

Abstract

This phenomenological qualitative study, guided by Max van Manen, addressed the question, “What is the lived experience of obese employees who discontinued participation in a workplace weight loss challenge program in which they voluntarily enrolled?” A literature review indicated that employers sponsored weight loss and wellness programs to ameliorate associated costs of obesity, including a program called a Weight Loss Challenge. There was a high dropout rate in weight loss programming; including those held in the workplace. The phenomenon of dropping out of a Weight Loss Challenge by obese employees that voluntarily enrolled warranted qualitative investigation. The researcher used purposive sampling to recruit 13 male and female participants who were over 30 BMI, over 40 years of age, and who had participated and dropped out of the Weight Loss Challenge of interest to this study. Strategies to address study credibility included methodological congruence, triangulation, prolonged engagement in the field, thick description continuing search for disconfirming evidence, verbatim transcription, and engagement in reflexivity, maintenance of an audit trail, and data saturation. Data were coded and analyzed for patterns and themes in an effort to identify the essence of participants’ lived experience. The essence of the study was that past weight loss and obesity experiences informed each present weight loss effort; with a repeating pattern of weight loss battles in a life-time war against weight. Study findings provide health promotion professionals an in-depth understanding of the complexity faced by obese individuals who participate and fail at weight-loss attempts in weight loss programming at the workplace.

Title: The lived experience of obese employees who discontinued voluntary participation in a workplace weight loss challenge program: A qualitative study

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Signature Page

THE LIVED EXPERIENCE OF OBESE EMPLOYEES WHO DISCONTINUED
VOLUNTARY PARTICIPATION IN A WORKPLACE WEIGHT LOSS CHALLENGE
PROGRAM

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I would also like to thank my study participants. I was enlightened through the study participants in ways I never expected. Rather than doing research with phenomenology, phenomenology did research with me. I hope that being forced to be mindful to 13 participant’s lived experiences, while being completely caught up in the fascination and wonder of it, will have taught me that life and the relationships we have along the way, were not intended to be a drive by. I need to get out of the car more, to sit on the porch of each experience and have a cup of coffee. For a while at least, I am anxious to experience my phenomenological moments somewhere other than in front of a computer and keyboard!

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Chapter I: Introduction

Obesity, a condition of having excess adipose tissue or body fat in relation to lean body mass (Stunkard & Wadden, 1993), is a complex disease and a major epidemic in the United States (CDC, 2011). Research has indicated that obese individuals are at greater risk for many diseases and disorders such as coronary heart disease, type 2 diabetes, some cancers, high blood pressure, high cholesterol, stroke, liver and gallbladder disease, sleep apnea, respiratory disease, degenerative diseases of bones and cartilage, and reproductive health complications (CDC, 2010). Obesity is also associated with high mortality, disability, morbidity, healthcare utilization, and health care costs in the U.S. (CDC, 2011). The obesity epidemic is becoming an increasing national health crisis as U.S citizens' weight continues to rise.

Since 1995, a dramatic increase occurred in the obesity epidemic in the United States, with rates of obesity doubling in seven states, increasing up to 90% in ten states, and increasing 80% in 21 more states (Levi, 2011). Prevalence of obesity and severe obesity more than doubled during the 19-year period between 1990 and 2009. Forecasts based on linear time trend data estimated obesity prevalence could reach 51% by 2030 (Finkelstein, Khavjou, Thompson, Trogon, Liping, Sherry, & Dietz, 2012). By 2011 more than 30% of U.S. adults and 17% of U.S. children had a BMI that was considered obese and not one of the fifty states had a prevalence of obesity that was less than 20% (CDC, 2011). None of the states had experienced a decrease in obesity during the 16 years prior to 2011. In fact, 31 states experienced an increase in obesity during that same time period (CDC, 2011).

Obesity has taken a toll in North Carolina, the state in which the study was conducted. At the time of this study, 36% of adult North Carolinians were overweight and 29% were obese

(CDC, 2011). North Carolina had the 12th highest rate of adult obesity in the nation and was ranked as the fifth worst state in the U.S. for childhood obesity prevalence (CDC, 2011).

The many health risks associated with obesity have led to a burden of high costs associated with the problem. The overall national costs, associated with weight gain trends, were estimated to be approximately \$117 to \$300 billion annually (Katz, & LaVan, 2009). Another cross-sectional analysis of the 2006 Medical Expenditure Panel Survey and the 2008 National Health and Wellness Survey found that the cumulative annual cost attributed to obesity among full time working Americans was \$83.1 billion. This same report stated that the obese population with a BMI over 35 represented 37% of obese workers but was responsible for 61% of the excess cost.

A financial burden has fallen on corporate America due to the rise in health care costs, suggested to be caused by the obesity epidemic, because a large percent of working Americans accept the benefit of health coverage offered as a benefit by the companies that employ them. For example: roughly 62% of nonelderly Americans obtained health care coverage through employee sponsored health insurance coverage from 1996-2005 (Eibner & Marquis, 2008). Annual medical expenditures were estimated at \$147 billion, with companies paying roughly half that total (Finkelstein, Khavjou, Thompson, Trogon, Liping, Sherry, & Dietz, 2012). According to research cited by Eibner and Marquis, the average annual medical expenditures for obese employees was \$732 higher than for individuals of normal weight (2008). One report stated the rising prevalence and cost of obesity accounted for 27% of the rise in inflation-adjusted medical expenditures between the years of 1987 and 2001 (Finkelstein, et.al, 2012). In addition to the cost of medical coverage for employees, the value of work lost due to presenteeism was calculated to be the single largest driver of preventable cost associated with the

health of full-time workers. The cost of lost work due to not being present on the job (presenteeism) rises with increasing BMI (Finkelstein, DiBonaventura, Burgess, & Hale, 2010). To help increase employees' health and wellness, many companies have instituted wellness programs at the workplace (LaVan & Katz, 2009).

Worksite wellness programs vary from company to company. The variation is based on employee needs and the resources available for the program. Corporations offer wellness programs as a benefit to employees to improve their health behaviors and health knowledge and skills and to influence social norms, establish health policies, and help employees obtain necessary health screenings, immunizations, and follow-up care. By offering these benefits, companies had hoped to control health care spending, as well as impact productivity, recruitment/retention, workplace culture and employee moral (CDC, 2013). On average, employee health care costs fell \$3.27 for every \$1.00 spent by corporations on employee wellness programs in the year 2010 (Baicker, Cutler, & Song, 2010).

Common wellness program offerings have included: discounted gym memberships, weight loss programs, smoking cessation programs, providing healthy foods in the on-site cafeterias and vending machines, and on-site educational programs or screenings (CDC, 2010). Often, worksite wellness programs offered incentives for participating in programs or meeting health goals such as losing weight (CDC, 2010). Obesity was a significant health cost driver and therefore a major focus of most wellness programs held in the workplace (CDC, 2010). Two-thirds of insurers surveyed said they supported the idea of charging higher premiums for obese employees that did improve their health by participating in a weight reduction program (Mello & Rosenthal, 2008). One very common wellness program offered at companies to combat obesity

is a program called a weight loss challenge. This was a program designed to help employees lose a percentage of weight through competition and incentives.

Despite their prevalence, weight loss programs, in general, have shown high dropout rates and failure to lose desired weight. Programs focused on just dieting or severe restriction of calories have been particularly unsuccessful. Reviews of the scientific literature on dieting in general have revealed two primary conclusions: diets led to short-term weight loss but these losses were not maintained. Also, dieters who sustained weight loss were the rare exception rather than the rule (Mann, Tomiyama, Westling, Lew, Samuel, & Chatman, 2007). These same trends have been seen in work-site-based weight loss programs that focused on dieting. Findings from these programs revealed that many obese participants dropped out of the weight loss programs and did not maintain their weight (Mann, Tomiyama, Westling, Lew, Samuel, & Chatman, 2007).

The weight loss challenge program investigated in this research study was a multi-faceted program. Of the 226 participants enrolled in the program, almost 40% of participants (n=88) attained a 2.5% weight loss goal and about 25% of participants (n= 58) achieved a 5% weight loss goal. The researcher was interested in knowing what happened to the obese participants who voluntarily enrolled in the work-site based weight loss program but dropped out of the program mid-way.

Purpose of the Study

The purpose of this qualitative phenomenological study was to gain insight into the experiences of obese employees who discontinued participation in a workplace weight loss challenge program in which they were voluntarily enrolled. The researcher addressed the

following research question: *“What is the lived experience of obese employees who discontinued participation in a workplace weight loss challenge program in which they voluntarily enrolled?”*

Significance of the Study

While at the time of this study a few qualitative studies investigated community-based weight loss programs, a review of the research literature revealed a lack of qualitative research involving participants in such weight loss programs in the workplace. Quantitative research had been conducted on weight loss challenge programs in the workplace, but a need existed for qualitative studies on weight loss programs offered in worksite settings. This was particularly true of such programs that involved obese employees and weight loss competitions. Of great concern were obese employees who voluntarily enrolled but did not complete weight loss competition programs. Insight into their experiences and perspectives was anticipated to enable program planners to more effectively tailor such programs to these individuals and thus reduce drop-out rates and increase the impact of such programs on weight loss success and health risk reduction, as well as increase program participant satisfaction.

Conducting research on the meaning, lived experience, and perceptions of obese participants who voluntarily enrolled in but did not complete a worksite weight loss programs was warranted for four reasons. The research was anticipated to: a) lead to a greater understanding of how participants experienced weight loss changes and what happened to them after discontinuing participation; b) benefit program planning for the worksite weight loss challenge at the site studied; c) provide qualitative data that would enable other program planners and the worksite health community to assess findings for transferability and potentially gain insight and understanding of program participants in weight loss challenges; and d) contribute

one of the few qualitative research studies that focused on how obese participants experienced worksite weight loss challenge programs who did not complete the program.

This study illustrated how a qualitative research approach could be used to obtain data useful for tailoring weight loss challenge programs to those who participated in them. If a program planner deemed the study transferable to a different setting and sample, these findings could be used to aid them in tailoring their existing workplace weight loss challenge program to more effectively meet the needs of obese participants. Such tailoring would help program planners develop more rewarding and meaningful weight loss challenge programs, with long term results that affected both the waistline of the employee and the pocketbook of the employer.

Definition of Terms

Dropout: Any participant of the workplace weight loss challenge program that discontinued participation in weigh-ins prior to the final 5% weigh-in.

Success in the weight loss challenge: In this research study, successful weight loss was defined as having met the participant-endorsed program goal of a five percent reduction in body weight within a given period of time.

Weigh-ins: Pre-set times during a weight loss challenge program when participants reported to a designated site at the workplace to be weighed on a scale and have their body weight documented.

Workplace Weight Loss Challenge Program: The workplace-based weight loss challenge program associated with this study consisted of at least five weigh-ins conducted over the course of at least six months. Participants' had access to extensive weight loss resources and support programs, a competition, and an incentive structure. Participants were challenged to lose a specified percentage (5%) of body weight in order to garner program incentives and recognition.

Participants could enroll in the program individually or as part of a team. There were changes in some program logistics such as number of weigh-ins, length of program and incentives annually.

In the following sections of this study report, the researcher has presented a review of the peer-reviewed literature and justification for the research, discussed the qualitative research design and the phenomenological approach that informed the design, explained the research methods used in the study, including data collection strategies, and detailed the data analysis procedures. A presentation of findings associated with the study is followed by a discussion of the findings, conclusions, and implications of the findings for professional practice in health education and for further research.

Chapter II: Literature Review

The purpose of this qualitative phenomenological study was to gain insight into the experiences of obese employees who discontinued participation in a workplace weight loss challenge program in which they were voluntarily enrolled. The research question that the researcher addressed was, “*What is the lived experience of obese employees who discontinued participation in a workplace weight loss challenge program in which they voluntarily enrolled?*”

The researcher conducted a review of the literature in an effort to place the study in the context of what was currently known about the topic at the time of the study. She focused the literature review on the broad topics of obesity, weight loss, worksite weight loss programs, and weight loss competition or challenge programs in the United States, including North Carolina where she conducted her research. She also reviewed the literature on corporate wellness programs targeting obesity as a major health risk.

The researcher started her literature review by searching with key words such as: obesity, weight loss, weight loss competitions, weight loss failures and success, corporate wellness programs, weight loss trends, worksite wellness and weight loss, obesity and weight loss programs, competitions and weight loss programs, worksite weight loss challenges, qualitative research, and incentive-based weight loss programs. She repeatedly searched the Medline via PubMed and the ECU OneSearch database throughout the course of the study. After locating publications relevant to the research topic and question, she used a snowball method of literature review. When finding one article of interest, for example, the researcher reviewed referenced articles of interest that had been cited by the authors of the article. As the researcher became more knowledgeable about journals with content about the topics and research approaches most

relevant to the study, she also searched for articles relevant to the study within specific publications such as; Qualitative Health Research, The American Journal of Health Promotion, Obesity Research, International Journal of Obesity, The Journal of Psychology, Healthy Weight Journal, and the Journal of the American Medical Association.

Obesity Defined

Obesity, a condition of having excess adipose tissue or body fat in relation to lean body mass (Stunkard, 1993), is a complex disease and a major epidemic in the United States (CDC, 2013). It is the leading cause of mortality, disability, morbidity, healthcare utilization, and health care cost (Odgen, 2007). The World Health Organization (WHO) has defined overweight and obesity as abnormal or excessive fat accumulation that may impair health (WHO, 2013). On June 18, 2013 the American Medical Association (AMA) categorized obesity as a Chronic Medical Disease State (AMA, 2013). At the time of the AMA announcement, the general public and medical community was divided on whether obesity should be classified as a disease (Foster, 2008; Tikkinen, 2012). Those in favor believed that the disease classification for obesity might lead to improved health outcomes from higher investment and a greater urgency for medical treatment that a disease label demanded. (Foster, Wadden, Makris, Davidson, Allison, & Kessler, 2003). On the opposite side of this argument, there was a concern that the disease label would lead to more funding of pharmacological and surgical treatments rather than public health initiatives. It was recognized that public health initiatives that targeted life style changes to lose weight also offered significant health benefits for people across the Body Mass Index (BMI) spectrum (Moynihan, 2002).

Obesity typically has been measured by BMI, a screening tool developed in the 19th century that was useful in identifying individuals who were underweight or overweight (Barlow

& Dietz, 1998). The WHO, as well as the Centers for Disease Control and Prevention (CDC) (CDC, 2013), and the National Heart, Lung, and Blood Institute (NHLBI), (NIH, NHLBI, 1998) have described overweight and obesity in adults using BMI measurements. The NHLBI has recommended since the 1990's that waist circumference in adults with a BMI level below 35 kg/m² be used in addition to BMI to further assess obesity-related disease risk (NIH, NHLBI, 1998).

There are limitations and years of controversy surrounding the BMI as a measurement tool. The common argument had historically been that BMI was an indirect measure of obesity and could seriously underestimate body fat, although it had been considered a more accurate measure than body weight alone (NIH, NHLBI, 1998). A wide range of characteristics or conditions have been recognized in which BMI may be a misleading indicator of health risks and health outcomes. These characteristics or conditions have included: infancy and childhood; race or ethnicity; athletes; military and civil forces personnel; weight loss with and without exercise; physical training; and special clinical circumstances (Prentice & Jebb, 2001). Associations between BMI level and disease risk vary by gender, age, socio-economic status, race or ethnicity, body compositions, fat distribution, genetic susceptibility and other causes of overweight (AMA, 2008).

Obese individuals with a BMI level below 30 have been particularly prone to the low sensitivity of BMI as a screening tool and indicator of disease risk (Cornier, 2011). An example of such a circumstance includes individuals with BMI levels that indicate normal body weight (BMI lower than 25) but who have a high degree of excess fat tissue and metabolic disturbances associated with obesity such as hypertension, insulin resistance, and cardiovascular disease. An additional example includes individuals designated as overweight or obese due to BMI levels

greater than 30, but who have little excess body fat and normal lipids, insulin sensitivity, and blood pressure (AMA, 2008; Cornier, 2011). Even though BMI determinations have limitations, significant research has associated high BMI levels with life altering diseases and conditions such as diabetes, asthma, osteoarthritis, chronic back pain, pregnancy complications, sleep apnea, and mental illness (AMA, 2008; Cornier, 2011; & Gah, 2009). At the time of this study, the international surveillance and individual patient assessment of obesity was still primarily measured by BMI (CDC, 2013).

Since the mid 1990's, a dramatic increase occurred in the obesity epidemic in the United States (CDC, 2013). Alarming, more than one third of U.S. adults were documented in 2013 to have a BMI that was considered obese (CDC, 2013). According to the CDC, the overall prevalence of obesity among adults did not change between 2009 to 2010 and 2011 to 2012 but in men there had been a significant increase in overall obesity prevalence in the prior decade (Ogden, 2013). Gallup Poll Surveys in 2013 indicated one percent increases in obesity rates in almost all major demographic and socioeconomic groups (Gallup Poll, 2013), representing the highest increase since 2009 (Gallup Poll, 2013). Regardless of whether rates had remained the same or leveled off, obesity had become a critical public health issue. Current trends at the time of the study showed obesity to be associated with a high risk of significant future burden to the U.S. healthcare system and negative health outcomes for Americans (Gallup Poll, 2013).

Data from 2013 revealed that obesity rates increased overall in one state, while the rates in remaining states stayed relatively the same but unimproved (CDC, 2013). Obesity has taken a toll on North Carolina, the state in which this study took place. At the time of this study, 65% of adults in North Carolina were overweight or obese and the state ranked 17th in the nation for proportion of the population who were obese (NCDHHS, 2013). The high rate of obesity in

North Carolina affected not only the health status of its residents but had a negative impact on state finances. The direct and indirect cost of the risk factors related to obesity for adults was estimated to be \$54 billion in 2012. Excess weight contributed to 33% of the total costs of the state's expenditures. North Carolina obesity rates could reach 58 percent of the population by 2030 if current trends continued (Eat Smart, Move More, 2013).

Causes and Contributors of Obesity

The causes of and contributors to the obesity epidemic have not been fully understood, but there are many theories. Most obesity researchers have determined that the two main causes of obesity were food consumption (quantity and quality) and low activity levels or sedentary lifestyles (Keith, 2006). Some researchers on the subject of obesity suggested that, because the focus has been on these two causes, other contributors to American's weight gain may not have been adequately identified (McAllister, 2009). They have argued that the obesity epidemic was complex with a multitude of other possible causes for obesity that needed further study (Keith, 2006). Other possible contributing factors to obesity included sleep debt, pollution, infection, air conditioning, decreased smoking rates, medication use, population age and ethnicity, older maternal age, ancestors' environment, fertility in obese women, and unions of obese spouses (Keith, 2006). These same researchers argued that the primary focus on inactivity and unhealthy eating choices as the primary culprits in obesity risk had halted scientific investigations into other possible causes and contributors to obesity such as the aforementioned factors (McAllister, 2009).

Support for these arguments has been well documented in a large number of credible sources and studies. One study associated decreased sleep duration with increased BMI, for example (Taheri, Lin, Austin, Young, & Mignot, 2004). Animal research has suggested the

possibility of fat-inducing viruses (Atkinson, 2007), a plausible contributor since at least ten different microbes reportedly caused obesity in experimental models (Pasarica & Dhurandhar, 2007). Examples of viruses that caused obesity in animal models included canine distemper virus (CDV) and the Rous-associated virus -7 (RAV-7). Gut micro flora also had been shown to enhance obesity by as much as 60% and induce insulin resistance in mice studies (Backhed, et al., 2004). Other studies suggested hormones used in agriculture may have contributed to obesity (Keith, 2006). Determinants also associated with becoming and staying obese have been identified as lack of social support, lack of knowledge about how to lose weight, lack of empowerment in weight loss efforts, and the impact of broader negative cultural messages about obesity from outside sources (Thomas, 2008).

Although researchers have identified a plethora of causes and contributors to high rates of obesity in the United States, little impact has been made in decreasing the prevalence of this public health issue. McAllison (2009) has encouraged scientists to remain skeptical regarding simple explanations for or conclusions about complex phenomena, particularly when antidotes to the causes of the obesity epidemic have led to widely unsuccessful results.

Corporate Concerns Regarding Obesity

The problem of obesity has been a growing concern for corporations in America. One major reason that obesity had raised concerns among employers was the cost of company-funded employee health care. The growth of health care spending between the years 1987 and 2001, for example, was attributed to obesity, with the total cost of obesity to private employers at approximately \$45 billion per year, as calculated in 2002 dollars (Finkelstein, Fiebelkorn, & Wang, 2003). At the time of this study, medical spending for obesity related complications was \$1.9 trillion annually and was expected to climb to \$4 trillion by 2015 (Gerber, 2007).

Researchers in 2002 estimated that 75% of all healthcare costs came directly from chronic illnesses that were preventable, including obesity and obesity related diseases (Institute of Medicine, 2002).

Employers' losses have arisen not only in the form of higher medical claims and costs, but also increased short-term and long-term disability expenses as well as presenteeism and absenteeism (Ostbye, 2007). U.S. companies have lost billions of dollars in profits due to the decreased productivity of obese and overweight employees (USDHHS, 2004). Presenteeism, defined as employees at work but not performing to full capacity, was shown to be 1.8% higher for obese workers than for all other employees (Katz & LaVan, 2008). Also, obese individuals were found to be more likely than healthy-weight employees to miss work (Cawley, 2007). In fact, an estimated 39 million work days were lost annually to obesity-related illnesses (Thorpe, 2004).

The medical care costs in 2008 related to obesity totaled about \$147 billion because obese employees had a higher prevalence of metabolic, circulatory, musculoskeletal and respiratory disorders (Finkelstein, 2009). The current literature stated that it cost about \$1,200 more to treat an obese person compared to someone who was not obese, even if the condition being treated was not obesity related (WELCOA, 2006). Obese employees were estimated to spend 77% more money for necessary medication compared to non-obese employees (DHHS, 2010) and obese workers were estimated to have 37% higher annual health care costs compared to those with a healthy weight (Finkelstein, 2005). The reported cost of medical insurance coverage for employees, and assumed loss in profits from obesity have made corporations in the U.S. consider obesity a high priority focus (NBGH, 2004).

Program Efforts to Combat the Obesity

Even though the incidence of obesity has continued to rise in the U.S., much effort has been expended to prevent obesity from becoming an even bigger issue for the U.S and Corporate America. In 2010, for example, more than 25 states were funded by the Centers for Disease Control and Prevention (CDC)'s nutrition, physical activity and obesity (NPAO) cooperative agreement program. This program coordinated statewide efforts to address obesity through multiple partners (CDC at a Glance, 2010). Such programs used CDC recommended strategies to directly affect physical and food environments that have been shown to negatively impact weight (CDC, 2010).

A variety of programs to assist and support individuals in losing body weight abound in schools, health care organizations, communities, community non-profit agencies, medical facilities and worksites. A commercially available weight loss program named Weight Watchers, for example, was one of the world's largest support groups for weight loss internationally (Heyes, C, 2006). Weight Watchers was designated in January 2012 by the publication, *U.S. News and World Report*, as the best weight loss diet plan out of 25 total plans reviewed (U.S. News Report, 2012). Results from a study on long-term weight loss maintenance by Weight Watchers participants showed that of the 1,200 life-time members surveyed, 37% had maintained their weight within 5 pounds of their program weight goal, five years after participating in their first Weight Watchers session (Christakis & Miller-Kovach, 1996). This weight loss program offers weekly group support meetings, weigh-ins, and a point system, and emphasizes making good choices using standard foods and getting regular exercise (Witherspoon, 2004). Weight Watchers has conducted independent studies that have shown the program to be effective in fostering weight loss. In one study, the organization conducted phone

surveys with 1,200 of its Lifetime Members in an effort to measure long-term weight loss maintenance. The participants in the study reported losing an average of 28.8 pounds as a consequence of program participation. Ninety-seven percent of participants stated that they were within their goal weight one year later and 37% of participants indicated that they were within that same range five to twelve years later. Information about members who had dropped out of the program was not reported or known (Witherspoon, 2004).

One example of a CDC-funded initiative in North Carolina that began in the year 2000 to combat obesity was called, “Eat Smart, Move More.” Over 60 organizations statewide were involved in the movement since its inception. A decade after the program was initiated, the majority of the 20 communities involved in the initiative reported increased physical activity by their community members and half reported increased fruit and vegetable consumption (CDC, 2011). There were 47 new policies or practices put into place to improve physical activity levels, nutrition and food choices as a means of decreasing obesity in the state. Despite these program successes, program evaluations did not report reduced obesity rates (CDC, 2011).

Another national program called the, “Maintain, Don’t Gain Holiday Challenge,” documented that 12% of 5,000 enrolled participants lost weight during participation and 79% of the participants maintained their weight during the holiday period. Like data from many other weight loss programs, these data failed to show the whole picture in that information was lacking about long-term behavior changes or permanent weight loss resulting from the programming (CDC, 2011). It was also unclear if the data included participants who had dropped out of the program.

The research has repeatedly reported that participants in any program intended to reduce obesity who successfully lost weight, were typically not able to maintain the weight loss over

time (Jeffrey, Drewnowski, Epstein, Stunkard, Wilson, Wing, & Hill, 2000; Mann, 2007). In programs focused on dieting, the norm has been that participants gained back the weight they lost plus additional pounds (Mann, 2007). Studies have shown that in all venues of health promotion, weight loss programs have had high dropout and failure rates (Mann, 2007).

Research on the lack of success in combating obesity as a health epidemic has been substantial. For example, in obesity reduction programs, individuals who lost weight through lifestyle modification regained 30% to 50% of their lost weight during the year following program participation (Wadden, 2002). Within five years, these same participants regained the remainder of the weight loss they had experienced (Wadden, 2002). Weight loss interventions of all kinds have consistently shown an average of only 10% weight loss for participants (Wassem, 2007). WELCOA (2006) stated that traditional diet-centered weight loss approaches had an above 95% failure rate. Similar trends in unsuccessful weight loss had also been observed in weight loss programs offered in the workplace (Jeffery, 1995).

Research since 1995 that focused on worksite weight loss program outcomes has indicated that worksite wellness programs had high attrition rates and those participants who achieved weight loss had difficulty maintaining decreased weight levels over time (Jeffery, 1995). In fact, attrition and dropout rates were observed to be higher in work-site based programs than other weight loss programs (Hagihara, 2002). Some research suggested this attrition resulted from the way worksite programs were offered. Weight loss programs have traditionally been set up with little consideration for working conditions, work schedules or the individual needs of the participants. Matching target groups with specific types of intervention was suggested to improve adherence to programs while offering support and understanding of the unique workplace requirements for adherence to participation. It was further suggested that

the work environment must be improved so that it offered adequate support for successful participation in on-site weight loss programs (Hagihara, 2012).

While data have been promising for people in weight loss challenges in terms of weight loss, participants have usually gained all the weight back over a period of five years, if not immediately after completing the program (Wilson & Brownell, 2002). Wilson and Brownell (2002) posed the question that, if people preferred to participate in challenges to lose weight at work, then why did work site weight loss programs based on competition still culminate in the same unsuccessful results?

Despite failures associated with weight loss programs, including weight loss challenges, public health professionals must continue to address obesity as a public health crisis in multiple settings such as schools, health care organizations, communities and worksites in an effort to effectively address the problem (Healthy People.Gov, 2011). The worksite has the potential be a vital and important public health setting to implement obesity prevention efforts because it is in the worksite that one third or more of target adults' workdays are located. In fact, most adults spend half or more of their waking hours at work (Bureau of Labor Statistics 2008). The CDC stated that the worksite was an important place for health promotion efforts because Americans spend one-third of their day, five times a week at the workplace if they are working full-time (CDC, 2013).

Worksite Wellness Programs

The degree to which corporations have been able to offer wellness programming to help employees improve their health has varied. This variation is based on employee needs and the resources available for the program. Corporations typically offered these programs as a benefit to employees to improve their health behaviors, improve knowledge and skills, influence social

norms, establish health policies, help employees get necessary health screenings, immunizations and increase follow-up care for health issues. By offering these benefits, companies hoped to control health care spending as well (CDC, 2010). Common wellness program offerings have included: discounted gym memberships, smoking cessation programs, providing healthy foods in the on-site cafeterias and vending machines, and on-site educational programs and screenings (CDC, 2010). Since obesity has been a significant health cost driver it has been a major focus of most wellness programs held in the workplace (CDC, 2010).

Incentives. Worksite wellness programs often have offered incentives for participating in programs or meeting health goals such as losing weight (CDC, 2010; Mello, & Rosenthal, 2008). One source reported that in 2006, 19% of employers with over 500 employees offered incentives to their employees for participating in wellness programming at the workplace (Mello & Rosenthal, 2008). A National Worksite Health Promotion survey showed that 26% of worksite respondents in 2007 offered various economic incentives to increase participation in wellness programs (Finkelstein, 2007); and according to the Health Research and Educational Trust (RAND) Employer Survey (2012) the percentage of employers who offered wellness programs to their employees rose to 59% in 2012 (Mattke, Liu, Caloyeras, Huang, Van Busum, Khodyakov, & Shier, 2013). One incentive given to employees for wellness participation was a reduction in individual medical contributions paid by the employee (Mello & Rosenthal, 2008), but the most common incentive used by employers to reward employees for participation in wellness programming was merchant gift cards. (LaVan & Katz, 2009; RAND, 2012). A 2011 review of the literature found that incentives attracted employees to enroll or participation in wellness programs but long-term behavior change was not affected by financial incentives given for wellness program participation (Mattke, et al., 2013).

Weight loss programs in the workplace. Companies have offered many programs geared toward helping employees lose weight. The Wellness Councils of America stated that 80% of American businesses with more than 50 employees had some sort of on-site wellness program to combat obesity (WELCOA, 2010). Employees tended to be positive about these programs. A 2008 study of employer and employee attitudes about obesity revealed that 71% of employers viewed offering obesity-related services as appropriate and 73% of employers indicated that such services were effective. Eighty percent of employees who responded to the survey agreed that weight management programs belonged in the workplace and believed such programs were appropriate and effective (Torres, 2008).

One systematic review of the effectiveness of worksite programs to promote healthy weight among employees found that that most programs achieved modest improvements in employee weight status (Benedict & Arterburn, 2008; Chenoweth (2007) reported several examples of favorable outcomes and impacts of programming focused on weight control. Company employees participating in the Campbell soup company weight loss program (n= 233) lost a total of 3,078 pounds in three months; Dow Chemical documented that 5,000 participants in a weight loss competition lost a total of 9,460 pounds; and DuPont's weight loss program led to an average of 5.5 pounds lost per participant. In addition, participants in a Lockheed Missile and Space company weight loss program lost a total of 14,378 pounds in a three-month program and a Lycoming Country program led to an average weight loss of 12 pounds per participant (Chenoweth, 2007).

Even though weight loss programs in the workplace have shown the same unpromising overall outcomes for obesity reduction as other community programs, there have been some positive findings. For example, one study on the longitudinal outcomes of comprehensive

worksite wellness programs, reported that although employee BMI levels in companies with worksite wellness programs increased, such levels did not increase at the same rate as the overall population (Neville, Merrill, & Kumpfer, 2011). Findings from another study of 47 different workplace programs suggested that, although many employees quit weight loss programs and most did not maintain their weight loss after participation, weight loss programs in the worksite were successful in changing diet and exercise patterns (Task Force on Community Prevention Services, 2009). These studies indicated a positive effect from workplace programming on obesity.

Weight loss challenge programs. One common wellness program offered by employers to combat obesity was a program called a Weight Loss Challenge (WLC). This type of program was designed to help employees lose a percentage of weight through competition and incentives. Such workplace-based weight loss challenge programs were also typically focused on “weight on the scale” (Hawks, 1999) because body weight recorded on a scale was easily measured and provided objective data for reporting purposes. Employees in weight loss programs tended to do better with weight loss when the program was offered as a competition (Schuessler, 2007) or challenge.

With some exceptions, worksite weight loss competitions or challenges typically have been designed to enable participants to compete for some sort of incentive. Weight loss challenge programs have characteristically offered the incentive of competition with co-workers with special individual or team recognition. In some challenges this meant acknowledging the biggest losers of body weight, body weight percentage or percentage of reduced body fat with an incentive, while in other challenges every individual who met a preset weight goal received an incentive.

According to Hawks (1999), weight loss programs associated with financial incentives or other rewards for weight loss may have good intentions, but research studies have indicated that, while weight loss may occur with incentives in weight loss competitions, if the loss is unaccompanied by increased activity and better nutrition, the incentives had little if any positive impact on health (Hawks, 1999). Some research findings have indicated a impact of incentives in workplace weight loss programs, while researchers associated with other studies have argued that incentives had a negative effect on weight loss. One randomized trail study on the use of incentives in weight loss programming found that the use of economic incentives does produce significant weight loss during 16 week interventions but the weight lost was not maintained by the participants long-term (Volpp, John, Troxel, Norton, Fassbender, & Loewenstein, 2008). Another study of 200 overweight North Carolina college employees revealed that financial incentives were successful in helping employees lose weight (Finkelstein, Linnan, & Tate, 2007). Such incentives, however, may not contribute to a positive lifestyle change.

Qualitative Research on Worksite Weight Loss Challenges at the Workplace

A literature search for qualitative research approaches to investigating or evaluating weight loss challenge programs specifically offered in the workplace revealed few studies. Qualitative studies involving community-based weight loss programs existed, but research on similar programs in the workplace had been conducted using primarily quantitative approaches. The Wellness Council of America (WELCOA), one of the most well-known worksite wellness organizations, had not published findings that presented and discussed qualitative research related to weight loss challenge programming. WELCOA has stressed the importance of on-going quantitative data collection in order to address a variety of needs or issues, including providing evidence in support of the continuation of longitudinal wellness programs, to bench-

mark participants' performance in particular wellness programs compared to that of other competitors, to address accountability issues, to demonstrate the value of such programs, and to be taken seriously in corporate organizational planning processes (Aldana, 2007). Because of corporate interest in documenting the exact return on investment (ROI), there was more pressure and allocations of funding to conduct quantitative research (CDC, 2011). ROI is a form of cost-benefit analysis that measures the cost of an intervention compared to the expected financial return from the intervention. Further research is needed to determine whether lack of funding was one of the reasons why qualitative data was missing from the literature on workplace weight loss programming and weight loss competitions.

Although a dearth of qualitative studies on weight loss programming in the workplace existed at the time of this study, there was no lack of research contemplating why weight loss programs did not work for obese individuals. One study suggested that obese individuals were given overwhelming amounts of information about what to do, but not enough guidance and support to lose weight in weight loss programs (Thomas, 2008). Other researchers have indicated that barriers to weight loss needed to be studied further in an effort to benefit weight loss challenge programs since participants tended to underestimate barriers to weight loss. Barriers were relevant to the behavior change as the individual moved from intention to actual action (Dibaonaventura, 2008). This underestimation may be why participants were not successful in weight loss (Dibaonaventura, 2008). Findings from a study by Mattfeldt-Beman (1999) showed that participation in exercise offered by weight loss programs was associated with less weight gain over time. This finding suggested to the researcher that when exercise programs were not a part of the weight loss program, participants were not as successful in weight loss.

Interestingly, when an exercise component was offered as a part of a weight loss challenge, participation in the weight loss challenge was much lower (Mattfeldt-Beman, 1999).

One national survey of 1,139 employees examined employee's attitudes about weight loss programs at work. Employees who participated in the study favored the worksite-based weight loss programs overall. These employees listed a lack of willpower and the cost of healthy foods as the main causes of obesity issues and barriers to changing unhealthy habits (Fuemmeler, 2007). According to other studies, program participants' satisfaction with a weight loss program was mostly dependent on their success in weight loss, improved physical activity, improved body image, or improved diet quality. Program feedback tools that highlighted these elements could lead to fewer dropouts and more effective participant engagement (VanWormer, 2005).

The "voices" of those participating in these weight loss programs have been silent. A lack of insight from the perspective of worksite weight loss challenge program participants revealed a need for further qualitative research on this topic. The researcher also found no studies of participants of weight loss challenges who dropped out of such programs. Qualitative data obtained from individuals who had not succeeded in or completed a weight loss challenge program could lead to some important findings useful in improving the quality and outcomes of worksite weight loss challenge programs, including weight loss competitions. Without insight from participants who failed to complete weight loss challenge programs or became lost to follow-up (via weigh-ins, post-program evaluations, and other measures), program planners have missed important information that could be critical to designing effective weight loss challenge programs that better meet the needs of employees, particularly those who have special characteristics such as obesity.

The more successful the weight loss programming has been for obese employees, the greater the return on the investment there would be for both the individual and the company. Information from obese employees who participated in a worksite weight loss challenge program but dropped out of the program can help weight loss program planners. In particular, the researcher identified four areas that warranted further research related to obese participants in a worksite-based weight loss challenge: barriers to weight loss, helpful program components as perceived by participants, how work-site weight loss challenges have failed or not failed participants, and what happened to participants when they dropped out of the weight loss programs at work. In the current study, the researcher was interested in why obese participants dropped out, what the experience of dropping out was like for them, what their weight loss progress was after dropping out, if they completely gave up on weight loss efforts, and what, if anything, could have been offered that would have influenced them continue in the program.

Leading experts on corporate wellness programming such as WELCOA show that company weight loss programs had been micromanaged with quantitative evaluations. After an extensive review of the available literature, the researcher found no published research specific to weight loss challenges or competitions at the workplace that involved qualitative research approaches. The researcher identified a need for qualitative research in the area of workplace weight loss competition programs to enable program planners to more effectively tailor programming to obese participants. Also, the researcher anticipated that knowledge and insight gained from this research would potentially increase retention in programs and result in effective, long-term weight reduction, or other health related outcomes. The researcher hoped that researchers and practitioners would review and use the qualitative research findings from this study, in addition to already existing quantitative research on workplace weight loss challenge

programs and obese participants who dropped out of these programs, in order to maximally benefit the participants for whom such programs are designed.

In the next chapter, the researcher presents the research approach, theoretical orientation, the research procedures, data collection strategies, and analysis strategies that were utilized in this study. The researcher also elaborated on ethical considerations associated with the study, the techniques drawn on to assure the research was credible and trustworthy, and the researcher's biases and assumptions regarding the research topic.

Chapter III: Research Methods

This qualitative phenomenological study explored the perceptions of people who were obese as determined by the National Institute of Health criterion of a BMI greater than 30 and who voluntarily initiated but did not complete a worksite-based weight loss challenge program. The aim of this investigation was to gain an understanding of the study participants' perspectives regarding a particularly comprehensive, well-resourced weight loss challenge program and explore the phenomenon of dropping out of the Weight Loss Challenge program, as it was experienced by obese employees who voluntarily signed up to lose weight. The research question that the researcher addressed was, "*What is the lived experience of obese employees who discontinued participation in a workplace weight loss challenge program in which they voluntarily enrolled?*"

Qualitative Approach

A qualitative approach to research in a broad sense is used to explore a particular phenomenon as a lived experience. In using a qualitative approach the researcher strived toward thoughtful reflection that was, "free from theoretical, prejudicial and suppositional intoxications" (van Manen, 2007, pg. 12). Exploring a phenomenon as a lived experience requires the researcher to rely on his or her own personal curiosity, deep reflection and openness about a subject. It also requires the researcher to "turn inward" and "live with" the phenomenon as relayed by the participants who volunteer for the study (van Manen & Adams, 2010).

The researcher was drawn to this particular inquiry by way of professional interest and her own personal lived experiences with weight loss maintenance efforts and past body image dissatisfaction. The researcher chose a qualitative approach because she sought to understand

the experience being studied according to the way it was lived rather than how it was categorized, conceptualized or theorized by scientific literature (Merleau-Ponty, 1945/2002).

Qualitative research does not aim to explain but rather to clarify the meaning of an experience (Penner & McClement, 2008). In this study, the researcher used a qualitative approach for several additional reasons. First, qualitative methods were flexible and allowed the researcher the freedom to explore the perceptions of the participants through a personal participant-researcher relationship. Second, an open-ended format for data collection afforded participants an opportunity to share their perspectives and experiences in-depth and holistically. This type of face-to-face interview format allowed the researcher the opportunity to immediately clarify or allow expansion on each participant's thoughts and afforded access to nonverbal cues such as gestures and facial expressions (Penner & McClement, 2008). Third, qualitative methods enabled the researcher to explore the human side of obesity in all of its complexity. The complexity of obesity underscored the suitability of a qualitative approach for this research. Fourth, findings from this study enabled the researcher to extend the existing knowledge base regarding weight loss efforts by those living with obesity. This research study was particularly focused on those who engaged in but dropped out of a work-site based program that was framed as a weight loss challenge or competition. The researcher anticipated that a qualitative research study that involved obese weight loss challenge participants who had dropped out of the program would provide an opportunity to generate new hypotheses on the subject of obesity and weight loss and participation in weight loss challenges in the workplace (Vishnevsky & Beanlands, 2004).

In this study, the worksite-based weight loss program offered to participants was comprehensive in that it offered a wide variety of readily accessible resources. Although these

resources were available and encouraged during the Weight Loss Challenge, they were not a structured or required part of the weight loss program participation. This qualitative study enabled the researcher to better understand, from the participants' perspective, views about body weight and weight loss efforts, the lived experience of dropping out, and participants' visions of their future health objectives after dropping out of the weight loss program. Through the use of qualitative research methods, the researcher aimed to raise awareness, encourage insight, and increase empathy from program planners about the lived experience of obesity and engagement in a weight loss challenge program and what it was like for obese individuals who enrolled in and later dropped out of a workplace weight loss challenge program.

Theoretical Orientation

In order to study insiders' lived experiences of a work-site based weight loss challenge, the researcher employed a phenomenological theoretical orientation. The researcher used van Manen's approach to guide the study (Creswell, 2007). Consistent with van Manen, the researcher identified the phenomenon to study; engaged in reflexivity and bracketed her own experiences, biases, assumptions, and beliefs; and collected data from people who had directly experienced the phenomenon. The researcher then analyzed the data by reducing the information to significant statements or quotations, coding the data, categorizing and segmenting the data, and ultimately identifying themes that emerged from the data. After this process was complete, the researcher developed textural and structural descriptions and combined them to convey an overall essence of the experience (Creswell, 2007). Using a phenomenological theoretical orientation, the researcher explored mutually understood core meanings of the phenomenon by people living with obesity that had participated in but dropped out of a work-site based weight loss challenge program.

The researcher used a phenomenological orientation to describe the meaning of the phenomenon from the perspective of a small number of obese individuals. Consistent with a phenomenological orientation, the researcher described participants' commonly shared experiences in order to ultimately develop an understanding of the overall essence of program participation and post program drop-out status (Creswell, 2007). The researcher followed a process in this study that included determining that the research question was best examined by a phenomenological approach.

