was performed, and the completed transcripts were sent to the respective participants for their review of accuracy. Each participant provided positive feedback, thus no adjustments to the transcripts were necessary. The participant's responses were read line by line, question by question, and used directly to generate the codes. Using NVivo 14, I completed this process two times to ensure that no codes were missed and that the previous codes accurately depicted the passages. The process of developing the categories and themes was interpretive to ensure that the data was accurately represented.

Results

The purpose of this qualitative study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. The research questions that were addressed in this study are: What is the experience of obese people with self-regulation of body weight during

the COVID-19 pandemic? And what are self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic? These research questions helped to guide the interviews and coding process of the study. These research questions were drawn from the problem and purpose statement, thus, keeping these questions in mind throughout the interview and data analysis process ensured alignment within the study. Using Saldana's (2016) first and second cycle descriptive coding process, I was able to develop 29 codes. Those codes were condensed into six categories, and those categories into two themes during the analysis process.

Table four displays the themes that were generated from the six categories recognized in the second cycle coding method.

Table 4

Combining Interview Categories into Themes

Theme	Categories (From Table 3)	Description	Participant Count	Frequency Count
Increasing awareness to overcome obesity	Awareness of Healthy Behaviors Restrictions and Challenges Motivations for a Healthy Weight	Participants describe their knowledge of what it means to be healthy, provide reasons why obesity was a negative aspect in their life leading to behavior change, and recognize the internal and external obstacles that must be overcome to implement behavior change	5	172
Implementing Strategies to Increase Physical Activity	Think Positive and Set Goals Develop and Commit to a Workout Routine Maintain Behavior Change	Participants describe their physical activity goals that were set, the types of workouts they were able to perform at home vs in the gym, and the importance of commitment to maintain behavior change and develop a healthy habit	5	222

Theme 1: Increasing Awareness to Overcome Obesity

The theme "increasing awareness to overcome obesity" was comprised of categories: awareness of healthy behaviors, restrictions and challenges, and motivations for a healthy weight. The findings within this theme presented the importance of awareness to implement behavior change.

Awareness of Healthy Behaviors

In terms of healthy behaviors, each participant expressed an idea of what it means to eat healthy. P1 stated that healthy eating is about "getting your daily doses of all those vitamins and minerals that the body needs to stay healthy" and "to avoid any foods that have a negative impact on your health overall, such as like sugars and, you know, fattening foods". The other four participants had comparable responses as far as the consumption of fruits and vegetables and reducing the intake of foods that have a negative impact on the body. Just as it is important to understand what healthy eating means, it is important to recognize when unhealthy eating behaviors exist. While the participants did express their knowledge of what it means to eat healthily, P2 stated that during the pandemic, she consumed "a lot of snacks, a lot of fast food". P2 also stated, "One month, I was like 160, like 165. Then a few months later, I was all the way up to 180. I had no idea how I got there. But I can blame it on all the snacks that I kept getting when I was bored".

Self-awareness was an important concept that was displayed among all the participants. Self-awareness is about noticing the things that occur within oneself. P1 and P4 expressed strong abilities throughout their interviews. P1 stated that being overweight

"stemmed from a few years being like that… now is the better time to take care of myself than later". In contrast, P4 stated "I had this pair of leather pants. They were like really cute to me… And then like, during the pandemic, I noticed like I couldn't fit into those leather pants. Like, they wouldn't button. I couldn't get them past my thighs".

Once self-awareness occurs, it is possible to implement behavior change. Each participant described some form of behavior that they changed to control their weight. P1 "ate more vegetables than normal…, avoided beef overall..., and limited my intake of sugars and fattening foods". P3 "made the choice to cut out sugar, food with high sugars in it. And, you know, I just threw everything out of the cabinets". P4 "tapped into more of a plant-based like lifestyle".

