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entitled

Examining the Relationships Among Perceived Parental Support, Hope, Optimism and
Weight Status

by
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Submitted to the Graduate Faculty as partial fulfillment of
the requirements for the Master of Arts Degree in Psychology

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An Abstract of

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With the prevalence of individuals who are overweight or obese reaching approximately half of the United States population and successful, long-term treatments for weight loss being difficult for health officials to pinpoint, the general consensus is that obtaining and maintaining a healthy weight into adulthood is difficult to accomplish. However, some individuals are able to successfully achieve a healthy weight status and researchers have become interested in understanding how these individuals differ from their less-successful counterparts. Previous research suggests that individuals who succeed at achieving a healthy weight status may exhibit strong positive psychology traits such as optimism and self-efficacy. The current study addressed the relationships among perceived parental support, hope, optimism and weight status. Additionally, the ability of these positive psychology factors to predict successful weight loss and maintenance for individuals who were formerly overweight or obese before the age of 16 was addressed. Participants included 70 undergraduate students (58.6% females) ages 18-31 (mean age = 19.5). Each participant completed a background questionnaire, the Adult Hope Scale
(Snyder, et al, 1991), the Life Orientation Test, Revised (LOT-R) (Scheier, Carver, & Bridges, 1994), and a short questionnaire regarding their perceived level of parental support as it pertains to healthy weight management. Each participant’s height and weight were also measured. It was hypothesized that higher scores on parental support, optimism, and hope will predict a healthier BMI, and parental support will be most predictive of healthier BMI, followed by hope and optimism.

Using hierarchical multiple regression analyses and correlations, the levels on these three constructs were evaluated to compare individuals who are now of a healthy weight status to individuals who continue to be overweight or obese. Results indicated that parental support, hope, and optimism are not strong predictors of successful weight loss and maintenance in this population. Correlational results suggest that hope is related to the occurrence of a significant amount of weight loss. This finding promotes the idea that hope should be further researched as a component of the successful weight loss experience. Limitations in study design, the implications that the results may have on future weight- and positive psychology-related research, and future research directions are discussed.
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Chapter 1

Introduction

The prevalence of overweight and obesity in the United States has been following an upward trend since The Centers for Disease Control and Prevention’s 1988 through 1994 report *Health*, such that, today, the prevalence of overweight and obesity in the United States has increased to affect approximately two-thirds (68%) of the population (CDC, 2010; Flegal, Carroll, Ogden, & Curtin, 2010). However, 38% of adult women and 24% of adult men report that they are attempting to lose weight (Kruger, Galuska, Serdula, & Jones, 2004). Regardless of these attempts, the perception of the general public (Kassirer & Angell, 1998) and the literature suggest that long-term reduction of body weight is difficult to maintain (Wing & Hill, 2001).

Being overweight or obese has a myriad of adverse effects on the health, psychological well-being, and social interactions of the individual (Gortmaker, Must, Perrin, Sobol, & Dietz, 1993). As such, successful weight management can be instrumental in helping the individual to live a healthier and more fulfilling life.

The emphasis in the wellness fields has begun to shift from tertiary care for overweight and obese adults to addressing overweight and obese children and adolescents. Studies on childhood obesity reveal that the prevalence has increased over the years (CDC, 2010; Ogden, Flegal, Carroll, & Johnson, 2002). Since 1976, the prevalence of overweight preschool-aged children has more than doubled from 5% to 11%; the prevalence of overweight school-aged children and adolescents has also more than doubled, from 7% to 15%; and has more than tripled, from 5% to 18%, among adolescents 12-19 years old (CDC, 2010). Unfortunately, the majority of these children
are not “growing out of it” and, in 54.7% of all cases, an obese child grew to be an obese adult (Togashi, Masuda, Rankinen, Ranka, Bouchard, & Kamiya, 2002). Overall, weight control treatments for children only work in about half of the cases and it continues to largely remain unclear which factors may serve to predict or impede weight control for children (Teixeira, Going, Sardinha, & Lohman, 2005). It is, therefore, of primary importance to work to understand the complex task of weight loss and management, especially in children so that they are able to avoid the adverse and lasting effects of being overweight or obese in adulthood.

Given that achieving weight loss and subsequent weight maintenance appears to be more difficult for many people than simply resolving to make a change of one’s diet and physical activity patterns, research has begun to look at the psychological correlates involved in the process of weight loss and maintenance. In particular, positive psychology, which promotes a preventative, strength-based approach to research and interventions, has been of interest when discerning which psychological factors are most predictive of successful weight loss and maintenance (Seligman, 2002). Positive psychology recognizes that there are elements within each person that contribute to illness and disability, but that there are also elements that contribute to health, wellness, and thriving (Straub, 2007). Therefore, it recognizes that there are psychological factors that contribute to being overweight or obese, but also that there are factors that may contribute to one’s ability to successfully lose excess weight and maintain a healthy body weight overtime.