The research approach of phenomenology was appropriate for this study because study participants' shared an experience which would help the researcher develop a deeper understanding of the phenomenon and potentially develop practices and policies informed by study findings. Consistent with phenomenology, the researcher engaged in the following endeavors related to the study: a) bracketed her own experiences and beliefs as much as possible before beginning and throughout data collection; b) collected data from individuals who had directly experienced the phenomenon (the workplace weight loss challenge program) by conducting in-depth open-ended interviews. The participants also chose images or objects that served as a catalyst for exploring the topic further during the interviews; c) posed broad general, open ended questions to participants in order to gain insight into meaning and an understanding of their individual and commonly shared experiences; d) analyzed data by repeatedly listening to the audio recordings in a process called immersion, transcribing the audio recordings verbatim, and repeatedly reviewing the transcriptions. The researcher engaged in initial coding by identifying and labeling segments of text; e) developed an initial and refined codebook, identifying and categorizing coded segments of text and meaning clusters or constructs; f) continued reflecting upon and engaging in reflexivity regarding her personal interpretations and

biases while analyzing data; g) used the themes and sub-themes that emerged from the data as a basis for writing a description of commonly shared and unique experiences and meanings; and h) wrote a composite description that presented the essence of participants experiences and perspectives and that illuminated the key findings of the study (Creswell, 2007).

Description of the Research Context

The researcher chose the particular location and weight loss challenge program because she served as the Wellness Coordinator at the site and aimed to explore the effectiveness with which the weight loss challenge program met obese program participants' needs. The worksite setting was a large company that employed a large number of employees, some of whom were temporarily living in the U.S. Employee annual income levels typically provided them a predominately middle to upper socioeconomic status.

The researcher had served as the coordinator of the annual weight loss challenge during the past seven years. The program that engaged study participants prior to their drop-out was a comprehensive 15-week program designed to assist employees in losing a healthy amount of weight in the time allotted for the program. Based on information from the Centers for Disease Control and Prevention and consultations with local Weight Watchers representatives, the developers of this weight loss program described weight loss considered to be healthy as losing one to two pounds per week or 5% of total body weight within a period of 15 weeks (CDC, 2011).

Participation in the program was open all to employees at the worksite where the study took place. Frequent advertisements and invitations to voluntarily participate in the program were shared widely with employees by means of email and intranet announcements, flyers, plasma screen blast, and word of mouth. The program was non-coercive; participants had to

initiate the program of their own volition and could choose to join the weight loss challenge as a team or an individual. In order to participate in the program and the many resources associated with it, the employer offered employees the opportunity to be flexible regarding their working time.

The 15 week weight loss challenge began the third week of January every year and ended the last week of April. The challenge began with a process that involved the researcher (in the role of Wellness Coordinator) in documenting each enrolled person's base line, pre-program body weight using a calibrated digital scale. She individually weighed each participant in a private office at the worksite at a time that was convenient to her or him. During the base-line "weigh-ins," the individual was apprised of the program and its incentives. She provided each participant an individualized weight loss goal of 2.5% and 5% of their base line weight. During the program, she conducted four, additional weigh-ins, spaced about every three weeks apart, with the final weigh-in occurring during the last week of the challenge. She conducted each weigh-in individually, with an opportunity for consultation and support provided by a trained staff of wellness professionals.

The program had an incentive based structure intended to enhance individuals' motivation for weight loss and retention in the program. Although each annual program had a slightly different incentive structure, the program consistently offered a gift card reward for participants who met their 2.5% and 5% weight loss goals. These gift cards ranged from \$10 dollars to \$25 dollars in total prize amounts. The program offered large monetary rewards for employees who lost the greatest number of pounds and offered inclusion in several large raffles (up to \$2,000) for those who met their 5% weight loss goal.

A unique component of the program was the “maintain phase.” After the 5% weight loss weigh-in at the end of the 15-week challenge in April of each year, all employees who reached this goal entered a maintenance phase for the three months following the 5% weigh-ins. During this time they were challenged to maintain their weight loss. If they were successful in doing so, they were rewarded with gift cards and/or raffles for large sums of money that ranged from \$250 to \$1,000 in prizes.

In addition to incentives associated with meeting their weight-related goals, the employee wellness program offered comprehensive support tools for those engaged in the weight loss challenge that include individualized as well as group resources and activities. Employees could receive unlimited health coaching by certified health coaches that was offered by mail, face-to-face, or telephone at no charge to them. Two on-site nutritionists were available to participants for unlimited individual consultations and participants were offered six visits with a nutritionist per year at no charge. Weight Watchers support groups were offered on-site to the employees as well. The company did not fund the Weight Watchers program but provided space for it; employees made a personal decision to join and pay for the program.

Wellness staff offered individualized brief consultations at each weigh-in to assist those engaged in the weight loss process in a variety of ways that included offering tools such as logs to track food intake or exercise patterns, and encouragement to engage in such activities as goal setting. In addition, the Wellness Program staff wrote weekly tips sheets that highlighted individual successes and included employees’ personal weight-loss tips. In terms of physical activity, weight loss challenge program participants had unrestricted access to an on-site fitness facility and could also attend exercise classes or join running or walking groups led by trained professionals. Experts came to the facility to periodically conduct informational workshops on

such topics as weight loss, nutrition, exercise, and stress management. Thus, those who engaged in the weight loss challenge program at this particular worksite had access to a wide range of options to support their weight loss efforts. There was nothing done differently in the program for those who met the criteria for being obese than those that only needed or wanted to lose a few pounds.

Research Procedures

Consistent with a phenomenological theoretical orientation, the researcher conducted in-depth, open-ended qualitative interviews as a primary data collection strategy and an image reflection activity as a secondary strategy. In this section, the researcher will address purposive participant sampling and the research setting, data collection strategies, the data analysis process, research credibility strategies, the researcher's background and personal biases and assumptions, and ethical issues associated with the study.

Sampling. Consistent with a qualitative research approach, the researcher employed purposive sampling to identify and select individuals who had directly experienced obesity and dropping out of the WLC for participation in this study. This type of sampling involved the researcher in recruiting and selecting a small sample of participants who met the criteria associated with the study instead of randomly selecting a large sample size. Purposive sampling of a relatively small number of participants afforded an in-depth understanding of participants' collectively shared and unique meanings, experiences, and perspectives. It was a desire for in-depth understanding that led the researcher to collect data from information-rich cases that produced learning about the issues that were most important to this research study (Patton, 2002).

Sample inclusion and exclusion criteria. The criteria for study participation included the following:

- Age of 18 years or older.
- Gender: both male and female.
- Employee of the company in which the weight loss challenge associated with this study was held.
- Voluntary enrollment in the work-site weight loss challenge being studied for at least one year of the prior five years that the program had been offered.
- BMI of 30 or greater upon initiation of the program.
- Discontinuation of program participation after engagement in three or more weigh-ins. The third weigh-in would be approximately mid-point in the program.

Exclusions from the study:

- Anyone who did not meet the criteria for obesity (BMI of 30 or greater) at the beginning of the program.
- Anyone who successfully met the weight loss goal of 5% of their body weight in the Weight Loss Challenge the prior year.
- Anyone who attended all weigh-ins or who discontinued the program before the weigh-in for a weight loss goal of 2.5% of body weight.
- Anyone who was a personal friend of the researcher.

Sample recruitment. The researcher recruited obese employees for the study by initially e-mailing a general invitation to adult men and women employees aged 18 years or older who had participated in the weight loss challenge program at this worksite. As part of the researcher's role as Wellness Coordinator at the worksite, the researcher maintained the database

and email distribution lists from which potentially eligible participants were identified. The researcher used the last two years of weight loss challenge email distribution lists to identify and invite individuals to participate in the study. All past Weight Loss Challenge participants over 30 BMI were emailed the same invite email (Appendix B).

Due to her role as coordinator of the weight loss challenge program at this worksite location, the researcher specified that participation in the study was not a requirement for employment nor would any employment benefit be affected by an individual's decision to participate or not participate in the study. She also clarified that she was seeking only willing volunteers for the study, that information related to all study participants would remain confidential, and that all participants would be assigned pseudonyms in order to protect their confidentiality and anonymity.

Sample selection. The researcher selected the first six eligible males and the first seven eligible females who replied to invitations to participate in the study. These participants had contacted the researcher via reply e-mail indicating an interest in volunteering to participate in the study. Once the researcher reached 12 volunteers for the study, she contacted them with study details, reserving a 13th person for the possibility of confirming saturation. The researcher e-mailed potential participants with information about the study and with an invitation to contact her via e-mail or telephone should they have questions or concerns. The number of individual interview participants was based on the research literature that indicated that about 12 participants were needed to achieve saturation in a phenomenological study (Guest, Bunce, & Johnson, 2006). Once the researcher suspected the achievement of saturation based on recognizing redundancy in the data, she contacted one additional individual to interview in order to confirm saturation. A total of 13 individuals thus participated in the study.

Research setting. Since it is common for researchers to take the environment of the research for granted (Patton, 2002), the researcher in this study carefully considered where to hold the interviews. Patton suggested that environments have personalities just like people do and that some environments were more supportive than others (Patton, 2002). With that in mind, the researcher selected her office as the interviewing site since the office provided a quiet, private space that ensured protection of privacy and confidentiality for employees who participated in the study. In addition, employees generally were familiar with the location of the office.

The researcher's office was located in a company office building that was one of 13 buildings that comprised the large worksite campus. The office building also housed human resource services and the wellness program. The private office where the researcher conducted the interviews had a frosted glass entry door so, unless the door was open, no one could see who was sitting in the office or hear their conversation. There were no windows. Inside the office there was a desk, several file cabinets, a bookshelf, and two comfortable chairs for visitors. The researcher arranged the lighting to be comfortable and soothing. A small waterfall in the office provided a calming sound; visual images on the wall were intended to be relaxing. The researcher invited interviewees to sit in one of the visitor's chairs. To provide a more welcoming situation, the chairs were arranged so the desk would not serve as a barrier between the researcher and the interviewee. The researcher sat away from the desk in close proximity to the interviewee in an effort to foster rapport building and a relaxed milieu.

Data Collection Strategies

The researcher conducted in-depth, open-ended, audio-recorded face-to-face interviews (Creswell, 2007) with individuals selected because they met the criteria for the study and were

among the first 13 individuals to contact the researcher about their willingness to participate in the study. She collected the following types of data: a) audio-recorded individual, in-depth, open-ended interviews; b) data collected during the interviews regarding images or objects identified and shared by each participant with the researcher that illustrated or represented how they experienced participation in the weight loss challenge; and c) handwritten jotted notes taken during the interviews and expanded as soon as possible after the interviews concluded. The participants received no monetary remuneration for voluntarily engaging in the study.

Individual interview. Prior to initiating the interview, the researcher reviewed the informed consent document (Appendix C) with each participant to inform them of their rights as a participant and the confidentiality measures the researcher would take to protect them and the research findings. After addressing any questions the participant had about the study, the researcher asked each participant to sign two copies of the consent form; each participant received one copy of the signed form for her or his records.

Individual interviews were consistent with a phenomenological approach and were useful in this research study because the researcher wanted to learn about each participant's lived experience in an environment that is not influenced by the experiences of others. The interviews lasted an average of 60 minutes in duration and, with permission of the participants, were audio-recorded. The researcher conducted interviews with participants at mutually convenient times during the hours of 8:00am to 6:00pm. The researcher took handwritten "jotted" notes during each interview and expanded on them immediately after the interview.

The researcher conducted the initial face-to-face individual interviews using an interview guide approach. The only way to really identify the meaning that participants attached to what was going on in the world was to ask questions (Patton, 2002). The interview guide was

comprised of eight open-ended questions and six additional probing questions. Her interview guide questions were informed by phenomenology in that they focused on participants' meaning and lived experience regarding weight loss and the weight loss challenge. Two committee members reviewed and approved the guide.

She used the questions on the guide flexibly, in no particular order, and in conversation style, during the interviews (Appendix D). In other words, she wove the questions into the course of the conversation with participants in as natural a way as possible. During the course of the interviews, she gently probed participants' responses with six foci in mind that included their experience/behavior, opinions/values, feelings, sensory impressions, knowledge, and demographic data (Patton, 2002). The guide enabled her to ask similar questions of all participants and ultimately to address the research question associated with the study.

Visual images and objects. As a means of triangulating the data in this study, each participant was invited to identify three visual images that could have been a photograph, magazine picture, or drawing, or an object that represented how they experienced participation in the weight loss challenge. At the time the researcher scheduled the interview with participants, she requested that participants bring their visual images or objects with them to the initial interview. During the interview, the researcher asked each participant to share the meaning of her or his images or objects. The images or objects thus served as a catalyst for discussion and provided participants with an opportunity to reflect upon personal meanings they associated with weight loss challenge participation by using a non-verbal symbol of that meaning. The inclusion of an image or object of the participant's choosing in the interview process provided additional depth of information and viewpoints that might not necessarily have come up during the interview otherwise (Bignante, 2010).

Data Analysis

The researcher transcribed the interviews verbatim and repeatedly read the transcripts. After initially coding two interviews, the researcher revisited the codes used to label segments of text with a word or abbreviation that captured their meaning and revised the codes. The development of a codebook enabled her to apply codes to the data both accurately and consistently. After coding all data, the researcher cut apart and arranged data segments according to each code and read the coded data within each segment. She reviewed the codes and addressed the need to re-categorize or rename several initially selected codes, revised the codebook, and recoded the data. The researcher then identified categories, patterns and themes that emerged from the data (Patton, 2002).

Credibility/Trustworthy Strategies

In designing this research study, the researcher employed the following strategies to ensure study trustworthiness (Patton, 2002): methodological congruence, purposive sampling, the maintenance of an audit trail, ensuring data accuracy, spending time in the field, collecting data to the point of saturation, and data triangulation. Each strategy is more fully described below.

Methodological congruence. The researcher ensured that the research question, theoretical orientation, sampling strategy, data collection methods, and data analysis process were consistent with each other. In terms of the theoretical orientation of phenomenology, for example, the researcher assured that the study design focused on individual interviews, that the interview guide focused on participant's lived experience and meaning, and the data analysis process culminated in describing participants' collective lived experience and meanings and the essence of participation in and dropping out of a weight loss challenge program.

Purposive sampling. In this research study, the researcher used purposeful sampling. The researcher selected the first participants to send an email reply of interest (N=13) who actively participated in a weight loss challenge at the workplace, met study criteria (Patton, 2002), and were the first individuals to have contacted her about study participation in response to her study recruitment efforts.

Audit trail. The researcher maintained an audit trail throughout the entire study, which included four key components in addition to all documents associated with the study: a research log (Appendix F), researcher's reflection/reflexivity journal, interpretation and analysis memos (Appendix G), and codebook (Appendix H). The research log was a dated list that included every activity, action, and decision made throughout the study. The researcher used the reflection/reflexivity journal to facilitate self-understanding. The journal was used to allow the researcher to be attentive to and conscious of the cultural, political, social linguistic and ideological origins of her own perspectives that could influence how the data was heard and interpreted if it was not bracketed. It allowed the researcher to stay in touch with personal biases, assumptions, values, and ambiguities throughout the study. The interpretation and analysis memos were notations the researcher made in an effort to reflect on and make sense of the data (Patton, 2002). The researcher initiated the codebook during the process of transcribing, reading, and analyzing the data associated with this study. The researcher developed and refined the codebook to assure consistency and reliability during the data coding process (Patton, 2002).

Data Accuracy. The researcher ensured that the data collected were accurate by audio-recording the interviews, writing careful notes during the interviews, and transcribing the interviews word for word. She repeatedly returned to the original data during the analysis of data and writing of findings.

Extended time in the field. The researcher had spent much time with participants that she interviewed because all participants had been enrolled in the weight loss programs she had developed and facilitated during the prior five years. Her familiarity with the setting facilitated her work as the inquirer in this study who was open, discovery oriented, and inductive, because she did not need to rely on misinformed preconceptions about the setting (Patton, 2002). Familiarity with the participants and the setting also enabled the researcher to more closely connect with the participants, build rapport, and ultimately represent them and the context of their experience.

Data saturation. The saturation of data was signaled to the researcher when no new information was perceived during the data collection process (Patton, 2002). The researcher stopped collecting information when she reached a point at which the text was reflective and representative of the phenomenon and reached data redundancy. In order to ensure that saturation had occurred, she conducted one additional confirmatory interview with two participants.

Triangulation of data. The research design in this study called for using data triangulation by incorporating both in-depth interviews with multiple individuals and the use of more than one type of data. The secondary data type used was a visual image or object that each participant brought to the initial interview. The image or object served as a catalyst for discussion (Patton, 2002) and opportunity to gain further insight into weight loss and the WLC during the interview. These strategies assisted the researcher by providing a different lens through which the data associated with the research question explored in this study could be viewed (Appendix E).

Ethics

The researcher recognized the importance of protecting the safety, confidentiality, and rights of the study participants, as well as the need to maintain her own safety. The first step in achieving this protection was to complete training related to the protection of human subjects (ECU CITI training program) (Appendix I). The training educated the researcher about ethical considerations associated with research and increased her awareness of ethical issues related to the research topic addressed in this study. The researcher also submitted a research proposal to the East Carolina University and Medical Center Institutional Review Board (UMCIRB) (Appendix A) specifically describing how she intended to conduct the research and protect the rights of the participants that was approved.

The researcher took steps to assure her personal safety during the course of the study and addressed personal emotional issues that arose by processing such issues with her thesis advisor and other committee members. Since researchers can be at risk for emotional or physical issues or harm by conducting a study the researcher increased personal awareness of such issues by reading the research literature (De Marris & Dickson-Swift, 2008). The researcher took particular precautions against the possibility of overextending herself with this research project by engaging in reflective and reflexive journaling and receiving supervision during the course of the study.

In order to address the potential perception by research participants that confidential information divulged during the study would be revealed to their employer and cause personal risk, the researcher made sure that the participants understood their rights as research participants and informed them about strategies she would use to mask their identity. Prior to each interview, the researcher addressed informed consent with participants by explaining the purpose of the

research, risks and benefits to the participant regarding study participation, and reminded them that their participation must be voluntary. Importantly, the researcher kept confidential all information they provided and, in addition to using pseudonyms, changed or deleted any personally identifying information.

The researcher recognized that taking part in a qualitative research study could lead to anxiety and the potential for accidental exploitation of participants. The publication of the findings could also damage the reputation of the participant or members of their social groups. Also, the researcher anticipated the possibility that participants could confuse the research process with a therapeutic encounter (Richards, 2002).

The researcher took steps to reduce these risks and maximize confidentiality for the participants in this study. The following eight strategies exemplified the protections that the researcher employed: a) used pseudonyms and changed all identifying information associated with research participants when transcribing interview data; b) kept all hard copies of documents or data associated with the study in a locked drawer; retained documents on the computer as password protected documents; c) made sure that the setting for the interviews was private and confidential; d) explained to participants the requirement of voluntary study participation and reviewed their right to stop participation in the study at any time; e) explained the role of the researcher to each participant; and f) ensured that she was adequately supervised by her thesis advisor throughout the research process. The researcher also successfully completed an annual Health Insurance Portability and Accountability (HIPPA) training course as a part of company requirements for employment.

The researcher was trained in basic counseling skills and health coaching but recognized the fine line between being a researcher and therapist. In addition to the aforementioned

strategies, she remained in frequent contact with her supervising faculty member so that problems could be processed during the course of the study and she did not knowingly invite any member of a vulnerable population to participate in the study.

Researchers Background, Biases and Assumptions

At the time of the study, the researcher had been employed in the field of worksite wellness and community health education for over 20 years. She had planned and organized weight loss programs, as well as a variety of other health related programs in worksites and other locations for 15 years. She had reviewed the research literature and other studies about obesity and weight loss prior to initiating the study. Her experiences with designing and implementing weight loss challenges over the years led to the observation that obesity was a company health expenditure that was usually top on the list of “company health risks” that needed to be addressed. She also observed and discovered through investigating similar weight loss programs at the worksite that there were large enrollment numbers in weight loss programs at worksites but the programs had a high drop-out rate. There were also low success rates in maintaining weight loss for participants that were successful in meeting their weight loss goals and completing the weight loss program. Those who were retained in weight loss challenge programs tended to do extremely well losing weight, but most were not able to maintain the weight loss after the program ended. Program administrators and planners did not know what happened to those participants, particularly those who were obese, who discontinued participation in weight loss programs held at the workplace.

The researcher successfully completed a graduate level qualitative research and evaluation methods course. In the course, she gained knowledge and skills needed to conduct the present study. For example, as Richards and Schwartz (2002) suggested regarding ethics for

qualitative researchers, she ensured that information and support were available to the participants she studied, she was careful to protect the participants' identity, she actively sought supervision throughout the research process, and she engaged in reflectivity and bracketing in an effort to prevent the risk of misrepresenting data. The researcher read, studied and understood the content of Michael Quinn Patton's (2002) textbook, *Qualitative Research & Evaluation Methods*, in preparation for conducting this study and also throughout her data analysis.

The researcher received prior training in basic counseling and interventions skills. These skills enabled her to recognize when interviews might cross the line into therapy. The researcher reflected on the topics of weight loss and obesity by engaging in a photography reflexivity project. Her biases, assumptions and predispositions were tested in this project and she made some important discoveries about herself that could have had an unintended influence on the study, including the analysis of data. Some of her assumptions about weight loss programs and the participants in them were: a) everyone who is obese wants to lose weight or is unhappy with themselves; b) everyone has secrets and private thoughts about body image and past experiences that they may have blocked out related to their weight; c) people disliked getting on the scales and viewed it as a miserable experience that was not useful to them; d) the weight loss program was good but it was not good enough; e) most people relapse and do not maintain their weight loss because they do not know how to change their lifestyle and depend instead on temporary fixes; f) many weight loss participants have preconceived notions about the researcher as the Wellness Coordinator that may include perceiving her to lack personal experience with weight loss and perceived judgment about their struggles with weight loss; g) weight loss is a personal and private issue; h) if participants really wanted to lose weight, they would do so. If they were not self-motivated to lose weight, they must not be following her advice; i) there are medical

conditions and reasons that contribute to people's inability to lose weight but usually when people have mentioned this, the researcher considered it an excuse; j) the researcher had once considered people who could not fit exercise into their day as lazy and not in control of their priorities; and k) participants who dropped out of the weight loss competitions stopped participating in weight loss efforts and stopped losing weight.

Summary

This study addressed the question, "*What is the lived experience of obese employees who discontinued participation in a workplace weight loss challenge program in which they voluntarily enrolled?*" A review of the literature indicated that qualitative research on weight loss challenge programs that took place at the workplace was lacking. In particular, the researcher found no research on obese participants who enrolled in but discontinued participation in weight loss challenge programs situated at the workplace. This study provided insight and understanding into the lived experience of these obese individuals who dropped out of a worksite-based weight loss challenge program. Findings were anticipated to be valuable to program planners and other weight loss professionals and suggest the need for further research in this area.

The researcher used van Manen's (1990; 2007) approach to phenomenology to guide the study. This approach focused on the study participants' shared lived experiences and meanings in order to ultimately develop a deeper understanding of the overall essence of the Weight Loss Challenge and program dropout experience from the perspective of obese employees. She collected data by means of audio recorded, in-depth, open-ended recorded interviews. During the interviews, participants provided visual images or objects that reflected what weight loss and/or obesity meant to them was also discussed.

The researcher used purposive sampling to recruit 13 participants who met the criteria for obesity at the beginning of the weight loss challenge program, voluntarily enrolled in the program but then discontinued program participation after engagement in at least three of the program weigh-ins. Interviews were conducted until saturation was achieved. A rigorous study design was reflected by the inclusion of methodological congruence, purposive sampling, an audit trail, data accuracy, time spent in the field, achievement of data saturation, and triangulation of data. Data analysis of transcribed interviews involved coding and refining and recoding the data, and identifying categories, patterns and themes that emerged from the data. The researcher ultimately discovered the essence of the lived experience of obese participants who dropped out of a workplace weight loss challenge program as revealed in the chapter that follows.

Chapter IV Findings: The Unrelenting War on Weight: A Lifetime Struggle

The researcher used a phenomenological approach in this qualitative study to understand the adult lived experience of obese participants who dropped out of a voluntary worksite Weight Loss Challenge (WLC) program at the mid-point. Guided by van Manen (1990; 2007) and assisted by an interview guide, the researcher conducted one face-to-face, audio-recorded, in-depth interview with each of the thirteen study participants. The researcher conducted the interviews over a three-month time frame at the worksite where the annual WLC took place. She engaged in the follow up clarification of interview data with several of the participants. She had asked study participants to bring to the interview three visual images or an object that represented their experience of dropping out of the Challenge, the personal meaning of weight loss, or both. The images or objects served as a catalyst for the conversation that occurred in the context of the interview and assisted the researcher in gaining insight into the essence of participants' lived experience of obesity and the Weight Loss Challenge.

Findings from this study revealed that, for study participants, the essence of weight loss was that their past informed their present in an unrelenting war on weight; they saw their current obesity and weight loss "*battles*" through the lens of their past lived experiences with and perspectives about weight loss and obesity.

Study Participants' Characteristics

Six females and seven males, all of whom were obese, voluntarily participated in the study. All of the participants worked at the same company and had taken part in one or more of the annual WLCs held at their workplace. They all had dropped out at the midpoint of their most recent WLC participation. Eligibility for monetary and other rewards associated with the

Challenge was determined, in part, by the results of measuring body weight on a calibrated scale at the worksite, called “weigh-ins,” which comprised an expected part of Challenge participation.

All participants met the standard criteria for obesity in that they had a body mass index (BMI) over 30 when they enrolled in the Challenge. Most of the participants had joined the worksite WLC numerous times over preceding years. Some had enrolled in the Challenge every year for almost a decade.

Participants’ involvement in prior WLCs varied, but included one of three general experiences: completing all weigh-ins and attaining the final goal of a five percent weight loss at the final weigh-in, completing all weigh-ins but not attaining the five percent weight loss goal, or dropping out of the Challenge at the mid-point weigh-in. Although a few participants had successfully lost five percent of their weight during at least one prior Weight Loss Challenge, each participant in the present study had to have experienced dropping out at the midway point of their most recent Challenge in order to be eligible for the study.

For the thirteen participants in this study, obesity and weight loss held significant meaning in their lives. Since at the time of the study little was known about the meaning and lived experience of dropping out of worksite-based Weight Loss Challenges, the researcher conducted this study in order to gain a better understanding of such challenges from the perspective of obese men and women who had dropped out at the mid-point weigh-in. During the course of this study, the participants not only addressed the meaning of dropping out of a WLC, but also discussed the overall meaning and lived experience of obesity and personal weight-related struggles and successes.

All of the participants had a personal history of weight-related issues and were obese prior to the time of the study. Six study participants reported experiencing the onset of obesity

during childhood or adolescence, while six participants said that they had experienced the onset of obesity during adulthood. Two participants had bariatric surgery for obesity treatment that had been done from one to three years before participating in the study. One participant said she was heavier as a child, but revealed to the researcher no specific information about the life stage during which obesity had occurred for her. This individual did reveal, however, that she had experienced a long-standing problem of food addiction that ultimately led to her obesity.

Regardless of when they recognized the onset of obesity in their lives, each of the participants in this study shared lifelong concerns about weight and weight loss. Study findings revealed that each participant's personal experiences with obesity and efforts to lose weight influenced the extent of their participation in the worksite-based WLC.

The following section of this work addresses study findings organized by themes that emerged from the data. Informed by the overarching theme of *The Unrelenting War on Weight: A Life Time Struggle*, themes included: *Waging War: The Backdrop of Battling Weight*; *Gearing up for Battle: Obesity Contributors and Consequences*; and *Battling Weight in Repeating Patterns: "Weight loss has always truly been a battle"* (Hannah). Within the theme of, *WLC Drop Out Experience*, the researcher identified the following sub-themes: *Post Battle Reflections*, *Marching in with High Motivations*; *Armed with Motivation for Predicted Victory*; *Preparing to Surrender*; *"Raising the White Flag"* (George); *Emotional Fall Out*; and *Dropout as Continuing the Cycle: "Even though I quit I'm not done"* (Comeback). The researcher used pseudonyms in the reporting of findings in order to protect the identity of the study participants. The voices of participants were italicized in this report.

Waging War: The Backdrop of Battling Weight

The participants' lived experience with battling weight and obesity and the meaning associated with the process of losing weight, couched by them as a “*battle*” or “*fight*,” surfaced during the course of the in-depth interviews. In this section of the findings, with one exception, the researcher presents a detailed description of the participants in the context of the life stage during which they initially experienced weight problems and obesity, and addresses the meaning that body weight and obesity held for them that led them to waging a personal war on weight.

One participant presented an exception to a life stage understanding of obesity onset. Comeback said that she was “*heavy*” as a child, but did not reveal the life stage during which obesity arose for her, even when the researcher questioned her about it at a time after the interview in an effort to clarify her experience. Unlike the other participants in the study, she identified food addiction as a lifelong struggle for her and as the underlying issue that resulted in her experience of obesity. As she stated,

Food ultimately is my idol and it has been most of my life. It has been my lover most of my life.

Comeback shared thoughts and experiences related to the WLCs over the years, but revealed little about her life prior to adulthood. Although she did not give details about her obesity onset, her interview data revealed a weight loss struggle that was similar emotionally to those participants that had experienced obesity earlier in their lives. Comeback talked at length about the successful WLCs in which she had participated, comparing those efforts with the unsuccessful Challenges in which she had participated. She revealed that, to her, weight loss meant addiction, emotional pain, and growth. She affirmed that a price had to be paid or an emotional struggle or journey had to be endured in order to achieve weight loss. In the following

statement, she made the connection between her weight loss struggles and the problem of addiction.

I do not want to be that junkie. . . . I remember telling myself I never want to be that other person again, but slowly I find myself being that. . . . The struggle is real. I have to struggle with the desire to eat and not to overeat all the time. . . . I am trying to lose weight but trying to replicate my success in weight loss without the negative emotions that I dealt with through that [successful] time and it has been hard.

Adult onset obesity. Six participants (Grampa, Hannah, Staunch, Stuck, Swede, and Toni) began to have weight issues at various stages of their lives that eventually led to adult onset obesity and other difficulties. The female participants (Hannah, Stuck, Swede, and Toni) tended to struggle with their weight earlier in their adult lives than did the two males with adult-onset obesity (Grampa and Staunch). With the exception of Staunch, all of the participants with adult-onset obesity acknowledged struggling during their adult years with weight management and control, self-esteem, or body image issues. All of the participants with adult-onset obesity experienced increasing weight and related issues as they aged to the point of becoming obese during or after middle age.

Two men, Grampa and Staunch, were able to manage their weight most of their lives until they passed forty years of age. In their older years [past age sixty] they had become obese. Both men shared feelings of anxiety or fear about the effect their obesity would have on their health status and life expectancy. Such concerns motivated them to join the worksite WLC. When the men were asked about what obesity or weight loss meant to them, they responded by discussing their age, personal concerns about death, and worries about ill health. As Grampa said,

I'm not ready to check out yet, but the handwriting is on the wall. Every day I get up, my window is a little smaller.

All of the women in this study who began having weight challenges during middle age placed great importance on their weight. Hannah, Stuck, Swede, and Toni shared the perception that weight loss beyond middle age was like trying to win an unbeatable battle. Stuck, for example, made the following observation:

When I was younger, if I really got it in my head to lose weight, I would stick with it, but I never could seem to get a handle on it. . . . It is a challenge every day.

To Stuck, the personal meaning of weight loss was that of an unending challenge, a perspective also shared by other participants.

Stuck indicated that she erroneously believed her weight challenges began at a time in her early twenties when she had her first child. After having the baby she said she said she, “*blew up to 125 pounds and I thought that was just horrible.*” Looking back at that time, she realized that challenges related to progressively increasing body weight actually began after an abusive relationship contributed to her development of poor self-esteem. She had always thought that she could and would get a handle on her weight, but she was never able to do that. Her struggles with body image, self-esteem, and an unhealthy relationship with food had the qualities of addictive disease. She spoke of weight loss as a lifetime challenge and joined the WLC in an effort to address her weight once again.

Swede’s weight problems worsened when she immigrated to the United States, where she exercised less and ate more than in her home country. Swede’s assessment was that she, “*moved to this country and then I went downhill.*” She grew up in a small village in her home country where biking and walking were common and easy-access foods were unavailable. When she

moved to the United States, she faced challenges with weight gain that she had never before experienced. As she aged, Swede developed some health issues, an unhealthy relationship with food, and lived a life with what she perceived to be overwhelming responsibilities. She believed that challenges with her weight became even more difficult for her due to the many barriers to weight loss that she experienced. At the time of the study, her weight was at an all-time high and she said that she could not control her obesity. She had hoped that engagement in the WLC would enable her to regain control over her weight.

Toni started gaining weight during her early adult years and continued “*fighting*” the issue of weight gain to the time of the study. Toni was unique among the study participants in that, during perimenopause in later adulthood, she expressed a temporary acceptance of her weight. She had come to believe that weight loss was not worth the effort anymore and had thus dropped out of the worksite WLC, after experiencing a frustrating weight loss plateau. She said she was ready to give up the weight loss fight and just enjoy life. Toni contended that, at this stage in her life, “*It would be a very restricted life to try to be thin.*” Toni’s description of the personal meaning of obesity as acceptance was conveyed in her following comment:

Things [in her body] are really changing and you don’t understand what is going on and you don’t feel the same. Towards your middle forties you realize you might as well just sit back and enjoy it. I still know that it [weight loss] is important but I think I’m getting okay with giving up the fight to look good at a certain weight. . . . and my motivations for weight loss changed.

At the beginning of the interview, Hannah initially revealed a history of childhood obesity. During the course of the interview however, she indicated that she did not have childhood obesity but rather a struggle with weight and body image issues that began early in her

life. She said, *“I struggled not as much with weight loss as I have struggled with the words, ‘weight loss.’”* Hannah explained that she had been extremely active in sports in her youth. Her high physical activity level helped her maintain her weight as an adolescent at a level that she described as *“stocky.”* She recognized that she was not able to see herself as a person of normal weight because of her body type and self-image. During the interview, Hannah shared memories of being disappointed with her body and feeling fat during adolescence, even though she was not actually overweight. She reported that when she more recently looked at photographs of herself taken during that time, she saw herself as a healthy teen.

As Hannah reached adult middle age, she became unable to control her weight. She acknowledged that, *“Over the last few years weight loss has truly been a battle.”* She explained that what she referred to as her body image *“obsession”* turned into a physical obesity issue during adulthood. Hannah said that she wished she had, *“something to rub all over to conceal my imperfections.”* She used five words to describe the meaning of weight loss in her life: acceptance, peace, achievement, contentment and victory. She affirmed she had issues with self-acceptance, peer acceptance, and how she looked to others.

Childhood or adolescent onset obesity. The interview data revealed that four of the six participants that had an earlier onset of obesity (Carl, Jack, George, and Wally) reported a personal history of obesity as children. Two female participants, VK and Art, who reported childhood obesity, started struggling with what they perceived to be obesity during pre-adolescence. The participants who professed that they had struggled with weight loss since youth also shared painful personal experiences related to their weight that, according to them, contributed to a lifetime of self-esteem issues. Participants’ experiences associated with childhood obesity are presented in the following section.

VK and Art started struggling with obesity at some point pre or at adolescence. Art's weight fluctuated tremendously during her younger years due to health problems. It was unclear when obesity began in adolescence but, like Hannah, Art indicated that her severe negative self-image was just as difficult for her as obesity. Both VK and Art described abusive or damaging relationships during their younger childhood years that exacerbated their weight-related and self-image problems.

With the exception of Carl and Wally, the longer the period of obesity or perceived weight problems experienced by the participants, the more deeply affected the participants were by these issues. For Carl, growing up in an obese family normalized obesity for him up to the point of adolescence. Wally referred to positive social interactions, the positive impact of his size in sports achievement, and acceptance of his weight fluctuations at an early age as protective factors against the development of emotional scars and self-esteem. Participants' experiences associated with childhood obesity are presented in the following section.

Carl indicated that he had never been at a healthy weight at any point in his life and was obese as a child. Weight loss was a goal that Carl had never been able to achieve. He attributed his obesity to heredity and explained that his physical metabolism was, "*just very low, like the rest of his whole family.*" Although during the interview, Carl did not share painful memories about being heavy as a child, in adulthood he became frustrated with his obesity, saying, "*It really has been one of the most frustrating points of my life.*"

For Carl, the meaning of weight loss in his life was captured by the word, "*frustration.*" It was clear from the data that Carl felt successful with most endeavors he had undertaken in his life, but his obesity status was one aspect of his life that he could not "*beat.*" He considered obesity to be his lifelong personal challenge. As Carl stated,

Most tasks and challenges that I have taken on, I have been successful with. With weight loss I just cannot seem to do that. It has been frustrating.

Like Carl, Jack was always heavy even as a young child in school. He described his schooling experience as one in which he was bullied and picked on for his weight. During the interview he revealed that these negative interactions with other young people his age left a scar that continued to affect him in his older adult years. He also had negative thoughts about himself being an overweight young person by saying,

I have some pictures of when I was 14 years old. If you were standing 10 feet from me, if one of my buttons popped you were dead. I mean, that's the way it looked; it was horrible. Genetics maybe... I don't know.

Although during the interview, Jack stated he was, “*fine with his body weight,*” and believed that other people should be as well, he also said that he wanted to accept his weight but found that difficult to do. He did not reveal specifically why he had difficulties accepting himself, but his further comments suggested the impact of societal views on obesity status. He said his big weight loss efforts never resulted in big results on the scale. He also shared feelings of anger regarding obstacles to self-acceptance and weight control that he continued to face. He felt frustrated at not being able to achieve a weight level that others thought he should have. His voice became louder on several occasions at this point in the interview and he constantly tapped on the desk when discussing this issue.

I do know I struggle. . . My weight has always fluctuated. . . Weight loss means. . . everybody thinks I should look like that [pointing to a thin pen] and I feel I'm like this [pointing to a large white board eraser]. . . . I am ok with it as long as I do not hear

somebody making comments and that I think is the problem right there [other people judging him].

George described himself as a, “*chunky kid*,” who got picked on at school by peers and at home by his siblings. George shared that he was bullied all day at school, only to go home to more teasing by his nine brothers and sisters. The only escape he had was his newspaper delivery route that he described as offering a long, nightly activity of solitude and peace. The image of a lonely overweight child emerged from his interview data as he told the obesity-focused story of his childhood.

George was able to lose weight in his twenties but became obese again in his thirties when life responsibilities, injuries, stress, and relationships impeded his weight loss efforts. His story revealed repeated cycles of weight loss efforts that had minimal results. He said his weight and weight loss issues caused him constant disappointment and frustration. George said that weight loss “*obsession*” was what obesity meant to him during the course of his life, despite other people stereotyping him as, “*just another lazy obese person.*” He illustrated his feelings about his weight by saying,

It [weight] was an obsession from an early age. I was obsessed with control because as a kid I didn't have that . . . I felt I was driven by an obsession . . . I feel like people are looking at me and seeing me as obese, that they are putting me in a group. They are judging me with the judgment of a group versus just seeing who I really am.

Wally said he struggled with obesity all his life. He further explained that he was not “*grossly fat*” like other big kids, but he had struggled with weight since early childhood. He considered himself, “*more of a large child, not a 'fat' young person.*” Wally also described himself as, “*the biggest kid and tall at the same time for my age.*”

Wally painted a picture of himself as a very large boy who was talented at sports. In sports, other people appreciated his large body size for the purpose it served. Other participants in this study who had experienced childhood obesity shared experiences with negative social interactions and feedback regarding their body size that led to emotional health issues. Wally did not reveal the same emotional struggles these participants revealed. Wally illustrated what the overall meaning of obesity and weight loss meant to him by bringing a yo-yo out of his pocket and making it go up and down during the interview. He observed that his weight “*has been a yo-yo all my life.*” Wally described his lifelong weight concerns by saying,

I consider myself “burley.” So it wasn’t a problem as a kid. I never really cared about my weight; I was just a big kid. I was big all over; it wasn’t that I was grossly fat like some people are with the big gut. I’m distributed. I’ve always been distributed and I carry a lot more weight than people think As you get older, [weight] is easy to put on and keep off.

Both VK and Art started struggling with obesity and weight during their pre-adolescent and adolescent years. The two women revealed difficult, emotionally painful issues early in their lives that included verbal weight-related abuse from family and peers at school. Art experienced several medical issues that led to weight gain during adolescence, while VK’s weight began to fluctuate during pre-adolescence, a situation that was also accompanied by self-esteem issues.

Art said she struggled with weight loss her entire life. She believed that being thin was a “*status she must get to for happiness.*” However, for her, being thin was, “*always out of reach and unattainable.*” For Art, weight loss was, “*all about control and empowerment*” in her life. Art acknowledged that obesity served as her coping mechanism, her protection, and the

condition through which she could become invisible. She also affirmed that she used food to numb her feelings of depression and pain. Art described the effects of her obesity by saying,

At that size I was totally insulated against the world. If I wanted to retreat into my own little place, it was not hard to do. I numbed with food and then I did not care.

One day, Art realized she had earmarked every event in her life by what she had weighed at the time. She explained that this realization showed her the deep meaning of obesity in her life and how much it had affected her.

VK described weight loss as a constant and never ending chore by saying that, “*weight loss had always been ‘the’ item on her internal ‘to do’ list.*” VK also described a “*love-hate*” relationship with her weight that was similar to Art’s description of wanting to be thin but also needing to be fat. VK agreed that her obesity had been both her friend and her worst enemy in her life. For example, her weight was the main reason for her mother’s scorn and abuse but, in some instances, her weight was also her protector. VK illustrated her complicated relationship with her obesity and self-image by saying,

My weight is a double-edge sword because, on one hand, I know that my weight prevents people from viewing me as someone intelligent and who has power. On the flip side, when I have the weight off people don’t look at me as a friend. . . . I don’t want the comments about my physical being because I came home from work one night and I was almost raped.

Art and VK were unique in the study because they both eventually sought medical intervention as treatment for obesity in adulthood. Both VK and Art saw their early adolescence weight challenges worsening as they aged until ultimately they became morbidly obese. Both women underwent bariatric surgery that proved to be initially successful. They struggled,

however, to maintain their weight loss status post-surgery and ultimately regained their weight to the point of obesity again.

VK and Art viewed their experiences with their weight through two lenses: pre-operative and post-operative bariatric surgery. Their stories, although similar, differed in terms of their post-surgical status at the time of the interview. Three years had elapsed since VK had bariatric surgery and she had begun gaining weight again. Art had bariatric surgery after her last unsuccessful attempt to complete the worksite WLC and was one-year post-operative bariatric surgery. Her BMI status still met the qualifications for obesity at the time of the interview.

For the thirteen participants in this study, obesity and weight loss held significant meaning in their lives. Since little was known about the meaning and lived experience of dropping out of worksite-based WLCs at the time the study was conducted, the researcher sought a better understanding of such Challenges from the perspective of those who had dropped out. During the course of this study, the overall meaning of obesity, biopsychosocial issues with and the lived experience of obesity and personal struggles with weight surfaced repeatedly.

A view into the study participants' overall life experience with obesity was relevant to a greater understanding of the WLC dropout experience for these obese individuals. Each person's story painted a similar, yet unique picture regarding what being obese and losing weight meant in their lives. Study findings revealed that the participants' lifetime personal experiences with obesity and efforts to lose weight informed and affected the events, decisions, actions and emotions which impacted the dropping out experience. Insight into what each participant shared about their personal relationships and perceptions related to obesity in their lives in combination with participants' overarching meaning associated with obesity, set the stage for gaining an understanding of their WLC experience, particularly dropping out of the Challenge. In the

sections that follow, the researcher will address what participants viewed as contributors to and consequences of obesity.