Restrictions and Challenges

At one point during the COVID-19 pandemic, the gym facilities were closed to adhere to social distancing regulations to help reduce the spread of the disease. Three of the five participants (P2, P3, and P5) expressed that the inaccessibility of the gym reduced their physical activity efforts tremendously. The challenges of the COVID-19 pandemic seemed to have affected P3 more than the other participants. P3 stated, "you have that boost of confidence when you are in the gym and that was no longer available. So it's just like, you know, didn't really want to work out anymore". Additionally, P3 described a physical challenge with physical activity due to a knee injury. Dealing with multiple adversities can have a negative impact on optimism. P5 explained, "I had some back pain…, the gym closure was tough…, and when the gyms had reopened, I wasn't motivated to go back to the gym". On the other hand, the gym closure did not prevent P1

or P4 from finding alternate means to working out effectively. P1 had an opposite outlook and stated “That pretty much helped me to work out more so than what I was. And like I can just get up out my bed and go in my basement and work out. So in that instance, I don't think it was a bad thing to close down the gym…, plus I saved on membership fees”. Besides the gym closure and physical challenges with physical activity, P2 was the only participant to mention that “being committed…, being lazy…, and time management” were challenges that affected physical activity, which are really important factors to note.

The participants described experiences in terms of social distancing as being compliant with the recommended practices such as wearing face masks and keeping safe distances. P3 was the only participant who mentioned her experience with her health coach during that time. P3 stated that the interaction she did have with her health coach was “no longer available” during the COVID-19 pandemic. It was not indicative whether that interaction resumed once everything began to return to normal.

Motivations for a Healthy Weight

Besides obesity itself, each participant relayed specific reasons why they wanted to achieve a healthy weight. P1 stated “I had a health scare…, kind of made me put my health into perspective…, and once COVID hit, like the news just kept, you know, telling everyone like, okay, if you have like underlying health conditions, then you're, you know, more at risk for, you know, um, I guess getting the worst end of COVID -19 or the COVID disease”. P2 was very upfront and open during the interview. P2 stated her motivation for wanting a health weight included “walking up the stairs and getting out of

breath", along with "plus I have small kids…, I have to be able to keep up with them". P2 displayed how important it is to consider how her choices affected others that she cared for. P4 stated she wanted to be "able to wear like my favorite pair of pants".

Theme 2: Implementing Strategies to Increase Physical Activity

The theme "implementing strategies to increase physical activity" was comprised of categories: think positive and set goals, develop and commit to a workout routine, and maintain behavior change. The findings within this theme exhibited how integral it is to develop goals and commit to them to maintain behavior change that encourages positive healthy habits.

Think Positive and Set Goals

To increase self-regulation of physical activity, the participants displayed how important it is to be optimistic. This consisted of having expectations and working towards achieving those expectations. P1 expressed her goals for her weight and her workout routine. P1 stated, "I actually want to lose maybe about 10 more", and "I have a set schedule for my workouts so that I stick to those". P2 instills motivation into her lifestyle by having "a vision board…, I put a lot of motivational words on there". P3 displayed a negative attitude regarding her goals. P3 stated that the gym closure "suppressed my confidence…, when everything slowed down, those goals slowed down". On the contrary, P4 stated, "I had a goal, I wanted to lose 10 pounds. And so it was easier for me to monitor…, I'm a very goal-oriented person".

The participants shared various inspirations and support they needed to help them better their situation. P1 was inspired by the negative impact that COVID-19 had on

people with underlying health conditions, “the news helped a lot as well with all of the negative instances”. In terms of working out, P1 stated, “I'll watch some videos sometimes just to get like some inspiration on any different types of, you know, workouts just so that I don't get, bored”. P2 mentioned, “I turned on YouTube and we followed some people who were doing routine exercises”. She also stated, “So my brother he works out, he’ll do Instagram videos…, I watch his videos and I'm like, I could do this. I could do this. You know that kind of motivated me. I kind of motivated myself as well as I wanted to live a better lifestyle for myself”. P3 had a similar inspiration as P1 concerning the impact of COVID-19 on healthy people vs. those with underlying conditions. P3 stated “And so when I was watching the positive outcome of, you know, working out versus just sitting around. I was inspired by others, like I said, beating the COVID and they would seem to be more healthier.”. Additionally, P5 stated, “So just the fact, like the totalities of like the situation, and just because like, the, you know, the virus was attacking so many people, like I wanted to be at like, like the most, the best shape and physical, like I could possibly be”. All four women mentioned that religion has some inspirational effect on their experiences through faith, prayer, or listening to gospel music. P5, the only male, did not mention that religion was a factor, however, he stated “higher vibrational music, like, uh, I feel like it helped me like go work out for a long period of time and more intense”.