The current study examines the relationships among the positive psychology factors of perceived parental support, hope, and optimism and assesses their ability and
the ability of demographic factors (e.g., gender) to predict successful weight loss and maintenance for individuals who were formerly overweight or obese in order to better understand the mechanisms at work during the weight loss process.

The project is presented in five chapters. This chapter provides a brief project overview and rationale for the significance of the research project. Chapter Two provides a literature review to introduce the reader to previous research on social support (specifically parental support), hope, and optimism as it relates to weight status and overall health. The project’s statement of the problem and hypotheses are also discussed in this chapter. Next, in Chapter Three, the project’s method is discussed in detail; this section describes the study design, participants, procedure, and measures used. Chapter Four presents a detailed description of the results. Finally, Chapter Five describes the importance and the rationale behind the findings as well as limitations, implications, and future research directions.
Chapter Two

Literature Review

The childhood obesity rate is a rising concern in American society. The prevalence of childhood obesity has increased from approximately 5% in 1963 to 1970 to 16.9% between 2007-2008 (Ogden & Carroll, 2010). Being overweight or obese poses medical, psychological, and social challenges for individuals. Excess weight associated with serious health risks, such as heart disease, hypertension, diabetes, and gall bladder disease (Baker, Olsen, & Sorensen, 2008; Falkner, 2008) and being overweight as a child can accelerate and exacerbate the development of obesity-related diseases such as cardiovascular disease. (Daniels, 2006; Bibbons-Domingo, Coxson, Pletcher, Lightwood, & Goldman, 2007). However, achieving and maintaining a healthy weight has proven difficult for many individuals. Given the dire health and psychosocial consequences of being overweight into adulthood, it is important to understand the complex mechanisms involved in one’s weight status.

Definitions

Body Mass Index. In order to study the phenomenon of obesity and its correlates, the definition of the phenomenon must be well-defined. The definition of overweight and obesity are generally understood to mean the presence of excess body fat on an individual. However, the determination of what qualifies an individual as overweight or obese is more than a subjective analysis of the appearance of their body. In an attempt to formalize what qualifies an individual as “underweight,” “healthy weight,” “overweight,” and “obese,” the Body Mass Index (BMI) was created to assign a number value to the ratio of an individual’s height and weight. BMI was originally
conceptualized using the metric system, but can be converted to the English system by using the following equation: BMI = Weight (in pounds) / (Height (in inches))^2 x 703 (CDC, 2010). These values can be compared to the guidelines set by the Centers for Disease Control and Prevention to determine into which BMI category an individual falls. The benchmarks are set such that an adult, male or female, with a BMI less than 18.5 is considered underweight; a BMI between 18.5 and 24.9 is considered healthy; a BMI between 25 and 29.9 is considered overweight; and a BMI greater than 30 is considered obese. For extreme cases, occasionally the term “morbidly obese” is used to describe individuals whose BMI is greater than 40 and have reached the point where their amount of body fat has begun to interfere with their day-to-day movement and, possibly, their breathing (Straub, 2007). Body Mass Index, while not perfect, is the most widely used measure for discerning one’s weight status and it has a strong correlation to the amount of body fat an individual carries (CDC, 2010).

BMI measures in children are slightly different than adult measurements in order to account for expected age and sex differences that occur during development. As such, the BMI value is applied to Centers for Disease Control and Prevention (CDC) growth charts to determine the corresponding BMI-for-age percentile for children of the same age and sex. A BMI between the 85th and 95th percentiles is considered overweight while a BMI at or above the 95th percentile is considered obese (CDC, 2010).

**Associated Risks**

**Medical.** Obesity is ranked second only to smoking in its importance as a behavioral predictor of mortality rates (National Institute of Health, 2010). The recent increase in those who are overweight and obese has been linked with approximately
300,000 deaths annually with a total of $117 billion in direct and indirect yearly costs in the United States alone (Stein & Colditz, 2004).

Generally, those who are of healthy body weight live longer than their overweight and obese counterparts. A woman’s risk of dying is 50% higher if she has a BMI of 40 compared to a person with a BMI of 24 while a man’s risk is 2.5 times higher (Calle, Thun, Petrelli, Rodriguez, & Heath, 1999). In addition, being overweight increases the risk of death from all causes in young and middle-adulthood (Oster, Thompson, Edelsberg, Bird, & Colditz, 1999). This is accounted for by the fact that the excess fat crowds the space that would otherwise be occupied by internal organs, and the foods that are often consumed in excess by overweight and obese individuals can have damaging effects on internal organs and the circulatory system.