Gearing Up for Battle: Obesity Contributors and Consequences

Interpersonal relationships. All participants included stories in their interviews about how their interpersonal relationships helped, or hindered their weight control efforts and feelings of self-worth during the course of their lives. The participants specifically described interpersonal relationships with spouses and children, parents, colleagues at work, peers during childhood and adolescence and, for one participant it was her personal spiritual relationship with God. Some participants described relationships they perceived to have caused their weight-related self-esteem problems. Other participants attributed these relationships to their weight problems because the relationships presented a barrier to self-acceptance or their ability to control their weight. Regardless of their weight status over time, participants described at least one person or spiritual being from whom they derived a sense of acceptance and support.

Family relationships: spouse and children. Six participants, Wally, Jack, Grampa, VK, Art, and Carl, revealed the positive influence that their spouses had been in their lives, particularly regarding their obesity and weight loss efforts. Some of their spouses directly contributed to their weight loss efforts, while others served as support persons. Grampa and Carl talked about the support they received from their entire immediate family, including their spouse and children. Grampa, for example, described his spouse and children as the most significant influence in his life. He identified his relationships with his wife and children as the main reason he wanted to lose weight; he was afraid of becoming ill or dying from an obesity-related cause and having to leave them. Grampa said his head-of-family role and perceived sense of responsibility for his family served as motivation for him to lose weight and “*get healthy.*” He

believed that eventually these motivations would move him from thinking about weight loss to serious action regarding his weight. His wife was supportive and instrumental in helping him maintain good health. As he reported,

Actually, she is on me all the time about my weight [While chuckling, he said] she points at my belly and says, 'get rid of it.'

Grampa stated that it embarrassed him when she made comments about his weight but he listened to her and would tell her, *"I am working on it."*

Carl said that his spouse and child provided a positive support network at home. When describing a successful weight loss experience he had once had, however, he said that there were times that his family may have made it harder for him to lose weight. Like his family of origin growing up, his spouse and child provided a safe, supportive place for him to be an obese person struggling with weight loss, particularly since they also struggled with obesity. As part of their mutual support of one another, they sometimes joined together to *"do a family [Weight Loss] Challenge with the three of us."* Carl thus perceived that he had a, *"built in obesity support group,"* right at home and was able to work collaboratively on weight loss. He said, *"When she would go on a diet, we would both go on a diet."*

Jack's strong, supportive influence in his life was his wife, inferring that his wife was his sole support person. His wife had been slender as long as he had known her and exerted a strong influence on him with her weight consciousness and healthy eating habits. He perceived that she wanted him to lose weight and supported him in his weight loss efforts. Jack contended that,

Without my wife, I'd probably be dead by now. She is a very strong influence. As far as [his] weight loss, she tries.

Like Grandpa and Carl, Wally talked about his wife in terms of being a positive influence in his weight control efforts. He said he followed whatever diet plan she was on at home; they consistently supported each other in their weight loss efforts. Wally appeared to abdicate the leadership role in his own weight control efforts to his wife. He said,

My wife went to the Weight Watchers meetings; I was just following the points with her. If she's cooking for herself that way, it was normal for me to eat that way. It's easier when I'm around her because she can control what I eat to some degree. When I'm home, there's limited food in the house, too.

He faced difficulties in weight control when away from home as a consequence of his extensive work-related travel. As he explained,

My issue is that I travel a lot, so she would be at home continuing to follow [their current weight loss effort] and it's more difficult to follow that when you're traveling.

VK and Art both described their husbands as being supportive and encouraging to them at every weight level they had experienced, even at their heaviest weight. VK illustrated her husband's support by saying, "*My husband married me when I was very thin. He stuck with me when I got really big.*" Art also spoke of her husband's support, offering as an example his encouragement for her to have bariatric surgery:

When I weighed 293 [pounds] he asked me to get help [with bariatric surgery]; not because I looked bad, but because he wanted to spend his life with me and if I kept on the way I was [obese], we wouldn't have much time together. Now [post-bariatric surgery] he's enjoying trying to keep up.

Unlike prior participants' comments about family support, Stuck did not disclose information about her spouse, but rather talked about her relationship with a foster child that had

resulted in an occurrence of substantial weight loss in her life. She said that caring for this child kept her so busy and distracted that she lost weight. As Stuck explained,

I didn't pay attention to what I was eating; I just took care of that kid. Before I knew it my clothes were fitting a little looser . . . I saw someone at work who noticed that I was looking different so I weighed myself and I had dropped 40 pounds . . . I was not trying to, it just happened.

Swede, Stuck, Toni and George shared that their spouses had negatively influenced their weight loss efforts, while Grampa revealed that, though he had a positive relationship with his spouse, she exerted counterproductive influences on his weight loss success. Grampa and Swede's spouses' eating behaviors and insistence about the ready availability of enjoyable yet prohibited foods enticed the two to derail their own weight loss efforts.

For Grampa, the origin of his spouse's negative influence on his weight control efforts was their mutually enjoyed shared traditions around food. He described his wife as a slim woman who, at 120 pounds, did not have to watch her weight. He said,

As long as I have known my wife, every night about ten o'clock she always has a snack. And it can be a piece of pie with a scoop of ice cream and whipped cream on it or just a cup of yogurt. Well, when I take that down to her in the bedroom, I gotta have something too . . . which is a no-no if you're on a diet.

Like Grampa's wife, Swede's husband had no weight challenges. He was the family cook and kept food in the house, including chocolate, which made it difficult for her to avoid snacking. Swede explained,

He can have a bag of chocolate, take one and then leave it be. I think I'm going to leave it too but I won't [because of her chocolate addiction]. . . . I agree with my husband

when he says ‘I want to be able to eat some [unhealthy foods or chocolate] so we can’t just stop having it [at home].’ I agree and I disagree. I agree with him and I disagree for myself.

Staunch, on the other hand, reported that his wife and daughter negatively affected his weight loss efforts because, unlike the other participants’ experiences in the study, his wife did not like it when he lost weight. His well-remembered one-time 62-pound weight loss, for example, was met by complaints by his wife that he was too skinny and, “*she did not like me that way.*” Despite feeling good at the newfound weight, he gained all of the weight back. He contended his wife’s preference for his heavier appearance led to his reduced motivation to lose weight. He believed, however, that it was important for him to be at a lower weight for health reasons. In addition to the issue of appearance versus health status, Staunch’s wife’s personal health needs and his daughter’s “*teen condition*” added to his stress and precipitated more stress-related eating on his part.

Of all the participants who commented about the negative influence of a spouse or children on weight loss, George presented a complicated picture of family influence on his weight. Marriage itself led to a change in George’s focus away from his obsessive weight control efforts and toward family responsibility and career success. In subsequent years, stressful family dynamics found George serving as the mediator and peacemaker between his wife and child. George explained that longstanding family conflict increasingly diverted his time and attention away from his weight, thus negatively impacting his weight loss efforts and mental health.

Marriage has put on a lot of stressors. All of a sudden I couldn’t be peaceful about sitting on a park bench with a nickel in my pocket [when he first got married]. I felt I

had to achieve something more. [In my family] I am the middle guy, the mediator, the peacemaker [between his wife and child]. That has been very, very stressful. I felt like I was just trying to keep everybody alive . . . That has been a battle for me for years.

George's wife had also struggled with her own weight issues but had lost 110 pounds. Despite the positive influence of her weight loss success, trying to lose weight with his wife did not work for George long term. He alluded to the fact that he did not do well with others controlling his weight loss efforts, and that was no different with his wife. According to George,

Frankly, now in our house, it is every man for his self, as far as food. She eats her way and I eat my way.

Stuck did not refer to her current husband as a negative influence but did regard her past spouse negatively. In her early twenties when she had her baby and gained weight, she said she was in a horrible, abusive relationship. She talked about her past husband's frequent negative comments about her weight. She believed that it was this relationship that triggered the beginning of her body image problems and also started an obsession with losing weight. Her poor body image and obsession with weight loss grew worse from that point on, even though the relationship did not last. She elaborated that,

Weight gain played with my self-image. I was in a terrible relationship so that triggered some of that. Snide comments were thrown at me [about body and appearance] and that didn't help the situation [her self-image and esteem] . . . He was mean.

For Toni, alcohol use can make it difficult to lose weight, but that was also an enjoyable part of her married life. She described how she and her husband would spend time over a glass of wine after work. Toni shared,

It's the kind of time that my husband and I talk about things. It is a good time that I enjoy. We exchange thoughts and feelings-it is a bonding time.

Comeback, Hannah and VK made no reference to spouses or children as influences on their weight status. Although VK did not talk about the negative influence of her spouse, she did reference a serious past relationship with a man who had negatively influenced her experience with excessive weight gain earlier in adulthood. Intimate relationships had the ability to influence VK's weight negatively and she affirmed that observation by saying, "*I had a relationship once that wasn't all that great so I ballooned up.*"

Parental relationships. Both VK and Art referred to the negative influence of their mothers on their weight and self-esteem. VK described her mother as emotionally abusive and talked about her mother's dislike for her, efforts to alienate her, and unrelenting tendency to make negative comments about her weight and overall appearance. She agreed in the interview that her mother's attitude and abusive treatment had a marked effect on how she perceived herself. VK affirmed that her desire to "*people please*" instead of take care of her own needs started at home long ago. She said, "*I tried to keep the peace by making [my mother] happy,*" but illustrated her lack of success in doing so by sharing the following comment:

There was one instance and I remember it very well. I was running to the car and when I got in the car she said, 'You look like a dirty cow.' [My mother also] controlled food. . . . I remember one time sneaking in an onion and eating it because I was so hungry. I would feel like I need to control it [eating behaviors] but the more I tried to control it, my mind would say two things: 'you need to control it,' and 'you can't control it.'

Art's mother constantly tried to put her on diets that Art believed were not going to work. Art said she developed feelings of shame and excessive guilt about almost everything and it was

these feelings that she has carried with her into adulthood. Her mother never thought anything that Art did was ever quite good enough. Art provided an example of one of her mother's messages about Art's weight:

My mother would tell me if I stayed that size she was going to lose me, which caused me to feel guilty and feed the behavior.

With the exception of Hannah and Comeback, none of the participants spoke in great detail about positive parental influences on their weight while growing up. If they made a comment, it was brief or overshadowed by the more powerful influence of negative relationships during childhood with peers, siblings or a parent.

Hannah described her parents as having a positive influence on health behaviors that affected her weight. She described her family as supportive and loving, with both parents leading healthy, athletic lifestyles. She followed their example by also leading a healthy, active lifestyle. When she reached middle age and obesity and its management became a problem for her, her parents continued to exert a positive influence on her health goals. Hannah's parents have also influenced her motivation to be proactive in addressing weight control as a consequence of their own health issues that have arisen as they have aged. She explained,

My parents have always been very healthy and active but are struggling with some health issues. I need to address weight now so I do not have some of the same issues.

In a post interview conversation, Comeback said she was heavier as a child but it was never an issue for her; in fact, she remembered viewing her weight as a positive attribute because of her mother. She explained that her mother always made her weight seem like a positive; something to be proud of. Even when her mother indicated Comeback needed to get some exercise for health she recalled her mother making exercise, like working in the yard, seem fun.

Later in life, although she had always been heavy, she realized she needed to do something about her weight for health reasons.

Both Toni and Staunch described at least one example of their father's influence on their relationship with food, which was neither positive nor negative. Toni's father was influential in the development of her lifelong view of food and its role in her life. She illustrated this influence by saying,

My dad was a very good cook and it was all about having a good time. We always had a lot of people over to the house for social gatherings and eating. These were positive memories. Food was a part of the fun. I associate eating with good times, good things, good food and good drink.

To give up eating was to give up good times and enjoyment of life, Toni further explained. She referred to the influence of good times with food when she talked about why she was no longer motivated in the same way she was when she was younger to lose weight. She now wanted to relax and enjoy her life.

Staunch did not go into great detail about any of his relationships during the interview but described how the memory of his father's eating habits affected him. Staunch recalled his father as a very controlled, militant eater. In recalling his father's eating habits, Staunch said it was a tough act to follow. He attributed his own poor eating habits and uncontrollable relationship with food to his personal "immaturity." He also said he was an emotional eater and used food to relieve symptoms of stress. He said in reference to his father's influence,

I actually have memories of my father being very controlling about his eating.

Immaculate is not the right word, but systematic with his eating . . . It kind of made for

a hard role model to follow when trying to monitor eating. . . . I was [and continue to be] an overeater.

Work relationship. Grampa, Jack, George, VK, and Art talked about the negative influence of work relationships on their weight or self-esteem. Most participants affirmed that work-related relationships were negative for them because such relationships either underscored the stigma they felt associated with their obesity, caused them emotional stress, or prevented them from participating in wellness programming. VK, Art, and George provided examples of both the negative and positive influences that people at work had on them.

Grampa, Jack, George and Art all relayed negative influences of work relationships. Grampa blamed the relationship with his manager and co-workers for his biggest period of weight gain. He said his work schedule and job pressures were the major reasons he did not complete the WLC during the year he dropped out. *“I was really under the gun,”* he said in reference to his job. When he dropped out of the WLC, Grampa said he was experiencing the interrelated issues of high stress levels, sleeplessness, and anger related to his worksite relationships to the extent that personnel from the Human Resources office required him to get anger management counseling. In addition to these issues, he experienced severe knee pain, which had made it difficult for him to function at work at that time. An inability to do his job increased the emotional pressure he felt. Because he feared losing his job, he took pain medication to control the knee pain, but then became addicted to the pain pills. Grampa revealed a vicious cycle, one consequence of which was his impaired ability to focus on weight loss and complete the WLC.

For Jack the influence of work relationships was a barrier to his participation in worksite wellness programming. Jack had been teased during his youth because of his weight and, as an

adult, continued to be affected by teasing about his weight. He said his worry and lack of motivation to participate in worksite weight loss programs started as a result of male co-workers making fun of him for participating in a Weight Watchers program. He explained,

If they know you're going to Weight Watchers, some tend to kid you about it. When I was a kid, I was always being picked on because of my weight. It is still there and so you lose your motivation.

George, VK and Art provided examples of work-related experiences in which they felt stigmatized because of their obesity. Being stigmatized did not necessarily affect their wellness program participation, but it did affect their self-esteem. The problem was compounded by, in VK's case, having what she called a deep-rooted need to please others at work. Her relationships with co-workers and customers impaired her ability to concentrate on her personal health needs, which often resulted in weight gain or a failure to lose weight.

Stuck, VK, Art, George, Comeback, and Toni affirmed that work relationships could positively influence their WLC participation and was supportive of behavior change in general. All but George believed that it was helpful to work with co-workers in achieving the common goal of weight loss. Stuck illustrated her experience by saying,

I had my [work] buddies and we kept track of each other. It made me have to be accountable. A couple of ladies in my department . . . we stroke each other all the time, you know. I mean we are still struggling even though we're not really in Weight Watchers or anything. We are still watching the food and doing 'My Fitness Pal' [a free calorie counter application] and that sort of thing together.

Comeback and George were positively influenced by a culture of health at work rather than specific interpersonal relationships with individuals at work. Although Comeback was

more likely to engage independently in her weight loss efforts, she described the experience of exercising in a group:

I liked the support that I got with other people working out with me. It was convenient . . . You're getting some positive reinforcement just coming to work.

Although George had perceived being stigmatized at work because of his obesity, he shared Comeback's appreciation for the social aspect of worksite wellness programming and believed he benefited from the wellness culture at work. He agreed that he was motivated by peer acceptance and inclusion. He recounted an important experience he had during the worksite WLC as follows:

One of the most memorable times was when the girl came up to me and asked me if I would be part of her [Weight Loss Challenge] team. One of the guys saw me working out all the time and heard I was going into weight loss challenge. He said we have a 'ringer,' which I think is a compliment.

George enjoyed being asked to join teams trying to make behavior changes while at work, but said he was unable to meet his weight loss goals when others were involved in the effort. Like Comeback, George needed to work toward his goals alone so he could concentrate the focus on himself and avoid getting distracted.

Peer relationships. Hannah, George, VK, Carl, and Art described the negative influence of peers on their weight or self-esteem. George, VK, Carl, and Art vividly recalled bullying and abuse by their peers. Hannah identified her adolescent social network as a big contributor to her body image issues at that time, particularly since her friends during adolescence were thin and had body types that differed from hers. She felt different because she was muscular and "stocky." It was not culturally acceptable among her peers to be overweight, and Hannah felt

overweight due to her perceptions about her body type. She said that she had a negative perception about how well she fit into her social network of friends. Hannah illustrated that situation below:

I was in sports and I was not smallest person so my body image was. . . I was the largest amongst my friends. I was very Athletic, VERY athletic . . . and so, my legs were bigger. Not as many girls were into sports like they are now. For whatever reason, the friends I had in high school were all super smart and I was the only one that did sports. Other girls that looked different than me had boyfriends. I did not. I figured there was something wrong with how I looked . . . Thin was in . . . I did not like the way I looked, I did not accept the way I looked. No one was saying “Hey you look great.”. . . Maybe I just had the wrong friends.

Although George had supportive parents, bullying at school and sibling cruelty related to his weight deeply affected his life. George shared,

I got picked on at school for it and bullied. I had ten brothers and sisters. I got about as much abuse at home as I got in school.

Like George, negative relationships with school peers and a lack of positive peer relationships had a negative and long lasting effect on Art’s self-esteem, self-perception, and body image. Art illustrated her experience by sharing,

Being a large child and going to school, kids have no mercy on each other. Yeah. You get to the point where you may feel that you deserve that because you look a certain way. I even had a teacher in eighth or ninth grade that would join in with the rest of the class. Bullied and belittled, my self-confidence was in the bucket. . . . I thought I deserved the abuse.

The participants in this study spoke very little about the positive influence of peers on them and their weight. VK mentioned having a friend in high school that walked and dieted with her. George and Comeback referred to two kinds of positive peer influence they experienced as adults that were outside of work. George reported that he benefited and enjoyed working with others towards his fitness goals at the gym where he was a member at the time of the study. He said,

I have a lot of camaraderie in the gym. I would be around people who would work hard at their thing, I would work hard at my thing and they would see that. We would say hey, we are all in this together.

Comeback reported that she attended a small spiritual study group with several women. The support she received from the women had been important to her and influential in her life. She told a story about a time she had helped the group by sharing her personal challenge with weight loss. Because of her story, she mentioned proudly, three people were “healed.”

Spiritual relationship with God. Comeback offered limited discussion of her family relationships, but did talk about her relationship with God. Her spiritual relationship was important to her during her continuing weight loss quest.

It was my relationship, and the changes happening spiritually with my walk with Christ that made it [weight loss] successful.

In summary, each participant revealed positive aspects of relationships, such as the emotional support of a spouse, as well as strained aspects of relationships, such as interpersonal conflict and stress. Negative parent and peer relationships were relayed as influential during childhood and adolescence. Participants mentioned positive parental influences in their lives but negative influences seemed to predominate when relationships with parents were discussed in the

context of body weight. Participants described positive, supportive adult peer relationships in adulthood, though they perceived significant stigma related to obesity. Participants experienced discrimination due to their weight as both frustrating and hurtful. They described their spouses as a positive influence in monitoring or facilitating health promoting behaviors, such as encouraging healthy eating habits or being supportive through bariatric surgery. Some participants described relationships they perceived to have caused their weight-related, self-esteem problems, such as an abusive mother or siblings.

Some of the men and women in this study mentioned two worksite characteristics, the social aspect of the worksite wellness program and a culture of health at work, as positively influencing their overall weight loss efforts. Some had past experiences that created perceived barriers to participation in worksite wellness or weight loss programming, however. Other interpersonal relationships influenced participants' behaviors and perceptions about obesity. Overall, participants' interpersonal relationships were important in how participants viewed and experienced their obesity and weight loss efforts. The influences of relationships reverberated throughout the life course of each of the study participants. In the following section, the researcher will present findings regarding personal perceptions and messages about obesity.

Biopsychosocial elements of obesity and weight loss. Participants shared negative perceptions about obesity and weight loss that focused primarily in five areas: judgments by others, self-esteem, being misunderstood by others, inaccurate self-perceptions of body image, and abilities related to weight issues. With the exception of Wally, all participants revealed having negative body images and weight-related self-esteem issues. George, VK, Art, Comeback, and Jack talked most at length about such perceptions. They among all of the participants revealed the most negative perceptions of self and shared stories of their experiences

with obesity-related discrimination. Hannah and Stuck voiced being prejudiced against other obese individuals. Staunch, Grampa and Swede on the other hand, voiced few negative self-perceptions about their weight loss, obesity, or body image. George, VK, Art and Jack reported childhood onset of obesity and, with Comeback, had the highest BMI levels among the participants.

Social discrimination and stigma. George, VK, Art, Comeback and Jack all said others viewed them negatively because of their obesity. They made comments consistent with feeling stigmatized, judged, and misunderstood. They also said they wanted to be appreciated and understood as an individual person, rather than being viewed only as someone who was obese.

VK held the belief that thin individuals garnered more attention and respect than did obese persons. In contrast with how others treated her as an obese woman, she believed that people valued her more highly and viewed her as smarter, better looking, and more confident when she was thinner. In terms of career advancement, she believed that people in general were hired and promoted because of their looks rather than their intellect. VK provided several personal examples of positive career experiences that she attributed to having a thinner appearance rather than being qualified. She said people did not treat her as positively or respectfully when she was at a heavier weight and shared an illustration of obesity stigma at the office by saying,

I came to work here and I was a little bit smaller than I am now [32 BMI] but not much, and then I got really heavy [heaviest recorded BMI was 39] and people started treating me like crap, like I didn't know nothing There are people at the office that wouldn't even look me in the eye when I was heavier.

Some participants believed that people's stereotypical notions about obese individuals presented a barrier to people getting to know them as individuals. Art and George, for instance, made that assertion, with George explaining,

I think at times in social situations I feel there are barriers there. People see me as being overweight or whatever When I sit here and talk to you, I look at you and you are one of a kind. When I feel like people are looking at me and seeing me as obese, that they are putting me in a group. They are judging me with the judgment of a group versus just seeing who I really am.

George perceived that others doubted his discipline and underestimated his level of hard work to lose weight. He observed,

People see something with their eyes and make certain assumptions, they have no idea how hard I work. I was three hundred and thirty pounds and I was [using the elliptical exercise equipment] for an hour, People just stopped and watched me. Some people don't see that, they don't see that part People see me as undisciplined and unwilling to put forth an effort.

For Jack, the negative messages he received were from people who wanted him to be something that he could or would never be, or people's unspoken expectation that he conform to or fit a mold that did not fit him. Jack also expressed fear of ridicule, which kept him from attending weight loss programs much of the time. Like George, Jack frequently shared feelings of frustration directed toward other people for misunderstanding him or his efforts. He also believed that other people used unfair criteria to judge his personal health status. He further explained,

People say you need to lose a lot of weight; you need to get down to this particular area, but that is a general [guideline] for everybody, not just for an individual. I mean, I feel good. I can go out there and do a lot of stuff all day long and I feel great about it. . . . Different strokes for different folks.

Several study participants described their experience of feeling negatively judged by health care professionals. Jack said the medical community's views were skewed. Medical professionals did not take the individual into account and they judged his health only by his BMI status. Jack said that doctors only wanted to suggest changes to his lifestyle rather than look at his overall health. Visits to the doctor were frustrating for Jack because, "*all the things my doctor tells me to do to lose weight, I already do.*" He was healthier because of these efforts, but weight loss had not always been the outcome. Jack's doctor's provided lots of advice about his obesity status, but Jack proclaimed, "*I've never heard a doctor say that 'part of your weight could be hereditary.'*" He described a conversation with a doctor about his obesity in the statement below:

I had the doctor tell me I really should lose some weight. I asked him to give some ideas as to how to do that. He told me I should change my eating habits. . . . easy for you to say, exercise more, stay away from this food group. . . Yes, I do.

Wally talked about an experience at his doctor's office that illustrated what he believed was an overemphasis on weight by the medical community. His doctor's visits always involved being weighed followed by the message that he needed to lose some weight. He often became angry in response to the physician's office staff taking his weight during every appointment. On one occasion, after being told he needed to lose weight once again, he went out to his car, stripped down, changed some items of clothing he was wearing, marched back into the office,

and got on the scale again to show the staff that he could lose weight by simply changing what he was wearing. Afterward, he said they no longer weighed him when he arrived for an appointment.

Carl, on the other hand, never thought to ask his health care professional if he should lose weight because the topic was never raised at any of his physical examinations. Until a recent visit when he was diagnosed with pre-diabetes, he expressed being unconcerned about weight as a health issue explaining, *“I just feel like, if they thought my weight was a major concern they would suggest that to me but they never have.”*

Situational judgments. Participants’ perceptions of being misunderstood and judged were worse at certain times and in particular situations. Such situations that participants mentioned were work meetings, speaking engagements, working out at the gym, weighing-in for the WLC, and attending support group meetings. Stuck actively attended Overeaters Anonymous but felt judged and unaccepted because of her lower obesity status compared to other members of the group. She said, *“I was always the smallest one in the room. So they sort of looked at me like what is your problem, you’re fine.”* Her perceived lack of group acceptance led to self-doubt about the need for support to control her eating habits and she quit the group, even though attendance was helpful to her. Toni talked of speaking engagements triggering discomfort with her weight and Comeback recalled difficulty going into the gym as a result of her negative perceptions. Comeback observed that, *“I didn’t want to work out at the gym because I didn’t want people to look down on me.”*

Comeback also had perceived failures or disappointing times that triggered perceptions of being judged by others. Comeback was embarrassed when she had regained lost weight and was worried about negative judgment from other people about her weight gain. She said she was

concerned that she would be perceived by other people as untruthful about her victory over weight. She relayed her sadness, shame, anger, and resentment about this in her statement below:

So, I've been kind of sad most of this year, on and off. . . . I am trying not to be depressed and I am getting heavier. I was dealing with so much bad feelings about people and how they felt about my weight gain. I cried going over to the gym one day, even as my heart was saying, 'you need to go the gym.' I was dealing with shame so bad. . . . Then I get mad, and that brings about resentment.

All participants had negative perceptions about weighing-in on the WLC scale and some were sensitive about being judged for dropping out of the WLC.

Obesity discrimination by obese individuals. Two study participants talked about their own prejudices toward other obese individuals, even though they had personally experienced obesity. Stuck revealed a prejudice against obese individuals by talking about an experience she had with an obese physician. She went to a weight loss clinic once and the physician who was in charge of the clinic was, “*about 300 pounds.*” Stuck said, “*I wanted to know why and how she could run a skinny program and she was so big.*”

Hanna said it was difficult to understand obesity when someone had never had obese friends and had always tried hard to stay thinner. Hannah thought obese people should do something for themselves since body weight was a matter of personal choice. Why someone would choose to be overweight remained a mystery to her. She thought there must be something that was wrong with them, perhaps a problem of some kind, in order for people who became obese to consciously make such a decision about their weight. She said, “*Those people needed to improve their quality of life.*” Although Hannah was once unsupportive and judgmental

towards people who were obese, she has since become more empathetic towards others who were struggling with weight and weight loss efforts. She had a different level of compassion now that she was obese and could not control her weight. Even so, she admitted still thinking, “*Come on! Really?*” when she saw a very large person eating a huge plate of food.

Finally seen: who am I now? When participants experienced substantial weight loss, they discovered that finally being seen and treated as an individual was a wonderful yet uncomfortable or confusing feeling. They still struggled with body-image and concerns about other people’s perceptions of them after weight loss. Art described her post-surgery weight loss feeling as thrusting her into the positive limelight. She compared her bariatric surgery experience to a bulb growing into a flower.

This flower represents the process after weight loss surgery, the coming out of my shell and becoming something new and beautiful; not that you weren’t there before, but that others can see it.

Art also shared discomfort with the attention she received from men at her thinner weight [Lowest BMI actually recorded for her was 34]. She said she was never “seen” as a woman when she was at her heaviest. In the following comment, she described what it was like for her to receive attention from men:

There is a lot more attention. I mean if you’re out shopping and they [men] just keep walking in front of you and you don’t make eye contact because here they [men] come. Getting used to that [being noticed by men] is different. I got a dinner invitation {from a man} which was very odd for me because I hadn’t been in that situation that much. I did not want to hurt his feelings.

The discomfort of being viewed in a different light affected Art when people commented about her weight. In some situations, Art did not like it when people drew attention to her post-surgical weight loss. She expressed anger toward a co-worker who approached her at the coffee station to excitedly ask how much weight she had lost. This person never said hello to her prior to this time, even though they had passed one another in the hall every day for years.

Body image and self-esteem. Body image distortions and self-esteem issues were commonly revealed by all but one participant. They either expressed loathing about their body type or they perceived themselves as being bigger or smaller than their actual size. Obesity tended to trigger negative self-esteem and body image distortion, which exacerbated weight problems. Some participants described body image problems during times in their lives when they were not actually overweight. Stuck and Hannah, for instance, both recalled having perceptions of being overweight even when they were at a weight level that was inconsistent with being overweight. Stuck said,

At that time [125 pounds-post pregnancy] I was still not that big but it looked big to me.

Hannah recalled,

I can remember in high school feeling I was the largest amongst my friends. That was my perception.

Stuck and Hannah alluded to the fact that body image and self-image issues were exacerbated when they experienced obesity and could not lose weight. Hannah said that years of negative body image distortion since adolescence had damaged her self-esteem. How she appeared to others was important to her. She suggested that she wanted to be thin, with a certain body type to gain acceptance from others, and in the hope that she could accept herself. As Hannah explained,

I have not struggled with food necessarily but it has been more of a struggle with acceptance. It is about how I look to others. What their perceptions of me are.

Comeback revealed that her negative body image and body image distortion that did not occur until later in her life, despite the fact that she was “heavy” prior to the time her negative body perceptions developed. She explained that she was morbidly obese but her sole body image was much larger than reality. She looked in the mirror and saw an exaggeration of the size that she really was. It surprised her when she saw a picture of herself because she looked smaller than what she perceived to be a morbidly obese person. She explained further by saying,

King size is how I felt, you know, just chunky. I took a picture of me on Saturday and even though I am heavier, I think I saw myself so much heavier than I am. It was like you're a kitten but you look in the mirror and you see a lion. In my eyes I see myself as so much more [she said she is much, much bigger at any size in her mind].

In addition to perceived judgment from others, Art and VK shared self-esteem and body image dissatisfaction that other participants had conveyed. VK agreed that before she became obese she viewed herself as bigger than she really was. Art said she was heavy most of her life and one year prior to bariatric surgery had a BMI of 42, so it was difficult to see herself as a thinner person. She experienced confusion about which person, her thin self or her obese self, she had become after bariatric surgery. Art illustrated her thinking by sharing,

Some mornings you get up and you see the chunky chick and some mornings you get up and you see this new woman. Most mornings you don't recognize either one of them.

Negative self-perceptions: inability to lose. Many participants made comments about their inability to lose weight or sustain the weight loss they had achieved. Stuck, Staunch,

Grampa, and Art provided examples of negative thoughts by participants regarding their weight-related capabilities. Grampa commented to himself, for example,

You big dummy, if you can give it up for 40 days and 40 nights, you could probably give it up forever. I obviously am not [disciplined enough].

Toni shared that she equated her weight loss failures to lack of personal control and lack of responsibility.

If only I was more responsible I could lose weight where I have tried and failed over the years.

Staunch indicated that he perceived himself as immature because he could not get a handle on his eating. The object he brought with him to the interview that symbolized his experience with obesity was a baby bottle. The bottle represented his self-perceived immaturity in handling responsible eating. Stuck also said she should be capable of losing weight on her own and that view had kept her from participating in programs like Weight Watchers. In terms of why she no longer participated in Weight Watchers, She said,

You should be able to count the stuff on your own. I'm trying to tell myself that you should be able to do this [without paying the Weight Watchers fee]

Art alluded to a lifetime of negative self-talk. In fact, she almost did not decide to undergo bariatric surgery because of how she perceived her ability to lose weight. Prior to surgery, she believed that no weight loss program or method would ever truly work for her because no method had ever worked long-term for her. She shared,

When you're sitting there at that size even though you see somebody else did it [bariatric surgery], it doesn't seem attainable for you. When I went to the seminar for potential patients, it's hard to tell them that it's great for them, but nothing works for me.

The perceptions that were shared by participants in this study were about discrimination, judgment, and distorted thinking. Participants revealed the perception of being misunderstood as an obese person or their own self-directed negative thoughts and body image distortion often influenced their weight loss efforts or weight loss program participation. Even when participants lost weight, they struggled with body image and concerns about other people's perceptions of them after weight loss. A negative perception of obesity in others was revealed by two of the obese participants themselves. In the following section the participants will relay how unhealthy relationships with food can develop over a lifetime and lead to obesity or cripple weight-loss efforts.

Relationships with food. Many participants had developed unhealthy relationships with food that became a significant factor in their obesity experiences. Five women (VK, Art, Hannah, Swede and Stuck) described such relationships with food, with some relaying stories that were consistent with food-related addiction or compulsive eating. Hannah referred to her eating habits as an addiction by saying,

Addiction is addiction. If addicted to something you cannot reach into your head and strip it out. You are in a cycle. Something has to really break that and I know what foods to eat and what foods not to eat. I have been struggling with this for so long.

All male participants alluded to unhealthy eating habits such as stress eating, overeating, and compulsive eating. Wally, Carl, Grampa, George, and Staunch said they were “*overeaters.*” Wally brought a bike tire pump to his interview to illustrate his habit of overeating. He compared the feeling of being overly full to a ball that has just been filled to capacity by an air pump. He said,

It is not the quality of food but the quantity of food that is the biggest problem. I always overeat and I feel like I am bloated [he made the sounds, pump, pump to illustrate]

VK, Art, George, and Staunch talked about using food to manage emotions. George indicated that stress caused him to overeat and make unhealthy choices about food. He ate out of boredom and when overly tired as well. George said food, “*helped him get through to the next thing [task].*” George associated dieting with depriving himself and he either ate to relieve stress or he created more stress for himself by trying not to eat. Staunch revealed a similar experience with stress overeating when he stated.

I tend to overeat and find comfort in food when I am stressed....I am unable to control it.

Staunch also mentioned that not only did he eat a large quantity of snacks when he felt stressed, but also he was a compulsive overeater. He illustrated his disordered eating by saying,

When I am at home I eat a much bigger meal than I need and thirty minutes later I am in the refrigerator looking for something out of habit. I just feel I am an overeater and I really find comfort in ice cream at night.

Art would get frustrated with her weight loss efforts and that would trigger childhood feelings. She brought a picture of a rain cloud with a sad face drawn on it to the interview. She explained what this picture represented to her by saying,

This [picture] is a representation of every time I failed on a diet. I felt I had let myself down, and other people around me. It probably stems from my mother telling me if I stayed that size she was going to lose me and causing me to feel guilty and feed the behavior [eating to deal with emotions]. You know, I was depressed [at her heavy weight]. I had suffered miscarriages and life was not always happy. I numbed it [feelings] with food and I just did not care.

Post-bariatric surgery, Art struggled with controlling her unhealthy relationship with food. She still had to deal with her tendencies to overeat or eat to deal with emotions. The surgery made it more difficult, even painful, to eat in large amounts. Now, instead of binge eating in an effort to smother negative emotions, she found herself eating too many times throughout the day instead, for the same reasons. She had to be mindful not to eat multiple times during the day as a stress reliever. She further explained:

Another problem I had is that people will drink or over-exercise or whatever to kill the stress. Well, I would eat which is something I still have to deal with. Even though I can't eat but a little bit [post-surgery], I can eat a little bit too many times a day if I'm not careful.

Like Stuck, Swede alluded to being a compulsive overeater who joined Overeaters Anonymous (OA) to get help and support for overeating. Swede was unique to the study because of her addiction to chocolate, which she described as severe. With help from a therapist, she had experienced a period of recovery, but returned to her addictive patterns soon after she stopped seeing the therapist. She described her addiction:

I went to a therapist for my choc-o-holism. I was able to get off the chocolate for a year. It's an addiction People laugh when I say that, but it is truly an addiction, I mean for me. I stop every day and buy two of [the] dark chocolate bars. I inhale them. I don't think when I eat them and I don't know I'm eating them . . . I can never eat just one and if it is around, I eat it all. I don't even know if they taste good anymore, but I have to have them.

The participants who revealed unhealthy relationships with food struggled with eating to handle emotions and severe tendencies to overeat. Many described their eating habits as an

addictive disease or something they had difficulties handling. They mentioned turning to food as a crutch when obstacles, obligations and unexpected events influenced their lives. Some participants associated obesity with other addictions. The non-food related addictions are addressed in the following section.

Obesity and other related addictions. Staunch, Grampa, Carl and Jack smoked for a number of years which helped them maintain their weight or prevented further weight gain. Two of these male participants were addicted to other substances: pain medication (Grampa) and alcohol (Jack). Smoking helped Carl maintain his weight for several years in his early adulthood. Carl explained that the habit of smoking helped keep his metabolism up but, even at a maintenance weight that he managed by smoking, he was still obese. Several different times he quit smoking and immediately put on weight, so he would start smoking again.

Jack compared quitting alcohol and tobacco to his lifelong weight loss efforts. He said he was able to quit those addictive behaviors, but weight management was different because, “*food was not evil,*” but was required to live. He explained his perception by saying,

I don't see food as an enemy like I did with alcohol and cigarettes. I mean when I was doing it [drinking and smoking], then I saw it as killing me. I know food can kill me, but food is also something that we need. I knew the booze could kill me, but it wasn't something that I needed. The cigarettes I know could kill me, but it wasn't anything that I needed.

He decided that he was not willing to live with the consequences of smoking and drinking. His religion played a role in his ability to quit smoking and drinking he suggested. He also mentioned that at some point he may decide he feels the same way about his obesity, but extra weight was something he was, “*willing to live with for now.*”

Grampa also used smoking as a means of controlling his weight for many years until his wife made him quit smoking when he was around 40 years of age. He struggled with weight gain after quitting cigarettes, but managed to control his weight gain to some degree. The onset of middle age made it more difficult for him to lose weight as he was once able to do. He kept the weight off for a while by dieting, but the effort to keep the weight off became more difficult, no matter what he tried. Grampa also was addicted to pain medication which he said did not help his weight gain or his other emotional issues. He contended that his addiction combined with other issues he faced had changed his personality temporarily. The addiction also took his focus away from weight loss for a period of time. He described this addiction experience by saying,

It was hydrocodone. When you first start taking them, one will help you. Then the doctor says if that doesn't work anymore then you take two. So then I used to take two and that didn't work, so then I was taking three. And then I was taking four. I noticed that. . . . actually it was brought to my attention on more than one occasion that that I am grumpy and why am I taking it out on everybody else? So I went to my doctor and he says, 'well yeah, that's typical of people who become addicted to drugs.'

Addictive eating patterns, smoking, drinking and other drug addictions were revealed by participants. Smoking had an effect on metabolism that participants used to maintain weight; excessive drinking led to weight gain and could be related to overeating when the individual was drinking. Addictions changed their personalities or distracted them from their weight loss goals. All participants were able to recover from other addictions, but were unable to apply the same recovery strategies to unhealthy eating habits that affected their weight. Addictions to substances other than food were revealed by only a few participants. The influence of changes

associated with middle age, however, was mentioned by all participants in terms of affecting their weight loss efforts or obesity status. Participants' perspectives and experiences about the effects of the middle aged years on weight will be presented in the following section:

Age-related weight challenges. Most of the participants identified a midlife resistance to weight loss in their '40's that they could not overcome. Those participants who struggled with obesity all their lives also alluded to even greater challenges with weight during their middle age years. Female participants, Toni, Stuck, Swede, and Hannah, all specifically mentioned middle age as a time of uncontrollable weight gain and greater difficulties concerning weight loss efforts.

Stuck contended that a major decline in weight loss capability in her 40's was menopause-related. She was successful in many of her weight loss ventures, but like all of the participants, she repeatedly regained the weight that she had lost. As she aged, she experienced more weight gain despite constant weight loss efforts, saying, "*How it got this far has to be just time and menopause.*" Hannah made reference to her doctor's prediction that she would gain three to four pounds a year at her age, "*no matter what I did.*"

As Toni headed into her middle age years, her weight exceeded a level at which she was comfortable but it would not budge despite her weight loss efforts. She said she was not able to lose weight in her late thirties like she once could, so she increased the intensity of her efforts, using a variety of strategies. In her early forties she said, "*The whole deal changed.*" Her husband lost his job and became very negative, and at the same time she was experiencing depression and would, "*cry at the drop of a hat.*" She shared a memory of that time in saying,

My husband's depression was really the trigger that sent me to get some help. I remember going to my doctor and saying, 'What the heck is wrong with me?'

Her doctor prescribed temporary pharmaceutical relief for her depressive symptoms after diagnosing her with perimenopause. At the time of the interview, Toni was struggling with her motivations to lose weight. She said,

When I was young I wanted to look good and that was my reason to lose, but now I do not have that motivation.

During follow up questioning, Toni described that time as a transformation when she was not motivated by her former old reasons to lose weight, but had not yet found new motivators. That transformation, combined with the anti-depressants she was taking, made her feel like she did not care anymore about her weight. She talked about being ready to relax, have fun, accept her weight as it was, and retire the weight yo-yoing she continually experienced.

Male participants also mentioned their middle age years as a turning point toward more intense weight loss challenges. Wally, for example had been satisfied with the results of his weight loss efforts during his younger years, but as he got older, things changed and he retained more weight than he was able to lose. As time went by, the two to three pounds a year that he did not lose added up to “*big totals*” on the scale. Both Carl and Staunch finally saw weight as an issue to be contended with seriously when they reached middle age. Carl, who struggled with weight loss all of his life, developed obesity related health problems in mid-life, which made him view his excess weight as a real threat.

Grampa had weight problems that worsened in his middle age years. When Grampa saw his weight rise during his twenties and thirties, he could get his weight back down easily. He was an active person at work and home, averaging 10,000 steps daily. His normal activity level was not enough to stop his weight gain in later years, however. He explained that,

In the last five to seven years, I really have had this weight issue and, once again, more in the last couple of years I can't get rid of my belly.

In summary, both male and female participants reported more weight challenges in their middle age years. A few female participants specifically mentioned menopause. Some participants noticed the change in their thirties, while others did not notice any changes until their forties. Even those that had struggled with obesity all their lives found weight loss more of an effort in middle age years. Those that had only struggled with extra weight before this time now were faced with attaining obesity status. Obese participants watched their BMIs rise uncontrollably higher.

Participants who had been able to lose weight in the past explained that their normal weight loss strategies and patterns of behavior around food and exercise were not enough to stop weight gain in later years. A time of transformation when motivators for weight loss changed and methods to achieve weight loss were forced to change was revealed in participants' discussion of middle-age and its effects on their obesity status. Even before middle age efforts to lose weight, many participants had developed a variety of weight control strategies. Some participants had been implementing weight loss strategies since childhood. For all participants multiple strategies had resulted in weight cycling. The participants' past experience prior to the worksite WLC and the results of weight cycling are described in more detail by participants in the following segment.

Battling Weight in Repeating Patterns: "Weight Loss has Always Truly Been a Battle."