In terms of social support, P1 and P4 both live with a partner and mentioned the influence of their partners along with others. P1 stated “But I would say, some days in the morning when I don't want to get up, he's there. So he's there getting me up too. And

that's pretty much all the support I needed. And like I said, I did have the social media influences, just watching videos on social media". P4 stated "And I was like going like every day before work. Also like my boyfriend, like he was working out a lot. So just like having him work out and then like me working out kind of felt like a team effort". P4 also had the support of friends who all worked out together. P4 stated, "FaceTime was really good, FaceTime group. So we'll get on the FaceTime group, and then like I said, we had a group message going where we'll send each other just like workouts and we'll just kind of actually send the videos. Like, hey, I did my session today. Here's my 10 push-ups, do yours". These participants displayed the strongest capabilities of working out at home during the COVID-19 pandemic. For example, P5 stated "I don't feel like I needed any social support to work out at home". However, he also stated that his home workouts were "remedial". P2 and P3 stated that workout videos were needed. P3 stated, "everything remote was very supportive".

Develop and Commit to a Workout Routine

Committing to behavior change and a workout regimen requires willpower. P4 stated "Just being alert and cautious of like my dietary, like what I'm eating, like what I'm consuming. And then also just being committed to like how I'm like exercising and just making sure that I'm physically involved". P1 and P5 had similar beliefs regarding their commitment. For example, P1 stated "because once it started, like I was pretty much, I had tunnel vision, just going, going down". Similarly, P5 stated, "I just wanted to like, you know, get into the groove and once I like got consistent with it, you know, it was hard, you know, to stop".

All participants stated that their workouts lasted from at least 30 minutes to an hour. However, it is important to note the types and the length of workouts completed at home versus at the gym to achieve results. P1 stated she would workout 1 hour whether at the gym or at home: “So twice a week, 1 hour before everything was pretty much unusable. And then at home for like 1 hour, four days a week”. P2 stated, “they say you don't burn nothing until about 35 minutes in”. P5, on the other hand, stated, for gym workouts, “so sometimes it'll be like an hour and 30 minutes to 2 hours, and the bare minimum will be like a 30-minute workout”. However, for home workouts, P5 stated, “Those 30 minutes turned into like 15. Wasn’t as intense at all”. Four participants acknowledged that workouts are more beneficial when performed in an actual gym, thus home workouts versus the gym were not as effective. However, P1 and P4 implemented various workouts that they were able to complete at home and see results. P1 stated “I invested in a treadmill. I had a little gym going on and, you know, it's decent…, I have a treadmill, I have some dumbbells, and I have like a jump rope, and my little yoga mat…, I have enough space for it”. Being able to effectively workout at home depends on resources and space. P2 stated, “we don’t have that equipment”. However, besides using equipment, P4 stated “Like when I did find out the gym was closed but finding just like different ways to check in with myself. And so like, hey, like just because I can't physically go to the gym doesn't mean I have to like, you know, stop from working out. And so that's kind of how I got into like home workouts and more cardio with like running and stuff…, really enjoy a lot of just like cardio. Like I did a lot of jumping jacks. I did a lot of like high knees, like stuff that got my heart rate going and get me like

sweating and moving fast…, And then those days I didn't feel like doing like actual exercises, I'll turn some music on and just like dance for an hour or two". P1 and P4 strongly displayed that commitment to working out extended beyond restrictions. It was about finding alternative ways to reach their goals.