Although the health risks of being overweight or obese are manifold, there are several that are important to mention. Obesity increases the risk for diabetes, heart disease, stroke, hypertension, osteoarthritis, gallbladder disease, and some cancers. Cardiovascular Disease is often the result of atherosclerosis – a condition where the walls of the arteries thicken with the accumulation of cholesterol and other fats – and is the cause of more mortality than any other disease in the United States, accounting for 34.3% of all deaths – 2,300 deaths per day - in the United States in 2006 (CDC, 2010). The fatty deposits in the arteries begin in childhood and heavily contribute to the development of cardiovascular disease later in life (McGill, McMahan, & Gidding, 2008).

Likewise, overweight or obese children are at an increased risk for diabetes, hypertension, high cholesterol, orthopedic disorders, sleep apnea, low self-esteem, and becoming an overweight adult (CDC, 2010). More than 50% of overweight adolescents
meet criteria for the metabolic syndrome which encompasses insulin resistance, hypertension, hyperlipidemia, and abdominal obesity (Gardner, Gardner, & Sowers, 2008). Furthermore, the morbidity from obesity that is typically associated with obese adults is now emerging in adolescents, including pulmonary, gastrointestinal, neurologic, and endocrine conditions (Must & Strauss, 1999). Moreover, the Centers for Disease Control and Prevention estimate that, without aggressive intervention, one in three children will develop diabetes in their lifetime and at least 10% of those individuals will develop renal complications, including renal failure (Olshansky et al, 2005).

**Psychological.** Because of the magnitude of the medical issues that surround being overweight and obese, the associated effects on an individual’s psychological functioning are often overlooked (Goldfield, Moore, Henderson, Buchholz, Obeid, & Flament, 2010). Studies suggest that adolescence may not only be a crucial period for the development of obesity, but also for the development of the associated mental health problems (Goldfield, et al, 2010). The research strongly supports an association between being overweight and low self-esteem, poor quality of life, disturbed self-image, and social isolation in children (Franklin, Denyer, Steinbeck, Caterson, & Hill, 2006; Williams, Wake, Hesketh, Maher, & Waters, 2005; Strauss & Pollack, 2003; Eisenberg, Neumark-Sztainer, & Story, 2003). Obese youth report higher overall levels of depression than their overweight peers, who, in turn, reported higher levels of depression than their healthy-weighted peers (Goldfield, et al, 2010).

The relationship between depressive symptoms and being overweight for adolescents and adults has been somewhat inconsistent (Daniels, 2005; Goodman & Whitaker, 2002; Faith, Matz, & Jorge, 2002). Some studies suggest that the
psychological effect of obesity seems to be closely related to gender, possibly resulting in inconsistencies in other research. For example, overweight women have a higher incidence of depression and suicidal ideation than their thinner peers. However, for men, being underweight, as opposed to being overweight, seems to be a greater predictor of depression (Carpenter, Hasin, Allison, & Faith, 2000).

Some individuals criticize national efforts to abate the overweight and obesity rate, suggesting that the vigilance required to lose weight and to maintain weight loss will lead to an increase in eating disorders and depression symptomatology. While it true that the social stigma associated with being overweight and obese seems to engender shame, guilt, and body dissatisfaction (Friedman & Brownell, 2002), which can serve as the impetus to begin unhealthy weight control practices for some individuals, the development of such unhealthy behaviors or depression does not occur in many cases. According to the National Task Force on the Prevention and Treatment of Obesity (2000), those participating in behavioral weight loss programs generally experience improvements in the symptoms of depression or anxiety, regardless of whether the weight loss was due to moderate dieting, very-low-calorie diets, or weight loss medications. In addition, before weight loss programs, individuals generally report levels of dysphoria in subclinical depression range and these are reduced with weight loss. Over 90% of the National Weight Loss Registry sample reported improvements in their overall quality of life, mobility, general mood, level of energy, and self-confidence with weight loss. However, a higher level of depression at the onset of weight loss is correlated with more weight regain over time (Wing & Hill, 2001).
Social. Due to the emphasis many societies place on physical appearance, being overweight carries a social stigma for children and adults. Obese children are frequently teased by their peers for their appearance (Harris, Walters, & Waschull, 1991). In fact, Krukowski and colleagues (2009) found that being overweight or obese was related to poorer grades in school, regardless of gender, school level, socioeconomic status, and race. However, when controlled for the presence of weight-based teasing, the relationship between grades and weight status was diminished, suggesting that weight-based teasing in school mediates the poorer performance found in overweight or obese children (Krukowski, West, Perez, Bursac, Phillips, & Raczynski, 2009). In addition, as early as nursery school, children rate pictures of overweight children as not being liked by their parents, having fewer friends, getting poorer grades in school, being lazier, and being less happy and attractive than healthy weight children (Latner & Stunkard, 2003).