(Hannah)

All participants in this study had prior experiences with weight loss programs or strategies for weight loss before joining the WLC at work. Some participants had more

experience than others with various weight loss programs and strategies (Table 1). They collectively described the experience of repeatedly losing weight and gaining it back. A few participants went to dramatic lengths trying to lose their excess weight such as shots, stimulants, starvation diets, extreme exercising, and fad dieting. They described their repeated patterns of weight loss attempts to be like battles in a never-ending war.

Table 1: Description of Various Weight Loss Methods Tried by Participants

	Weight Watchers	Nutritionist	Exercise Program or Running	Various Weight Loss Diets	Health Coaching	Smoking	TOPS	Mental Health Therapy	Over Eaters Anonymous	Bariatric Surgery
N	Toni	Toni	Toni	Toni	Jack	Carl	VK	Swede		VK
A	VK	Stuck	George (run)	Grampa	Stuck	Grampa	Stuck	Grampa	Stuck	Art
M	Jack	Swede	Staunch (run)	Swede	Swede	Wally		Toni		
E	Wally		Comeback	Jack	George	Jack		Art		
	Swede		Wally	Wally						
	Stuck		Jack	Stuck						
	Grampa		VK	VK						
	Art		Stuck	Toni						
				George						
				Art						
				Carl						

Even though the participants had tried various weight loss strategies, none of them mentioned ever having participated in a WLC at a different worksite. However, all participants had signed up for the worksite-based WLC associated with this study more than once over the years. Several participants referred to their past experiences in these challenges when asked about other weight loss efforts. In the following section more detail is provided about each

participant's past weight loss experiences, including strategies they tried and the related result of weight cycling.

Weight loss strategies: “couldn't seem to get a handle on it” (Stuck). Staunch only used running as a strategy to maintain his weight in early to middle age. He explained that he enjoyed running and, although he was not trying to lose weight when he ran, the result was weight management. He described himself a life time overeater, but did not put on extra weight until midlife. Staunch was not as experienced as the other participants in weight loss strategies but he described a time when he lost sixty-two pounds. Although he felt emotionally happy and physically good at this new weight, he said that feedback from others including his wife led to his eventual return to his old eating habits and abandonment of the weight loss efforts that had been successful for him. He told about his one successful experience with weight loss by saying,

One time, I lost 62 pounds. It was really nothing but following a specific routine [walking and Weight Watchers]. No big deal. It was the best I had felt since my 20s or 30s. I got to a point where people were telling me I was too thin, and my wife told me I was really too skinny. . . . From that point, even though I felt really good 62 pounds lighter, I stopped [his routine] and started gaining weight again.

Grampa maintained weight until midlife by dieting and being active on his job. He used a very specific diet all his adult years to lose weight quickly. Grampa's favorite method of weight loss was the Cleveland Clinic Diet. He also mentioned prior participation in the WLC Weight Watchers. He would turn to the Cleveland diet anytime he wanted to gain control of excess weight. He liked it because it involved a regimen that enabled him to, “lose a quick ten pounds.” He said,

If I can kick start it and lose 10 pounds in a week, that's a good way to start. I've done that probably 20 different times through my life.

Toni relayed trying a variety of diets and exercise routines over the years. Similar to Staunch she had exercised to lose weight during much of her adult life. She also mentioned talking to a health coach, participating in a variety of worksite wellness programs aimed at weight reduction, and Weight Watchers participation. She described one stumbling block with a weight loss effort in Weight Watchers by saying,

I lost weight so quickly in the beginning and then I was frustrated with no more coming off. I got tired of being frustrated.

Stuck, Hannah, and Jack listed a large variety of specific diet plans they had tried over the years. Jack had tried everything in the past to lose weight and talked about trying multiple fad diets with pre-made foods, delivered meal plans, low-sugar plans, nonfat plans, and basically whatever the popular diet program was at the time. He tried exercise alone but Jack perceived that physical activity never helped him to lose weight. As he relayed,

I can go to the gym every day to work out and maybe in a few weeks I notice my legs being stronger or I get a little more stamina. As far as losing weight I don't really notice anything.

In the summer, Jack said the pounds come off naturally due to his lifestyle at that time of year. He excitedly described working in the yard and eating fresh produce from his garden. Like Wally, he gained that weight every year in the winter. Other than his one successful experience with Weight Watchers, no weight loss regimen or strategy had ever worked for him. Even when he would lose weight seasonally, he still had an obesity status. Jack communicated feelings of frustration and bewilderment as he stated,

I went to Weight Watchers, I tried that . . . and the weight came back I tried eating nonfat, non-sugar I tried some of these fads where you get these meal supplements. That didn't work. I tried one where you can buy a whole week or a month's worth of meals in one shot and they send the box to your house. That didn't work. I tried portion control on my own and that didn't work You see all this information out there about diet plans. Eat this, eat that, eat less of this here, eat less of that there, exercise more, do this, do that.

Hannah shared an extensive list of specific diets that she had tried as well but, unlike Jack, she never would try what she viewed as an unhealthy way to lose weight, like fad diets. She reported dieting by reading and learning about body type, different diets, organic eating, food combinations, and other dietary weight loss strategies. Hannah had always been interested in using a healthy approach to weight loss and reported no experience with processed, pre-packaged diet foods or extreme measures such as pills, shots, or starvation. She illustrated some of her methods of weight loss in the statement below.

I have expanded to different colored foods. I am huge label reader and huge health nut. I do not eat junk I moved to organic and all non-processed foods. . . . I do not trust what comes in a package I will not touch a fat-free food One time I did a six week body make-over . . . I ate four meals a day and exercised. There was one program, not a diet. It was based on your body type and your metabolism type. I was interested in eating for my body type at an early age. I purchased books or programs that I saw advertised and said if they did not work I would just send them back. I read a lot.

Stuck had the most expansive list of weight loss methods and she was unique to the study in two ways. She was the only participant who, in response to believing her eating behavior was “*an addiction,*” mentioned joining an Overeaters Anonymous support group for compulsive eaters. Like at least one other participant, she had also joined a TOPS club (Taking Pounds off Sensibly support and educational organization). She was the only participant who mentioned using medication to lose weight. She described her experience with pharmaceutical interventions in the following way.

Some doctor, who later ended up in jail, was dispensing some kind of shot and I'm afraid of needles He also gave us a thyroid tablet and probably what was a very low dosage of Speed. That was the most bizarre thing I ever did. And I didn't tell anybody, which was very dangerous. I dropped so much weight that you could see my bones. I also went to clinic to find out about some kind of pills I tried them . . . but then I was afraid to take those because of my hypertension at that time.

VK and Art eventually both used the weight loss measure of bariatric surgery, with both women losing a large amount of weight as a result of the surgery. Although surgery was the most successful method of weight loss they had tried, they experienced a continuing struggle in maintaining their post-operative weight loss. VK explained that she had bariatric surgery several years before she joined the worksite WLC. She had gained weight and hit a plateau at the time she entered the WLC. She said, “*I have gained almost thirty pounds back and I was trying to get back down to where I was.*”

Stuck described a life time of trying different weight loss measures, including taking advantage of most weight loss programs available at work. Once Stuck started gaining weight in early adulthood, she said,

I couldn't seem to get a handle on it and so I started, you know trendy diets and starvation. . . .You name it.

Similar to Stuck, George talked about taking weight control measures that he called “*an obsession,*” describing a life consumed by self-discipline and a rigid routine of exercise and dieting. George had tried many weight loss programs, disliking those that made people feel guilty, starved, or that lacked personal control. In reviewing the story of his gradual departure from successful but obsessive control of his weight, George said,

My running weight was about one hundred and sixty five [pounds] when I got married and I gained up to about two hundred and six. Then, I put on thirty pounds [when he first got married] and I took that off again. When I reached thirty-five [age], I moved here, I got a factory job and I was standing on concrete floors all day. I stopped the running and did not make the adjustments to my eating and lifestyle Then the weight really started coming on My greatest success was with intense exercise Now I can no longer run because it hurts.

Carl described his lifetime experiences with weight loss as ineffective. He talked about trying multiple diets and methods. Many of his past experiences as an adult to lose weight had been with his wife. For example they followed Weight Watchers together. Even with the support of his wife he explained, “*I find it very hard to stay committed to exercise and to stay committed to watching what I eat.*” In reference to his past weight loss efforts, Carl said that any time he had been successful in losing weight, the weight would come back. He mentioned a time when he first moved to his current area and his family was still living away. When he was alone and busy with the new job and little distractions were there, he lost a good deal of weight. As

soon as his family joined him, however, he gained the weight he lost back when he settled back into family habits.

Comeback mentioned constant meditation and prayer (“*a means of walking with God*”) as the most successful weight loss program she had experienced. Weight loss was the product but not necessarily the focus of the walk. She explained that when she focused just on weight loss alone, weight loss did not occur in the same way.

When I was successful [in losing weight], my goal wasn't to lose weight. So I was trying to get closer to the Lord and I was dealing with some other issues. In dealing with the other issues, it positively affected my weight.

Weight cycling: “like playing with a yo-yo” (Wally). One common thread in all the participants’ stories of past weight loss efforts was that they were not able to keep the weight off once they had lost it. Regardless of when they started weight loss efforts in their lives, what weight loss method they tried, or how long they tried it, the weight always found its way back to each participant. Each story revealed weight loss cycling to that ultimately culminated in each of the participants becoming obese.

Staunch never had to diet until later adulthood. When he began dieting, he tried repeatedly to lose weight and was successful only once for any extended period of time. Wally experienced a lifetime of weight cycling that eventually got the best of him. Toni experienced weight cycling until she tired of it all and decided she wanted to enjoy a life free of dieting and concern about her weight. Grampa kept his weight down by weight cycling, but when he reached older age he could not keep the weight off. Jack’s list of weight loss efforts was extensive but nothing ever seemed to work long term. Like Toni, he was tired of it and wanted people to leave him alone about it. Hannah had an educated scientific approach to dieting,

always trying something new. Hannah described being successful with weight loss in the past but, no matter what program she tried, the weight always managed to creep back on. Stuck just felt “*stuck*” and nothing helped her sustain her weight loss even when she tried extreme measures. George lost weight and kept it off in his twenties by becoming obsessive about weight loss. He eventually turned away from his obsession, then tried to become more obsessive again, and never was able to achieve the weight loss he desired. VK and Art eventually turned to the medical community for help for their weight loss. Unfortunately, even bariatric surgery did not stop weight from creeping back. After repeated attempts, Comeback lost weight as a consequence of working on other personal health issues. Like all of the participants in the study, her excess weight level returned and she was unable to recreate the same situation that had previously led to weight loss.

Even Staunch, who did not attempt to lose weight until he got much older, gained weight back each time he managed to lose. Mostly, he had difficulty losing weight due to unhealthy relationships with food, his spouse’s preference for his obese status, and lack of experience with weight loss strategies. When Staunch’s weight loss struggles began, he had no prior experiences with weight loss to guide him. He felt he was in uncharted territory as he tried various diets and exercise programs in an attempt to manage the problem. When Staunch did lose weight, it came right back every time, over and over again.

Wally’s experiences with successful weight cycling went back further in his lifetime than the other study participants, with his experience with weight cycling starting early in childhood. By the time he entered adolescence, he said that the yo-yoing had become, “*natural.*” He stated,

For me it was, you play sports, you lose weight; in the off-season you gain weight.

Weight loss was like playing with a Yo-Yo. . . . It has always been that way.

Art explained that she decided to seek medical intervention after dropping out of the worksite WLC because she was tired of it all and wanted a better life. She described her struggle with weight cycling as follows:

When I joined the Weight Loss Challenge, I was in a slump because it took five or six years to lose [weight] and a couple of those years I didn't lose anything . . . Yeah, I'd lose it and gain it back. It's like I told the surgeon, I can drop 70 pounds, but I'll gain 100 back . . . I am down 135 pounds from my heaviest lifetime weight right now.

Both VK and Art had tried a number of weight loss programs throughout their lives but never successfully sustained their program-related weight losses. VK experienced success when strictly concentrating on weight loss but eventually gained weight back after she discontinued the strict regimens that she tried. Art illustrated a similar experience earlier in her life when she had dropped over 65 pounds in high school by eating one vegetarian meal a day and walking for hours daily. When she stopped the strict regimen, the weight, “*came back, plus some.*”

Carl stated that he could do any program for a little while, but then was back to not watching again, resulting in a pattern of losing weight and gaining it back. He described his difficulties with weight loss by saying,

My whole life it has just been a matter of staying committed. I'll be good for a couple of weeks to a month and then, I can have this or I don't have to do this.

Comeback alluded to experiences with weight cycling but did not mention specific past weight loss programs other than a cardiac rehabilitation diet program after she had suffered a stroke. The program was individualized and designed to help her learn lifestyle adjustments after experiencing the health problem.

This study revealed that lack of attempt or personal effort to succeed in weight loss was not the reason that participants experienced weight loss failures. All participants showed a pattern of losing and regaining weight, regardless of the variety of methods tried or number of successful weight loss goals reached. All participants struggled with weight loss and also with physical, psychological, and social issues that were either significant in the development of their obesity in the past or the consequences of obesity in the present. This was independent of the time of their obesity onset. In the next section, the participants revealed how they saw their WLC experiences through the lens of past experiences and influences. They revealed motivations to succeed in weight loss and participate fully in the Challenge, but ended up dropping out of the Challenge due to obstacles and barriers. The WLC was, in Wally's words, "*just another way to keep the up and down rolling,*" regarding weight loss strategies they had all tried during the course of their lives.

WLC Post Battle Reflections: "Just another Way to Keep the Up and Down Rolling."

(Wally)

In the following sections the researcher shares the WLC participants lived experience of surrendering to, or dropping out of, another battle against weight. WLC post battle reflections are discussed in the themes that emerged. The themes that emerged were: marching in with high expectations, armed with motivation for predicted victory, WLC drop out as "*raising the white flag*" (George), preparing to surrender, the emotional fall out and drop out as continuing the cycle "even though I quit I am not done" (Comeback).

WLC Post Battle Reflections: Marching in with High Expectations

The Weight Challenge program participants interviewed in this study all affirmed strong expectations of success when joining the program since, as Carl, Hannah, and George indicated,

they were highly motivated. Not one participant mentioned concerns about failure to meet the end goal of a five percent weight loss when they signed up at the beginning of the WLC. Even those individuals who had participated for years and never completed the Challenge, or had never met the five percent weight loss goal, did not share negativity about their ability to be successful in their latest Challenge.

When the Challenge began each year, participants suggested that the influence and excitement of New Year's Eve was still hanging in the air. As Hannah pointed out, participants had set their sights on behavior change by setting personal resolutions and hoping for a year of success. Study participants commented at length about their weight loss expectations at the beginning of the Challenge. Some participants relayed that just the act of signing up, "*felt like success,*" that time of the year. Comeback illustrated this shared expectation by saying that each year she knew she would, "*find herself in the structure [of the weight loss program] and move the pieces of the puzzle around together to find the right combination [for weight loss].*"

George wanted to join the Weight Loss Challenge because, "*it seemed to work for everyone else,*" so why not him. Hannah also expressed encouragement from knowing of others' past successes in the weight loss program. In fact, she stated her most memorable experiences in the WLC were thinking of other people's success. This affirmed for her that the Challenge was not "*rigged.*" Hannah shared positive expectations of having reasonable goals and plenty of time in the Challenge to be successful.

Each participant thought a different aspect of the Challenge would help him or her lose weight and end the Challenge battle victoriously. They all confidently named at least one element of the Challenge that attracted them enough to join. In addition to providing motivation for weight loss, justifications to join the Challenge that participants relayed included

convenience, support, structure, feeling included or accepted, accountability, incentives, improved health, and to “*keep the weight loss ball rolling.*” VK, Toni, Staunch, and Stuck said that both convenience and accountability were major reasons for them joining the Challenge. Toni stated that if it were not for the program being conveniently located at work, she would not have signed up.

It was an opportunity that was there and I was there. You know, same place, same time.

Staunch, Stuck, and VK also said the Weight Loss Challenge was something they did because it was conveniently offered at work and thus, as VK said, it was “*easy to get to.*” While participants liked the ease of participation, Hannah, Grampa, and George also liked the idea of being rewarded monetarily for something they would be doing anyway. Grampa stated he had, “*looked for the reward and wanted to win the \$2,000.*”

Participants also expressed a desire for social support and a structured program that held them accountable for weight loss. Carl said the structure of the program was what helped him lose five percent of his weight one year in the past and he thought it would work again each year he joined after that. He also made it clear that although he liked the structure the program offered, he also liked the flexibility afforded by the program. He said,

[The program] would hold me accountable to a certain extent.....but it wasn't so structured that I could not still exercise the way I wanted to exercise, eat what I wanted to eat.

Some participants liked to join the Weight Loss Challenge as a team member. While Grampa described joining a team for fun and social reasons, George responded to an invitation because he, “*felt complimented to be asked to be part of a team.*” He asserted that the invitation and other people’s confidence in his ability to lose weight served as motivation for weight loss

for him. George also agreed that the very thing which made him unpopular as a child (his weight) was now the reason he was being accepted. He confirmed that acceptance by others was rewarding for him and was a large part of why he joined the Challenge as a team member.

Other reasons for joining were: “*joining with friends as a team for support*” (Art), “*to achieve better health*” (Jack), and “*assistance reminders to not fall off the wagon*” (Stuck).

Regardless of the specific reasons for joining, all participants were hopeful and motivated to lose weight when they signed up at the first weigh-in of the WLC.

WLC Post Battle Reflections: Armed with Motivation for Predicted Victory

Participants identified motives that justified their weight loss efforts when they expressed a desire to lose weight upon joining the WLC. Most participants felt their personal motivators would help them conquer their excess weight and lead the way to victory in completing the Challenge. However, they recognized that their justifications for wanting to lose weight were not always enough of a motivator to precipitate permanent action towards behavior change or stay in a WLC. Three participants did not specifically or directly identify reasons to lose weight, but their motives for weight loss were implied in discussions about their lived experience as an obese individual trying to lose weight. Participants who said they were content with their current weight or body size or had become more comfortable with their weight during the process of aging, also offered reasons why they wanted to lose weight. Explanations that participants shared for losing weight in the context of a WLC were: to get healthier; to look better to self and others; to be seen as smart, in control, capable and responsible; for acceptance and social inclusion; for monetary incentives; to avoid death or major illness; and to get out of the shadow of perceived weight stigma.

To get healthier. Swede, Carl, Jack, and Toni wanted their physical ailments to improve from weight loss. One participant's motive for losing weight was to ease pain and increase mobility. Knee, joint, hip, back and foot pain or lack of mobility in these areas made it difficult for participants to exercise to lose weight. They recognized, however, that losing weight would help lessen the severity of most muscular and skeletal conditions. Swede provided the example of her knees to illustrate this concept. She wanted to lose weight to alleviate the pain in her knees and avoid more surgery, but the pain in her knees kept her from exercising and made it more difficult to lose weight. Swede said that her situation with joint pain, "*creates a conflict and gets in the way of weight loss progress.*" Stuck said that if she lost excess weight, she could breathe easier and move quicker, easier, and with a greater range of motion. Carl had been experiencing severe pain in his back, hips and knees and thought that weight loss would relieve some of his pain and bring back range of motion in these areas like Stuck. Hannah just wanted to lose weight to be "*healthy and strong*" in general. Jack's first response to a question about why he joined the WLC was that he wanted to, "*lose weight to feel better and for better health.*"

To gain perceived physical attractiveness. Hannah, Toni, and Stuck wanted their bodies to look good physically and to be perceived by others in a positive way. Hannah brought a picture to the interview of a young lady who was very fit and muscular. She stated, "*This is what I want to see when I look in the mirror.*" Stuck said if her clothes fit better she felt she would look better. Toni was motivated by pictures of herself that she did not like or putting on clothes and realizing they no longer fit. She wanted to look her best in clothes and perceived that to mean she had to be thinner.

I saw myself in a picture sitting on a horse...you know, I thought....look at the size of my butt.....Seeing that was motivating.

During follow up questioning, Toni described middle age as a transformation time when she was not motivated by her former old reasons to lose weight, but had not yet found her new motivators. That transformation, combined with the anti-depressants she was taking, made her feel like she did not care anymore about her weight. She alluded to being ready to relax, have fun, accept her weight as it was, and retire the weight yo-yoing she continually experienced.

Not “Killing [themselves] with a fork and spoon” (Art). Avoiding negative health outcomes, including death, was the aim of weight loss efforts for several participants. Hannah, Toni, and Stuck wanted to improve their health in general but Swede, Art, Carl, Grampa, and Staunch all said that they wanted to avoid negative health outcomes, or death specifically from obesity-related conditions as a reason they strived for weight loss. For Grampa and Staunch, this was a big focus and the main reason for concerns about their obesity status. Swede was hopeful that losing weight might help her avoid or delay the surgery on her knee that she needed. She had already had surgery on one knee and it was still painful to walk on. Art’s reasons to continue to lose weight after her bariatric surgery were to be able to enjoy life in a way she could not do when she was morbidly obese. She had many health conditions and limited mobility at her pre-surgery weight. Art remembered when she was at her highest weight her clothes were too tight, she could literally do no normal activities without tremendous effort, and “*everything was out of control.*” Art recalled,

I couldn’t even walk to the end of my sidewalk and back without having to sit down. I had to feel better. I had to quit wasting life. . . . I was killing myself with a fork and spoon.”

Art was still obese at the time of this study but the memory of her experiences with health and wellbeing when she was morbidly obese were still fresh in her mind. Carl had been informed by

his physician that he was at risk for diabetes. He was hopeful that weight loss would prevent the progression of pre-diabetes into diabetes. Carl explained,

At my last physical I got some news that wasn't very good about my blood sugar being very high, so that has kind of forced me to reevaluate my motivation when it comes to weight loss and eating right.

Participants recalled memories of friends and loved ones who had experienced illness and death related to obesity-related concerns. For them, the experiences of others served as a motivator for their own weight loss. Staunch, for example, was motivated by memories of his Grandmother's struggle with diabetes that had a huge impact on him. He saw his Grandmother go through severe hardships with a hereditary health condition and those experiences provided a strong motivator for Staunch to lose weight, although he had not yet experienced the negative health consequences of obesity. One memory shared by Staunch was:

My grandmother had diabetes and I saw my grandmother suffer with having body parts removed. She had a toe removed and a foot removed and diabetes scares the hell out of me.

Grampa discussed in detail his fear of death and illness caused by obesity. He affirmed this concern by saying, *"If I don't lose weight, if I don't change my eating habits, my arteries are just going to plug up and then I will die."* During the interview Grampa also reflected on the hardship of losing parents to death, becoming a head of the family, and experiencing a desire to be present for and with his family for a long time to come. He said,

You know, you only have one mother and once you lose her or your father, those are two very important parts of your life that are not around anymore. So, you know, you have to pick up the torch and carry the torch now. You're the mainstay in the family, let's say.

To gain social acceptance and avoid weight stigma. The need to avoid the shadow of perceived weight stigma was a strong weight loss motivator for VK, Art, Jack, and George. All four participants had an earlier onset of obesity than the other participants in the study and revealed painful childhood memories related to their weight. They lacked social acceptance early in their lives due to their weight and indicated they were motivated by a desire to gain childhood social acceptance as adults. Some WLC participants contended that being thin was the sole way to achieve acceptance. George agreed that he was driven by the approval of others. He said he was externally driven and wanted to please others and have positive social relationships, because of his past experiences. In reference to what it would take for him to lose weight in the WLC, he affirmed that if a weight loss team was counting on him, it would motivate him to lose more. George said,

If other people are depending on me I don't want to let them down. So I would do something for somebody else that I wouldn't necessarily do for myself.

Also, George and several other WLC participants relayed that through exercise in public, extreme individual weight loss success, and weight loss and exercise competitions or efforts with teams, they were hopeful that others would see how hard they worked and this would contradict obesity stereotypes against them that they perceived. Others relayed that the only way to escape weight discrimination was to lose weight and become a smaller size person, which they had hoped to do in the WLC.

To gain an incentive. Carl, Grampa, and Hannah expressed other reasons for wanting to lose weight, but they also specifically mentioned the WLC monetary rewards of the achievement such as gift cards or money. Carl explained that he was motivated by the incentives because he was, “a reward-oriented person.” Hannah said simply, “I wanted the damn gift card!” Their

interview data revealed that although monetary incentives were important to these participants, it was not the only reason or most important reason to lose weight. The gift cards or other monetary incentives were not enough to enable them to complete the Challenge. Their reasons for quitting or failing to lose weight in the WLC were much stronger than the power of a gift card.

“Keeping weight from getting out of hand” (Wally). Wally stated that he did not have a strong desire to lose weight at the time of the study because he currently did not have any concerns about his health. He wanted to avoid long term health outcomes and prevent his obesity from getting worse like other participants, but his efforts were focused on maintaining weight, year to year. He affirmed that if he focused on the negative consequences of his weight, those consequences would be a reason for him to lose more weight than he already does every year in various weight loss efforts, including annual participation in the WLC. Wally said,

I'm very competitive and nothing beats me. Right now I'm good, so I don't have to beat anything.

Wally described two events that illustrated his lack of motivation to lose more weight than he did yearly for maintenance. At one time he was told he was pre-diabetic and if he did not lose weight, he was going to be diabetic. Several years went by, he gained more weight, but he did not develop diabetes. That topic never came up again at the doctor's office; therefore he decided that it was not something he needed to worry about. The other example he shared was the experience of being approved for long term life insurance typically not given to people with his BMI [43 BMI]. They made an exception for him because, although Wally was obese, he had no other major health risk. Wally reported in the interview that, *“he was rare and he beat the mold.”* These events confirmed to Wally that he did not need to be concerned about his current

obesity status. He said that he, “*paid close attention,*” to his weight and if he saw his weight go up, he tried to get the weight back down. His interview data revealed that keeping his weight from getting out of hand was his reason to lose until he had bigger reasons to be concerned. Wally said, “*Right now, I am good.*”

All participants had a desire to lose weight and shared explanations about why they needed to lose weight that arose in the past or currently. Even Wally, who said he was not motivated to lose weight, relayed he would like to be thinner and continued his weight loss efforts every year. Motivations for losing weight or expectations of successful weight loss did not keep these participants in the WLC or enable them to successfully lose weight. Reasons for losing weight were overridden by unexpected events or they put aside their weight loss efforts until a later time. Expectations for success and motivations to lose weight were temporarily forgotten for those who lived the experience of quitting the WLC. The reasons, barriers and obstacles that became stronger, opposing forces against their weight loss efforts are revealed in the following sections on the lived experience of raising the white flag in the WLC battle.

WLC Post Battle Reflection: WLC Drop Out as “Raising the White Flag.” (George)

Each participant shared their lifelong weight-loss struggle in response to questions about their WLC drop out experience. This was true for all participants regardless of when obesity became an issue in their lives. Study findings revealed that the overall significance of obesity and weight loss to each individual deeply influenced their experience of participating in the WLC. The experience of participating and dropping out of the WLC was like, “*raising the white flag*” (George) once again in yet another battle to, in Wally’s words, “*keep the up and down [of weight] rolling.*”

Study participants offered diverse reasons for dropping out of the WLC at the mid-point. Their explanations related to life or personal issues or obligations in the areas of work, travel, family, and health that presented obstacles to weight loss. They mentioned the following as factors contributing to dropping out of the WLC: procrastinating on initiating weight loss efforts and running out of time; lacking the effort needed, with weight loss efforts becoming “*an extra duty;*” or “*just an extra bump on my skin I did not want;*” giving up; “*flipping a switch,*” and saying “*the hell with it;*” avoiding facing weight loss failure and “*humiliating myself on the scale;*” passively “*drifting away*” from efforts to lose weight; the context of the Challenge itself such as, “*working with a team did not work for me;*” and not getting, “*results as quickly as I wanted.*” In general, they stopped participating in the Weight Loss Challenge because they believed they faced too many perceived obstacles or the barriers were too sizable to overcome, at least for the particular Challenge associated with this study. All but two participants indicated some degree of guilt, shame, or disappointment about quitting the Challenge. George and Wally moved on after dropping out without apparent regret. The majority of study participants reported that other obligations and stressors had interfered with their Challenge participation and weight loss efforts in general. Obligations discussed most by the participants were primarily associated with work, travel, and family.

Interpersonal conflict-associated stress affected George at home and Grampa at work. Swede and Jack perceived inadequate time to devote to such efforts. Carl, VK, and Wally experienced traveling as a major obstacle to their Challenge participation, while Art, Staunch, and Swede discussed stress-related eating as sabotaging their weight loss efforts and decision to stop participating in the Challenge. Hannah experienced health issues and a personal loss in her

life, which deflected weight loss as a priority for her. All participants expressed the experience of weighing-in as one reason, if not the only reason, for dropping out.

Participants talked about stress, disappointments and other obligations distracting them from continuing to participate in the WLC. About mid-way through the challenge, George believed his motivation, excitement, and ability to concentrate on weight loss had faded because of family stress. Also, he could not meet his own expectations for team participation. Although initially excited about the experience of working as a member of a team in achieving weight loss, a situation that was new for him, he expressed disappointment that he could not follow through. When he talked about his family stress, his voice got quieter and his eyes were downcast for several minutes, indicating this was a difficult topic for him to think about. George said that he was particularly disappointed because in many areas of his life, when he made his mind up to do something, he cleared the obstacles and, *“got it done.”* Retrospectively, George affirmed that no external influences would have changed the course of this WLC outcome for him because the decisions he made and effort required were his alone. He said, *“It was all me, it could only be me.”* George also realized,

I was trying to move along with a group and it did not work the way I thought it would. He said he was not focused on making the health behavior changes necessary for weight loss so he quit.

“Not enough hours in the day” (Swede). Grampa, Swede, and Jack all believed a lack of time prevented their successful participation in the WLC. Grampa joined with confidence that he would be successful but, he admitted, *“I didn’t give it [weight loss] the effort that it needed.”* Grampa described walking by the WLC office multiple times each day so he had no excuse for not stopping in, but it just did not happen after the mid-point. He added,

Maybe I used that [work, pain, stress, and lack of sleep] as an excuse, but when you work 10 to 12 hours a day, 7 days a week, there's not a lot of time for yourself. [As the weeks went by] he just kept putting it off . . . I felt like a failure. It was not a good feeling.

Jack said the Challenge became, “*an extra duty,*” but his decision to stop participating was gradual. He found himself working from 7:30am in the morning until after 5:00pm without a lunch break. At first, he was still reading the Challenge emails and paying attention to his commitments to behavior change, but then gradually he ran out of time. He said he felt good when he exercised but then he, “*realized he did not have time for that.*” He said he remembered feeling that he, “*had too much on his plate and there is only so much time in a day.*”

Swede also perceived lack of time and pressure from obligations prevented her from completing the WLC. Swede was enrolled in college, had four children and several dogs living at home, her office was located distant to the WLC office, and she had limited flexibility in her work day hours. She could not get everything done and fit exercising in her schedule because she was, “*working, working, working.*” She understood she felt she needed all the weigh-ins for accountability to lose weight, but something would always come up that prevented her from weighing-in after the mid-point. She experienced interruptions or perceived inconveniences in her schedule that made it impossible to weigh-in on a regular basis. On scheduled weigh-in days she found that her other responsibilities were, “*pushing on her.*” During stressful times, a small obstacle like rain seemed a bigger barrier than it might have otherwise and soon she found that her participation in the Challenge did not seem worth the effort. This was particularly true, she said, when she was not changing behaviors that would lead to weight loss. Like Jack, Swede asserted that, “*there are just not enough hours in the day.*” She affirmed that after missing several scheduled weigh-ins, she just gave up. She felt badly once she realized she was not

going to complete the Challenge and said that feelings of failure led her to fall back into a counterproductive eating pattern. Swede described the cycle as follows:

I feel like a failure [after deciding to quit], then I eat more, and then [gain] more pounds and I get fatter, and then there is the downward spiral. And you feel like you are in this rut. You're damned if you do and damned if you don't. It [weight loss] can be very stressful.

Because VK saw herself as, “a people pleaser and often put the needs of others before herself,” particularly at work, she was unable to prioritize the changes necessary for her to lose weight. She dropped out of the Challenge when she began several new work projects that demanded her investment of greater time and energy. She agreed that the reward of helping others was stronger than a reward of weight loss at that time.

The data revealed that a change in priorities away from attending to personal needs or desires such as weight loss as described by VK, presented a barrier to weight loss for many participants in the study. She agreed this was also a lifetime habit and she had always wanted to “be acknowledged and [others] see that I am a friendly person.” VK’s description of her post-operative bariatric surgery weight loss experience exemplified this issue.

When I first started losing weight after surgery, I focused on me. After a few years [when she started gaining back weight and joined the Weight Loss Challenge], I am slipping back into putting work as my priority and not me as the priority. I have always wanted to make sure I do everything I am supposed to do for work. Get it done, and if it inconveniences me, then so be it. I really need to make sure I get out of that mode. I tend to be the one that wants to take care of people and make sure they are comfortable. I

want to make sure they are taken care of [referring to a life time habit of people pleasing].

Grampa, like VK, viewed the desire to help others as an obstacle to weight loss and participation in the Challenge. Grampa said,

Here is my problem. I always take care of the customer before I take care of myself. I don't think I am going to fix that. I am customer focused. I am like that even at home, in fact the reason I am doing this study is to help others.

Unexpected or unusual life events. Participants who discussed changing schedules or unexpected travel found it problematic to continue in the Challenge and stay committed to weight loss. Wally, VK, and Carl mentioned unexpected work-related travel as a substantial barrier to weight loss in general and their commitment to the Weight Loss Challenge in particular. Wally had dropped out of a previous Challenge, for example, because he traveled extensively and was away from the office most of the time. Carl also attributed work-related travel to his inability to lose weight and stay committed to behavior change. Carl said, “*When I get [out of his home town] I feel like, okay, the gloves are off and I can do anything and eat anything I want.*”

All three participants said that a change in their behavior patterns when traveling involved getting less sleep, making poorer eating choices, not exercising, and working more hours. They found it easier to “*make excuses,*” or rationalize their unhealthy behaviors and were often too tired from overwork and lack of sleep to commit to any healthy routine. The participants acknowledged difficulty in finding a time or place to exercise in hotels, committing to and choosing healthy foods and eating smaller portions while dining in restaurants, and also

agreed that they were unable to prioritize weight loss behaviors when traveling. Carl, for instance, described the food choice challenges of international travel:

After I signed up for the [weight loss] program, I found myself in another country. When in a country {the one to which he traveled} you just can't go to the store and buy the same things you're used to. You're very limited in what foods you can eat. The only place I could eat was the restaurant attached to the hotel. It was all fried foods. They cook different. I can go into a restaurant here and order fish and get it a particular way, but they do it different down there.

The obstacles and associated stressors that increased the difficulty of Challenge participation also included unexpected life events or health problems. Carl's youngest son was going to college and he was extremely busy assisting with his son's college preparatory process. Staunch's wife had a hip replacement and he spent more time and energy taking care of her than he had expected. Swede reported having more knee pain than she had expected while exercising. She said, *"I tried to do it anyway [exercise] but I pay for it later with more knee pain."*

Hannah's response to the death of a beloved pet that made her *"very, very sad,"* and emerging metabolic health problems presented serious barriers to weight loss. She affirmed she was depressed during that year's WLC. When she ate during that time, she chose the *"wrong"* foods. She got to the mid-point weigh-in and still had the same goals to meet in half the time. She said,

All of a sudden four weeks have gone by and then it was almost time to weigh-in again Maybe I needed to pay more attention to the timing. . . . There was no way I would get to the five percent.

After dropping out of the Challenge, she remembered feeling a lack of concern about *"everything,"* including the weight gain she had experienced.

“Falling off the wagon” (Stuck). Work, travel, family, and health problems made it challenging or impossible for some participants to remain engaged in their journey to weight loss. For some participants like Staunch, Stuck, George, Swede, and Art, additional stress originating from work, travel, or family led to what they called, “*stress eating*” when they turned to food during times of stress. George relayed his experience with stress eating by saying,

I think a lot of my stress eating is from stressful situations but sometimes it is from being overly tired and trying to find that thing to keep me going. Sometimes it is from boredom

Staunch also said that he was unable to attain the weight loss he expected because he overate when he was stressed. He described days of indulging heavily on snacks and “*goodies*” that he stored in a drawer at work. Staunch identified himself as an overeater and a stress eater by saying,

As the day progressively gets more stressful, I go into my drawer and dig out a bunch of things to eat. I never intend to overeat but I do find comfort in food when I am stressed.

Art also struggled with stress eating and said that she ate to deal with all emotions, including depression, but when she experienced stress at work she ate to, “*kill the stress.*” Stuck indicated that the decision to drop out of the WLC was a stressor that triggered one of her relapses back into the habit of overeating with which she constantly struggled. She said,

When I was not going to make the five percent goal I went crazy and started eating again . . . that [over eating] is what happens . . . I do not always jump back on the wagon right away but stay firmly planted on the road to nowhere.

Her cycles of quitting a weight loss program and gaining weight, made her feel “*terrible.*” Her hope that the Challenge support and reminders would prevent her from, “*falling off the wagon,*”

remained unrealized. Swede described her experience with stress eating differently by describing it as like, “*being in a tornado.*” She further relayed,

Stress is not good for anything. I felt failure [when quitting the Challenge] and then I eat more and then more pounds and I get fatter and the downward spiral happens.

Lost or changed focus. Commitment to weight loss presented an on-going challenge to participants. Carl’s annual participation in the Challenge found him consistently missing the final weight loss goal. Although he affirmed setting a goal to lose weight every year, he rarely ever hit the goal he had planned. Every year, however, he hoped that the accountability and structure of the program would help him. He began each Challenge by being, in his words, “*highly motivated.*” He thought it would be helpful for him to have a means of being accountable, but said, “*then that enthusiasm quickly waned and left.*” Like most participants in this study, Carl said he felt his biggest problem with weight loss was that he was, “*unable to stay committed.*” Carl further explained that, “*It has always been I can do it for a couple of months or whatever, but then I’m back on the ‘not watching’ [monitoring himself].*”

In addition to commitment, weight loss required continual focused attention. Carl and George contended that weight loss could only be achieved by “*constantly watching*” or “*always paying very close attention.*” Carl shared, as other participants did, that anything taking away from the usual daily routine necessary for weight loss presented a barrier to staying on track for weight loss, and also for completing the WLC.

Hannah said it was perplexing to her that someone would join a Challenge and not finish it, but she too identified commitment to weight loss as an issue for her. She compared her ability to begin the process of losing weight to being an alcoholic seeking treatment. She supported her comparison by saying,

It is easier to be comfortable [than to make changes] but, like alcoholics, when I hit rock bottom, I want to make the effort. I can give something up for a short time but few people want to go to bed hungry every night It is just easier to be comfortable.

Hannah explained that she had been taught to try and never quit. She was frustrated with herself about dropping out and about not meeting her five percent goal because she, “*hates to quit and she hates to fail.*”

Stuck also did not like to quit, but got impatient with her weight loss progress. She quit the program but did not quit her weight loss efforts all together. She affirmed that she always knew what to do to lose weight, but the weight loss was never fast enough; she saw herself as “*too impatient.*” She illustrated her impatience by sharing with the researcher her incomplete walking program log. She explained that the log represented the experience of dropping out. She started full speed ahead in the walking program but mid-point she stopped recording the number of steps because she noticed she was not meeting her daily step goals. Ultimately she concluded the program was not working and she quit the program. Since she told herself the weight loss program was not working for her, she was going to lose weight on her own instead, and she discontinued the WLC weigh-ins.

Stuck and Comeback both perceived that quitting the Challenge did not mean stopping weight loss efforts. In fact, Stuck continued to weigh-in with a group of supportive co-workers. She admitted, however, that quitting the WLC was the first step of, “*her fall off the wagon.*” She continued to weigh-in and monitor her weight loss, but she also went back to overeating and did not lose weight. Stuck hung her head in the interview and, with a lowered tone of voice said, “*I was lying to myself.*”

Comeback said there was always something in her that said she would finish strong and the, “*condition of inability to lose weight,*” was not permanent, even though it felt permanent at that moment. Comeback described not quitting her health efforts even though she dropped out of the Challenge, and commented on some positive changes she made:

I still had the desire to track things, I was still recording my miles walked, I was still talking to my health coach. I just have to know that even right at this time things are still happening [towards health] and that’s hard to do. I think of the tennis shoes and about when I went to get fitted, I mean, I never paid over \$100 for NO kind of shoes! But I joined the. . . . Girls on the Run, I did my first 5K run and started doing a dance class. I’m not heavier but I’m not losing any weight either; I still have that in mind so the weight loss challenge is still, like a positive imprint.

Back to old habits. Toni, Wally, Stuck and Jack reported impatience with their progress, or overconfidence in their weight loss progress and did not want to deal with the program anymore, so they returned to old habits. A plateau of weight loss progress was revealed by participants as a trigger to slide back into comfortable habits. Weight loss progress, like fitting comfortably into a pair of slacks once again, or getting a compliment about lost weight was relayed as a trigger to what participants described as overconfidence. The feeling of overconfidence, instead of encouraging a continuation of healthy habits, lead participants back to more familiar behaviors. They often described their, “*old habits,*” as a place of comfort. Stuck said once she could fit more comfortably in her pair of slacks due to some weight loss, she found it easier to return to old habits. Jack had lost some weight, had some success, but then decided he had done enough and could return back to his old ways. Jack stated the challenge was not that

much trouble but, “*it was just an extra bump on the skin that I did not want anymore.*” He illustrated his experience with dropping out of the Challenge by saying,

We all say that we want to change, but nobody likes change. We go down the road as happy as a lark and all of a sudden we say, ‘let’s make a little change here.’ We stretch ourselves and then we want to go back to our comfort zone. That’s pretty much it. I tried it and it was taking more time and more effort than I really wanted to and didn’t get the results that I wanted as quickly as I wanted.

For Wally the weight loss challenge was “*just another way to keep the weight loss ball rolling,*” but hitting a plateau was frustrating for him. Wally always started his weight loss efforts right after the holidays. By the time the weight loss challenge started, he had already lost ten to twelve pounds. He felt it did not motivate him to continue when he knew he had lost weight already but that was not being counted for in the challenge goals. Wally said, “*I want the credit for that ten or twelve pounds!*” His plateau, uncounted weight loss from before the challenge start and travel commitments were all reasons to quit. He committed to the obligations of travel and work prior to actually deciding he was done trying to lose weight.

Like Wally, Toni had already lost weight prior to the WLC. She recognized her overall weight loss, but the weight she had lost previously was not recognized in the WLC. Toni’s weight had plateaued, which was frustrating for her. She found it neither rewarding nor motivational to be in the Challenge and gradually slipped back into old comfortable and enjoyable habits until she finally quit the challenge. Toni had made a concerted effort to continue to lose weight as she had done in the Weight Watchers program. Previously she received the support she needed in Weight Watchers but, since quitting that program, lacked not

only the support, but also the more frequent weekly weigh-in schedule for accountability. Toni described her dropping out experience in one sentence by saying,

I tried really hard for a short amount of time, and then I kind of burnt out, kind of like a firecracker.