Maintain Behavior Change

Maintaining behavior change is integral to positively changing lifestyle habits. The participants expressed their goals and what they knew they needed to do to achieve them. P3 mentioned that "a lot of it is willpower. If you're willing to do something, if you're willing to make a change, I believe the mind and the body will follow". Having a sense of accomplishment helps to encourage repeated behaviors as well. P4 stated, "I give myself, like a little small incentive, like, you know, if you work out for 45 minutes today, like you can do 45 minutes of Gray's Anatomy. And kind of just keeping myself going". Additionally, P5 stated that working out "became like a healthy habit…, it actually, I guess it kind of came naturally. You know once I started to not stop".

Summary

This chapter presented the participant profiles and the process used to develop the codes of the study, combine those codes into categories, and combine the categories into themes as related to the semistructured interviews with the participants inductively and iteratively. The data analysis yielded 29 codes, six categories, and two themes, which were discussed and presented in three tables. This chapter also presented the results of the data analysis with supporting excerpts from the interviews. The next chapter, Chapter 5,

discusses the themes about the research questions, conceptual framework, and literature review of the study.

Chapter 5: Discussion, Recommendations, and Conclusions

The purpose of this descriptive qualitative study was to understand the experience of self-regulation as a strategy to increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. While conducting a peer-reviewed literature review, I found that Prado et al. (2022) discovered that physical activity was at lower levels for people with obesity during the COVID-19 pandemic. Lachman et al. (2018) conducted a study that suggested that self-regulation was necessary to implement behavior change and increase physical activity in sedentary adults. Annesi (2021) discovered that self-regulation was needed to maintain physical activity and control eating for weight loss. However, it was discovered that more research was needed to understand the experience of self-regulation in obese adults to increase physical activity and weight loss during the COVID-19 pandemic.

To address the gap discovered in the literature, I used a phenomenological qualitative approach to obtain an in-depth understanding of the lived experiences of self-regulation amongst obese adults used to increase physical activity and weight loss during the COVID-19 pandemic. Five participants were included in the study who were over the age of 18, were or had been obese, and practiced physical activity. By analyzing the data using the first and second cycle descriptive coding process and thematic analysis according to Saldana (2016), the findings revealed that the participants shared similarities as well as differences that helped to enhance the understanding of the experiences of self-regulation of weight and physical activity and how those experiences influenced physical activity during the COVID-19 pandemic. The findings of this study revealed that mindful

awareness, self-reflection, self-talk, and commitment are vital components needed to implement self-regulation when faced with restrictions such as the COVID-19 pandemic to control weight and increase physical activity. These finding contributes knowledge in this field and can support the development of mental training programs to assist with building self-regulation skills that can be applied to practice positive health behaviors such as regular exercise to reduce the prevalence of obesity.

This chapter includes a discussion of the key findings and how they compare to the literature review discussed in Chapter 2. I also discuss the limitations of the study as well as recommendations, implications for social change, empirical and practical implications, and ends with a conclusion.

Interpretations of Findings

The results of this descriptive qualitative research study helped to understand the lived experiences of self-regulation amongst obese adults used to increase physical activity and weight loss during the COVID-19 pandemic. I conducted a semistructured interview process with the participants to answer two research questions:

RQ1: What is the experience of obese people with self-regulation of body weight during the COVID-19 pandemic?

RQ2: What are self-regulation strategies of obese people used to practice physical activity during the COVID-19 pandemic?

To address these research questions, 23 interview questions were asked relevant to the research questions. All five participants were African American, addressed concerns with their weight, had similar understandings of what it meant to eat healthy,

and had various motivations for implementing behavior change. The results derived from the findings presented in Chapter 4 produced two themes: increasing awareness to overcome obesity and implementing strategies to increase physical activity. Each theme was recognized based on the participants' responses to the interview questions as they relate to the research questions. The two themes that were extracted from the data provided answers to the two research questions. While, according to the literature review, past research was limited in examining the topic of this study, the findings produced from this descriptive analysis confirm past research as well as provide a meaningful contribution to the field.