Obese adults are not immune to the critical labels that are applied to overweight or obese children. Obese adults are often perceived to be “ugly,” “sloppy,” or “lazy,” as well as being unsuccessful, unintelligent, noncompliant with treatments, and without willpower (Puhl & Brownell, 2001; Ruhl & Heuer, 2009; Brownell, Puhl, & Schwartz & Rudd, 2005; Friedman & Brownell, 2002). These stereotypes may lead to discrimination occurring in housing, health care, college admissions, employment, mass media, and close interpersonal relationships (Puhl & Brownwell, 2001; Ruhl & Heuer, 2009; Brownell, Puhl, & Schwartz, 2005).

Weight-associated stigma remains socially acceptable because society views overweight and obese individuals as primarily responsible for their weight (Puhl & Brownell, 2003). Some consider the bias a useful motivational tool for overweight and
obese individuals to adopt a healthier lifestyle (Crister, 2004). As such, negative opinions of overweight and obese individuals have been reported by numerous professionals including teachers, physicians, nurses, medical students, and psychologists (Puhl & Brownwell, 2001; Ruhl & Heuer, 2009; Brownell, Puhl, & Schwartz, 2005; Puhl & Latner, 2007). Weight-based discrimination is now as prevalent in American society as racial discrimination, by some estimates (Puhl, Andreyeva, & Brownell, 2008). There is evidence that this stigmatization is a significant contributor to the psychological correlates of being overweight and obese such as depression (Friedman, Reichmann, Costanzo, Zelli, Ashmore, & Musante, 2005), low self-esteem (Carr & Friedman, 2005), and body dissatisfaction (Wardel, Waller, & Fox, 2002).

**Economic Cost.** In a pragmatic sense, the effects of being overweight and obese are costly to society. The lifetime medical expenditure attributed to obesity for an obese 20-year-old rises proportionally with rising weight and varies from $5,340 to $29,460. In 2003, nearly 10% of the national healthcare budget ($78.5 billion) was spent on issues directly pertaining to obesity (Barkin, Heerman, Warren, & Rennhoff, 2010). Additionally, studies suggest that obesity is associated with negative labor market outcomes in that obese individuals miss more work days and earn lower wages than non-obese peers (Baum & Ford, 2004; Finkelstein, Fiebelkorn, & Wang, 2005).

There are a handful of theories for these weight-based differences (although only moderately supported in the research). Some posit that obesity may limit the amount and types of work the individual is able to perform due to size and health problems. It is also possible that some employers ascribe to the stereotypes for obese individuals, therefore paying these individuals lower wages based on their perceived decrease in abilities or that
employers who provide health insurance pass on the higher obesity-associated health care costs by providing the employee with lower wages to compensate (Braum & Ford; Bhattacharya & Bundorf, 2005).

**Course.** Unfortunately, overweight or obese children have a high likelihood of having the same weight status when they become adults. Nationally, there is a 50 to 60% probability that being overweight or obese in childhood will track into overweight or obesity as an adult. However, for low-income African American children, that probability rises to 90% (Lee et al, 2010). It is important to note that, in some studies, the case is not the same for very young children. Overweight children at two to three years of age had an approximately 50% chance of being a healthy weight by age 12 (Nader et al, 2006).

**Common Treatments**

**Diet and Exercise.** While diet often implicated as the cause of excess weight, changing one’s diet alone generally is not effective in obtaining and maintaining a healthy weight (Jeffery, Kelly, Rothman, Sherwood, & Boutelle, 2004). Yet, the diet industry is a billion dollar industry for Americans trying to obtain a healthy weight status (Straub, 2007). At any moment in time, approximately 20% of Americans report being on a diet (Serdula, Collins, Williamson, Anda, Pamuk, & Byers, 1993). However, successfully establishing and maintaining healthy eating behaviors has proven to be a difficult process for many individuals (Wing, Tate, Gorin, & Fava, 2006).