“The hell with it all” (George). While some participants’ return to old habits was relayed as a gradual process prior to the conscious decision to quit, participants like George decided to quit and did not look back. For example when George quit the weight loss challenge, he recalled, “*clicking off,*” or he said he had, “*flipped a switch.*” George further explained that, “*Once I had set my mind that I was no longer participating in the challenge, dropping out really didn’t impact me.*” Certain participants dwelled on quitting, or shared negative emotions about dropping out, but George described a simple decision that involved little emotion. He shared,

When I think that I am not doing as well as I think I should be. That is when I just kind of say, ‘the hell with it all.’ I had chosen a path and this Weight Loss Challenge was not it, so it did not relate to me anymore. That is part of my personality. I am driven and when I have that internal drive, I am going to get where I need to go. When I see that the drive is not there in a particular application, then the switch goes off and I take care of something else.

Needing something different. Art was the only participant who described dropping out of the WLC as a turning point toward a greater effort to meet long term weight loss goals. She turned her negative experience in the WLC around by using the experience as the final deciding factor in getting bariatric surgery. In her words, she considered the WLC as a, “*last-ditch effort.*” At that time she recalled thinking, “*If this does not work then nothing will.*” She remembered feeling continually frustrated with her weight loss efforts. When Art dropped out of

the Challenge, she had come to realize the necessity of medical intervention and began seeking information about medical opinions for weight loss.

The data revealed that during the dropping out experience, some participants realized they were not on course for weight loss success and quit, while others returned to old habits symptomatic of ending their participation. Weight loss movement was either not fast enough for participants to make their weight loss challenge goals or they were making some changes but it was not reflected on the scale. Participants became frustrated with plateaus of weight loss, or got distracted and derailed by other obligations and commitments. Others gained a false sense of confidence after experiencing weight loss which led them to quitting. The perceived possibility of a negative or disappointing experience of weighing-in on the scale was a factor in dropping out for all participants. This WLC experience became another attempt at weight loss adding to the long list of other prior strategies tried.

WLC Post Battle Reflections: Weighing-In, a Daunting Scale Experience

The most common causes for dropping out of the Challenge were associated with, in the words of one participant, “*getting on the scale.*” All participants mentioned the weigh-in experience as daunting, even those who did not name the weighing-in process as the reason they quit the Challenge.

VK disclosed that the weighing-in process triggered painful childhood feelings for her and, when those feelings resurfaced for her, she said to herself, “*That’s it, I’m done.*” She remembered experiencing a flood of emotions like fear, lack of control, shame, hopelessness, disappointment, and worries about being judged. She said, “*weighing-in made me nervous because I knew I had not done well.*” One of the memories VK shared from her dropping out experience illustrated how feelings about weighing-in can contribute to giving up the effort:

You are moving along and then you get the email. You say, ‘crap,’ and then you have that dread. . . . This all goes back to my childhood. . . . I know I have not done that well and I know I am going to disappoint someone. . . . If I think that I am not doing as well as I think I should be, I just kind of say, ‘the hell with it all.’ When I think I should be losing five pounds and I have only lost a pound, what was all that work for? I wouldn’t say I ever decided to drop out, it was just like, I am just not going to weigh-in.

Perceived scale errors were also problematic and could elevate negative emotions that occurred in participants when thinking about weighing-in on the scale or contribute to dropping out. After a week-long illness, for example, VK’s scale at home indicated that she was seven pounds lighter but the WLC scale indicated that she had gained a pound. She said, *“It just kind of took the wind right out of me.”* It then became hard for her to *“pony up”* and participate in another weigh-in.

For Hannah, weighing-in did not precipitate dropping out of a particular Challenge, but did trigger in her feelings of frustration and disappointment. Other than the Challenge associated with this study when she dropped out at the mid-point, Hannah had participated in all prior final weigh-ins. She was typically so close to her weight loss goal at the conclusion of a Challenge that she was ever hopeful she would make it. She described the frustration that arose after a past weigh-in experience when she did not achieve her goal:

I remember one year I stepped on the scale and I took a picture of my scale at home and it was totally different that the weight [on the WLC scale]. I brought it in for the Weight Loss Challenge Coordinator to see and argued with her about it.

For participants, the reading on the scale at Challenge-related weigh-ins presented evidence that they perceived as personal failure. Art’s interview data revealed that the weigh-in

experience affirmed her feelings about never being good enough. She said her mother never thought anything she did was good enough, and she struggled with being good enough for others all her life. Not making a weight goal on the scale was, in her words, “*just another example of being worthless.*”

Hannah described her Challenge drop out experience and her thoughts about weighing-in again at the mid-point by saying,

Last year I did drop out and I did not want to see what was on the scale. I already knew I was not going to make it. If the scale would tell me I was 10 pounds lighter, I would have felt better about myself. The test is when you step on the scale. Why waste the time to come over [to the office to be weighed in] when I could just continue to get my work done? Why would I want to get the visual of failure? Why should I humiliate myself? Why put yourself through that shame?

Staunch and Wally talked about the weigh-in scale as a tool that measured their failure to succeed. Wally described his feelings about not wanting to weigh-in because he was not motivated to have his “*failure to lose on record.*” Staunch described a similar feeling when he talked about his experience with weigh-ins. He described himself as a, “*perfectionist,*” and what he saw on the scale was not perfect; therefore not worthy of being recorded. When Staunch found that he was not able to make the changes that he wanted in order to lose weight, he dropped out of the Challenge rather than face not being perfect in his weight loss efforts. The idea of getting on the scale would physically remind him that he had failed. Staunch described his weigh-in experiences by saying,

I have this personality thing where if I am not successful, I do not want to do it. I have to be successful. It was easier to drop out than it was to go in there and face the scale. I

already realized ON MY OWN [accented the words with his voice as reflected by volume and tone]. I was not doing well and I did not really want to go and SEE myself not being successful.

Jack and George also recalled negative experiences associated with weighing-in. Both did not look forward to it and indicated it was one motive for their decision to drop out of the WLC. Jack had a long history of his having his weight loss efforts not be reflected by the reading on the scale. He said his high expectations for weight loss always left him feeling, “*let down,*” at the weigh-ins. George did not want to experience that disappointment and described his avoidance of the weighing-in as a process of prioritizing how he spent his emotional energy.

Some participants had to compartmentalize their feelings in order to deal with the possible negative feedback they might experience as a consequence of weighing-in on the scale, as George conveyed in his drop out experience remembrance. Before George made up his mind to, “*check out,*” of the Challenge, thinking about weighing-in presented a barrier for him. When he realized he was not making weight loss progress, he was, in his words, “*not motivated to come in and see failure on the scale.*” It was easier for him to, “*drift away,*” completely than come in and confess, “*Hello, here I am, and I failed!*”

George described how he had learned to effectively prioritize his emotions and did not categorize the experience of weighing-in as a priority. He did not allow himself to feel excess negative emotion and said he did not have the time or energy for negative feelings about weighing-in or dropping out of a WLC. He explained further by saying,

I know a lot about guilt. It is something that I dealt with years ago. I think that is why I flip the switch on a lot of things now. There are certain family matters that can really get

to me, but as far as something like this program, some things you limit, some things you lose and you just have to pick up and move on.

Participants used a variety of strategies to optimize the readings they received on the scale. Art recalled feeling nervous about every weigh-in for every worksite WLC in which she had ever participated. To relieve anxiety she recalled always trying to achieve an ideal scenario that would reveal the greatest weight loss possible. For example, before weighing-in, she would go to the bathroom, take off any extra clothing, and would wear clothing that was lightweight. Sometimes she undertook these strategies because she knew she, *“had not done as well with eating or exercising,”* as she had intended. She described always feeling like she, *“let herself down.”* Toni remembered a particular weigh-in experience when she made the Weight Loss Program Coordinator accompany her to the fitness center bathroom, where she stripped down to her underwear to weigh-in for the same reasons.

Like other participants, Carl expressed frustration and discouragement when he talked about weighing-in at a point where he was close to attaining his goal of a five percent weight loss. He said it was pointless to weigh-in when he had not met the five percent goal. He suggested that some credit be given for the number of pounds people were able to lose. Although people may not be able to achieve the five percent weight loss goal, *“it is still 4% . . . [less than] what I was carrying around before.”* Often participants revealed actions and behaviors that were symptomatic of their retreat from participation in the Challenge regardless of the reasons. This phenomenon is relayed in the section below.

WLC Post Battle Reflections: Preparing to Surrender

Participants began the process of quitting mentally by actions and behaviors prior to actually deciding to quit the challenge they relayed. Some examples revealed by participants

were: becoming angry at or distancing themselves from health coaches when they recognized their own lack of behavior change, discontinuing communication with weight loss challenge team members, deleting emails from the weight loss program coordinator, committing to other conflicting priorities, and giving in to old eating habits or other unhealthy behaviors.

Stuck recalled feeling anger and annoyance toward her health coach when she failed to make her own behavior changes. She said,

When I knew I had really been bad, I did not want talk to that woman because she would ask about my roadblocks and I wanted to say YOU!" Or maybe [I wanted to say] I'm just mentally unstable and I'm always going to be fat, I DON'T KNOW. If I knew [what my roadblocks were], don't you think I would just take the weight off?

Like Stuck, Jack recalled the role of his health coach during the WLC. While he appreciated the calls from the coach, such contact always seemed to be at inconvenient times. Jack associated quitting the WLC with not talking to his health coach anymore. The phone would ring and it was a "*conscious decision not to pick up the phone.*" He stated that he would listen to the message but would not call her back. Eventually he would stop listening to the messages from the health coach and she stopped calling. Emotional fall out was experienced by participants during their preparations to surrender, during drop out from the Challenge or associated with weight loss efforts and obesity. These emotions and self-blame are discussed, as revealed by the participants, in the following section.

WLC Post Battle Reflections: Emotional Fall Out

All participants, with the exception of Wally, expressed self-blame for lack of weight loss and negative feelings related to experiences surrounding weight loss efforts or obesity. Many emotions were associated with self-perceptions about their own obesity and accompanied by

weight loss inability. Participants shared many negative emotions as part of the experience during the Challenge drop out or in past experiences related to their weight. When asked if he had any emotional reactions to dropping out, Wally said,

Emotions you say? NO, but there is always a little disappointment when I don't get there [weight loss].

The many emotions relayed by participants were: guilt, shame, depression, emptiness, denial, judgment, anger, fear, anxiety, worthlessness, unmotivated, addiction, feeling out of control, obsession, self-hatred, disappointment, dread, feelings of failure, not measuring up, being let down, stress and avoidance. A list of expressed emotions is listed in table II below.

Table II: Emotions Related to the Challenge, Weight Loss, or Obesity

Emotion	Participant
Depressed , Sad or empty	Stuck , Comeback, Art, Hannah, Toni
Lack of motivation	Grampa, Toni, Stuck, VK, Wally, Carl, Comeback
Self-hatred or negative self-image	Toni, Art, Hannah, Stuck, VK, Comeback
Fear	Grampa, Staunch, Jack
Shame	Comeback , VK
Embarrassment	Grampa , Comeback
Feelings of failure	Comeback, Staunch, Hannah, George, Swede, VK
Disappointment	Wally, Toni, Hannah. Carl
Discomfort	Jack, Hannah, Staunch, Toni, Wally, Comeback
Frustration	Hannah, Toni, Art, Grampa, Wally, Staunch,
Stress/Anxiety/Nervous	Comeback, VK , Jack
Indifference, Denial, Avoidance	George, Carl, Staunch, Art, Comeback, Grampa,
Dread	Stuck , Swede, VK, Wally, Art
Obsession or Lack/Over control	Jack, George, Wally
Guilt	Hannah, Toni, Art, Grampa, Wally, Staunch,
Tired, lack of energy	Comeback, VK
Anger	Comeback, Swede, VK, Art, George, Hannah, Carl
	George, Hannah, VK, Comeback
	George, VK, Comeback, Hannah, Grampa, Carl
	Jack, Stuck, Grampa. Comeback

One major emotion influencing Challenge participants was the stress caused by work commitments. For example, Grandpa was struggling with issues at work and recalled being involved in business projects that were time consuming and complex. He found himself overcommitted and stressed with work obligations about mid-way through the challenge. Frustration and dread were also common emotions expressed by study participants related to weight loss efforts and getting on the scale to view their weight. Often negative emotions led to or were accompanied by self-blame for weight loss failures.

Self-blame was also revealed as a part of the Challenge drop out experience. Most participants shared self-blaming statements about their inability to lose weight or continue in the Challenge. Participants relayed that if they had wanted weight loss bad enough they would have lost the weight required to finish the Challenge successfully. Hanna said, *“I must not have wanted it bad enough because if I had really wanted it, I would succeed.”* They also blamed themselves for personal attributes that contributed to their lack of success in weight loss. They talked about such attributes as personal distractibility and an inability to stay committed to weight loss efforts as problematic. Stuck felt like she had allowed herself to *“fall of the wagon”* again and Comeback blamed herself for failure by saying,

I did not even do just what was required. I feel like it was my fault and I gave in too many times [to addictive patterns of behavior and old habits].

Some participants compared themselves to other employees who were successful at weight loss during the Weight Loss Challenge. Hanna’s most memorable moment from each

year of participation, for example, was remembering other people's successes. She used these memories as a comparison with her own failures and to drive her own motivation for weight loss. Hearing about other participants' past weight loss success had also compelled Jack to initially want to participate in the Challenge. He compared his inability to succeed in weight loss by saying,

It's not the program, it is me. It would probably work if I would stick with it, but as an individual, no, I could not.

Participants' also perceived their failure to lose weight as a reflection of their own self-worth. VK conveyed such interpretations about inability to lose weight in the statement below.

This [weighing-in and not making the weight loss goal] is just another example of being worthless.

The WLC participants shared many emotions, obstacles, barriers and self-blame related to dropping out or not succeeding in their weight loss efforts, but they never abandoned their goals for long term weight loss. In the final section below participants relay that although they quit the challenge, their quest for weight loss continued.

WLC Dropout as Continuing the Cycle: "Even Though I Quit, I'm not Done." (Comeback)

For participants in the study, dropping out of the WLC had little effect on their long term weight-related goals. Their experience of dropping out was what George described as, "*a period of raising the white flag.*" Participants described losing weight in a worksite-based WLC program as like facing a battlefield, with the weigh-in scale serving as one of the biggest land mines. Not only did participants view losing weight during the Challenge as similar to being on a battlefield, it was a familiar battlefield to which they had traveled countless times in their lives. They had won, surrendered, and lost their weight loss battles during the course of their lives, but

said that would never give up on winning their war on weight, despite what they described as unbeatable odds.

The Unrelenting War on Weight: A Life Time Struggle Study Summary and Findings

For study participants, the current WLC experience was overshadowed and deeply affected by past struggles with obesity, their interpersonal relationships, particularly at home and work, and significant biopsychosocial issues that arose as a consequence of their obesity or as a contributor to obesity. For the participants, various emotions, obligations, unexpected events, relationship issues, and self-perceptions surfaced during the WLC drop out process, most of which were related to past or present weight-related issues in their lives. Dropping out of the Challenge served as a catalyst for re-experiencing such issues. At the mid-point of the Challenge, the benefit or prize of losing weight, receiving a monetary award, achieving better health in terms of preventing disease, easing the pain of a health issue, achieving others approval, or being seen as smarter or more worthwhile, was deemed by participants as no longer worth the effort or unattainable.....at least for the moment.

During the dropping out experience, participants realized they were not on-course for weight loss success, so they stopped their involvement. Some believed their loss of weight was not fast enough to achieve the WLC goals they were aiming for, or they had simply run out of time. They expressed challenges facing the scale that were described by all as incredibly difficult. Rather than face that particular challenge as well as other challenges, some turned around and walked away. Despite dropping out of the Challenge, participants still retained their same weight loss goals, including Toni who had indicated she really did not care about her weight anymore and just wanted to be comfortable and enjoy life.

Some participants described dropping out as checking out mentally and emotionally from the Challenge. Jack and George tuned out the subject of weight loss completely, but not their long term goals. Jack, who said he did not think about weight loss at all once he stopped his involvement in the Challenge, affirmed that he was confused and frustrated about what his weight loss goals were and how to achieve them. Even though he was frustrated about weight loss, he said he still had the same goals. Jack commented, *“I’m happy with the body I have, even though I would like to be thinner.”* Participants in this study indicated agreement with VK’s statement that weight loss for each person was always a *“To Do”* item on the never ending *“To Do”* list of life.

Participants like Stuck kept moving in the general direction toward their goals, despite having dropped out of the Challenge. These participants said they would continue or have continued to take positive health steps in their lives. Stuck said that she, *“fell off the program but the goal was still to lose weight.”* She knew she would return at some point to taking steps in the right direction toward weight loss, even if she was not doing everything required of her to lose weight at the particular time of the Challenge.

Participants like Carl and Hannah said they joined the Challenge out of the habit each year, but their motivation did not always hold out until the end, or their efforts did not culminate in weight loss no matter how hard they tried. They described starting the Challenge at the beginning of a new year as an exciting time and one that was full of hope. Starting the Challenge was exemplified by participants as the fun part, but staying committed was difficult for so many reasons. As Carl said, *“I still have the goals. I always have goals, it’s just a matter of getting started and staying committed.”* Comeback reflected what other participants relayed about dropping out of the WLC and still retaining their weight loss goals by saying,

Even though I quit, I'm not done. Even though I don't lose, I have not lost. I still have that in mind. It is a direction. I am still going to be walking, maybe crawling, . . . but the shoes are still on. I can't even walk fast but at least I have the shoes on. . . . My steps are just very small at the moment. It's like I have the shoes on and I'm still headed toward health for life, fitness, and a high quality of life.

The rewards for losing weight were, for the participants in this study, not as strong as the rewards for staying the same or resisting changing priorities. In response to the, “*life just happens,*” incidents during participation in the worksite Challenge, participants found themselves challenged to continue their efforts. All participants, however, reported that they will eventually achieve the weight loss they aspired to and might do so during the next year's Weight Loss Challenge!

The essence of this study was that past weight loss experiences of obese participants inform each present weight loss effort, with a repeating pattern of weight loss battles in a life-time war against weight. Major findings included:

- Life time weight loss efforts were like a war with constant weight loss battles, regardless of the life period in which struggles with obesity, body image, self-esteem, and weight loss began.
- The on-site of obesity was influential.
- “Feeling fat” was more important than “being fat” toward the development of negative psychosocial long term consequences.
- Childhood obesity experiences were more important than the obesity.
- Early weight-related abuse equaled more psychosocial issues in adulthood.

- Childhood obesity minus negative weight-related experiences equaled more positive adulthood experiences.
- Obesity was experienced as a biological, social and psychological disease.
- Wellness factors in childhood might protect against some of the negative outcomes of obesity in adulthood.
- Relationships were influential as an obesity contributor and consequence.
- Weight discrimination from family was internalized and influenced the development of poor body image and negative self-esteem.
- Negative relationships and weight-related abuse by peers in childhood were more common among those participants with an early onset of obesity.
- Bully and negative treatment by peers in childhood resulted in painful memories, psychological consequences, and difficult social adjustments in adulthood.
- Participants gravitated toward supportive or sympathetic relationships as adults.
- Teamwork and social networks were desired by participants in weight loss efforts.
- Weight related discrimination was perceived and there was a fear of judgment or being inaccurately defined by their weight and size.
- Obese participants internalized obesity bias, or in other words, attributed negative traits associated with obesity to their self.
- Those who relayed negative body image and preference to smaller body sizes in others, or were able to control their own weight by weight loss efforts at some point in their lives, were more likely to have weight-related bias against other obese individuals.

- Participants' relayed disappointment with the medical communities' obesity treatment, felt discrimination from providers, and had discrimination toward obese health care providers.
- Unhealthy eating habits were common and contributed to obesity and weight loss failures.
- Stress and depression were the major causes of emotional eating.
- Unhealthy eating habits were associated with body image and other mental health issues.
- Negative body image and low self-esteem was common and contributed to weight loss failure.
- All participants struggled with further weight gain at middle age, and this age-related weight gain was difficult for those participants with early body dissatisfaction.
- Post bariatric weight loss was experienced as just another weight loss effort resulting in eventual weight gain.
- All participants had a history of weight loss efforts which resulted in a life time of yo-yoing weight cycling.
- All participants had over optimistic expectations of weight loss which led to weight loss failures.
- All participants were highly motivated but their motivators were associated with attrition in other studies.
- Reasons for dropping out of the WLC included: conflicting obligations, work, lack of time, the return to unhealthy eating habits, lack of support, lack of motivation, over confidence, emotions, and fear of getting on the scale to weigh-in.
- Dropping out of a WLC was an emotional experience.

- Weighing-in on a scale was a harsh reality check which caused emotional discomfort and one major reason participants dropped out was to avoid the scale.
- Dropping out of the WLC did not change participants' goals for weight loss, it just postponed them temporarily.

Chapter V: Discussion, Conclusions, and Implications

The purpose of this qualitative phenomenological study was to gain insight into the experiences of obese employees who discontinued voluntary participation in a workplace Weight Loss Challenge (WLC) program at mid-point. The researcher addressed the following research question: *“What is the lived experience of obese employees who discontinued participation in a workplace weight loss challenge program in which they voluntarily enrolled?”*

Informed by van Manen (2007), the researcher conducted this phenomenological study by using in-depth qualitative interviews as a primary data collection strategy and an image or object reflection activity as a secondary strategy. The in-depth, audio-recorded, face-to-face interviews involved the researcher in posing open-ended questions that focused on eliciting participants’ experiences and perceptions about dropping out of a work-site based Weight Loss Challenge program. As a means of triangulating the data in this study, each participant brought to the interview self-selected photographs, magazine images and objects that represented how they experienced participation in the WLC and how they viewed the meaning of weight loss and obesity in their lives.

Engaging in the qualitative data analysis process enabled the researcher to address the research question by identifying categories, patterns and themes that emerged from the data. In this chapter, the researcher will discuss the findings from this study in the context of the current research literature. She will also present conclusions associated with the study and address the implications of findings for health education and the need for further research.

During the course of the WLC study the researcher sought an understanding of the WLC dropout experience and the participants elected to share lifelong concerns about weight and weight loss, which ultimately unveiled the essence of the study. The magnitude and importance

of the participants' expressed life experiences related to dropping out of the program was relayed to the researcher after analyzing the data. Research findings illustrated the complexity of obesity as a public health issue and the multi-dimensional experience of participation in a Weight Loss Challenge at work. Findings also revealed the existence of unintentional, implicit, obesity related presumptions in the WLC programming, which was influenced by culturally supported obesity discrimination at the time of the WLC study.

The researcher carefully and painstakingly scrutinized her own biases, assumptions, beliefs, values, and thoughts throughout the research process by writing emails to her thesis advisor about the data and study findings that emerged and changed. As her thesis advisor promised, findings did emerge from the data as if by magic, in their own time and way. When the findings revealed themselves to the researcher, and as she supported these findings by the existing literature, the researcher did not find what she anticipated. Instead of discovering tools or ways to improve the WLC program, she was presented with the unveiling of a lived truth previously unknown to her; as the data from this research seeped in to her being leading to changes within herself. It was for the researcher as van Manen described, "A phenomenology of practice aims to open up possibilities for creating formative relations between being and acting, between who we are and how we act, between thoughtfulness and tact" (van Manen, 2007, pg. 11).

WLC data revealed to the researcher that obesity was a public health concern that, based on findings in the research literature, remained misunderstood. When the researcher opened the metaphoric door to the lived experience of obese employees' worksite WLC drop out experience, she expected to find a nice tidy pile of information there. Instead, she faced an abyss of clutter in

chaotic piles and was overwhelmed. As she engaged in the process of phenomenological research in this study, she experienced what van Manen described:

The rewards phenomenology offers are in the moments of seeing-meaning as the phenomenologist directs the gaze toward the regions where meaning originates, it wells up, percolates through the porous membranes of past sedimentations-and then infuses us, permeates us, infects us, touches us, stirs us, and exercises a formative affect. (van Manen, 2007, pg. 11)

Heidegger explained the post data analysis conundrum felt by the researcher in his statement, “phenomenology never makes things easier, but only more difficult” (van Manen, 2007, pg. 13).

The Unrelenting War on Weight: A Lifetime Struggle

The overarching theme of this WLC study was revealed by participants as an unrelenting war on weight which they had experienced as a long term struggle. The comparison of life-time weight loss efforts compared to “war” emerged as each participant shared their experiences, and perceptions, and memories related to obesity. In addition, WLC participants described a pattern of weight-related experiences and reoccurring weight loss efforts as recurring being like constant weight loss battles occurring within their overall lifetime war on weight. The participants used battle words to describe their experiences with weight loss and obesity such as: life-time struggle, struggles, battle, war, raising the white flag, battles, never-ending battle, taking off the gloves, fighting, giving up the fight, and surrendering.

The researcher will discuss findings from this study in context of the themes that emerged from the study and the current literature regarding obesity, weight loss and worksite WLC programs. The themes included in the overarching theme of The Unrelenting War on Weight: A

Lifetime Struggle were: Waging War: The Backdrop of Battling Weight; Gearing up for Battle: Obesity Contributors and Consequences; and Battling Weight in Repeating Patterns: “*Weight loss has always truly been a battle.*” (Hannah). Within the WLC drop out experience the participants offered, Post Battle Reflections, in which their process of dropping out was exemplified by the following themes: Marching in with High Motivations; Armed with Motivation for Predicted Victory, Preparing to Surrender, “Raising the White Flag” (George); Emotional Fall Out and Dropout as Continuing the Cycle: “*Even though I quit I’m not done*” (Comeback)

Waging War: The Backdrop of Battling Weight

The overall meaning of obesity, life experience with obesity, and personal struggles with weight surfaced repeatedly to ultimately reveal the theme that the researcher called the waging of war on weight. Even though the researcher asked questions specific to their WLC drop out experience, participants often shared lifetime experiences related to weight. The participants created an enlightening telling of their war on weight with stories, pieced together by thirteen different life experiences that had components in common.

The data revealed the study finding that an individual’s war on weight was personal, complex and unique; each person’s war began and manifested differently during his or her weight-related experiences. The researcher identified similarities across each WLC participant’s experience with waging a war on weight, including the significance of childhood experiences related to weight and body image, biopsychosocial elements that impacted weight cycling and obesity, and multiple adverse outcomes associated with exposure to weight discrimination. Each participant had a life-time pattern of weight loss efforts characterized by weight cycling that ultimately resulting in further weight gain or other detrimental side effects, regardless of the life

period during which they began their struggle with obesity, and related issues with body image, self-esteem, and weight loss.

Wellness factor protection. WLC participants, who did not reveal abuse by peers, family members, and others regarding their weight, shared fewer or less intense biopsychosocial challenges related to their obesity status as adults. These same WLC participants often mentioned traits, conditions or situations that allowed them to circumvent predicted negative outcomes and life stressors often associated with obesity. These traits were referred to as protective factors or wellness factors in the literature that has addressed resiliency related to obesity (Richardson, 2002; Russell-Mayhew, McVey, Bardick, & Ireland, 2012). In studies on resilience, three categories of protective factors which contributed to positive outcomes were: individual internal factors, family protective factors and community protective factors (Place, Reynold, Cousins, & O'Neill, 2002; Russell-Mayhew, McVey, Bardick, & Ireland, 2012).

Positive, accepting family and social experiences were commonly expressed protective factors by WLC participants. The few participants who mentioned these wellness factors as protectors spoke of good health, active lifestyles, and a cultural acceptance of their size that was not experienced by other WLC participants. Family and social support potentially afforded them some protection against the damaging development of negative self-opinions; and for at least one participant, normalized their obese condition. Further, when obese participants were not teased and ridiculed by peers and family, they shared a realization that they needed to lose weight when they reached adolescence or adulthood but did not report the emotional pain and suffering that was recounted by other participants in their stories of obesity and body image.

Obesity: a physical disease, social and psychological disease. The WLC participants' narratives illustrated that their view of personal obesity had not only biological components, but also psychological and social components. At the time of this study, obesity was considered a physical or medical condition with little consideration given to the psychosocial aspects of the disease in implementing obesity treatment or weight loss programs (Cornette, 2011; De Niet & Naiman, 2011; Vos & Barlow, 2011; Wardell & Cooke, 2005). An abundance of literature back to the 1990s had supported the importance of psychosocial considerations in obesity, and according to Cornette (2011), many researchers and clinicians have argued that obesity should be considered a psychological disorder and not just a physical disease or behavioral issue.

“Feeling fat” was important to the development of negative outcomes. For some WLC participants, the early development of body image distortion and self-esteem issues related to weight or body size was detrimental to them and overshadowed their lives, even if they were not obese as children. Their negative self-views assisted in and accompanied the eventual development of obesity and the weight loss-related challenges that participants relayed in the study.

The research literature that examined weight status and concern about weight and shape also reported that concerns about weight and body shape or perceived overweight status was more predictive of negative psychosocial outcomes found in obese individuals than actual weight status (Perrin, Boone-Heinonen, Field, Coyne-Beasley, & Gordon-Larsen, 2010). Research that questioned the happiness of overweight children found that “feeling fat” may be more important to long term mental health outcomes than “being fat” (Erickson, Robinson, Haydel, & Killen, 2000). Additionally, a German study that involved 17,000 children and youth found that obese

children who saw themselves as being “just right” perceived a higher quality of life than children of normal weight that saw themselves as being “too fat” (Kurth & Ellert, 2008).

The experience of obesity in childhood was more important than the obesity. When childhood obesity was considered in studies independently from abuse and other painful experiences, the long-term biopsychosocial consequences of experiencing obesity in childhood did not directly relate to any negative emotional outcomes later in life. For example, one study revealed that weight stigma and painful treatment by others at an early age, rather than body weight, was related to negative self-esteem outcomes (Puhl & King, 2013). Another study of 4,746 adolescents found an increased risk of depression due to weight-based victimization in childhood, when in many cases weight status itself did not directly relate to negative emotional outcomes at all (Eisenberg, Neumark-Sztainer, & Story, 2003; Quinlan, Hoy, & Costanzo, 2009).

Research also documented that a childhood characterized by neglect, criticism, disorganization, sexual, physical or emotional abuse or maternal depression increased the likelihood of obesity in childhood or later in life (Carr & Friedman, 2014). Research further indicated that obese youth who were victimized by peers were two to three times more likely to engage in suicidal thoughts and behaviors than overweight children who were not abused because of their weight. Studies that have controlled for BMI and body weight have suggested that stigmatizing experiences caused the majority of adverse psychological outcomes, not just having excess weight (Eisenberg, Neumark-Sztainer, & Story, 2003). The aforementioned research suggested that negative experiences in childhood could contribute to causing obesity instead of obesity being the cause of negative consequences independently. These studies also supported the findings in the present WLC study that negative self-esteem and distorted body

image could be as damaging, if not more damaging, than obesity status experienced independent of negative childhood experiences.

The WLC participants who had experienced weight-related physical and mental abuse, obesity onset in childhood or adolescence, and a lack of wellness factors that might protect them against adversity, relayed negativity in their lifetime obesity and weight loss experiences. In this study, about half of the participants reported obesity onset during childhood or adolescence. Some of these individuals were plagued with painful personal experiences, including bullying and being victimized by abusive family relationships.

For WLC study participants who experienced early onset of obesity, their stories suggested that the emotional distress that affected them later in life was not caused by obesity alone. In other words, obesity did not single-handedly magnify the weight-related emotional hardships that affected them later in life related to weight loss. Similarly, in quantitative research studies that compared childhood or adolescent onset of obesity to adult onset obesity, it was not BMI status in childhood that influenced the adult experience of obesity but rather the biopsychosocial elements experienced during the obese child's life.

Researchers, who conducted a study that addressed the impact of age of obesity onset, hypothesized that an early onset of obesity actually protected the adult obese person from psychological distress, but the study was unable to show this in their findings. Rather, the researchers concluded that early onset of obesity prior to age twenty was neither a protective factor nor a worsening factor for major psychiatric co-morbidity (Petroni, Villanova, Avagnina, Fusco, & Fatati, 2007). This same study found that the earlier a child became obese, the more likely they were to develop weight cycling and the burden of obesity-related disease that negatively influenced the mental health of obese adults (Petroni, et al., 2007). Findings from

Petroni, et al. (2007) and others (Tanofsky-Kraff, Cohen, Yanovski, et al., 2006) supported this WLC study finding that participants spoke about the development of psychosocial challenges in their lives in terms of weight-related abuse, problematic interpersonal relationships, and negative social experiences, such as discrimination.

One factor, identified in existing studies that focused on the cause of adult obesity, was the obesity status of an individual's parents. Several WLC participants who experienced childhood onset obesity indicated that they considered their obesity or body size to be genetic or hereditary. This consideration was relayed as important to them in their obesity experience. Their perspectives were supported by research study findings of a genetic link to obesity. Members of the scientific community have agreed that weight is genetically influenced, with heritability of obesity estimates from adoption, family and twin studies that have indicated an average of more than 50% of the cause of obesity could attributed to heredity (Llewellyn, Trzaskowski, van Jaarsveld, Plomin, & Wardle, 2014).

Other obesity risk factors identified in the research literature included social influences, parents' psychological-psychiatric issues, feeding patterns by parents, birth weight, timing or rate of maturation, physical activity, socio-economic status, dietary factors, and other behavioral or psychological factors (Grube, Bergmann, Keitel, Herfurth-Majstorovic, Wendt, Klitzing, & Klein, 2013; Parsons, Power, Logan, & Summerbell, 1999). A WLC study finding supported by the research was that some of the participants attempting weight loss felt frustration in their attempts to get to "normal weight" because they believed that not everyone was physically predisposed to be thin. WLC participants reported many behaviors they implemented in their lives, such as exercise and healthy eating that did not result in weight loss but did result in better health overall. Several WLC participants alluded to their belief that genetic tendencies possibly

prevented them from attaining and maintaining a normal weight status during their lives. Only one participant in the WLC study referred specifically to his family obesity status, but all referred to social, behavioral and psychological factors as contributors to and consequences of obesity in their adult lives. Most WLC participants reported frustration with healthy lifestyle habits they already had or implemented that did not result in weight loss.

Gearing Up for Battle: Obesity Contributors and Consequences

The WLC study participants' collective life experiences and perspectives reflected in the themes presented in the following section fueled their on-going weight loss battle, contributing to their relentless and continuous struggle with weight loss and obesity during the course of their lives. In this study, the concept of battle served as a metaphor for the participants' weight loss efforts. A never-ending series of personal battles with weight or periods of weight-related tensions and hostilities similar to a cold war emerged from the participants' data. Their war with weight served as a backdrop for what each participant experienced when dropping out of the WLC.

The WLC study participants revealed that interpersonal relationships and other biopsychosocial issues were contributing factors to their experience of weight cycling, obesity or inability to lose weight. Relationships and other biopsychosocial issues either magnified their existing obesity-related perceptions or created new meanings related to obesity and how they experienced weight loss strategies. Sub-themes emerged from the data related to: relationships, social discrimination and obesity stigma, body image, self-esteem, middle age-related weight issues, obesity related addictions, and relationships with food. In the next section the influence of relationships and other biopsychosocial issues on obesity and weight loss experiences are discussed and compared to current literature.

Influential interpersonal relationships. The WLC study findings revealed the importance of interpersonal relationships for participants and their psychological well-being. Participants revealed that the relationships of importance to them in understanding their obesity and WLC experience were family, work, and peer relationships; one participant mentioned the influence of her spiritual relationship with who she understood as God. These relationships both negatively and positively influenced their weight concerns and were discussed with frequency during the interviews.

Intimate relationships with spouses were important. Intimate relationships with significant others were described as important factors in the WLC participants' obesity experience. Spouses in the current WLC study had a strong influence on participants' self-esteem, weight-related issues, weight loss efforts, and obesity status. When participants experienced supportive relationships and loving spouses, they were more likely to be "ok" with their obesity status. However, even if they relayed a positive spousal relationship, the influence did not result in sustained weight loss for participants.

Wives of male participants, in particular, served as a powerful influence on participants because of their role in cooking meals, grocery shopping, family routines around eating, exercise routines and opinions about male WLC participants' physique and attractiveness. Unhealthy food preparations, family traditions taking place around food, and mutually enjoyed food habits were mentioned specifically. The male participants reported that their wives influenced their self-esteem.

A two year study on the effects of spouse involvement in weight loss also showed there was more successful weight loss by treatment participants when their spouses were positively

and actively involved in the weight loss efforts (Murphy, Williamson, & Buxton, 1982). A four year follow-up study, however, showed that the involvement of spouses in weight loss efforts of their significant other attenuated over time (Murphy, 1985).

Some WLC men said that their wives and children caused them excess stress that often led to them making unhealthy choices that were detrimental to their weight loss efforts. The men appreciated their wives attempts to help them lose weight, but in some situations were hurt by or resentful toward their wives for these same efforts. Other studies on the quality of marital relationships and weight loss results suggested that negative relationships in a marriage had a negative effect on health and could result in weight gain, or difficulty losing weight (Marley & Marley, 2001)

The women who participated in the WLC study did not express dissatisfaction with their current spouses, but did share negatively influential relationships with boyfriends and past husbands. The women WLC participants, all of whom were married to men, either did not mention their husbands at all or described them as supportive and loving. In one study on social support in weight loss, family support was reported as the most helpful support for weight loss by 40% of participants (Marcoux, Trenkner, & Rosenstock, 1990).

Both male and female WLC participants conveyed that if an influential person(s), such as a spouse, expressed positive or negative feelings about weight, those expressions could change weight loss outcomes or influence weight loss actions. One participant's wife, for example, influenced his weight gain after he experienced successful weight loss. This participant reported that his wife expressed a dislike for the appearance of his body after he had lost weight.

Research on obesity and spouse relationships indicated that when an obese person lost weight, it placed an imbalance on the complex dynamics of the relationship. The spouse who was not losing weight might be threatened by or uncomfortable with the other spouse's new appearance and sabotage weight loss or weight loss maintenance efforts (Rickarby, 1981).

Gravitation toward supportive voluntary relationships. According to research on interpersonal relationships and obesity, when people had experienced discrimination and bias due to weight and obesity, they would often gravitate toward partners who were either obese themselves or had struggled with weight loss. Individuals tended to choose spouses and friends that were equal to themselves in physical attractiveness, ethnicity, social class, and age (McPherson, Smith-Lovin, & Cook, 2001). Researchers observed that stigmatized obese individuals purposely selected relationships that were referred to in the literature as "sympathetic others." Sympathetic others were people who shared similar experiences of discrimination, shared discredited attributes, or had developed empathy and support for the obesity plight (Carr & Friedman, 2014).

WLC women participants only mentioned one abusive ex-spouse and one past abusive boyfriend. All other WLC participants said that they had supportive spouses who either struggled with obesity and weight loss themselves or were supportive of and sympathetic to the participant's weight loss efforts.

Other researchers showed that life relationships that were voluntary in nature, such as a spouse or friends, did not differ significantly for obese individuals from normal weight person's relationships. All individuals, obese or normal weight, developed voluntary relationships to meet their emotional and social needs. Family members, spouses, co-workers and friends who

shared the same lifestyle or environment served as either protective factors or increased the risk of further obesity for individuals struggling with weight (Carr & Friedman, 2014). In contrast, such research findings were not the same for the involuntary family relationships of obese individuals (Carr & Friedman, 2014).

Negative involuntary relationships linked with unhealthy outcomes. Involuntary relationships with family members and forced or involuntary situations with peers, such as early school experiences with bullying, negatively influenced individuals who were obese (Carr & Friedman, 2014). Negative involuntary relationships were reported by WLC participants. Several shared relationships they had experienced at an early age that they considered hurtful. Other research on body weight and the quality of interpersonal relationships showed evidence that negative early age interpersonal relationships could reduce the obese individual's ability to develop strong social skills and influenced their choices about personal relationships as adults (Carr & Friedman, 2014). Although most WLC participants described nurturing intimate relationships, and most had a few carefully selected and supportive friends; many had strained social relationships and negative personal perspectives about what other people thought of them.

Home front battles. For some WLC participants the waging of a war on weight began in their childhood homes. Weight-related bias and hurtful comments about their bodies started at home when many of the participants were children. They linked messages from home, especially parental messages, to a lack of self-esteem, unhealthy relationships with food, negative body image, and, in some cases, obesity. Mothers were a particularly strong but negative influence on some of the female WLC participants. Maternal criticism about their appearance and worth, as well as emotional abuse and neglect, left psychological wounds that continued into adulthood. Negative child-parent relationships were relayed as extremely

influential and overshadowed any mention of positive relationships participants might have had with the other parent.

The existence of interpersonal weight-related bias and weight-related victimization from some of the WLC study participants' parents and siblings was supported by other research. For example, a study of 2,449 overweight adult women reported that 72% of these women experienced name calling and inappropriate body comments from their own family members (Puhl & King, 2013). Immediate family was rated as the most frequent source of weight stigma by participants in the aforementioned study. Studies have also revealed an association between early age obesity and negative child-parent relationships as well as adolescent behavior problems (Carr & Friedman, 2014).

The majority of WLC participants revealed at least one negative child-parent relationship. Findings from this study were supported by a study on women and interpersonal sources of weight stigma. In that study (Puhl & King, 2013), 53% of the obese participants said that among family members, it was their mothers that were most stigmatizing toward them regarding their weight.

WLC participants who had adult onset obesity did not share negative childhood family relationships as being significant to their obesity and weight loss challenges. A study that involved 3,000 adults, ages 25 to 74 years, found that among persons who were of "normal" weight at age 21, current BMI was not associated with negative relationships in childhood (Carr & Friedman, 2005).

WLC participants with an earlier onset of obesity and/or higher BMI status in either childhood or adolescence relayed more strained family relationships. According to Carr and Friedman (2005) severely obese individuals were most likely to report significantly higher levels of strained family relationships and lower levels of support from their family members. The WLC participant who shared the most discontent with his spouse and child relationships had experienced early onset childhood obesity, a morbidly obese BMI status at the time of enrolling in this study, and a significant level of long-term obesity-related abuse and discrimination by both family members and peers.

Spiritual relationships and obesity. One WLC participant talked about how a relationship with God that involved meditation and prayer was important to her in her continuing weight loss quest. This participant explained that she focused on issues other than her weight with God and experienced weight loss in a prior WLC as a result. Her inability to reproduce that same experience in the WLC led to her dropping out of the program. Another participant mentioned that his relationship with God was influential in his ability to recover from his addiction to tobacco and alcohol, but he was not able to use this same spiritual connection to assist him with his weight loss efforts.

Research was limited on the relationship between spirituality or religion and weight loss success, although several studies presented findings that supported the WLC participants' experience with successful weight loss and religious meditation or prayer. Researchers theorized that communication with a divine power increased individuals' perceived control in their lives since it could offer a means by which a person could seek help in situations that seemed out of their control (Sherkat & Ellison, 1999). Overall researchers related a positive religious experience to higher body satisfaction in both men and women (Ellison & Levin, 1998).

Teamwork and social networks desired in weight loss efforts. Most WLC participants found teamwork and social support to be helpful or influential during their weight loss efforts, especially since the support groups and individuals they mentioned had similar health goals and attributes. Three participants in the WLC study, however, adamantly reported work-related discrimination. These same participants and others also conveyed work relationships that offered them support in their weight loss efforts and participation in wellness programming. These relationships were influential in positive ways toward other health behavior changes as well.