Response to Research Question One: Increasing Awareness to Overcome Obesity

The first theme, increasing awareness to overcome obesity, was collaboratively generated as the participants expressed their awareness of healthy and unhealthy behaviors, how they felt about and overcame restrictions and challenges, and what their motivations were for wanting a healthy weight. To be able to practice self-regulation to control weight, a person must be aware of themselves and their environment. While Annesi (2021) described that monitoring behaviors was a skill of self-regulation, Lachman et al (2018) suggested that most adults are aware of the health benefits of physical activity. The participants in this study expressed their experience of awareness from a reflective standpoint, which enhances these concepts. The participants were aware of their weight issues, but they were also aware of what healthy eating means. One participant admitted to unhealthy eating during the beginning of the COVID-19 pandemic, which she knew contributed to her obesity. The participants also voiced their

awareness of the negative effects of their weight on their lifestyle and for one participant, her children. The responses of these participants regarding awareness conveyed that to change their behavior and improve their weight, they first had to be aware that their weight was unhealthy and then have a reason to become healthy.

The reasons why the participants wanted to lose weight included wanting to be healthier to fight against COVID-19, not being able to breathe when walking up the stairs, enduring a health scare, not being able to fit into favorite clothing, and the need to be able to physically interact with kids as a parent. These reasons extend to the research conducted by Chew et al. (2022), who discovered that motivations for wanting to lose weight included to feel normal and because of a sense of responsibility to loved ones. Because of these motivations, the participants admitted to adopting behavioral changes to address their weight concerns. Some of the behavior changes consisted of changing eating habits by choosing a healthier alternative and practicing physical activity.

The participants conveyed that they had to adjust their physical activity efforts because of the restrictions of the COVID-19 pandemic by practicing physical activity at home when the gyms were closed. To adjust to the restrictions and challenges, those restrictions and challenges were acknowledged as a form of awareness. The participants in this study faced restrictions and various challenges to implementing physical activity during the COVID-19 pandemic such as injuries and lack of motivation. Obesity is an epidemic (Blouin & Gyurcski, 2019). Dealing with obesity during a pandemic could be a calamity without proper management. The participants explained how they would reflect on their past condition for motivation to perform a healthy act so that they would not go

backward in their condition. Thus, mindful awareness and self-reflection were the key experiences of the participants in controlling their weight.

Response to Research Question Two: Implementing Strategies to Increase Physical Activity

The second theme, implementing strategies to increase physical activity, was established from the responses to the interview questions that established what the participants did in terms of thinking positively and setting goals, developing and committing to a workout routine, and maintaining behavior change. Annesi (2021) described goal setting as a self-regulation strategy. The participants had a common goal, to lose weight through physical activity. My results confirmed that goal setting is a strategy that helped the participants identify their targets and increase efforts to attain them. While each participant had different experiences with implementing physical activity, positive self-talk was a fundamental strategy used to encourage acting towards their goals, especially during low-motivational days, or just not wanting to get out of bed in the morning. Lachman et al. (2018) and Annesi (2021) described cognitive reconstruction as a self-regulation strategy used to reverse negative self-talk. This study contributes to this construct in that positive self-talk is a self-regulation strategy needed to increase physical activity.

In general, people practice enjoyable actions that generate a positive reward (Flack et al., 2019). To consistently implement physical activity begins with finding enjoyable, yet efficient, workouts. During the COVID-19 pandemic, the gyms closed entirely, so the participants had limited access to a selection of professional workout

equipment (Gjestvang et al., 2022). The participants described the different workouts that they had to complete at home. Two participants stated that the workouts at home were less effective than those in the gym. However, one participant had the resources and space in her home to invest in a treadmill, which she found much more convenient and comfortable than going to the gym. Additionally, that same participant was able to continue her workouts at home for the same duration as she would in the gym, for 1 hour. Although she claimed she wanted to lose 10 more pounds, she was able to reduce her weight to a comfortable weight. The participants stated that their minimum workout in the gym would be at least 30 minutes, but no more than 2 hours. The results of this study are consistent with the findings of Kuswari et al. (2022), who discovered that at a minimum, a 30-minute workout would improve the fitness level for obese adults, but a 60-minute workout improved fitness much more than 30-minute workouts.