A 2012 research study that focused on social influences affecting weight loss outcomes also showed that social ties had been found to positively influence weight loss interventions, healthy eating, weight control behaviors, and levels of physical activity (Leahey, Kumar, Weinberg, & Wing, 2012). The study researchers suggested that teams and social contact characteristics influenced weight change specifically in worksite weight loss programs, and being on a team was directly related to a higher percentage of weight loss for participating members. Social influence seemed greater for positive weight loss outcomes if all team members shared similar health goals and personal attributes. Gender and age of group support members was not found to be influence weight loss in a support network (Leahey, et.al, 2012). Research thus supported the WLC study finding that teamwork in weight loss programs could be helpful if the team members had similar weight loss or health related goals and/or physical attributes.

Some WLC participants expressed a strong desire to be accepted by peers at a gym or were too intimidated by peers to work out at a gym, particularly at a work-site gym. Several participants in this study were bullied and treated abusively during childhood related to their weight and shared evidence that those experiences informed their behaviors and thoughts as

adults. The participants relayed that certain situations such as going to the gym often triggered perceptions of weight-related stigma, which interfered with their desire for social ties and group support related to working out.

In the current WLC study, participants described some work relationships that impacted their health negatively by triggering anxiety, stress and anger. They also indicated a non-supportive work culture as a potential barrier to their worksite wellness program participation and a perceived source of obesity-related discrimination. The possibility of discrimination and stigma as a negative influence affecting WLC participants is discussed further in the subsection below.

Weight-related discrimination: a part of obesity experience. Even though evidence signified that body weight was a result of complex biological, economic, environmental and behavioral interactions (Fairburn & Brownell, 2002; National Institutes of Health, 2010), the more common belief in American society at the time of the WLC study was that obese individuals' actions and behaviors caused their obesity. Obese individuals have been consequently discriminated against because of these biased beliefs about weight (Puhl & Brownell, 2001).

Discrimination and prejudice exist against many groups, but obesity has been referred to as the last "acceptable" target of stigmatism in our society and in other global societies (Carr & Friedman, 2005). Puhl, Andreyeva, and Brownell (2008) noted that weight-related stigma was equal to rates of racial discrimination and that women were discriminated against more for excess weight than for race in studies on weight discrimination practices. Obesity discrimination, at the time of the WLC study, was socially acceptable and in many cases it was

unrecognized by individuals that had weight-related bias toward others or by obese individuals, due to its common practice. Acceptance of discrimination left individuals vulnerable to bias in every aspect of their lives including their workplace, health care settings, educational settings, in the media, and even among their own friends and family (Puhl & King, 2013).

WLC participants reported being judged negatively because of excess weight, which affected their physical and mental health as adults and, for some individuals, as children. The research reported a relationship between weight-related mistreatment and psychosocial maladjustments and weight loss difficulties. Such maladjustment and difficulties potentially led overweight individuals to participate in a life-time of repeated weight loss failures and, as a result, resulted in health issues (Ashmore, Friedman, Reichmann, & Musante, 2008; Friedman, et al., 2005; Myers & Rosen, 1999).

WLC participants who had a history of discrimination and weight-related abuse during childhood or adolescence also reported such discrimination at the time of the study. Weight-related bias and discrimination, either directly stated or alluded to by WLC participants could be linked to the WLC participants' issues with self-esteem, body image distortion, and mental health challenges. Such discrimination could have led to disordered eating in the attempt to "meet the gold standard" for acceptable body size. WLC participants that alluded to a severe and repeating weight stigma, either from within themselves or other people, also indicated experiencing more weight-related psychological problems. The WLC study participants also relayed that problems such as depression, anxiety, and low self-esteem tended to worsen unhealthy behaviors like emotional eating and perceived social inequality.

Several studies reported findings similar to those reported in the WLC study, which showed that people who perceived weight-related judgments by others were likely to adopt those external negative views. Perceived negative views about themselves from others, in turn, contributed to psychological distress, body image distortion, or unhealthy relationships with food (Ashmore, Friedman, Reichmann, & Musante, 2008; Carels, et al., 2009; Durso & Latner, 2008; Friedman, et al., 2005).

WLC participants desired less acknowledgment or reference to their weight loss once they had lost weight if they perceived judgment by others based on their personal appearance. Comments made by others about their weight only served as a reminder to participants that people still saw them as their physical selves and not who they really were holistically. Participants who had lifelong body image issues were motivated by comments made by others about their weight loss. What other people thought and said about their outward appearance was one major driving factor for their weight loss efforts. WLC participants, who were treated poorly in the past because of their weight, alluded to moving with caution when dealing with people and their perceptions. How other people viewed them was still an important factor in this participant's own self-judgment.

Even those WLC participants who had experienced extreme weight loss carried feelings of being judged with them and still felt they had an obese identity, even though they also viewed themselves as much thinner after the weight was lost. A 1990 study on the weight-related psychosocial challenges of young adult females found that the "phantom fat" of a previously overweight person continued to affect their self-image and they never truly experienced the same self-confidence, positive self-image and social ease of persons who were never overweight (Cash, Counts, & Huffine, 1990). Carr and Friedman (2006) referred to work by Cash and

colleagues (1990) in suggesting that being overweight as a child affected future social relationships negatively even if the person was no longer overweight in adulthood. Adults who had experienced but recovered from childhood obesity continued to face unaddressed self-esteem issues, social unease, and lack of self-confidence (Carr & Friedman, 2005).

Similar to findings by Carr and Friedman (2005), the early discrimination experienced by WLC study participants, may have affected their social interactions and need for peer inclusion and acceptance as an obese adult. WLC participants who experienced life time weight discrimination were often motivated to lose weight by being included or accepted by groups of individuals who were also trying to lose weight or get fit. Some participants relayed that they joined with other people in extreme weight loss and intense exercise programs to disprove the obesity stigma they faced. Also, these positive social relationships were extremely motivating for WLC participants, particularly if they lacked this support during their past life experiences, or in other relationships that were involuntary. Anger and resentment toward others, or difficulties with social relationships in general, was another response relayed by WLC participants to the lack of past social support or weight-related discrimination. As mentioned earlier in reviews of the literature on relationships and obesity, negative early age interpersonal relationships could reduce obese individuals' ability to develop strong social skills and influence their choices about personal relationships as adults, and when positive voluntary relationships are formed, they are often carefully chosen to nurture and support the obese participant (Carr & Friedman, 2014).

Weight-related workplace bias. One place that WLC participants described past and present discrimination, or fears that judgments of their work performance would be influenced by their obesity, was in the workplace. In particular, all participants who had an early childhood experience of bullying and negative peer relationships reported work-place discrimination related

to body weight. Participants who felt this weight-related discrimination described the work culture as negative for overweight and obese employees. One WLC participant expressed her belief that thin people received more raises and promotions than overweight people, further saying she only got jobs and promotions when she achieved significant weight loss. Being treated as if she was invisible was one way she interpreted bias from co-workers.

Puhl and Heur (2009) discussed multiple self-report studies aimed at measuring the frequency of weight stigmatization which found that most obese men and women perceived bias at work against them. Examples of weight discrimination these self-report study participants relayed were similar to the examples given by the WLC participants who perceived discrimination at the work place such as pejorative comments, derogatory humor, and differential treatment (Puhl & Heur, 2009). The WLC participants with the highest BMI's also relayed more work place discrimination than those with lower BMIs in the WLC study.

Research findings from other studies supported the existence of weight discrimination in the workplace as well (Roehling, Pilcher, Oswald, & Bruce, 2008; Tunceli & Williams, 2006). Puhl and King (2012) asserted that obese employees with the same qualifications as thinner ones were more often faced with negative hiring practices, promotion denials, lower salaries, wrongful termination, and inaccurate weight-related judgments about their abilities or productivity.

The wage penalty for obese individuals has been well documented across all genders and races, except in African Americans (Baum & Ford, 2004; Han, Norton, Powell, & Powell, 2011). Research showed that obese men earned 3% less than healthy weight men and obese women earned 6% less than healthy weight women (Puhl & King, 2012). Further, for women, every one

unit of BMI increase was associated with a 1.83% drop in hourly pay (Han, Norman, & Powell, 2011). Recent research also found that hiring personnel frequently underestimated the qualifications of obese individuals and often hiring managers reported more willingness to hire less qualified but thinner job candidates than a more qualified obese candidate (Puhl & King, 2012). All groups of overweight Americans compared to non-overweight individuals reported higher weight discrimination against them, but severely obese individuals were 100 times more likely to say they had experienced employment discrimination in a survey study (Roehling, Roehling, & Pichler, 2007). The literature thus supported the concerns expressed by the WLC study participants about weight-related work performance bias against obese employees.

Weight-related bias and the workplace wellness program. WLC participants suggested that bias existed against them as obese individuals, not only in their workplace, but also in their participation in the wellness program at their workplace. Such bias included the process of weighing-in on the scale as part of the WLC program from which they dropped out. The participants did not specifically call it discrimination but described perceiving that others negatively judged them for their inability to be successful at weight loss. Most participants in the study did not directly reveal to the researcher that they were consciously aware of the many statements that they made to her in which they acknowledged having experienced bias or discrimination against them during their weight loss challenge or wellness program participation.

Weight stigma and poor weight loss outcomes. In the research literature, weight stigmatism in general has been associated with higher caloric intake, greater levels of weight loss program attrition, and less weight loss in overweight adults who participated in weight loss programs (Carels, et al., 2009). The researchers who conducted a study of 54 obesity adults who were recruited for weight loss treatment, sought to determine if weight bias was reduced or

encouraged by obesity treatment and weight loss. The study findings indicated that all participants evidenced significant internalized weight bias, and their weight bias was linked to higher levels of depression, negative body image, and binge eating (Carels, Wott, Young, Gumble, Koball, & Oehlhof, 2010). Even though Carels and colleagues (2010) observed a reduction in internalized weight bias during weight loss treatment, the weight bias still remained strong after treatment. The researchers therefore concluded that internalized weight bias was associated with higher levels of psychological maladjustment. They also concluded that weight loss program participants who had internalized weight bias were at great risk for an inability to achieve optimal health and well-being (Carels, et al., 2010). These findings may offer some explanation for the WLC study observation that most of the participants talked about their disordered eating habits, depression, anxiety, negative body image, distorted body image, lack of self-esteem, and lack of faith in their ability to lose weight long-term.

Weight stigma: influence on physical fitness and exercise habits. An abundance of research on obesity discrimination showed that obese individuals who reported weight discrimination also reported less physical activity than other obese individuals, less motivation for exercise and avoidance of exercise facilities like gyms, after controlling for body distortion and BMI (Haines, Neumark-Sztainer, Eisenberg, & Hannan, 2006; Puhl & Heur, 2009; Storch, Milsom, DeBraganza, 2007; Vartanian & Shaprow, 2008). Another recent study of adolescent bullying showed that the most common reason their peers were bullied was due to weight and 85% of the time it was during physical activities like gym class (Puhl & Heuer, 2009).

Of the WLC participants that mentioned working out, most alluded to intimidation in exercising situations and facilities or the desire for group support while exercising. They also suggested that settings such as workout facilities could trigger perceived weight-related

discrimination. Although not clearly stated by all WLC participants who relayed challenges related to exercise, the aforementioned research related to exercise and obesity supported a possible reason for the discomfort while exercising or expressed distaste for working out in a gym setting for WLC participants, could be obesity discrimination.

One WLC participant who was bullied as a child had a different response to workout settings. He spoke of the satisfaction he gained from getting admiration for his workout efforts. He also talked fondly and frequently during his interview about relationships he formed from exercising and running, and how important these relationships were to him. Also, he described the gym he where he worked out as like a home away from home for him. Additional research is needed to determine how weight stigma impacted exercise behaviors for obese weight loss program participants, particularly when the exercise facility they had access to was at their workplace.

Weight-related discrimination by the medical community. Two WLC participants reported being dissatisfied with weight-related treatment by the medical community and alluded to discrimination because of their body weight. They also reported frustration directed toward their health care providers for the lack of individualized care that they received and for the overemphasis on BMI verses other biometric health measures. Both of these participants mentioned that their physician was always bringing up the issue of excess weight. One participant described the methods the physician suggested for weight loss as being inadequate and unhelpful.

Other research literature revealed that overweight or obese individuals commonly perceived obesity discrimination when they received medical care and noted mismanagement of

obesity by the medical community. For example, in one self-report study of 2,449 overweight and obese women, 69% of the women specifically reported being stigmatized about their weight from a doctor, and 52% reported that discrimination happened multiple times. Participants in the study reported disrespectful and dismissing treatment by health care providers, as well as specific examples of unhelpful comments made by health providers regarding excess weight (Thomas, 2000).

As was true for the current WLC study participants, the lived experience of perceived discrimination by physicians may interfere with successful communication about healthy behavior change (Mold, 2011). Physicians reported that obese individuals were often noncompliant but recent research contradicted this belief by showing that most obese patients reported high levels of motivation for weight loss at their doctor visits and also were motivated when attempting weight loss (Befort, 2006; Huizinga, 2010). Another survey study involving 620 primary care physicians, found that over half of doctors described obese patients using traits such as awkward, unattractive, ugly, and noncompliant (Foster, 2003). Another one third of doctors in this study categorized their obese patients as weak-willed, sloppy, and lazy (Foster, 2003). Further, physicians who had patients with a higher body mass index (BMI) reported that treating obesity was “more annoying” than other types of medical care and a waste of their time. They also reported less respect for and desire to help their obese patients with medical care and weight loss efforts (Hebi, 2001; Huizinga, Cooper, Bleich, Clark, & Beach, 2009). These negative beliefs were even true for health care providers that specialized in obesity treatment (Sabin, Marini, & Nosek, 2012). The research supported the existence of weight-related discrimination from physicians treating obesity or seeing obese patients in their practice or medical facility. This evidence also supported the WLC study participants’ feelings of

disappointment about their health care and of perceived discrimination by medical and obesity treatment providers.

In contrast with the experience of participants who perceived stigma and negative messages about their weight by health care providers, one WLC participant indicated that his physician never mentioned his weight during any visit, even though he was pre-diabetic and had some other weight-associated physical health problems. The lack of acknowledgement and absence of discussion about weight led him to believe his weight was not a medical concern. This WLC participant also relayed that he never raised his own concern about his weight with his doctor.

The research literature suggested that physician advice could be a strong motivator for weight loss. However, due to bias against obese patients and a lack of understanding about how to deal with obesity management in their physician role, physicians may never address weight as a health risk (Forman-Hoffman, Little, & Wahls, 2006; Loureiro & Nayga, 2006). In one study, half of the obese study participants said their physician did not discuss or prescribe any weight management methods, and two thirds of participants reported that their physicians did not discuss the topic of weight management at all (Wadden, 2002).

Obese individuals had a desire to receive more support from their doctors, but most did not broach the subject during their physician visits (Loureiro & Nayga, 2006). In addition to having experienced stigma, discrimination, or lack of communication about weight or obesity on the part of physicians, participants also experienced bias and discrimination from other health-related personnel. Several WLC study participants relayed similar feelings of discrimination and

misunderstanding about their difficulties with weight from their therapist, health coach, weight loss programs, support groups, or other types of medical treatment facilities and professionals.

Obesity discrimination and internalized weight bias. The WLC study revealed that some obese individuals can have obesity discrimination toward other obese individuals, even though they struggled with their weight and weight loss themselves. Many of the WLC participants either commented about or alluded to bias against other obese individuals regarding obesity and weight loss. The two participants that discussed their own prejudice against obesity in others directly shared a twenty to thirty year history of negative body image and lack of self-esteem related to weight and body distortion. Both WLC participants who discussed prejudice toward other obese individuals had been able to control their weight at some point in their lives and expressed negativity toward the lack of control that obese individuals had over their weight control related habits. These two participants described their inability to lose weight and stay in the WLC as a lack of will power, an addiction they relapsed from, or an inability to control some behavior related to weight loss.

Studies on obesity discrimination by obese individuals reported that obese or overweight people who believed weight was controllable, or showed favoritism for and preferred the look of thinner body types, were more likely to have negative attitudes toward other obese individuals. The more obese and overweight individuals attributed negative personality traits to other obese individuals; the more likely they were to be attributing the same negative qualities to themselves (Carels, 2009). Negative traits that WLC participants reported mirrored discriminatory cultural beliefs about obese individuals. These beliefs were: feelings of worthlessness, lack of self-control, or inability to lose weight because they were not trying hard enough, and were not

committed to the weight loss effort. Statements with self-blame and suggesting self-disappointment were common in the WLC interviews.

The WLC participants who suggested negativity and disapproval toward other obese individuals also suggested that they preferred a thin or physically fit body by statements they made during their interview. They also illustrated this preference by the pictures they brought to the interview of themselves at a thin weight or another body they admired and desired to achieve by weight loss. It is well-documented in the research literature that people who preferred a thin figure were more likely to express negative attitudes towards obese individuals, particularly those with body image distortion or self-esteem issues related to their own weight (Carels, 2009).

Other stigmatized groups or individuals usually demonstrated favoritism to their discriminated group (Crandall, 1994), but obese individuals were more likely to show evidence of internalized weight bias. Their own weight bias tended to be reflected in discrimination, evidenced by expressed views and opinions against other obese individuals (Durso & Latner, 2008; Wang, Brownell, & Wadden, 2004). In other words, it was assumed by these researchers that the negativity the participants expressed toward other obese individuals was reflective of their own internal feelings about themselves.

One participant relayed personal obesity discrimination against a physician who was running a weight-loss clinic. The participant thought the physician was unable to give advice on weight loss because she was not thin. The WLC participant suggested that if the doctor was unable to control her own obesity, that individual could not successfully assist others with obesity-related issues.

A study assessed public perceptions of obese physicians and how those perceptions affected patient responsiveness to treatment by surveying 358 adults. The study indicated that respondents reported more mistrust of obese physicians, were less likely to follow the medical advice offered by obese physicians, and the physicians obese status would make them doubt the physician's credibility (Puhl, Gold, Luedicke, & DePierre, 2013). Studies also showed that obese physician's confidence levels were not as high when treating other obese individuals. Several studies suggested the following findings: physicians of "normal weight" were more confident in providing diet and exercise counseling, more likely to provide obesity counseling, perceived fewer barriers to weight loss success for their patients, and had more positive expectations of weight loss success for their patients (Bleich, Bennett, Gudzone, & Cooper, 2012; Pipe, Sorensen, & Reid, 2009; Zhu & Norman, 2011). According to the above research, discrimination against obese physicians by obese patients was not uncommon, and obese physicians may have internalized bias against themselves, similar to the WLC participants to which internalized obesity bias applied.

When the WLC participant who had expressed biased opinions toward the doctor discovered that the doctor's extreme obesity was caused by a need for medical treatment, the participant immediately expressed empathy toward the physician's obesity struggle instead of previously stated obesity bias. Amesbury and Tiggeman found that when an obese person had a medical reason for their obesity, they were a less likely target for obesity discrimination. This medical reason for obesity relieved them of the bias that weight control was in their power to change with effort (Andreyeva, Puhl, & Brownell, 2008).

Similar to research findings, the WLC realized her discriminatory thoughts toward the obese physician only after hearing of the doctor's medical reasons for weight gain. The WLC

participant then said she had felt guilty about her judgments, changed her opinions about the doctor's abilities, and expressed remorse because her daughter had gone through a weight gain for similar reasons.

Even those WLC participants who did not express prejudice against other obese individuals in the study interviews revealed that a thin physical size was an important symbol of worthiness, overall happiness, a greater status to be reached, or simply something other people wanted them to be. Participants were acutely aware of what they perceived as negative opinions about their weight. Most of them assumed they were being negatively judged most of the time and in a variety of settings. One WLC participant relayed that he would be happy with himself if he had not perceived cultural dissatisfaction regarding his weight status and other's criticism about his health and appearance.

Not all WLC participants specifically said they had experienced discrimination and bias related to weight in their interviews but all provided some evidence they had. The evidence suggesting they had experienced bias was revealed in derogatory statements made about themselves, expressed reasons for weight loss failures, stories of negative social interactions or past weight-related abuse, shared thoughts about their unhealthy eating habits, body image or self-esteem, and relayed fears of becoming more obese.

A large body of research on cultural weight discrimination suggested that those WLC participants who suffered from body image distortion, eating disorders, and other mental health challenges may have developed these issues due, in part, to overshadowing cultural bias against obesity. The phenomenon of cultural obesity discrimination contributing to the development of

many biopsychosocial issues in obese individuals was captured by a quote made by the author of *The Obesity Myth* who wrote,

“The war on Obesity is a witch-hunt masquerading as a public health initiative that encourages people to hate their bodies if they fail to conform to an absurdly restrictive idea.” (Campos, 2004)

Unhealthy eating habits. WLC participants described unhealthy relationships with food and difficulties with weight loss efforts related to disordered eating patterns such as excessively restrictive calorie intake, fad diets, emotional eating, unhealthy obsession with foods, and binge eating. Some of the WLC participants’ unhealthy or obsessive eating and dieting habits were overshadowed by dissatisfaction with their bodies they relayed.

Literature on tensions in the field of obesity treatment stated that the past twenty-five years had been marked by a preoccupation with “fat” and body size. In the last twenty-five years there had also been a significant increase in eating disorders (Murnen & Smolak 2001). There was controversy among eating disorder treatment professionals and obesity prevention and treatment professionals. Since body image dissatisfaction often led to disordered eating, eating disorder experts wanted to tackle body image dissatisfaction. However, those professionals who aimed to treat and prevent obesity expressed concern that a cultural acceptance of obesity would lead to higher overall rates of obesity (Stice & Shaw, 2002). Also, some of the diet and exercise regimens shared by WLC participants would be considered excessive according to the literature. In normal weight individuals, the weight loss strategies described with pride by WLC participants could have been labeled unhealthy or as potential evidence of an existing mental health issue.

Many WLC participants directly stated, or alluded to, being able to maintain weight loss in youth and early adult years as a direct result of negative body image and fears of getting fat. A controversial study on weight loss published in 2001 suggested that emotional distress or discomfort had an important role in weight loss. Findings from the study suggested that discomfort and other self-directed negative feelings had served as a constant motivator to maintain weight, lose weight or continue to lead a healthier lifestyle (Heinberg, Thompson, & Matzon, 2001). Other research such as Latner and Wilson's (2011) research on contentment, obesity, and health contradicted these findings. Latner and Wilson (2011) reported that obese individuals with low levels of distress might not lose weight but did report experiencing more mentally and physically satisfying days in their lives, compared to those with weight dissatisfaction. Another five year study of young women with high and low levels of body satisfaction found that high levels of body satisfaction protected against long term weight gain. The young ladies with the lowest levels of body dissatisfaction gained the most weight over the long term (Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006). Experts in current literature questioned the practice of encouraging and prescribing dietary practices in the obese that would be considered cause to diagnose an eating disorder in a thinner person (Burgard, 2009).

Similarly, exercise habits that were compulsive, extensive, or bulimic might signal disordered eating in a normal weight person, but would be expected and even recommended for an obese or overweight person (Burgard, 2009). Studies supported the WLC finding that although distress could be a successful motivator for obese individuals, it often sabotaged weight loss efforts and led to long-term weight loss maintenance difficulties. Also, the diet and exercise regimens shared by WLC participants were often excessive, as described in the above study.

The weight loss strategies defined with pride by WLC participants could easily have been labeled unhealthy, or evidence of underlying mental health issues, in normal weight individuals. These habits were encouraged and accepted strategies of weight loss for the obese WLC participants.

WLC participants who reported unhealthy or distorted eating habits also said they were bullied and discriminated against as children related to their weight and body size. These individuals continued to perceive weight-related stigma as adults. A number of studies demonstrated that a past history of weight-related stigma increased the probability of unhealthy relationships with food (Haines, Neumark-Sztainer, Eisenberg, & Hannan, 2006; Puhl & Heuer, 2009). Research had shown a relationship between weight-based bias and discrimination with psychological distress, binge eating and body image distortion, but the influence of discrimination did not have to date back to childhood experiences (Ashmore, Friedman, Reichmann, & Musante, 2008; Friedman, et al., 2005; Myers & Rosen, 1999). One study of 2,449 overweight and obese women found that 79% of the women in that study reported coping with feelings of discrimination due to weight by eating more food (Puhl & Brownell, 2006). Studies supported the WLC finding that obese individuals who had experienced weight-related discrimination against them as children disclosed unhealthy relationships with food or eating disorders as adults.

The research literature indicated a relationship between unhealthy eating habits and a wide range of negative psychological outcomes. The literature also identified negative emotions as precursors to overeating for obese individuals. One study used an Emotional Eating Scale (EES) that asked subjects to report the emotions they were experiencing, if any, before engaging in disordered eating. This study found that 95% of the time the moods which preceded a binge

eating experience were anger, frustration, anxiety, stress, sadness and depression. Anger and frustration were the most common emotions that precipitated unhealthy eating decisions (Zeeck, 2010). These emotions were similarly identified by the WLC participants as triggers to unhealthy eating habits.

Findings from other studies suggested that weight stigma can be detrimental to mental and physical health and deplete self-regulatory eating cues necessary for weight control (Carr & Friedman, 2005). WLC participants who relayed discrimination or weight-related abuse revealed emotional eating and other unhealthy eating habits. WLC participants who did not discuss weight bias talked about unhealthy eating habits. In particular, they described binge and emotional eating. Research supported the observation that difficulties regulating emotions was common among people who engaged in binge eating to deal with negative emotions (Whiteside, Chen, Neighbors, Hunter, Lo, & Larimer, 2007).

The majority of WLC participants reported problems in their relationships with food, which they reported as a significant factor in their obesity experience. According to research reported by Biedert (2005), 20% to 30% of obese individuals seeking treatment and weight loss programs reported moderate to severe eating disorders such as binge eating. WLC participants expressed a variety of emotions and said that some emotions such as stress, anger, anxiety, and depression were triggers to overeating and other problem food habits. Participants who described unhealthy relationships with food described being unable to control their eating habits or the amount of food they ate, particularly when the overeating was triggered by emotions. They described a lack of understanding about why they were eating even while they were eating. Several participants mentioned relapsing into old food habits after deciding to quit the WLC. Dropping out triggered negative emotions and they said they ate to deal with those emotions.

A binge eating study relayed similar reasons for binge and overeating as WLC participants shared. The reasons cited in the study included a desired escape from disturbing thoughts and feelings, to deal with emotional discontent when feeling discomfort, or to create the frequently reported phenomenon of eating into a trance-like state to escape a negatively perceived reality (Arnow, Kenardy, & Agras, 1996; Heatherton & Baumeister, 1991; Telch & Stice, 1998).

One participant who told of her mother's abusive and restrictive control of her food intake shared current eating to handle emotions and binge eating. The literature on parent relationships and eating disorders showed a common link between parental control of food and emotional eating (van Strien & Bazelier, 2007). WLC study participants reported overeating to handle negative emotions, a common barrier for obese individuals trying to lose weight. When emotions triggered unhealthy eating, the unhealthy eating behaviors were more difficult to control.

Addictions. In addition to eating disorders and eating habits that reflected the possibility of addiction, five WLC participants revealed specific addictions to smoking, alcohol, sleep aids, pain medication, and chocolate. One WLC participant, who experienced obesity discrimination and bullying as an obese child, relayed heavy addiction to multiple substances in the past, which only his religious experiences and relationship to God had helped him get past. Although he did not mention his felt discrimination and his addiction were related, other research indicated a correlation between experiencing weight-related discrimination and substance abuse (Hatzenbuehler, Keyes, & Hasin, 2009). For example, a national study of 9,000 obese adults found that weight discrimination perceived and obesity status was associated with diagnoses of mood disorders, substance abuse and the use of mental health services in general (Hatzenbuehler, et al., 2009).

Several WLC participants described smoking as a way they had maintained or lost their weight at some point in their lives. One WLC participant started smoking in his teen years and said that it increased his metabolism, making it easier for him to maintain a certain level of weight loss in early adulthood. Others found it difficult to lose weight after they stopped using tobacco. In fact, all past tobacco users reported gaining weight after tobacco cessation. A study on obesity and tobacco use showed that those tobacco users who quit smoking gained weight in excess compared to those that continued smoking over a ten year period of time. Ex-smokers were more likely to experience weight gain in that same time frame compared to people who had never smoked as well. Smoking had negative health effects but there was an increase in the prevalence of being overweight for ex-smokers, which was linked to poor health outcomes (Flegal, 1995). At the time of this 1995 survey, there was an increase in BMI as well as a decrease in tobacco use in the U.S. Some researchers suggested smoking cessation as one factor that contributed to an increased prevalence of obesity in the U.S. (Flegal, 1995).

In the WLC study, the use of alcohol, drugs or tobacco did not arise during the interviews as a significant factor related to the participants' obesity and weight loss experiences. Study participants spoke about how they were able to stop using those substances, but experienced food as a different kind of addiction because food was something necessary for life. One WLC participant saw tobacco and alcohol as evil, and this helped him overcome those addictions, but he did not see his eating addiction as a similarly.

According to the literature on addictions, important similarities existed between food addictions and drug dependency. Both food and drug addiction shared the same neural pathways

and thus similar cravings. A loss of control over consumption can occur with both food and drugs that, for both substances, have euphoric or comforting properties triggered by stimulation of these neural pathways (Fontuna, 2012). Sugary foods triggered endorphin and dopamine in the brain, which were similarly triggered by addictive drugs commonly abused. High fat and high sweet foods were known to cause the release of endogenous opiates in reward pathways. This release was more common and stronger for some individuals (Fontuna, 2012). Also, research by Snoek in 2012 suggested that fat dense foods produced a higher level of endorphins in individuals who were obese or bulimic (Fontuna, 2012).

In this research study, some of the WLC participants relayed eating patterns and habits that influenced their weight that could be neurologically addictive. Findings also suggested that obese individuals may be a greater risk for neurological triggers than people of normal weight without eating disorders. WLC participants described high fat, high sugar foods as “trigger foods” for unhealthy eating or foods used to deal with negative emotions.

The WLC participant who shared a severe chocolate addiction described being unable to stop eating chocolate and ate so much of it at once that she lost count of the amount of chocolate she had consumed. She described an uncontrollable urge to eat chocolate and could not resist it when chocolate was in her presence. This participant would make special trips to get chocolate and binge-eat it for reasons she could not recall.

Similar to the description of the addiction to food that the WLC participants shared, during early stages of drug dependency a small amount of a drug created a euphoric response, but over time a larger amount was required to achieve the same effect. In the case of food

addictions or overeating, eventually amounts of food at the level of binge-eating were required to achieve the desired effect (Fontuna, 2012).

Negative body image and self-esteem. Self-esteem and negative body image were two psychological challenges the WLC participants discussed or alluded to, especially those who also had experienced childhood obesity. Supporting literature showed similar findings that obese individuals often experience self-esteem and negative body image. For example, one national survey study of over 3,000 normal weight and obese adults, the obese study participants reported lower levels of self-acceptance than normal-weight individuals (Puhl & Brownell, 2006). A longstanding but commonly accepted definition of self-esteem is, “the extent to which and individual considered themselves to be capable, significant, successful and valuable” (Coopersmith, 1959, p.88). Body image reflected how a person viewed their own body in relation to what they perceived as an ideal body (Badmin, Funrhham, & Snead, 2002; Frost & McKelvie, 2003). Negative body image and low self-esteem experienced by obese individuals was first studied in the late 1960’s and was thought to be limited to childhood obesity or obese individuals with emotional disturbances that preceded their obesity status (Sarwer, Thompson, & Cash, 2005). At the time of the WLC study there was a return of empirical attention to the prevalence of negative body image, self-esteem and other emotions experienced by obese individuals, particularly obese adults.

In the researcher’s review of literature on obesity, weight loss, and psychological challenges, psychological challenges such as low self-esteem and negative body image that obese individuals experienced most often were interrelated with weight discrimination issues. It was so commonly discussed in the literature on childhood obesity and psychosocial issues experienced by obese adults, that it was difficult for the researcher to separate discrimination and

any negative issues related to obesity, including self-esteem and negative body issues. This was especially true for research on negative childhood experiences related to weight and size. There is a possibility that body dissatisfaction and weight-related self-esteem issues have been influenced by societal expectations for acceptable body size and appearance.

The WLC study data illustrated long standing body image dissatisfaction that existed for and deeply affected the WLC study participants. The body image dissatisfaction often resulted in perceived negative emotions. A few WLC participants made it clear that their negative self-esteem and negative body image was present prior to experiencing obesity, while others indicated the existence of negative body image and low self-esteem that developed when they began to struggle with weight loss failures, which led to eventual obesity. WLC participants that had pre-existing body dissatisfaction found it particularly difficult to manage negative emotions related to their weight when they reached obesity status. For some, negative views of themselves and emotional pain related to how they viewed their bodies sometimes contributed to the sabotage of their weight loss efforts. WLC participants relayed that comments from others about their bodies tended to increase negative body image thoughts, or directly contributed to the development of their body image issues. WLC participants that shared painful memories of other people's comments about their bodies tended to discuss having a negative body image. During the interviews, WLC participants who did not relay remembered negative comments about their weight from significant others were unlikely to raise the issue of having a negative body image.

One study on the impact of memorable negative statements about weight on body satisfaction found that those individuals who recalled more negative than positive comments about their appearance and size had poorer self-image and stronger current body dissatisfaction

than participants who did not recall negative memorable weight-related messages (Anderson, Bresnahan & DeAngelis, 2014). Consistent with the findings in this WLC study, Anderson and colleagues (2014) suggested that men also were affected by memorable negative statements about their body appearance that could influence body satisfaction.

Both male and female WLC participants who relayed body image dissatisfaction also described feelings of sadness or depression, shame or anxiety when they talked about their weight, or felt inability to lose weight. Negative body image, reduced self-esteem and increased depression were experienced by both obese men and women in other studies related to weight, weight loss failures, and body perceptions as well (Sarwer, et.al, 2005). Studies on the effect of poor body image on mental health had been focused primarily on females, mostly due to the multitude of women seeking treatment for weight-related reasons (Cash & Roy, 1999).

Although both male and female WLC participants directly spoke about or alluded to low self-esteem and negative body image, female participants seemed more deeply affected by such issues. Existing research showed that body image dissatisfaction was more common in women than men overall (Algars, Santtila, Varjonen, Witting, Johansson, Jern, & Sandnabba, 2009). Male WLC participants did not express their discontent with their bodies as specifically related to any emotional discomfort or mental illness but they did discuss dissatisfaction with their weight and frustration with or stress about their inability to lose weight. Several studies on males, body image dissatisfaction and mental illness found that distortions of body image were risk factors for depressive symptoms and increased stress levels for adolescent boys. Those symptoms and body image issues persisted into their early adulthood (Blashill & Wilhelm, 2013; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006). With the exception of one very confident WLC participant, all males alluded to self-esteem challenges related to attempted

weight loss efforts and their failed ability to stick with the requirements of a weight loss program. Negative body image perceptions, concerns about body appearance, and low self-esteem were magnified for both male and female WLC participants even further by mid-life related challenges with weight.

Obesity, weight gain, and age-related challenges. All WLC participants, regardless of when the waging of their personal war on obesity began for them, experienced increasing weight and related issues as they aged. In particular, an increased weight challenge was observed by all participants during and after their middle age years. Many participants blamed their work schedule and stress for their mid-life weight challenges. Such age-related weight struggles either resulted in them becoming obese or further increasing existing obesity during or after middle age. This WLC study revealed that participants who were always able to get weight off at earlier ages struggled more and were frustrated by the increased efforts required to lose weight during and after middle age. Strategies they had always used to lose weight were no longer effective. So difficult was this period in their lives, participants referred to the middle age time period during their war on weight as an unbeatable battle. They described feelings of depression and frustration over their uncontrollable weight gain or inability to lose weight in response to dieting efforts. When participants with long standing body image issues started to have additional weight control issues in middle age, they experienced further self-negatively and self-dissatisfaction.

According to literature there are times in life when a person became more vulnerable to weight gain. For women, one of these times that correlated with weight gain was perimenopause and menopause. Perimenopause is a transitional period from normal menstrual periods to no menstrual periods at all, which often takes up to 10 years and is accompanied by hormonal

changes that can cause negative physical and emotional discomforts (Derry & Derry, 2012). Menopause is the time in a woman's middle age years when her menstrual periods cease. The average age at which U.S. women have their last period is 51 (Derry & Derry, 2012). During menopause women usually experienced a metabolic slow-down, resulting in weight gain. One participant who experienced mid-life changes and consequent weight gain referred to her desire to "enjoy life" and the desire to discontinue her constant weight loss and maintaining weight loss efforts. Research on middle age women suggested that this thought process is not uncommon. Health and health behaviors were found by this research study's participants to suddenly be viewed as an added burden around meeting the expectations of others or a broader society for middle age women. Similar to remarks WLC participant women made, mid-life was also a time of guilt for not doing enough to be as healthy as societal expectations for size, weight or health. During mid-life changes women became more interested in exploring opportunities, being open to all life's possibilities and dismiss the idea temporarily that they should be continuously engaging in risk reduction and improvement (Lupton & Tulloch, 2012).

What has been referred to as "male menopause" or andropause was less understood in current literature compared to the understanding of menopause. The time of this study, the debate was on-going about whether the condition existed and whether it was similar to the female experience. There was a gradual decline of the male hormone testosterone in middle age to older years and obesity depressed the production of testosterone, with the hormonal changes resulting in weight gain for men. Whether the two were related or not, obesity was an issue that increasingly affected men as they aged and participants in other studies experienced this age-related weight gain as uncontrollable and difficult to handle (Tantleff-Dun, Barnes, & LaRose, 2002).

For most WLC participants this age-related weight challenge either led to disordered eating or aggravated problematic relationships with food that already existed. The women in this WLC study expressed resistance to the natural occurrence of middle age weight gain and experienced an increased negative self-image and frustration about their unsuccessful weight loss efforts. Some reported becoming more aggressive and extreme in their weight loss efforts during this time in their lives. Male WLC participants were just as frustrated as the women and also described a time in their lives when what had always worked to lose a few pounds either did not work anymore or was more challenging to achieve. One male participant attributed his continuing weight gain in his middle-age years to his inability to exercise like he used to when he was younger.

The literature reported that a common response to weight challenges in middle age was extreme dieting measures or yo-yo weight cycling. Some researchers contended that extreme or yo-yo dieting posed a health risk greater than BMI status. (Brodney, Blair, & Grilo, 1999), for example, suggested that weight fluctuations were a major risk factor for all causes of mortality in middle age men. In fact, obesity that remained stable was less likely to cause health issues and mortality than obesity characterized by weight fluctuations (Brodney, et al., 1999).

The oldest WLC study male participants were most interested in losing weight to avoid illness or death. Their dieting behavior that resulted in weight cycling behavior and constant efforts to lose weight in older age ironically could have the opposite effect on their health than they were trying to achieve.

A 2013 study conducted by Huack and Hollingsworth identified a correlation between middle age, long working hours and lifestyle choices that were associated with weight gain for women (Au, Huack, & Hollingsworth, 2013). All of the middle age women in the WLC study

suggested they had work stress, high workloads, long working hours or work travel that had the potential to contribute to weight gain or inability to lose.

The post bariatric surgery experience. The two WLC participants who had bariatric surgery shared almost identical experiences with those participants in other post-bariatric surgery studies. The WLC post bariatric surgery participants experienced similar challenges with weight loss, relationships, and other psychological challenges but explained specific experiences related to post bariatric surgery. As found in other studies on the post-bariatric surgery experience, they shared mental confusion and challenges, elation at weight loss, disappointment when the weight began to return, distorted body image, distorted eating habits, specific social and relationship issues, and fears of returning weight gain. Many of these challenges existed before they had surgery as well. These participants were elated with their weight loss and also struggled with the new identity of a thinner body. They described their post-surgery experience as a transformation of self, in which they found themselves in a world unprotected by their excess weight. They also recognized that they were more open to being noticed by others that they were not accustomed to. This attention was described as both exciting and unnerving all at the same time.

Findings from other qualitative studies that mirrored the WLC post bariatric surgery participants' experiences and relayed that, although the excess weight of bariatric patients had been a barrier to relationships and positive socialization, it was also a shield against the world that participants considered a positive consequence of obesity (Gjengedal, Natvik, & Raheim, 2013). Participants in other studies on post bariatric surgery experiences still identified with their larger bodies years after the surgery, but the surgery had left them in an unprotected state; exposed to other's stares and attention they had previously not experienced. The drastic changes

made them vulnerable to comments and these encounters brought up suppressed and painful memories.

Other bariatric patients shared the WLC participants' anticipated outcome that becoming thinner would solve all their problems and a new person would evolve. This self-prediction for post-surgery was considered untrue by patients after a period of time. Natvik and colleagues reported that their participants experienced an over-awareness of their body, worry about losing control again over food, and overeating after surgery (2013). Bariatric surgery patients referred to the post-surgical experience with words like rebirth and transformation, similar to the WLC participant who had bariatric surgery one year prior to her interview for this study. Most importantly to this WLC study, the bariatric surgery that provided a surgical intervention to lose excessive weight and keep it off long term, ultimately was only another weight loss effort and an effort that often proved to have negative side effects. The surgery could not address all the other reasons for weight gain that were not physical or biological.

Both of the WLC participants described success immediately following surgery and a return to struggling with weight and weight gain after one year to three years post-surgery. Studies have indicated that weight loss from bariatric surgery peaks about one year post-surgery and gradual regaining of weight was the norm after that year (Sjostrom, 2004).

Battling Weight in Repeating Patterns: “Weight Loss has Always Truly Been a Battle.” (Hannah)

Participants perceived a cultural war on weight that overshadowed their personal battles with weight loss. Some participants were aware of it through their own perceived weight-related discrimination, while others did not seem to notice the influence of social media, the diet and

fitness industry and government efforts to reduce BMI. Such influences may have increased obesity stigma, while also increasing their personal need to weigh less and look thinner.

Participants in the WLC study had tried a variety of strategies to lose weight and all WLC participants relayed losing weight and gaining it back repeatedly.

Weight loss trends mirrored cultural trends. Mirroring the WLC experience of continuing efforts to lose weight that resulted in weight loss but then further weight gain in a recurring pattern, there has been a societal phenomenon that was similar. The prevalence of dieting has increased continuously over the last fifty years. Surveys conducted between the years of 1950 to 1966 on dieting revealed that 14% of women and 7% of men reported that they tried to lose weight by dieting. In the mid-1990's, according to similar studies, dieting had increased to 44% for women and 29% for men (Serdula, Mokdad, Williamson, Galuska, Mendlein, & Health, 1999; Williamson, Serdula, Anda, Levy, & Byers, 1992). Trends in life-long patterns of weight loss were not limited to obese men and women, as also seen with WLC participants who did not reach obesity status until middle adult years who still reported continual weight loss efforts during the course of their lives (Lazzer, Boirie, Poissonnier, Petit, Duche, Taillardat, et al., 2005; Williamson, et al., 1992).

The experiences of the WLC study participants in constantly battling weight was a pattern reflected in U.S. BMI trends. Among people with a BMI over 27, over two thirds of women and half of men had attempted to lose weight (Huang, 2001). Health organizations and the government spent billions of dollars to fight BMI battles. In fact, the weight loss industry was estimated to be an annual \$56.8 billion dollar business (Market data Enterprises, 2009). Obesity was a popular topic in the media at the time of the WLC study and new strategies for weight loss were constantly arising. An overwhelming amount of products, programs and

services were being marketed to fight against fat, and in response to heightened attention to weight and obesity, the general public spent billions of dollars and time on attempts at weight loss.