In addition to developing and committing to a workout routine, to ensure that commitment to practicing physical activity was sustained, the participants explained various types of social support needed, whether from a significant other, family, friends, or social media. During the COVID-19 pandemic, social interactions were limited. One participant described interacting with her workout buddies in a chat group where they would send each other exercise challenges to complete. Other participants described using YouTube to obtain inspiration or exercise ideas to incorporate during their workouts at home. These findings confirm the study completed by McDonough et al. (2022), who found that social support and networking help to increase the motivation to practice physical activity during the COVID-19 pandemic. The participants found

alternative ways to achieve their goals when faced with restrictions during the COVID-19 pandemic, which displayed their level of commitment to losing weight. Therefore, commitment and self-talk were significant self-regulation strategies the participants implemented to practice physical activity.

Limitations

Though a small sample size is typical in qualitative research, the first limitations of this study are the sample size and participant characteristics. Although generalization is not a goal of qualitative studies, this study included five participants between the ages of 18 and 41, who were all African American. The participants also included four females and one male. Because of the sample size and participant profiles, contextualizing the results in other areas may not be appropriate. Another limitation of this study is that it did not take into consideration obese adults with extreme health conditions. These obese adults may find physical activity more difficult or have additional health concerns that limit the amount of physical activity that can be performed. The data for this study was collected a single time, therefore, the study is unable to provide the long-term experience of implementing self-regulation strategies to control weight and physical activity.

Recommendations

This study helped to gain insight into the experiences of self-regulation of body weight and self-regulation strategies used to practice physical activity of obese adults during the COVID-19 pandemic, However, there are still gaps that need to be filled. Future research could extend this study with the inclusion of a larger sample size that includes various ethnicities and a more equal number of females versus males. The

findings of this study revealed that one participant was able to buy a treadmill for home use. Future research would be able to explore the circumstances that enable one person to have an effective workout at home versus another. Additionally, further research could extend this study to include adults who suffer from severe obesity. While the data collection for this study was completed a single time, more insight can be gained with research that extends the data collection period to understand the long-term experiences of implementing self-regulation to control weight and increase physical activity.

Implications

This study contributed to the gap surrounding the experiences of self-regulation to increase weight loss and physical activity amongst obese adults during the COVID-19 pandemic.

Empirical Implications

Developing and implementing self-regulation skills during tough times such as the COVID-19 pandemic, allows the applicability of those skills to be made more effortlessly when restrictions and challenges are not as difficult. The results point out that not only does practicing positive health behaviors increase a person's health and quality of life, but it extends to family as well, especially children. When obese parents lose weight and become healthy, they can become more interactive with their children and transfer those positive behaviors to their children. These influential actions would help to prevent obesity within a person's family. The findings suggest that mindful awareness, self-reflection, self-talk, and commitment are integral components needed to implement self-regulation to control weight loss and increase physical activity. These findings

contribute to current research that suggests that self-regulation is essential to increase physical activity and that goal setting is one self-regulation strategy necessary to implement behavior change.

Practical Implications

The findings of this study can help aid in programs that help to increase awareness of self-regulation strategies to increase physical activity. Self-regulation is an ability executed at an individual level. One way that programs can help individuals realize these abilities is to embed concrete examples of how to practice self-regulation strategies to overcome negative thinking and unhealthy behavior patterns such as physical inactivity or unhealthy eating. As the findings of this study suggest, increased awareness about healthy behaviors helps to reduce unhealthy behaviors and increase physical activity. A tool that can be developed to increase awareness of self-regulation strategies is the use of self-assessments. Promoting the use of self-assessment tools during regular doctor visits can increase awareness as it would help patients identify their strengths and weaknesses, which could, in turn, lead to behavior change. Increasing awareness of self-regulation strategies supports positive social change as the prevalence of obesity can be reduced and quality of life increased.