Increased weight gain after repeating weight loss attempts. WLC participants discussed gaining more weight back than they had lost after dieting, eventually leading to an overall weight gain over time. The overall weight gain over time ultimately led some WLC participants to their current obesity status. For the WLC study participants, the more extreme the weight loss measures and the total weight loss, the more likely the weight would return with the addition of more weight gained. WLC participants again mirrored other trends in weight loss.

One to two thirds of U.S. dieters regained more weight than was lost after dieting within a period of one to two years. As seen with the WLC participants, little to no research existed that supported the contention that dieting led to lasting weight loss or health benefits (Mann, 2007). Researchers suggested that 90 to 95 percent of weight loss attempts failed or escalated weight gain even further (Garner, 1991; Frasier, 1998).

WLC Participants' revealed that weight loss programs, dietary interventions, and other methods differed so drastically from their normal lifestyle that it was impossible for them to maintain their dietary regimens long term. They said they often quit because the regimens were too strict or the method or program did not fit their individual needs. Despite the knowledge that the continuing pattern of dieting and weight loss efforts did not work for them over the long term, WLC participants continued their efforts.

Health improvement verses weight loss. Research indicated an association between obesity and health risk but the risks of obesity may be overstated. Obesity-related health risks

may stem from unhealthy lifestyle habits such as poor nutrition, weight cycling, and lack of activity, as opposed to a reflection of BMI status alone (Bacon, 2005). Body weight may be only a symptom or representation of poor health. According to Bacon, not all overweight and obese people would be healthier at a lower BMI. Regular physical activity appeared to be the key, independently, along with other healthy living habits (Bacon, 2005). Those WLC participants who said they exercised or had exercised regularly reported that exercise improved the way they felt overall, even when it did not result in the weight loss they desired. For some WLC participants, exercise had been the strategy they had used to maintain a weight they were satisfied with at some point in their life.

Maintenance of weight loss failures and weight cycling. The common thread in all WLC participants' stories of past weight loss efforts was that they were unable to keep the weight off once they lost it. All WLC participants in the current study had experienced some success in losing weight prior to the WLC, but losing weight was not the underlying issue for them. Being able to maintain their weight loss emerged as the biggest problem for obese individuals participating in the WLC program. Wing and Hill defined successful weight loss maintenance as "individuals who have intentionally lost at least 10% of their body weight and kept it off at least one year" (Wing, & Hill, 2001). Drastic weight reduction measures and yo-yoing tended to intensify their weight cycling and increase weight gain over time. Regardless of when they started struggling with weight loss in their lives, what weight loss method they tried or how long they tried it, the weight always found its way back to each participant. Each story revealed yo-yoing weight loss and weight gain cycling. Participants' acknowledged that the lifestyle changes required to lose the weight they desired did not fit into their normal routines. They described the weight loss cycle as being just like the movement of a yo-yo. Even those

participants that had obesity onset in later life had problems with their weight going up and down once they started dieting or “*watching their weight.*”

According to studies reported in the research literature, repeated weight loss efforts that result in constant weight fluctuation that is called weight cycling negatively impacted individuals’ physiological and psychological health, and ultimately their morbidity and mortality. Weight cycling was common among the obese participants in these studies (Kruger, Galuska, Serdula, & Jones, 2004) and also commonly experienced by the WLC participants. Negative health outcomes could be associated with weight cycling more than obesity status (Strohacker & McFarlin, 2010). A history of dieting accompanied by a large number of weight fluctuations prior to signing up for a weight loss program increased the odds that a person would drop out of that program before reaching their weight loss goals (Moroshko, Toffanello, Enzi, Gasparini, Miotto, Gergi, & Busetto, 2005). As previously discussed, the WLC participants in this study all had an extensive history of dieting.

Plateaus and set-points. WLC participants stated they had difficulty maintaining their weight level after it was lost in any weight loss effort. Research indicated that one possible reason that individuals could not maintain weight loss long term was body set-point; a weight at which individuals naturally are healthiest and most comfortable. Genetic, environmental and other factors influence body set-points (Berg, 2001). Challenging the set point using extreme measures shut down the body in order to defend against starvation and increased hunger drives. Biologically, this meant that it was not a matter of willpower that people began over eating again after hitting a plateau in weight loss, but a matter of simple biology (Garner, 1998). Most of the WLC participants in this study spoke of using such measures to lose weight, and some complained about getting stuck at a plateau they could not get past. Frustration with this plateau

of weight was the reason for dropping out and returning to past eating habits for these participants. There also was evidence that over the course of time extreme and repeated cycles of weight loss would eventually lead to an increase in the individual weight set-points. The level of the set-point would become higher than the level that occurred naturally with age. The more extreme the weight loss, the higher the set-point increases (Lissner, 1991). In addition to an increase in the set point and thus a propensity for increased body weight, longitudinal studies have revealed a higher risk of mortality when individuals engaged in weight cycling (Lissner, 1991). A higher risk of mortality was contradictory to many of the WLC participants' reasons for trying to lose weight.

WLC Experience Post Battle Reflections: “Just another Way to Keep the Up and Down Rolling.” (Wally)

The WLC was a worksite-based challenge that encouraged employees to lose a healthy amount of weight, in a reasonable amount of time, and receive an incentive for reaching their goals. Although the WLC referred to in this study was a multi-resource program available to employees interested in weight loss, participation in other activities was encouraged but not required. WLC incentives were based solely on weight loss as measured by a scale. Participants in this study voluntarily engaged in the worksite WLC program, but dropped out at the mid-point and did not complete the WLC program. The WLC experience was described as just another weight loss battle by WLC participants; some battles are won and some battles are lost.

“Drop out” was a phenomenon common in weight loss programs and treatment, and was noted in the literature as one of the major causes of treatment failure in the field of obesity. The attrition rates ranged from 10% to 80% in obesity trials (Farley, Wade, & Birchmore, 2003). The major reasons WLC participants dropped out were similar to those reasons shown in other

research: overall stress levels, other obligations such as work responsibilities, loss of motivation after starting the program, self-confidence in the ability to lose weight, unsatisfactory results of weight loss that did not meet expectations, and general practical difficulties or unexpected barriers (Grave, Suppini, Calugi, & Marchesini, 2006).

Research has indicated that employees in worksite-based weight loss programs tended to more effectively promote and support weight loss when the program was offered as a competition (Schuessier, 2007) or a challenge. A monetary incentive for reaching weight loss goals measured by a scale was shown to be motivating enough for full participation in the program. Reaching weight loss goals set by such Challenge programs, however, did not consistently contribute to a positive lifestyle change, nor did employees who were motivated by incentives maintain their weight loss over time (Schuessier, 2007).

There have been some positive findings but, overall, weight loss programs in the workplace have shown the same unpromising overall outcomes for obesity reduction as other similar community programs. Despite their prevalence, weight loss programs in general have high dropout rates and failure to lose the weight desired (Mann, Tomiyama, Westling, Lew, Samuel, & Chatman, 2007). These same trends were documented for the worksite-based WLC program that was the focus of this study. Attrition studies showed that the number one reason for dropping out of any weight loss challenge was having a full-time job (Inelmen, Toffanello, Enzi, Gasparini, Miotti, Sergi, et al., 2005). This was an independent factor important to the WLC study participants since the weight loss program in which they engaged took place at work and all participants were full-time workers. It was unclear in the literature if the location of a weight loss challenge at work changed this prediction.

WLC Post Battle Reflections: Marching in with High Expectations

The Weight Loss Challenge program participants interviewed in this study commented at length about their high expectations for weight loss success when joining the WLC program. None of the participants mentioned concerns about failure to meet the end goal of a five percent weight loss, even though all participants had experienced failed weight loss attempts many times prior to their engagement in the WLC.

Many WLC participants also mentioned goals that were unachievable in the time frame of the Challenge or made weight loss goals without a specific plan of action for that weight loss, including set plans to deal with obstacles and barriers common to their past weight loss efforts and failures. Research supported the WLC finding that overly optimistic expectations prior to weight loss efforts and during weight loss program enrollment, were associated with failure to lose weight or complete a weight loss program. Specific overly optimistic expectations that the WLC participants relayed were: a set weight loss goal that was too high in amount, expecting weight loss to happen too fast, and expecting weight loss to be easier this time than in past weight loss efforts.

Studies on attrition in weight loss programming revealed many indicators of drop-out from a weight loss program that could be noticed at time of enrollment that mirrored those pre-program expectations shared by the WLC participants. According to Polivy (2001), positive expectations for weight loss and behavior change were the norm for people seeking to lose weight in a weight loss program. However, people who dropped out of such programs had significantly higher and more stringent expectations of weight loss than those who succeeded in weight loss and did not drop out of weight loss programs prior to completion (Polivy, 2001). In other words, if a person's expectations of weight loss were over-inflated, he or she was unlikely

to succeed. If individuals had more realistic expectations and had considered possible challenges or barriers to their weight loss efforts, they had a better chance of being successful in completing any weight loss challenge or program. Polivy (2011) found that the higher the expectations were over what was considered normal excitement and realistic goals, the shorter the time was between sign up and drop out. These and other research supported the WLC finding that high expectations for weight loss did not always result in desired weight loss, and in fact, could set a person up for weight loss program participation failure.

WLC Post Battle Reflections: Armed with Motivation for Predicted Victory

According to studies on weight loss program attrition predictors, program drop out could be predicted not only by overly high expectations, but also by the type of motivation participants identified for achieving weight loss or joining a weight loss program. The research literature revealed that motivators that were not specific to weight loss and weight loss that was not the primary motivation, was associated with a person's failure to lose weight. Motivation linked to improved appearance alone showed the highest link to drop-out predictability, compared to other motivators named for weight loss attempts (Dalle-Grave, Melchionda, Calugi, Molinari, Petroni, Bondi, Compare, et al., 2005).

All of the WLC participants mentioned stronger motives for weight loss than simply losing the weight. In fact, weight loss alone was not mentioned by any participant as their leading motivator. All participants confidently named at least one element of the WLC that gave them confidence that they could be successful in weight loss and that served as motivators so they would be successful in weight loss "this time." The elements of the WLC program that participants viewed as motivators included convenience, support, structure, feeling included or

accepted, accountability, incentives, improved health, and to “*keep the weight loss ball rolling*” (Wally). WLC participants mentioned specific reasons they wanted to lose weight as well.

One reason for a desire to lose weight expressed by WLC participants was concerns about health. This concern was related to either desired general wellness, a current health condition they had, a health condition they were fearful of getting, or death by conditions associated with age and being overweight. Physician concerns about the possibility that a particular health issue might occur due to a participants’ failure to lose weight also served as a motivator.

Other research studies on attrition in weight loss programming named poor health or fear of disease and dying as strong motivators for both men and women, which often led to weight loss. Ironically, a large number of obesity-related diseases, including pharmacologically-untreated high blood pressure, also were associated with higher attrition in weight loss programs (Inelmen, Toffanello, Enzi, Gasparini, Miotti, Sergi, & et al., 2005).

Male participants in the WLC study named avoiding a major disease or death from an obesity-related disease, as a motivator for weight loss. In one case, a WLC participant began to lack motivation because he perceived his health risk of pre-diabetes to have resolved with time, even though he was heavier when he came to this revelation than he was at the time of his pre-diabetes diagnosis.

The literature on weight loss supported the WLC finding that the threat of illness and poor health was a strong motivator for weight loss and was particularly mentioned by men (Sabinsky, 2007). Additionally, if health risks decreased or resolved over time, motivation for weight loss tended to drop and participants would gain the weight back (Sabinsky, 2007). One

study found the motivator of poor health or fear of dying to be one reason that behavioral weight loss programs, such as programs held in the workplace, were less successful than clinical weight loss programs (Wadden & Letizia, 1992). Often those enrolled in a clinical setting weight loss programs had health reasons for being enrolled.

Other clinical program differences, compared to behavior programs for weight loss, that were linked to higher retention were: shorter and more intense program time frames, specific and targeted population goals, specific methods of achieving weight loss, and often strict low calorie diets which lead to faster weight loss (Wadden & Letizia, 1992). This was one important reason that behavioral weight loss programs, such as ones held in the workplace, are less successful than clinical weight loss programs.

The WLC program was designed to support a one to two pound a week weight loss goal, discourage rapid weight loss, discourage strict low calorie diets, and was not a short and intense program. Instead, the program aimed to support participants with lifestyle changes that often led to weight loss, with a healthy and moderate pace, and with realistic weight loss goals individually written by each participant on a participation goal contract they signed. The majority of suggestions on how to lose the weight were just suggestions, not strict requirements for participation. Of interest, when looking back on these contracts of the WLC participants in this study, the researcher identified the goals set by them in writing at the start of participation were often vague or different than the ones discussed in the interviews a year later. Often many of the questions about their weight loss goals, designed to make weight loss more obtainable based on behavior change theories, were not answered.

One motivator for participants in the WLC study was the potential for improve physical attractiveness from weight loss. The research literature indicated that concerns about health, as well as physical appearance, were among the most common motivators to lose weight for both women and men. Only female WLC participants mentioned wanting to look better to others as one of the main reasons for wanting to lose weight, but all female participants alluded to improved physical attractiveness as a motivator for their weight loss efforts. WLC males reported more health concern-related motivations rather than physical attribute improvement as their motivation for weight loss. Although male WLC challenge participants did not mention physical attractiveness as their main reason to lose weight, they all indicated a desire to improve physical abilities or physical attributes as a result of losing weight. Some male participants referenced the size of their belly or circumference of their waist as motivators for weight loss efforts.

Evidence that emerged in other research studies contradicted previous research on males and their reasons for weight loss. This contradicting research found that body appearance concerns were no longer primarily a female experience (Tantleff-Dunn, 2011). Tantleff-Dunn (2011) proposed that most men possessed some anxiety and concern about their body weight or shape and that negative body image was possible for men as well as women. These data revealed that, in some cases, being concerned about others' opinions of appearance or having a negative body image that warranted change, could be as motivating as facing a major health issue for men.

One study on health reasons for seeking treatment among obese patients reported that women who mentioned physical appearance as a motivator for weight loss were less likely to quit a weight loss program, contradictory to other similar research mentioned. Seeking to lose

weight because of appearance was associated in the study with greater body dissatisfaction, lower self-esteem, and heightened eating disorders (Cheskin, 2001). All the WLC participants that wanted to lose weight for physical appearance reasons, even if it was not their main reason for weight loss, also expressed dissatisfaction with their body, lower self-esteem, or a problematic relationship with food.

Studies have been inconsistent and vary linking body dissatisfaction, self-esteem and eating disorders with attrition in weight loss programs. External social reasons for weight loss served as effective short-term motivations for weight loss, but less effectively impacted long term weight and behavior change. Internal motivators for weight loss showed a greater association with long-term weight loss success in other studies (Huang, 2001). Also, studies on weight loss programming showed that a desire to lose weight for appearance rather than health increased the chances that a treatment seeking obese individual would drop out of that joined treatment program (Inelmen, Toffanello, Enzi, Gasparini, Miotto, Sergi, & Busetto, 2005).

Many WLC participants sought to lose weight because of expressed concerns about becoming even more obese rather than becoming thin. Those participants that had already had experienced extreme weight loss success were fearful of returning to their previous morbidly obese state.

Consistent with findings in this WLC study, results from a 2009 study suggested that frequent dieting for weight loss was primarily motivated by a desire to avoid an unfavorable over-fat identity, rather than by a desire to acquire the favorable thin identity (Dalley & Buunk, 2009). The “fear” of becoming more obese or the return of a previous weight status after a significant amount of weight loss was discussed by WLC participants for which that applied.

Often these discussions about fear of weight gain were tied to motivations to escape a perceived social stigma associated with being obese some participants alluded to. The belief that being thin was the ultimate way to achieve acceptance was a strong motivator for those WLC participants that had experienced weight discrimination or weight-related abuse as a child. It was also hinted as a motivator by those that expressed early body distortion and low self-esteem starting in early life.

WLC data revealed that seeing someone else go through severe hardships with a hereditary health condition, particularly a close relative, could be a strong motivator to attempt weight loss, even if a person had not experienced negative health yet. The researcher found no supporting literature to show that watching a significant person suffer or die from a hereditary or other disease was a motivator for attempting weight loss.

Monetary incentives were sufficiently motivating for some WLC individuals to join the Challenge, but these monetary rewards were not enough to keep them from dropping out once they faced other obstacles. WLC participants were motivated temporarily by the gift cards, but the monetary reward was not a consideration when they dropped out of the program. Research on the effectiveness of incentives had mixed results.

There were mixed reviews on incentive use in weight loss programs in the literature. Some studies had indicated the positive impact of incentives in workplace weight loss programs, while others revealed a negative consequence of using incentives. The researcher found no research on rewards as the motivator for weight loss being a predictor of weight loss program outcome. A study of 200 overweight North Carolina college employees revealed, as the WLC study showed, that financial incentives were successful in helping employees lose weight or was

a good motivator and reason to join a weight loss program (Finkelstein, Linnan, & Tate, 2007). Such incentives, however, may not contribute to positive lifestyle change. According to Hawks (1999) weight loss programs associated with financial incentives or other rewards for weight loss may have good intentions but, while weight loss may occur during the weight loss competition, if the loss is unaccompanied by increased activity and better nutrition, the incentives have little if any positive impact on health. Also, once the reward was received and the competition was over, the participant had to have identified another motive for weight loss or weight gain was forthcoming (Hawks, 1999). For the WLC participants, the incentive was not enough of a motivator to encourage them to the end of the WLC program.

WLC Post Battle Reflections: Drop out as “Raising the White Flag.” (George)

Although qualitative studies on weight loss programming in the workplace were lacking, there was no lack of research that addressed reasons why weight loss programs tended to be ineffective for obese individuals. Thomas (2008) suggested that obese individuals have been given overwhelming amounts of information about what to do, but insufficient guidance and support to lose weight in weight loss programs. In the case of the WLC program in the current study, the participants were given a large amount of information and a wide range of supportive tools and services. However, it was up to the participant to access the additional program services. When considering obese participants, the research literature revealed no relationship between BMI level, independent of other variables, and drop-out rates (Grave, Alessandro, Simona, & Giulio, 2006). Although the WLC study specifically focused on obese individuals who dropped out of a WLC program, the data on the WLC showed that BMI level was not associated with a greater drop-out rate as well. WLC participants had a variety of different reasons for why they dropped out of the weight loss challenge, none mentioned the Challenge did

not meet their weight loss needs. All participants named reasons that indicated they had raised the white flag in this particular weight loss battle and had given up the fight temporarily.

Conflicting schedules and logistics. WLC participants tended to prolong or dismiss actions required to meet their goals due to personal events, health issues and work duties. Participants who discussed changing schedules or unplanned work-related travel found it problematic to continue in the Challenge. Some participants indicated that their underestimation of the impact of the obstacles they faced was one reason for dropping out of the Challenge. WLC Participants also indicated lack of time was a barrier. They were overextended in other areas of their lives or had insufficient time to devote to their weight loss efforts.

According to research findings, the strongest predictor of dropping out of a worksite-based weight loss program was conflicting work schedules and logistical factors such as lack of time (Inelmen, Toffanello, Enzi, Gasparini, Miotto, Sergi, & Busetto, 2005). Perceived barriers such as a lack of time and a lack of social support have been shown to have a direct effect on exercise patterns as well by preventing the adoption of new exercise behavior or decreasing existing behavior patterns (Ainsworth, Wilcox, Thompson, Richter, & Henderson, 2003; Nies, Vollman, & Cook, 1999).

WLC participants also reported similar obstacles getting in the way of continuing or starting structured patterns of behavior they had planned in an effort to lose weight in the Challenge. Reduction in or resistance to starting an exercise program prescribed for weight loss would most likely result in weight gain or no weight loss, and eventual failure to compete a weight loss program or met weight loss goals (Ainsworth, Wilcox, Thompson, Richter, & Henderson, 2003; Nies, Vollman, & Cook, 1999).

Lack of support for weight loss. Lack of social support in the workplace was another reason WLC participants discontinued the program. Social support described in supporting literature was the degree to which an individual had contact with others they believed cared about them and who met an individual's needs within their environment (Procidano & Smith, 1997; Winefield, Winefield, & Tiggemann, 1992), and social support has been strongly linked to physical health, mental health and well-being in the literature on health and well-being for two decades (Cohen & Willis, 1985; Heitzmann & Kaplan, 1988; Winefield, et al., 1992). Perceived social support in working environments was associated with less negative impacts of stress in the supporting literature as well (Procidano, 1992).

This lack of support expressed by WLC participants took many forms in the WLC data. Two participants relayed a lack of support in their environment at work and specifically expressed the need to please others at work as a barrier to weight loss, related to this perceived lack of support. Several participants alluded to the lack of social support at work for their weight loss program participation or efforts specifically. While participants felt a lack of cultural support for participation in wellness programs influenced their ability to participate to completion in the Challenge, others said they had social support but found the expected social support in the WLC proved unhelpful in achieving weight loss. Social support also was more difficult to achieve for those participants who traveled during the WLC. This was particularly true for those who derived their support from their spouses who were instrumental in providing the needed structure for healthy lifestyle habits. Other literature supports these WLC findings by showing that social support was important to weight loss efforts by influencing such areas as food choices and exercise routines (Davis & Knowles, 1999). One study by Wing and Jeffrey (1999) revealed strong associations with social support, lower attrition rates, and higher weight

loss success. Another study showed similar findings to the WLC study in that participants who reported frustration with a lack of support had a higher drop-out rate in weight loss programs, particularly near the mid-point in a weight loss program (Yass-Reed, Barry, & Dacey, 1993).

The curve ball of the unexpected and emotional distress. When life threw the WLC participants in the present study a curve ball or presented time-related barriers in their work schedules, it was difficult for them to stay committed to their weight loss efforts. Some WLC difficulties with weight loss, including staying committed to the effort, were travel, the death of a loved one, unexpected physical body changes or diseases like thyroid issues, perimenopause or menopausal changes, and pain that made it more difficult to exercise. Supporting research on weight loss program attrition also revealed that unexpected personal problems were the second leading reason for dropping out of weight loss programs. Stress and high levels of anxiety, which might be at higher levels during unexpected life events, also were associated with attrition (Inelmen, Toffanello, Enzi, Gasparini, Miotto, Sergi, & Busetto, 2005). According to the literature, obese individuals tended to exhibit more psychiatric illness and emotional distress than non-obese individuals. Emotional distress; such as anxiety, stress or depression, have been considered factors in weight loss program attrition (Berman, Berman, Heymsfield, Fauci, & Ackerman, 1993).

Emotional stress and anxiety were often brought on for WLC participants by unexpected events and barriers. Depression also followed or accompanied some unexpected events and barriers relayed by the participants. This depression was referenced by many as one reason they were distracted into non-participation or un-motivated to continue to completion in the WLC program. Research supported the WLC finding that unexpected events and obstacles, and the stressors they

caused were reasons that people dropped out of weight loss programs and fail to meet their weight loss goals. Often these stressors and emotions led to a return to old unhealthy habits.

The return to unhealthy eating habits and emotional eating. The researcher found that a return to unhealthy eating habits or emotional eating contributed to WLC participants dropping out of the Challenge as well. Work, travel, family and health problems also made it challenging or impossible for some participants in the WLC study to remain engaged in their journey to weight loss. WLC participants felt additional stress originating from work, travel or family, which led to what they called “*stress eating*.” A considerable number of WLC participants turned to food during times of stress or to deal with other negative emotions. WLC participants also indicated that it was possible to change their behavior in the short term, but constant attentiveness to the restrictions necessary for the maintenance of lost weight was exhausting and they typically returned to more comfortable personal habits. They hinted that change caused stress and anxiety or a longing for more comforting and familiar habits. Participants, who described a return to overeating, relayed that their overeating was accompanied by or resulted in additional negative feelings such as failure, shame and guilt.

Depression and stress was associated with non-compliance with diet regimes necessary for weight loss in the supporting research literature. Obese participants tended to use food as a way to cope with these emotions (Clark, Niaura, King, & Pera, 1996). Eating to cope with emotions has been linked to attrition in weight loss programs and weight loss failure in general (Clark, et al., 1996). Research findings have shown that when weight loss participants saw their unhealthy eating as an addiction, and began to feel that they were not going to be successful in their weight loss efforts, negative emotions arose and control over unhealthy behavior gave way to overindulgence. Polivy (2001) suggested that if a person was not careful at that point,

behavior conducive to weight gain could spiral out of control. Polivy's (2001) research supported similar findings in the WLC study regarding negative emotions triggering unhealthy eating or weight gain and experienced emotions as a result of a return to pre-weight loss program habits or behaviors.

One theory about a phenomenon which occurs with restrictive eating, which was one reason described for returning to old-eating habits, was called the goal conflict model of eating (Stroebe, Mensink, Aarts, Schut, & Kruglanski, 2008). This theory suggested that obese individuals trying to lose weight by restrained eating do not succeed because there are two incompatible goals in conflict with each other: the desire to lose weight, and the desire to enjoy food. The restriction and control that some WLC participants said was needed to lose weight, but was out of their normal routine, made weight loss success less likely to occur according to the above theory. According to Stroebe, the environment we live in is filled with overstimulation and temptation; restrictive dieters are at increased risk to be sensitive, and give in to these environmental stimuli. This research also relayed that eating control constrained by powerful stimulators could be, and often was, outside conscious awareness of obese individuals (Stroebe, et al., 2008).

Lack of motivation to stay committed. Participants in the WLC study described an inability to stay committed to weight loss efforts long term because weight loss was too much like, in one participant's words, "*constant watching*." Some participants suggested that they lacked the motivation to make changes necessary to lose weight at the time of dropping out of the WLC. They explained that it was easier to be comfortable than it was to continue their weight loss efforts. According to the WLC participants, a common reason for this described inability to stay committed was a simple lack of motivation to change habits, which resulted in

weight loss, particularly when presented with unexpected barriers. Most of the men in the WLC described or alluded to this phenomenon. Another study on male weight loss program participants who had expressed a desire to lose weight found results to that in the WLC study. Another study on men and weight loss motivation also found that the most frequent obstacle to losing weight was insufficient motivation when faced with barriers and old habits (Sabinsky, Toft, & Raben, 2007).

Overconfidence and the false-hope-syndrome. Some WLC participants in the current study reported impatience with their progress, were overconfident in their ability to lose weight, or underestimated the difficulty of the changes they would have to make in their lives. They began to find that the WLC was too difficult for them at the time they were involved. This was particularly true when they hit a weight loss plateau. One participant relayed a possible connection between anti-depressants and her lack of motivation to stay in the program. Due to the effects of the medication, she felt that she wanted to go back to enjoying life rather than working on weight loss.

Supporting research suggested that the desired weight loss results of obese weight loss program participants were two to three times greater than those recommended by professionals or even possible in the time frame associated with the particular weight loss program in which they were enrolled (Foster, et al., 2001). When weight loss participants in the study by Foster and colleagues (2001) set goals or expectations that exceeded what could be achieved in a healthy time frame, or had too high an expectation for weight loss, the goals often remained out of reach. They experienced negativity, got discouraged and abandoned their goals, or quit the weight loss program. Once they experienced what they considered “failure” to achieve the pace of weight loss desired, they abandoned all weight loss efforts (Foster, et al., 2001). Strong

research evidence suggested that overweight dieters had a propensity to believe that weight loss was going to be easier than it really was when they undertook weight loss, despite their experience of repeated failures to lose weight in the past. This phenomena was referred to in the literature on weight loss program retention as the, “false-hope-syndrome” (Polivy, 2001). Even dieters that eventually achieved long term weight loss made repeated attempts and passed through the five stages of change over and over before they succeeded. This pattern was similarly seen in attempts to change other addictive behaviors and habits (Polivy, 2001). One study linked prescription medication use with attrition in female weight loss participants but not male participants (Moroshko, Breenan, & O’Brien, 2011). Several WLC participants in this study relayed that the influence of prescription drugs for various health problems may have played a part in their decision to drop out of the Challenge prior to completion.

“The hell with it all” effect. Many WLC study participants indicated that they needed extreme amounts of self-control in order to achieve weight loss and quit the WLC immediately upon realizing that they no longer felt in control. Polivy suggested that for those who sought control over weight, deciding to embark on a new diet could be unconsciously perceived as being “in-control,” just as dropping out involved a feeling of lack of control (Polivy, 2001). For some WLC participants that said, “The hell with it all,” to their diet efforts may have what was described in weight loss attribution literature as the, “what the hell effect.” According to Polivy, chronic dieters tended to have an all or nothing approach. If they messed up just a little bit or on one day, they then went on to overeat further, instead of correcting the unhealthy eating and continuing weight loss (Polivy, 2001). This was common in overweight individuals who had not developed strategies to deal with their eating disorders and had not planned for relapses in eating, which were inevitable (Polivy, 2001). Lack of planning, not identifying the reasons for relapse

from weight loss efforts, and placing either too much structure or not enough structure on their eating behaviors were commonly found among participants in the WLC study.

One participant who flipped the switch of weight loss efforts, even though his BMI was 42, just wanted to be in the WLC to lose weight in order to, “*keep his weight from getting out of hand.*” He, along with other participants indicated that without major risk factors in health, they were not as motivated to make weight loss changes. They had not identified reasons specific and meaningful enough to motivate them to sustain themselves through their weight loss efforts to the achievement of weight loss success.

According to the obesity treatment literature, it was important to identify motivations to lose before beginning weight loss programs, which all WLC participants said that they did. Lang (2004) contended that weight loss program participants needed a perceived readiness to follow through with weight reduction efforts in order to succeed. Lang’s study revealed that being concerned about general health [without having any major issues causing immediate concern] was not as likely to cause behavior change action as having a serious illness or medical problem that was exacerbated by excess weight. If a person was comfortable, or had no reason to lose weight, she or he did not lose weight. Individuals may have lost weight temporarily, but did not maintain that weight loss over time. According to other studies, this was particularly true of men trying to lose weight (Lang, 2004).

Rewards for continued habits overpower rewards for losing weight. The WLC study participants revealed that the rewards for being overweight could overpower the rewards for losing weight. Wanting to be thin, and at the same time not wanting to be thin could cause confusion for the participants that have a more complex relationship with their weight. For

example, those participants who had a life-time struggle with weight loss and had physiological issues in which they used food in unhealthy ways or hid in their obesity expressed difficulties letting go of their obesity. These participants referred to their weight as a protector, a place to hide, or a place to be invisible. It was possible that fears of actually becoming thin and losing those coping mechanisms contributed to weight loss problems or resulted in re-gaining weight after weight loss success. One bariatric surgery patient used an inability to be successful in the WLC as a reason to seek medical treatment for her obesity. The ease of accomplishing a change in weight, the effects of the change on other aspects of one's life, and having expectations about the experience of weight loss that did not materialize were reasons that people dropped out of weight loss programs, according to a study that focused on attrition in weight loss programming (Polivy, 2001).

WLC Post Battle Reflections: Weighing-In, a Daunting Scale Experience

Among the most common reasons that the WLC study participants gave for dropping out of the Challenge was, "*getting on the scale.*" Weigh-ins had a deeper meaning for participants than the physical act of getting on a scale. In the literature there were mixed reviews about weighing-in and the effectiveness of this practice toward healthy weight loss. The National Heart, Lung, and Blood Institute stated that regular self-monitoring of weight was critical for long-term maintenance of weight, but raised concerns about the potential for this practice to bring about negative psychological effects in participants trying to lose weight (Wing, 2007). WLC participants remembered a flood of emotions when weighing-in that included fear, lack of control, shame, hopelessness, frustration, disappointment, and worries about being judged when going to weight in or thinking about weighing-in. Participants said that the scale was a reflection of their negative self-worth and a reflection of themselves as a person. Weighing-in triggered a

variety of physiological issues that were counterproductive to their weight loss efforts. The level of emotion described by participants about their experience of weighing-in was intense. A few participants checked out of the WLC completely because that was easier than coming in to see their perceived failure on the scale. The scale was described as a cruel judge, harsh reality check and such a negative experience for most participants that it was at least one reason they quit. For some, these negative weigh-in feelings led to the return to old habits and unhealthy eating. The WLC participants relayed in the beginning of the Challenge that the accountability of weighing-in was important for them to succeed, but the experience of weighing-in, or thoughts about weighing-in, contributed to drop out for all participants and was an emotionally painful experience.

Some supporting research studies indicated that poorer body image at the beginning of a weight loss program predicted undesirable outcomes in weight loss attempts such as attrition from the program or health outcomes related to weight loss (Carles, Cacciapaglia, Douglass, Rydin, & O'brien, 2003). Seeing the weight on the scale may initially have motivated WLC participants but was often the reason failure to lose weight. The combination of being a chronic dieter and receiving bad news on the scale had the greatest negative effect on feelings of self-worth. For some participants in other studies on weight loss programming, weighing-in with negative results was motivating, but for other participants, it led to self-destructive behaviors like disordered eating (Dionne, 2005). Many WLC participants relayed the experience of weighing-in and having undesired results, or the thought of the experience of weighing-in led them back to unhealthy patterns of behavior.

A research study by Teixeira and colleagues suggested that successful dieters might succeed with or without the help of programs to reduce weight, so it was important to pay

attention to those participants who might be vulnerable and at risk for attrition, relapse, and lack of long term weight loss success due to scale weighing. Chronic dieters who never reached or maintained success, despite the number of methods tried and number times trying to lose weight were particularly at risk (Teixeira, Going, & Houtkooper, 2004). Other signs of vulnerability in weight loss program participants during weigh-in experiences were those individuals who: overvalued the degree their lives would change positively with expected weight loss, had unrealistic expectations for the size and pace that weight would be lost, showed signs of dissatisfaction with their bodies, indicated depression; and those that indicated basing their self-esteem on their appearance (Dionne, 2005). At least one of these signs of vulnerability was described by all participants in the current WLC study.

Dionne's (2005) suggestions above were criticized by several of her professional peers. The authors of the journal articles (O'Neil & Brown, 2005; Linde, Jeffery, Finch, Simon, Ludman, Operskalski, Ichikawa, & Rohde, 2005; Wing, Tate, Gorin, Raynor, & Fava, 2006), opposing Dionne's suggestions argued that thirty years of searching for psychological predictors of outcomes in weight loss programs led to inconsistent findings, no associations had been found among depression, body image, and mood disturbances to weight loss, and there was little to no evidence that body dissatisfaction increased in response to weighing among weight control program participants, which would undermine weight loss efforts. Further, the authors stated that all evidence was consistent that regular weighing-in supported successful weight control. In fact, stepping on the scale to weigh in was reported in multiple studies as the main reason for positive behavior related to weight loss (O'Neil & Brown, 2005; Linde, et al., 2005).

Some participants in other studies liked the accountability of weighing-in for weight loss (O'Neil & Brown, 2005). Weight loss program participants in general indicated the use of

weighing on scales as an impetus for change. Considering all body types and a high rate of body dissatisfaction, Dionne and Yeudall (2005) advocated for awareness that some people were always dissatisfied with their size, no matter what the scale said and these people should be discouraged from weighing-in repeatedly. If only five percent of participants in weight loss programs were successful long term, and weighing-in helped those successful people lose weight; it might be worth considering what happened to the other ninety five percent of people who were not successful in weight loss, and why. The WLC finding on weighing-in is that it could be a very powerful motivator for weight loss change, but for most of the WLC participants, it caused extreme emotional discomfort and could be a major reason for not only dropping out, but also for a return to behaviors not conducive to health or weight loss.

WLC Post Battle Reflections: Preparing to Surrender

Many WLC participants returned to old habits during a gradual withdrawal process that occurred prior to their conscious decision to quit. Some participants showed signs of “preparing to surrender” and stopped moving toward weight loss by several relayed avoidance tactics. This type of avoidance was hinted at by most WLC participants. Two WLC participants talked extensively about this avoidance phenomenon; with specific references to ways they began to turn around their weight loss efforts psychologically before they actually quit the program. These participants, who were regular partakers in the health coaching available during the Challenge, got angry at their health coaches when they began to consciously or unconsciously to stop moving in the direction of weight loss. Eventually, they would avoid their health coach calls and deleted the messages their health coaches left for them. Other participants relayed avoidance tactics such as stopping weigh-ins, stopping responses to emails by the weight loss challenge program coordinator and stopping communication with peers who were in the

Challenge with them for support. Several WLC participants described an inability to confront weight loss when stressors or changes occurred in their lives. They said the result was a mental shut down or “clicking off” as George called the experience of disengaging in weight loss efforts.

Research on successful long term weight loss in obese individuals found that the avoidance phenomenon was common for obese individuals in weight loss and weight loss maintenance efforts. One study, for example, showed that the majority of obese individuals who regained weight lost over time attributed their weight gain to escape-avoidance methods; or lack of problem solving skills to deal with stressors when they were unable to maintain the weight they lost (Bryne, Cooper, & Fairburn, 2002). When the WLC participants decided to quit, they did not look back. Further, once they flipped the switch, they reported that they were simply done. Others who wanted to lose weight in the challenge but were not successful realized that during dropping out that they had needed to do something differently to lose weight. That insight combined with seeing failure on the scale was enough reason to drop out and not finish the challenge.

The majority of WLC participants that relayed any escape or avoidance tactics regarding the WLC in their interviews all had either experienced weight discrimination and bullying in the past and/or had a long history of poor self-image and body dissatisfaction. Research on the lack of coping skills and weight loss failure indicated that even when programs addressed avoidance and escape tactics, better weight loss outcomes was not necessarily the result. Some theorized that a weight loss program must also focus on obesity-related stress caused by weight-related stigma and discrimination (Lillis, Hayes, Bunting, & Masuda, 2009). Further research suggested

that when negative thoughts and feelings were directly targeted for change, ironically they became more difficult to deal with.

A focus on mindfulness has been suggested to help people with weight loss efforts who struggle with negative and painful thoughts regarding their weight, particularly those individuals who used avoidance and escape as a mechanism to withdraw from difficult changes in behavior (Lillis, Hayes, Bunting, & Masuda, 2009). Research studies supported the finding that WLC participants used avoidance and escape tactics during their weight loss efforts, which resulted in failed weight loss efforts and program drop-out. These studies also supported the WLC study observation that those same participants who used this technique often had a long-time dissatisfaction with their bodies and/or experienced weight-related discriminations, accompanied by associated psychological issues.

No research was found at the time of this WLC study on signs of preparing to surrender while participating in a weight loss program. Studies focused on predictions for attrition in weight loss programs were discussed in other areas of this paper

WLC Post Battle Reflections: Emotional Fall Out

The lived experience of attempting to lose weight and dropping out of a Weight Loss Challenge was an emotional experience for the majority of WLC participants. All participants shared that they had many emotions during their weight loss efforts and dropping out of the program. Some emotions like dread, shame and perceived judgment were felt directly because of the dropping out. Some participants indicated that they were attempting to avoid weight discrimination by avoiding of weighing-in on the scale. Dropping out meant that they could

avoid emotions they experienced in the face of perceived obesity stigma, such as judgment perceived for not being able to make a weight goal.

According to Polivy (2001), when weight loss expectations were not met in a weight loss program, as the WLC study participants experienced, the outcome was disappointment, discouragement, and a negative perception of oneself as a failure. Emotional distress was associated with early drop outs from weight loss programs, prior to mid-point of the program. The research literature related to earlier weight loss program drop outs reported individuals had more anxiety and depression with early drop out than those that dropped out later or completed a program but were unsuccessful in their weight loss goals. High levels of emotion were shown in the literature to predict attrition and were associated with weight loss effort outcomes (Pekarik, Blodgett, Evans, & Wierzbicki, 1984; Yass, Reed, Barey, & Dacey, 1993).

As other studies have shown, WLC participants often believed their own mental state interfered with their ability to follow a diet plan or continue in the Challenge; as if something was wrong with them and not the diet methods they had tried. A self-blaming internal torment occurred when failing to finish the Challenge and lose weight.

Research on attrition in weight loss programs contended that participants' failure stories commonly relayed weight loss as being dependent on will power and external factors, and also as being more difficult than the weight loss effort should have been. Those who failed to lose weight invariably blamed themselves rather than the weight loss program (Polivy & Herman, 1999). Furthermore, study participants who undertook weight loss efforts felt worse about themselves after having made an attempt to lose weight that failed, than if they had never tried at

all (Polivy & Herman, 1999). These findings are relayed as well by the WLC participants in this current study.

All participants alluded that they knew what to do to lose weight but life interfered. Weight loss program participants who do not want to accept self-blame wholly often offer reasons related to mental health, social relationships, or work and home environments (Sara, Kirk, Penney, & Rehman, 2014). Participants in this current study revealed disappointment in themselves and feelings of failure regarding quitting weight loss or a weight loss.

Dropout as Continuing the Cycle: “Even Though I Quit, I’m not Done.” (Comeback)

Dropping out of the weight loss challenge had little effect on long term goals related to weight. The participant experience of dropping out was what George described as “a period of raising the white flag.” So many other emotions, obligations, relationship issues, and perceptions surfaced during the dropping out process. It was relayed by WLC participants as like a battle field with the scale being the land mine. The data revealed that suddenly mid-point in the challenge, the prize was not worth the effort anymore or it seemed unattainable at that time. The issue of weight loss failure by obese individuals seeking weight loss programs, as well the regain of weight lost that occurred commonly, was a priority area for obesity research at the time of the WLC study. Other research indicated that certain self-management behaviors were common in people who were successful at weight loss long term. Many of these traits described in the literature, the WLC participants alluded to lacking for weight loss efforts during their drop out and continual return to the cycle of repeating weight loss failures. These traits were: successful self-monitoring, eating self-efficacy, planning, goal setting, motivation, flexible restraint, social support and becoming more physically active (Strubbs & Lavin, 2013).

Studies comparing obese individuals who were able to maintain weight loss long term and not drop out of weight loss programs showed similarities between these individuals unable to maintain weight loss and the WLC study participants. There are multiple strategies that must be put in to place to address a complex variety of issues an obese individual might have while participating in a weight loss challenge at the workplace. For example, long term maintainers reported experiencing fewer negative events during weight loss attempts and after weight loss success (Stroebe, Mensink, Aarts, Schut, & Kruglanski, 2008). Obese men and women studied who regained weight or dropped out of weight loss program for weight loss were most likely to recall negative events happening that affected their ability to maintain or lose weight (Stroebe, et al., 2008). WLC participants relayed many unexpected events and barriers that caused a reaction that did not result in weight loss. One study on the differences between people who were unable to maintain weight loss or failed to lose weight was the inability to problem solve under the influence of stressors. Most of the unsuccessful long term weight loss participants of studies on weight loss success factors reported using “escape-avoidance” ways of coping (Stroebe, et al., 2008), as seen in the majority of WLC participants, if not all. Dropping out of a weight loss challenge program could be considered an escape or avoidance coping style. WLC participants all alluded to escape or avoidance of dealing with obstacles and barriers presented during the Challenge by dropping out. This was addressed above in the section on surrendering.