Conclusion

Obesity is a controllable disease. However, it is a personal choice to decide to eat healthy and practice physical activity. Research shows that self-regulation is a necessary strategy to increase physical activity (Lachman et al., 2018; Annesi, 2021). This qualitative study helped to understand the experience of self-regulation as a strategy to

increase physical activity and weight loss amongst obese adults during the COVID-19 pandemic. The experiences of the five participants displayed that awareness and motivation are needed when deciding to implement behavior change to improve health and reduce obesity. The participants also emphasized the importance of creating goals and having a support system as a means for sustaining the activities necessary to achieve those goals. The findings of this study show that mindful awareness, self-reflection, self-talk, and commitment are crucial components when executing self-regulation to control weight and physical activity. Although further research can enhance the understanding of these experiences, this study can aid in the development of programs to help increase awareness and help build self-regulation skills to reduce the prevalence of obesity.

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Appendix A: Social Media Invitation

Social Media Invitation

Interview study seeks physically active adults

Caption: There is a new study about the experiences of people who were or are obese who have lost weight by practicing physical activity during the COVID-19 pandemic that could help care providers like health coaches and counselors better understand and help their patients. For this study, you are invited to describe your experiences practicing physical activity.

About the study:

- One online 8-question questionnaire through Google Forms
- One 30–45-minute Zoom interview that will be audio recorded (no videorecording)
- One follow-up call to confirm the researcher's interpretations of the interview
- You would receive a $10 Subway gift card as a thank-you
- To protect your privacy, the published study will not share any names or details that identify you

Volunteers must meet these requirements:

- 18 years old or older
- History of obesity
- Practice physical activity and lost weight during the COVID-19 Pandemic

This interview is part of the doctoral study for Nicholas Cunningham, a Ph.D. student at Walden University. Interviews will take place during December.

Please text privately to let them know of your interest.

Appendix B: Demographic Questionnaire

1. What is your gender?
    a) Male
    b) Female
    c) Other

2. How old are you?

    _____

3. What is your ethnicity?
    a) White
    b) Black or African American
    c) Hispanic or Latino
    d) American Indian or Alaska Native
    e) Asian
    f) Native Hawaiian or Other Pacific Islander
    g) Other
    h) Prefer not to answer

4. What is the highest level of education that you have attained?
   High School
    a) Associate's Degree
    b) Bachelor's Degree
    c) Master's Degree
       Doctoral Degree

5. What is your marital status?
    a) Single
    b) Married
    c) Divorced
    d) Widowed
    e) Living with a partner
    f) In a relationship

Appendix C: Interview Guide

1. What does healthy eating mean to you?

2. During the pandemic, what types of healthy eating decisions did you make?

    a) What healthy foods did you eat?
    b) What foods did you avoid to prevent weight gain?

3. What motivated you to want a healthy weight?

4. How often did you work out during the COVID-19 pandemic?

5. What kind of exercises did you enjoy?

6. What time did you normally start your work out?

7. How long did you typically stay in the gym?

    a) How long were your work outs?

8. How did it make you feel when the gym closed during the COVID-19 pandemic?

    a) Did you work out at home?
    b) Did you set up a work-out station at home?

9. How long did you work out at home during the COVID-19 pandemic?

10. What type of exercises did you do when the gym was closed during the COVID-19 pandemic?

11. How did COVID-19 social distancing restrictions affect your interactions with your health
coach, personal trainer, or any healthcare professionals?

12. What type of social support did you need to work out at home, if any?

13. What were some changes you made to your workout routine during the pandemic?

14. What did you do to stay physically active during the pandemic?

15. Besides the pandemic, what other challenges did you face with physical activity?

16. What type of weight loss did you see during the pandemic?

17. What type of weight gain did you see during the pandemic?

18. What inspired you to stay positive about physical activity during the COVID-19 pandemic?

a) Did religion contribute to your inspiration?
b) Did meditation contribute to your inspiration?

19. Were you less physically active during the pandemic?

20. What did you tell yourself you needed to do to lose weight?

21. What type of goals did you set for yourself to control physical activity during the pandemic?

22. How did you overcome the way the COVID-19 pandemic made you feel about physical activity?

23. What did you do to prevent going back to old habits that caused weight gain?