Even though participants quit the WLC, they still wanted to lose weight and had their goals in mind for future weight loss. Unfortunately, each time they were unable to maintain or repeated patterns of weight loss, followed by weight gain, they had not found their particular formula for weight loss. However, they were hopeful and knew from past experiences that plenty of other opportunities for weight loss lie in the future. WLC study participants reported

that quitting weight loss regimes was a common practice for them in their long history of dieting efforts. The research literature indicated that a history of failure to complete weight loss efforts, a large number of past diet attempts, as well as a history of repeated weight loss program enrollment were all predictors of weight loss program dropout (Yass-Reed, Barry, & Dacey, 1993).

Each WLC participant had unique needs for being successful long term which called for the need to tailor workplace weight loss programs to the individual needs of obese weight loss program participants, while keeping in mind the obligations of the workplace, and also being flexible in program structure to account for those obligations. As Stubbs and Lavin stated in their 2013 article on implementing weight loss behavior changes, “Weight loss is a difficult journey often characterized by repeated faltering attempts; and weight loss induces changes in physiological and emotional systems which tend to pull people back to where they came from (Stubbs & Lavin, 2013).” There was an abundance of weight loss programs that “end” but not many programs to support the maintenance of weight loss if it was achieved. According to some studies, there are a different cluster of requirements to be successful in weight maintenance than losing weight short term required (Stubbs & Lavin, 2013). WLC participants showed the need through their stories for assistance in the navigation from weight loss to long term weight loss maintenance; as well as the need for programs to address coping mechanisms, emotions, discrimination, unhealthy eating and resistance building skills. The WLC participants conveyed to the researcher, that obesity was experienced as a complex biopsychosocial disease that cannot be described just in terms of a physical issue but must be addressed on a psychological, social and environmental level as well.

WLC Study: Implications for Health Education and Health Promotion Practice: Worksite Health

This study relayed the essence of the lived experience of 13 obese individuals who dropped out of a voluntary weight loss challenge program at mid-point. The insight from study participants who failed to complete weight loss challenge programs, or were lost to follow-up (via weigh-ins, post-program evaluations, and other measures), provided valuable information which can be used by program planners and weight loss challenge on-site staff to better meet the needs of obese employees that are trying to lose weight or get healthier. Information presented by these participants may be reason to reconsider offering programs like the Weight Loss Challenge that focused on rewarding only for changes in BMI and weight. The stories of the WLC participants were consistent with related research on the never-ending struggles with weight loss and obesity related life struggles. The WLC study, almost two decades later, pointed to the accuracy of a 1998 New England Journal of Medicine article quote, written by Kassirer and Angell, which said, “Until we have better data about the risks of being overweight and the benefits and risks of trying to lose weight, we should remember that the cure for obesity may be worse than the condition” (Kassirer & Angell, 1998).

Increase sensitivity to obesity discrimination and weight-related bias. The WLC study revealed participants’ perceptions of discrimination against them in worksite programs designed to assist employees with weight loss and offered valuable insight for future efforts to help decrease worksite weight bias and increase the emotional health of obese employees. Studies from corporate health population management which have emphasized the low productive, high absenteeism, low presenteeism, and decreased work output by obese

individuals, costing the company millions of dollars, may push the already existing weight discrimination to higher levels.

Wellness program leaders can contribute to reduced obesity-related weight bias among employees. The effort to reduce weight-related bias in the workplace can begin by improving the health promotion and population management language used to describe employee wellness data to company leaders. Wellness professionals can help decrease weight discrimination in the workplace by associating lost money and lost productivity to company leaders with poor employee health status, without targeting obesity employees as the singular cause of such costs. The focus of discussions about company health should focus on employee health status measured by biometric measures other than BMI, psychological challenges experienced, and improvement of company cultural environments that support all people, at all sizes. Mindful consideration by wellness program leaders of the ways in which obesity-related data were presented would be beneficial in discouraging the further growth of weight-related bias in the workplace. It might be time to try an approach more sensitive to obesity and weight discrimination.

The study added credibility to the statements in the literature which suggested the need to challenge social cultures that sought to blame individuals for failure to maintain “healthy body weights.” Blaming individuals living with obesity has minimized the role of a supportive environment or wellness culture for all its employees and led to the further development of weight-related issues (Alvaro, et al., 2011). Discrimination of any kind has no place in a culture of wellness.

Another way wellness professionals can help reduce weight-related bias in the workplace is to be mindful of any wellness program components that might lead to discrimination or

reinforce existing weight-related bias that already exist in the work environment. The supporting literature in this WLC study analysis showed that discrimination against obese employees does exist. It also showed that obese employees perceive and are affected negatively by this perception of discrimination because of their size or weight. It further showed that perceived obesity discrimination led to increased stress and other psychological challenges for obese individuals. Stress, anxiety and depression are high cost drivers for companies due to the decreased health of the employees that experience these negative psychological challenges, and their effects on wellbeing. Therefore, wellness programs need to be planned to address these negative psychological challenges employees experience related to work and cultural weight-related discrimination.

Plan incentive structures that reward overall health, not BMI. Wellness programs could be more mindful when developing incentive structures for companies to ensure such incentive structures do not increase obesity- and weight- related discrimination. The WLC study findings suggested a need for more appropriate incentive structures and education regarding overall health, rather than a sole focus on weight status. In worksite health promotion, BMI incentive structures that rewarded employees for having a BMI status within a “healthy range” should be reconsidered and improved. Worksite programming designed to contribute to weight loss warrants increased sensitivity to obesity stigma and the design of programs that measure health success in ways other than weight measured by a scale or BMI status. More information on alternative incentive structures is needed.

In worksite health promotion, BMI incentive structures that rewarded employees for having a BMI status within the “healthy range” defined as 18 BMI to 24 BMI should be reconsidered, or least improved. Worksite programming designed to influence weight loss needs

further awareness of obesity stigma, unintended or not, and create programs that measure health success in ways other than weight measured by a scale, or BMI status that does not indicate overall health for all people. More information on why incentive structures focused on BMI, or in which BMI was awarded for over other health measures, should be reconsidered is discussed in the following section.

At the time of the WLC study, U.S. mortality was increased for those with a BMI status below 25 rather than those with a BMI status above it; the lowest death rates occurred for those with a BMI in the “healthy” range of 18.5 to 24.9. Although the population with a BMI between 25 and 30 showed statistically lower disease and health risk than any other group, this group was considered overweight and targeted for weight loss programming. Even associated risk, without a link causation of risk was limited to BMI status of over 30, according to the findings from the National Center for Health Statistics (Flegal, 2002). Additional analyses regarding BMI and morbidity and mortality that controlled for potential confounding variables such as length of follow-up, weight stability, weight loss caused by illness, or smoking status did not change the results. The “ideal” weight for longevity was “overweight” according to these studies, yet wellness programs encouraged employees to achieve a BMI status that was statistically associated with a higher mortality rate. Disentangling the presumed cause-effect linkages between body fat and “weight-related” health problems revealed substantial health risk associations with obesity but only at BMI levels above 40 or more.

Focus weight loss programming on overall health. The WLC study had several implications for practice regarding programs similar to the Weight Loss Challenge. Such programs for weight loss usually start in January since the beginning of the year is a time when Americans plan to make resolutions for change. In this study, there was a marketed excitement

about weight loss and the Weight Loss Challenge, which encouraged people to participate in weight loss to improve their health. The program incentives and focus, however, was on weight loss as measured on a weight scale. The marketing of such programs often suggested that by full participation and by following the advice of program personnel, weight loss would be realized, and monetary incentives would be earned. The initial weigh-ins for such programs tended to be a fun time when participants joked and laughed about the weight they needed to lose and expressed excitement and hope about behavior change possibilities. The voices of participants in this WLC study suggested that the weight loss programs focusing on BMI or weight measured by scale should focus instead on encouraging and rewarding overall health, not just the magnitude of weight loss.

According to the research literature discussed in the analysis of the WLC study, increased exercise and better nutrition practices could effectively improve health and reduce health risk, sometimes without changes in BMI status (Farrell, Braun, Barlow, Cheng & Blair, 2002). Also, programs like the WLC could be unknowingly supporting weight cycling and excessive dieting practices, both of which have been shown to adversely affect health outcomes, particularly in employees who were at or past middle age years. Also, the pattern of continuously trying to lose weight and then regaining the weight lost was found to be more counterproductive to health outcomes than a stable obesity status, particularly for those that had positive biometric screening outcomes, who had regular exercise routines, and good nutrition practices (Farrell, et al., 2002).

Consider the psychosocial issues of participants in weight loss programming. WLC research study suggested that obese people attempted to lose weight for reasons unrelated to health and in ways that were detrimental to health. Some WLC participants had spent a lifetime identifying (or having others identify for them) what their obesity meant to others and to

themselves. Then they tried to find some magic variable or formula of variables that cracked their personal code for weight loss. Teaching people how to tailor weight loss programs specifically to meet their personal needs and characteristics could be a critical component to weight loss success. Health educators and others should consider when assisting people with health goals that not everyone who is overweight needs to be at a lower BMI (or lower weight) to be in optimal health. In fact, some people with existing psychosocial issues could potentially damage their overall health by trying to achieve a lower BMI.

One way to focus on the individualized needs of obese employees is to put into place a component of the program that helps identify those employees that might have psychosocial challenges which need to be addressed in order to be successful in weight loss efforts. When psychosocial challenges are identified, these issues could be addressed through some component of the program, or referrals could be made to assist them during the Challenge. Health coaches on-site, EAP referrals, and other support programs could offer counseling or education on disordered eating, emotion management, self-esteem, mental illnesses such as stress or depression, proper goal setting, dangers of weight cycling, and help with appropriate weight loss.

Obesity training for wellness professionals. As the essence of this study suggested, obese individuals' past weight loss experiences informed their present weight loss efforts. Health educators and others designing and working with weight loss programs would benefit from training in obesity sensitively and the psychological impacts that can be a part of the obesity experience. The WLC study participants indicated that when obese people are participating in weight loss programs, they bring an entire lifetime of weight loss and obesity-related experiences with them. Some have experienced bullying and discrimination due to their weight. Obese participants, particularly those with body image and self-esteem issues, experience weight loss

programs as a process that entails more than weight loss. It is important for program coordinators who meet with these employees during the weight loss program to be aware and sensitive to this phenomenon of past experiences influencing the present and to be sensitive to the problems and issues that weighing-in can entail.

Wellness companies could also offer obesity and weight related discrimination awareness training to their employees who are working on-site with the client companies. Increased sensitivity to the existence of weight bias or discrimination would assist wellness managers in tailoring discussions with company leaders about health risks and associated cost that are sensitive to obesity discrimination. This training could also assist wellness professionals in the development of programs that are more sensitive to obesity bias, and thus better support obese employee's mental and physical health.

Focus on maintenance of health, with more qualitative measures. For the WLC participants, failure to “complete” a weight loss challenge at work was not just about failure to lose weight. It was also about repeating patterns of weight loss efforts, which often led to failure to lose weight or a tendency to regain weight that had been lost. It was also an inability to make the weigh-ins and needed behavior changes that resulted in weight loss not being a priority. Worksite weight loss educators and program planners need consider “challenges” that can be measured by long term health and behavior change. Numerous studies have supported the efficacy of approaches that can improve health independent of weight change. These studies showed that risk factors traditionally labeled as “weight-related” (elevated blood pressure, cholesterol, glucose, etc.) can be improved and often normalized in people considered to be obese. Interventions can have positive effects on such risk factors with little if any effect on body weight (Tremblay, 1991). Worksite wellness programs have excelled in recruiting

employees to enroll in wellness programs of all kinds, including weight loss programs. These same wellness programs often lacked success helping employees with the long term maintenance of weight loss and health behavior changes.

The WLC study participants and supporting literature suggested a need for greater focus on helping employees retain behavior changes, such as weight loss. Worksite wellness programs have traditionally measured success through quantitative measures but numbers do not always tell the whole story. The use of qualitative, yet scientific measures of worksite wellness programming success and failure needs further development.

Consider aging population needs in weight loss programming. This study also suggested that worksite program planners serving companies with populations of older or aging employees should consider the age-related weight loss issues that participants relayed as a barrier to weight loss. Study findings that weight loss and weight cycling with repeated weight loss and gain could be more detrimental to health than reducing BMI for older populations of obese participants, supported the needed effort to encourage healthy living focus for middle age and aging employees in worksite health. According to the literature, encouraging weight loss without considering a greater focus on improvements in activity levels and nutrition could have unintended outcomes for employees over forty years of age who attempt to reduce their BMIs by using extreme measures like starvation or fad dieting (Farrell, Braun, Barlow, Cheng, & Blair, 2002).

Tailor programming to target individualized needs for weight loss. The WLC study findings called for more individualization of weight loss programming. This study revealed that it is almost impossible to offer a successful weight loss program to hundreds of people without

tailoring the program to the specific needs of the employees that join the program. Each person joining a weight loss program has a unique set of characteristics that need to be addressed in order for them to be successful in weight loss or positive health outcomes. The researcher termed this relayed need to find individualized variables for weight loss success or behavior change as the process of “cracking your personal weight loss code for weight loss/behavior change success.” For example, some people need to become more physically active but their eating habits are acceptable. If the program taught participants how to eat healthier, the program would fail to meet the needs of those particular participants. Weight loss programs could be tailored and separated into several programs with a different focus. Areas for consideration are: only exercise focused, only diet and eating habit focused, or only psychosocially focused. In addition to assessing for the various individualized needs for weight loss programming, and enrolling participants in different programming to address specific needs for weight loss, programs could be offered specifically for people who find difficulty overcoming obstacles and barriers that occur often, such as business travel or family events. Some needs the WLC participants relayed cannot be addressed in a weight loss program at work. In those situations, referrals can be made to outside the workplace assistance such as specialized physicians, dieticians, psychologists, family therapist, or other mental health professionals.

WLC Study: Recommendations for Further Research

This WLC study offered insight into the lived experience and meaning of dropping out of a voluntary worksite weight loss challenge from the perspective of obese individuals. Based on findings from this qualitative study, the researcher suggested the following recommendations for further research.

Wellness professionals and weight-related workplace bias. Future research is needed to develop best practice programs in support of participants who have lost weight successfully and are trying to maintain their lost weight or continue their weight loss efforts. WLC participants dropped out of the WLC in the challenge involved in this study, but they all relayed many successful weight loss efforts in the past. Unfortunately, they were not able to maintain their lost weight and, instead, regained the weight they had lost. Programs focused on supporting employees who are trying to maintain weight loss are limited. Future research is needed to understand the implications of obese participants' weight loss goals for the future after dropping out of a Weight Loss Challenge at work.

Repeat weight loss failures: what can be learned. Research is needed on the weight loss program participants that do not succeed in weight loss instead of forming the field of obesity treatment's gold standards on what works for five percent of people who do lose weight successfully. Much can be learned from the individuals who continually fail at weight loss efforts to determine where program planners and obesity treatment professionals are going wrong.

Addressing psychosocial issues: methods and best practice. Research is needed to find best practice weight loss strategies for people who have underlying psychosocial issues that enroll in worksite weight loss program to lose weight. These issues may be addressed in clinical settings but with further research, support for these issues could also be given through workplace program participation or through specific weight loss program planning with psychosocial issues in mind.

Positive weight-related health change incentive measurements. Research is needed to find methods to measure positive health change, without relying solely on BMI and weight. Worksite wellness programs could assist companies with medical cost management, without increasing weight stigma at the work place with information from this type of research. Answers from this research also could provide additional insight necessary for improved, obesity bias sensitive, consultation from corporate health management professionals to their corporate clients regarding cost reduction related to preventable health risks, in particular, obesity. Study states and countries that do have lower BMIs and determine what was different about those countries and states. Once similarities are discovered, implement those protective factors, if that is what it is, in other areas. More qualitative research is needed as well to let the voices of other obese individuals be heard regarding weight loss efforts and life time experiences with weight loss.

Wellness programs: support of weight loss maintenance. Future research is needed to develop best practice programs for supporting participants who have lost weight successfully and are trying to maintain that lost weight or continue losing. WLC participants dropped out of the WLC in the year's WLC being studied, but they all relayed many successful weight loss efforts in the past. Unfortunately, they are never able to maintain that lost weight and regain the weight lost every time. Programs focused on supporting employees who are trying to maintain weight loss are limited. Future research is needed to understand the implications of participants' shared continual hold on weight loss goals for the future after dropping out of a Weight Loss Challenge at work, despite the continual failure to meet them.

Discrimination: impact on wellness/fitness participation. Additional research is needed to determine how weight stigma impacts the exercise and other behaviors engaged in by obese weight loss program participants, particularly when the exercise facility they access is located at their workplace.

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Appendix A: UMCIRB Approval



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · www.ecu.edu/irb

Notification of Continuing Review Approval: Expedited

From: Social/Behavioral IRB
To: [Mary Vintinner](#) (now married name- Wallace)
CC: [Sharon Knight](#)
Date: 1/28/2014
[CR00001293](#)
Re: [UMCIRB 12-000615](#)
Obesity and worksite weight loss challenges

The continuing review of your expedited study was approved. Approval of the study and any consent form(s) is for the period of 1/28/2014 to 1/27/2015. This research study is eligible for review under expedited category #6, 7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Document	Description
2012-26-2 Mary Vintinner Thesis Proposal.docx(0.01)	Study Protocol or Grant Application
email advertisement for thesis study.docx(0.01)	Recruitment Documents/Scripts
Informed consent Mary Vintinner.docx(0.02)	Consent Forms
INTERVIEW QUESTIONSFINALMARY VINTINNER RESEARCH.docx(0.01)	Interview/Focus Group Scripts/Questions

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

Appendix B: Sampling Invite Study Email

STUDY VOLUNTEERS NEEDED!

Title of Research Study: The lived experience of obese employees who discontinued voluntary participation in a workplace weight loss challenge program: a qualitative study

Principal Investigator: Mary Vintinner

Institution/Department or Division: ECU-Health Promotion Graduate Program

Why are you being invited to participate in this study? You are being invited to take part in this research because you have previously participated in on-site Volvo's national weight loss challenge. If you volunteer to take part in this research, you will be one of about 12 people to do so.

Qualification for this study participation:

- Age of 18 or older.
- Gender: male or female.
- BMI: BMI of 30 or greater upon initiation of the weight loss challenge program.
- Program participation: You discontinued the program after engaging in at least three weigh-ins associated with the program, with the third weigh-in occurring approximately mid-point in the program. Note: Your experience does not have to be a positive one to qualify.

If you meet the following criteria for this study and are interested in assisting with this study, or you have further questions about this study, please contact me by email.

Mary Vintinner

Appendix C: Approved Consent Letter



Informed Consent to Participate in Research

This is information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: The lived experience of obese employees who discontinued voluntary participation in a workplace weight loss challenge program: a qualitative study.

Principal Investigator: Mary Vintinner

Institution/Department or Division: ECU-Health Promotion Graduate Program

Address: 4105 Trappers Run Ct. High Point, NC 27265

Telephone #: 336-456-8034

Researchers at East Carolina University (ECU) study problems in society, health problems, environmental problems, behavior problems and the human condition. Our goal is to try to find ways to improve the lives of you and others. To do this, we need the help of volunteers who are willing to take part in research.

Why is this research being done?

The purpose of this research is to study and better understand the lived experience of employees participating in work-site weight loss challenges, particularly those that stop participation during the program. By doing this research study, I hope to discover information about this topic that is missing in the literature. The gained knowledge can then be applied to program planning in the future. The decision to take part in this research is yours to make.

Why am I being invited to take part in this research?

You are being invited to take part in this research because you have previously participated in on-site workplace weight loss programs. If you volunteer to take part in this research, you will be one of 12 people to do so.

You should not participate if you will have a negative, stressful or emotionally harmful reaction to sharing your thoughts, ideas and feelings about your participation in the weight loss program at work. You should also not participate if you cannot fulfill both requirements for the research 1) Interview (s) and 2) image assignment.

Are there reasons I should not take part in this research?

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?

The research procedures will be conducted at your worksite in the Wellness Coordinator's office on-site. You will need to come to the Wellness Coordinator's office at your scheduled appointment times during the study. The total amount of time you will be asked to volunteer for this study is a maximum of 4 hours over the next five weeks.

What will I be asked to do?

You are being asked to do the following:

- Participate in one interview. There is a chance I will call on you for a second interview. I will ask you several questions related to your experiences and you will answer by verbal responses with as much detail as possible. Estimated time needed for interviews and focus groups is one hour. These sessions will be tape-recorded for accurate recall by the researcher. These interviews will take place between August 2012 and Oct 2012.
- You will also be required to bring several visual images (pictures, drawings, photographs) to your interview that represents your experiences with weight loss. These photographs and drawings will be kept until the end of my research and then will be turned in to my professor upon completion. Any personal identifiers will not be associated with the art or photographs to protect your privacy.

The two bullets above are integral to the research so if you do not feel comfortable with either you have the option of declining to participate in this research.

What possible harms or discomforts might I experience if I take part in the research?

It has been determined that the risks associated with this research are no more than what you would experience in everyday life.

What are the possible benefits I may experience from taking part in this research?

We do not know if you will get any benefits by taking part in this study. One possibility is that you may gain valuable insight by sharing your personal perspectives. This research might help us learn more about how to design and implement effective weight loss efforts in the workplace. There may be no personal benefit from your participation but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

We will be unable to pay you for the time you volunteer while being in this study.

What will it cost me to take part in this research?

It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?

To do this research, ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- The University & Medical Center Institutional Review Board (UMCIRB) and its staff, who have responsibility for overseeing your welfare during this research, and other ECU staff who oversee this research.

All personal identifiers to the research findings will be removed before this final research project is submitted or published.

How will you keep the information you collect about me secure? How long will you keep it?

All research related documents will be saved in the locked cabinets of my locked office at Volvo Group. The contractual agreement between my company and Volvo Group requires them to provide me with an office that allows for HIPPA compliance for storage of employee health information. If my employment changes, I will give Dr. Sharon Knight the hard copies to be stored in her locked files at ECU. Electronic data will be saved in ECU maintained server Piratedrive. All research related data will be stored for three years after the completion of the research. All personal identifiers will be deleted or changed. All participants will decide on a code name to use in data transcription and research findings will not be shared with participants as a group to protect your privacy at work.

What if I decide I do not want to continue in this research?

If you decide you no longer want to be in this research after it has already started, you may stop at any time. You will not be penalized or criticized for stopping. You will not lose any benefits that you should normally receive.

Who should I contact if I have questions?

The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at 336-456-8034, Monday through Friday between the hours of 8:00am-5:00pm.

If you have questions about your rights as someone taking part in research, you may call the UMCIRB Office at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of UMCIRB Office, at 252-744-1971

Is there anything else I should know? No

I have decided I want to take part in this research. What should I do now?

The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

Participant's Name (PRINT)	Signature	Date
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Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above, and answered all of the person's questions about the research.

Person Obtaining Consent (PRINT)	Signature	Date
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Appendix D: Interview Guide

INTERVIEW GUIDE:

What has weight loss meant to you in your life?

What made you want to join a program at work for losing weight?

What prior experience have you had with weight loss programs or trying to lose weight?

Probe: How is this program at work different or the same for you compared to others you have tried??

Let's take look at your visual images you brought today. Tell me about these images and their meaning to you.

What was it like for you to participate in this weight loss challenge at work?

Probe: How did the results of participating in the weight loss program differ from what your expectations were, if at all?

Describe your most memorable experience (s) in the weight loss challenge program?

Tell me about your decision to stop participation in the program?

Probe: When did you make the decision to stop participating?

Probe: Describe to me the factors, feelings, events that made you stop participating in the program?

Probe: How did quitting the program influence your weight loss goals?

Probe: How did you feel after you decided to stop participating in the program?

Is there anything else that you would like to share that we have not talked about?

Appendix E: Triangulation Data

Adult Obesity Onset

OBJECTS/IMAGE	MEANING IN LIFE AND WEIGHT LOSS	OVERALL RELATION TO LIVED EXPERIENCE OF DROPPING OUT
Exercise Calendar (Object)	Demonstrated keeping on a schedule for weight loss goals. Commitment to a plan. Exercise was an important part for her. Walking was a time alone that she could work out emotional issues and lose weight. She liked to do this alone. And it helped her deal with emotional pain and struggles.	Participant was still making steps positive to health. She was walking, she was getting support but she was struggling with many emotional challenges like: feelings of shame, guilt, judgment, stigma, and self-doubt. Her doubt was a barrier in weight loss and participation
Sad, thoughtful woman picture	Represented her struggle with emotions and it's relation to weight loss. The meaning of weight loss to her in her life time was addiction, emotional pain and growth.	Struggles with emotional issues were always a Challenge with weight loss and presented themselves in the dropping out experience.
King size permanent marker (Object)	Represented her struggle with distorted body image. She saw herself as "king size" and her situation with obesity felt permanent at times	She relayed dropping out but continuing to make healthy steps even though it did not relate to making the 5% weight loss goal. Her situation with obesity felt permanent but her efforts did not have to be.
Tennis shoes	Even though she dropped out of the Challenge she was still in the shoes and was trying to be healthier.	
Knife (Object)	Symbolic of overeating and inability to control eating for comfort and other reasons	Stress, workload and eating to handle emotions were all barriers
Baby bottle	Felt he was immature and had negative self-perceptions about his ability to handle his food intake and deal with emotions	Self-perception about ability to lose- barrier of unhealthy relationship with food and emotional eating/overeating

Stress ball (Object)	Symbolize feelings of unmanageable stress which was a weight loss barrier to weight loss.	Stress, workload and eating to handle emotions were all barriers to participation and led to dropping out
Family pictures	Reason to lose weight was family. Meaning: fear of death and disease and not being there for them because of obesity	He was not connected with this reason at that time and was focusing on work issues, stress, emotional issues, addiction and pain instead. Barrier of not connecting with real reasons to lose and barriers became more of an issue.
Falling off the wagon	Symbolized feelings about an overeating problem that was equal to an addiction. She used this addictive disease terminology to describe discontinuing positive health habits while trying to lose weight. It was an unending challenge.	Unhealthy relationships with food and relapse were barriers to weight loss and participation in Challenge. Her challenge continued and she fell off the wagon.
Prom picture	This picture was taken during a time she felt healthy and confident. She had reported no self-esteem, body distortion, health issues or disordered eating habits during that time of her life. She would like to be that again.	Her perceived inability to follow through was one reason she dropped out of the Challenge. Self-esteem disordered eating were issues dropping out.
Step it up log (Object)	Represented her inability to follow through in her struggle with obesity and weight. She would start but always stopped weight loss efforts and habits that she felt led to weight loss.	
Fun Size Candy Bar (Object)	The fun size statement illustrated the temporary meaning of wanting to have fun and enjoy life. Something that at the time of menopause, she felt she was unable to do and lose weight.	A barrier to weight loss was her temporary lack of motivation and desire to not worry about weight loss anymore. She hit a weight loss plateau and got frustrated so she quit. It was too hard.
Nutrition goals list (Object)	This note from her nutritionist visit had three things on it for her to do. It reflected the "list" of action items necessary for weight loss that she always had to pay attention to.	A barrier to weight loss was her temporary lack of motivation to put effort towards her weight loss action items. She hit a weight loss plateau and got frustrated so she quit. These action items were not completed.

Chocolate	Eating habits and addition to chocolate made it difficult for her to lose weight	Barrier to weight loss and continuing participation. Disordered eating. Other obligations played a part but the stress and obligations led to a return to unhealthy eating habits, weight gain and dropping out.
Foot and knee pain pictures	Symbolized her knee and foot pain that she recognized as related to obesity.	One reason she wanted to lose weight was to decrease the pain in her knees.
Stressed out stick figure	Represented her feelings of stress which were related to weight loss struggles	
Tornado Picture	Represented the process of getting overly stressed and overly busy. So busy and stressed that it meant making unhealthy choices resulting in weight gain.	Stress and barriers and other obligations were reasons she dropped out
Face concealer (Object)	Wanted to conceal her body like she used face concealer on her face to cover imperfection symbolic of feeling the "publicness" of obesity as an issue. You cannot hide it and she wanted to.	Body distortion, self-esteem, body image dissatisfaction. In the year she dropped out-this was not the main reason she dropped out but was reflective of her experiences with weight loss in general and her overall experiences each year in the challenge. Importance of losing weight to see a reflection she and others approved of on the scale.
Compact Mirror (Object)	The mirror represented the scale. It reflected an image of whole self. Whatever she saw on the scale was a reflection of worth and how well she was doing in her efforts to be healthier	
Fit female picture	Represented what she felt was a healthy look. She identified her body image distortion as a young person. This image of healthy yet not too skinny middle age person was what she desired as a result of weight loss at this time. Weight loss meant acceptance, peace, achievement, contentment and victory.	Self-image, difficulties with weighing-in, body image distortion, judgment of self were barriers to weight loss and participation. Did not want to see her failure reflected on the scale. She had several unexpected events (death of pet, and health issues) but she still expressed her weight loss challenges as self-failure.

Bulb/flower	<p>After losing weight she felt she had bloomed into a new person, able to be "seen". (Bariatric surgery participant). Weight loss meant happiness, but for most of life being thin was always of outreach. Now she felt like a flower in bloom. "Experiencing a life that she never knew was possible."</p>	<p>This surgery was POST-weight loss challenge drop out but is a significant representation of body image distortion, self-esteem, weight discrimination and last psychosocial issues that came into play during her drop out experience</p>
Jumping for Joy figure	<p>Represented a life time of weight loss struggles and obesity but health and happiness were finally realized after 135 pound weight loss. 85 pounds post bariatric surgery.</p>	<p>Her weight had reached an all-time high during the challenge. She realized while dropping out she was going to have to seek medical intervention for her obesity.</p>
Sad cloud	<p>Represented every time she failed at dieting, not just the Challenge. She relayed letting herself down and "somehow" others around her.</p>	<p>Her emotions, self-esteem, unhealthy relationships with food, and ways of coping by eating were all issues for her in the weight loss challenge and were reasons for dropping out, as they had been in a life time of experiences with weight loss.</p>
To do list (Object)	<p>Life time weight loss was always the main thing on her internal "TO DO" list.</p>	<p>She struggled with self-image, perceptions of others, weight discrimination and an unhealthy relationship with food. Even post bariatric surgery these issues began to creep back up for her and were relayed in the experience of dropping out as well. The item on the TO DO list was still there.</p>
Message sign to others: I'm focused, I want to lose my weight, just leave me alone	<p>This message represented her focus on others instead of herself and her busy work schedule/stress interfering with weight loss. She wanted people to let her be focused and leave her alone to do that.</p>	<p>Barrier during the challenge and in her life time struggle with obesity was putting others before herself. When she did this she lost track of focusing on weight loss actions for herself. Obligations, stress and eating to handle emotions all got in the way. Weighing-in was a reflection of a life time struggle with negative emotions related to weight.</p>

It's easy button (Object)	Weight loss had always been easy. Something he did all his life but now it was a serious struggle and was not as easy as an older adult.	He dropped out because of a plateau that became frustrating because he was no longer able to as easily lose weight. He had been yo-yoing his weight all his life but had never been thin, just big. He was not motivated to lose because he had no health problems as well. Weight loss was just something he did constantly back and forth. He traveled a lot during the dropping out experience. Since he has more trouble monitoring his habits always from home and travel was stressful, he dropped out.
Yo-yo (Object)	Represented his life time habit of weight cycling even as a child. This was an easy, natural process that got harder for him in mid-life,	
Air pump for ball (Object)	Represented his habit of eating too much or overeating. He would feel uncomfortable and over full. He was unable to discipline himself from overeating and other habits when he traveled especially.	
Gift card (Object)	Represented motivation to lose: a tary reward. His motivations were swayed by life events.	The motivation of the gift card was not enough this year because he was faced with so many other obstacles and barriers, due to travel.
Airplane ticket/picture of airplane	Unexpected work events like travel made it difficult to stay committed.	Obligations/Barriers to weight loss and continuing in Challenge. He had difficult with commitment to weight loss efforts. And made it difficult to constantly pay attention to weight loss efforts.
Cookies	Food was an issue for weight loss, liked sweets and enjoyed food, felt deprived when dieting or trying to lose weight	Barriers to weight loss and participation. Unhealthy relationships with food. Did not see himself making the changes he needed to make to lose so he quit.

Broken, chewed
Pencil

Represented his stress level and anxiety.

George was not "watching" due to being distracted by other commitments and stressors. He was not up to the full commitment of being "obsessed" at this time. Stress was a major factor during the year he dropped out of the Challenge. This led to unhealthy habits or lack of healthy ones.

Watched pot
picture

When he focused on something else like intense exercise he was more successful. He needed obsession to lose weight and stay thinner. He lost that and for him the watching was about NOT gaining. When he was watching and obsessed, it did not move but once he lost that intense focus he never got back there again.
Weight loss meant: obsession

Barriers to weight loss and participation. Unhealthy relationships with food. Did not see himself making the changes he needed to make to lose so he quit.

White board
eraser and thin
pen (Two
objects brought)

People wanted him to be one thing but he felt he could never be that because he was not supposed to be like that. Compared himself to the larger white board eraser and what people wanted him to be was a thin pen.

He was always trying to live up to the expectations of others and himself to be thinner and was frustrated at that expectation. He felt weight discrimination and that his efforts to be healthier were not represented on the scale.

Appendix F: Research Journal Log Sample

10/2/2012 - 9:00am I had 16 replies to the email request for research participants. I took all the males and the first 6 females. I skipped over one female that I know really well and decided on someone that I was not as familiar with. One person actually did not meet qualifications.

10/8/2012 – 11:00am I sent out the consent forms to all volunteers by email and asked them to review the content of the consent. I pointed out a few things and clarified. Each person is to bring the signed consent to me in my office where we will discuss any issues or concerns. They were at this time asked to review the criteria to make sure they qualified for the research and told they still can decide not to participate.

10/9/2012 – 2:00pm As of this afternoon I have gotten no replies to the consent form email and I am getting worried.

10/10/2012 - 2:00pm I decided to send out another second request. I got one consent form but still have no interviews.

10/10/2012 - 3:30pm. That second request did some good. I now have 4 interviews and 4 consents. One female and three males. My first interview is scheduled for this Friday. Yikes. I am a bit nervous but I cannot put it off anymore! It is data time. I am interested in hearing what people have to say. I am doing a focus group project for my other graduate class and I was going to do it on this subject as well. A focus group was not in my proposal so I will have to ask what happens if some new data comes about in that focus group that contributes to the study...even though it is not a part of this study at all.

10/11/2012 - 8:00am I made a folder in my locked file cabinet for all my consent forms and documents pertaining to this research and have all the consents I have so far in there.

Appendix G: Sample Analysis and Reflection Journal

4/05/2014

This problem is basically a circle within a bigger circle. The small cycle is a continuing pattern of participation in the weight loss challenge, with high expectations for success and reasons to lose, but then as obstacles, "fall backs" to old habits,....as physical and psychological aspects raise their ugly heads into the experience; the participants have a "raising of the white flag", a temporary retreat from the battle but not a total surrender. They give up, they quit, they say not right now only to start that whole circle over again the following year....WHICH is within the circle of the SAME exact pattern throughout their experiences with weight loss. Expectations lead to Hope, which leads to attempts at behavior change, which leads to either weight loss or weight gain, which....either way eventually leads back to weight gain and here we go again. Something has to break the cycle and I guess that is where the cracking the code or finding the formula comes in.

Step one of this data analysis: I drove by about a million times not knowing what the heck I was looking for. Where the HECK is the entrance??? I might slow down, maybe even get out of the car and head down a path only to realize this path clearly is NOT the entrance into data analysis.

Step two: I FINALLY find the entrance but then I get LOST in there. There are so many trees, and rocks and leaves, flowers, grass, sounds, animals, details, details, details. I cannot see the forest any longer. I could stay here for AN ETERNITY. Finding more and more cool things and not wanting to let any of them go. I TRY to leave several times but I cannot get back to my car with all the STUFF I won't leave behind. So, I decide to organize it all into different areas. You know.....all the interesting stuff. I put down all my "stuff"; put the flowers in one little area, the rocks in another.....etc. etc. This is GOOD, I tell myself.....here are all the rocks.....here are all the leaves.....now, I will organize them JUST RIGHT.

Step three: I get exhausting. The details get blurry and they stop meaning anything at all. What a bunch of CRAP this forest is. Who GOES here in their right mind?? I have to rest.

Step Four: I HAVE to get out of here and finish. I miss my family, my life, and my regular routines and wipe my brow....shooooo, ALMOST DONE I say! I am going to bring Dr. Knight and her committee all the way back in here and give them the WHOLE tour of this place and all my nice, neat piles. Sadly, I was just getting started and did not even know it. UGH. Poor me.....

Step Five: This sucks. I find a path out of the hypothetical research forest and all of a sudden I am on this hill overlooking everything. AH! Why didn't I see THAT before?? Excited, I run back to a path I recognized up on the hill, back to the parking lot I started with....OUTLINE IN HAND.

Step six: OH no..... I am in the parking lot again with my stupid outline and I have no idea how to get back in and get my stuff from the forest of data. Stuck, Stuck, and Stuck.

And that is where I am right now. Thinking weird stuff about a forest of data instead of writing like I should be.....This is not fun,....I have got to get back in there and pick just a few rocks, a few flowers, ONE, maybe two leaves to take back out with me and put them in this stinking outline so the committee has a nice picture of what the forest is like without going there.

4/11/2014

WHY ARE WE NOT ENCOURAGING PEOPLE TO BE HEALTHY? NOT BE SKINNY AT ANY COST? According to several 2008 sources the overweight BMI category shows no related risk at all....and in fact is the lowest related health risk BMI group.

Weight cycling has **MORTALITY RISK**. Gastric Surgery carries a risk of nearly 5% mortality rate compared to a normally expected 1%.....lots of complications and people are gaining weight back. So, if associated health risk are connected statistically to grade 3 obesity (morbid obesity) and only 5% of the population reaches this level....well, I will just say that is a lot of people trying to be skinnier for health reasons by dieting that just need to get on the treadmill and eat a balanced diet, not necessarily lose weight.

It seems the problem is more physical inactivity and all these diets we keep pushing. Physical activity increase dramatically reduces risk **WITHOUT ANY** weight loss at all. Since when did "association" mean cause?

This article on discrimination is **EXACTLY** what my people are saying! Our program and all others it seems in worksite wellness carry with it a stigma. We are trying help, and in that effort are actually making things worse, no wonder our obesity rates don't change. O.M.G. I did not even see it because I am IT.

So new essence: The participants in this study saw the experience of dropping out through the lens of the past because despite good intentions by wellness programs they revealed an unintentional obesity stigma that is reflective of our societal views on obesity exist in our wellness efforts to "downsize" employees. **GEEZ.....**didn't expect **THAT** to evolve.

This is good stuff..... **AND**, while we are doing all this weighing-in and trying to reduce obesity we actually are increasing bias and stereotypes. **ALL** wrong. I am going back to my office and throw my scale out into the parking lot and run over it a few times.

Appendix H: Code Book

Codename	Explanation	Inclusion	Exclusion	Example
PASTEXPER	Past experiences with weight loss efforts other than the worksite WLC	Things participants have tried, description of methods, programs successful or not	No experiences with the work-site WLC in the past	"Once I signed up with a program to get shots to lose weight."
FAMLIFEHIST	Family or significant life history	childhood past, related to obesity experience or weight life time	No comments not related to weight loss or obesity experience	"Bullying was an influence on weight loss efforts."
QUITEXPER	Feelings and thoughts about quitting the WLC	Specific to dropping out	Nothing related to prior to the WLC	"I just quit, deleted emails, stopped thinking."
PERCEPT	Perceptions of or contributing to obesity or WL	What they thought others thought	No perceptions of others	"People saw me as worthless when I was big"
EXPECT	Expectations during or before WLC	Any reference to expectations	NA	"I was 100% certain I would get my incentive and lose weight"
REASJOIN	Reasons for joining	any reference to why they joined WLC	Not about other programs	I wanted support and structure"
COMEMOTION	Common Emotions	Expressed emotions	emotions not having to do weight or obesity	"I do not care" I was depressed about my weight."
QUITREASON	Why they quit the WLC	All reference to why they dropped out	NA	"I was traveling, or medical difficulties"
RELATIONS	Relationships influential	Any mention to relationships	NA	" My mom was influential to my obesity"
IMPACTGOAL	Impact of drop out to overall goals	comment on drop out and effect on long term goals	NA	"Even though I dropped out I still had my goals"

Appendix I: ECU CITI Training Completion and Update

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)

HUMAN RESEARCH CURRICULUM COMPLETION REPORT

Printed on 07/15/2014

LEARNER: Mary Vintinner (ID: 1852831)

DEPARTMENT: Health Promotion

PHONE: 336-393-2638

EMAIL: mary.vintinner@consultant.volvo.com

INSTITUTION: East Carolina University

EXPIRATION DATE: 09/04/2013

GROUP 2.SOCIAL / BEHAVIORIAL RESEARCH INVESTIGATORS AND KEY PERSONNEL

COURSE/STAGE: Basic Course/1

PASSED ON: 09/05/2010

REFERENCE ID: 4833813

REQUIRED MODULES DATE COMPLETED

Introduction 08/29/10

History and Ethical Principles - SBE 09/05/10

Defining Research with Human Subjects - SBE 09/05/10

The Regulations - SBE 09/05/10

Assessing Risk - SBE 09/05/10

Informed Consent - SBE 09/05/10

Privacy and Confidentiality - SBE 09/05/10

Research with Prisoners - SBE 09/05/10

Research with Children - SBE 09/05/10

Research in Public Elementary and Secondary Schools - SBE 09/05/10

International Research - SBE 09/05/10

Internet Research - SBE 09/05/10

Vulnerable Subjects - Research Involving Workers/Employees 09/05/10

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid independent learner. Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

Paul Braunschweiger Ph.D.

Professor, University

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)

HUMAN RESEARCH CURRICULUM COMPLETION REPORT

Printed on 07/15/2014

LEARNER Mary Vintinner (ID: 1852831)

DEPARTMENT Health Promotion

PHONE 336-393-2638

EMAIL mary.vintinner@consultant.volvo.com

INSTITUTION East Carolina University

EXPIRATION DATE 07/14/2017

GROUP 2.SOCIAL / BEHAVIORIAL RESEARCH INVESTIGATORS AND KEY PERSONNEL

COURSE/STAGE: Refresher Course/2

PASSED ON: 07/15/2014

REFERENCE ID: 10528820

REQUIRED MODULES DATE COMPLETED

SBE Refresher 1 – Defining Research with Human Subjects 07/15/14

SBE Refresher 1 – Privacy and Confidentiality 07/15/14

SBE Refresher 1 – Assessing Risk 07/15/14

SBE Refresher 1 – Research with Children 07/15/14

SBE Refresher 1 – International Research 07/15/14

Biomed Refresher 1 - Instructions 07/15/14

SBE Refresher 1 – History and Ethical Principles 07/15/14

SBE Refresher 1 – Federal Regulations for Protecting Research Subjects 07/15/14

SBE Refresher 1 – Informed Consent 07/15/14

SBE Refresher 1 – Research with Prisoners 07/15/14

SBE Refresher 1 – Research in Educational Settings 07/15/14

SBE Refresher 1 – Instructions 07/15/14

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Director Office of Research Education

CITI Program Course Coordinator