**Why Failure Occurs.** Often, diets fail because the dieter has unrealistic expectations regarding the amount of time that must pass before they obtain noticeable results and find it difficult to adhere to dietary restrictions for the length of time required (Wadden, Womble, Sarwer, Berkowitz, & Foster, 2003). In addition, many dieting
individuals underestimate their caloric intake and overestimate their daily caloric expenditure such that the amount of calories they consume outweighs the amount of calories they expend in their daily activities. In one study, obese dieters reported eating an average of 1,028 calories per day. However, analysis of their diet revealed that they were actually consuming 2,081 calories per day while substantially over reporting their physical activity level (Lichtman, Pisarska, Berman, & Prestone, 1992). In addition, studies suggest that 70% of adults in the United States do not meet the criteria for the physical activity level needed to lose or maintain weight (Spiegal & Alving, 2005). While very few individuals (10%) are able to lose weight and maintain loss by altering diet alone, many popular weight loss plans emphasize diet while paying little attention to exercise (Wing & Hill, 2001).

It is worth noting that the “Millennial” generation – those born between 1982 and 1993 – has notoriously poor health habits that contribute to the development of excess body fat (Barkin, Heerman, Warren, & Rennhoff, 2010). In a 2008 study conducted by the CDC, a national survey targeting the health behaviors of high school students revealed that two-thirds of students do not meet the recommended guidelines for physical activity and over 75% reported not eating the recommended amount of fruits and vegetables (CDC, 2008).

**What works.** Whether weight is gained, lost, or maintained is influenced by a number of factors including biological, behavioral, environmental, and psychological factors that all work together to result in an individual’s energy balance (Stein & Colditz, 2004). Not surprisingly, physical activity and exercise, if engaged in regularly, have been positively associated with long-term weight maintenance in cross-sectional,
longitudinal, and retrospective studies (Catenacci & Wyatt, 2007). Several major organizations recommended that if an individual’s goal is to successfully accomplish long-term weight loss, he or she should add 60 to 90 minutes of physical activity of moderate intensity in addition to dietary regulation (Saris et al, 2003; Donnelly, Blair, Jakicic, Manore, Rankin, & Smith, 2009).

It addition to regular, planned physical activity, experts recommend that individuals seeking to live a healthier lifestyle increase “lifestyle physical activity” such as taking the stairs and parking further away from one’s destination (Wing & Hill, 2001). Regardless of the guidelines, only about 20% of individuals seeking weight loss are able to successfully integrate the recommended physical activity into their lifestyle and achieve weight maintenance at a healthier weight status (Wing & Hill, 2001). Yet, why some individuals are successful in weight loss and maintenance while others are not is still largely an unanswered question (Silva et al, 2010).

The National Weight Control Registry (NWCR) was created in 1994 to monitor the weight loss and weight maintenance of successful weight loss maintainers. Of the 3000 individuals in the Registry, 46% report having been overweight as children. Ninety percent of individuals had previously experienced unsuccessful attempts to lose weight (Wing & Hill, 2001). Eighty-nine percent reported that they modified both diet and exercise to obtain their desired goal weight (Klem, Wing, McGuire, Seagle, & Hill, 1997). The most common forms of diet modification included restricting intake of certain types of foods (88%), counting calories (44%), and limiting quantity (44%). Three behavioral strategies were reported by many of the registry participants: eating a diet low in fat and high in carbohydrates, regular physical activity (with an average calorie
expenditure equal to one hour of moderate physical activity each day), and frequent self-monitoring (weighing oneself).

Psychological Factors Influencing Positive Weight Maintenance

**Social and Familial Support.** Given the prevalence of childhood obesity, there is relatively little research on the influence of family, friends, and other role models on the weight loss and maintenance for children and adolescents (McLean, Griffin, Toney, & Hardeman, 2003; Barnes, Goodrick, Pavlik, Markesino, Laws, & Taylor, 2007). However, the research that is present suggests that social support, especially familial support, may be an important component in successful weight loss and management for children and adults.

Family-based interventions recognize that “the children’s weight problems develop and are maintained in a family context” (Kitzmann & Beech, 2006. p 175) and that the parent plays an important role in shaping a child’s healthy behaviors (Golan & Weizman, 2001; Davidson & Birch, 2001). Some studies suggest that interventions targeting both the weight of the child and the weight of the parent seem to yield positive and lasting results for children as long as ten years after the initial intervention (Epstein, Valoski, Wing, & McCurley, 1990; McLean et al, 2003). In addition, training that the parent receives regarding behavior change techniques targeted at the child losing weight seems to encourage child and adolescent weight loss (McLean et al, 2003).

More broadly, social support is also helpful in assisting in weight loss and maintenance. Social support can be broadly defined as companionship from others that offers emotional support, honest feedback, and sometimes, material assistance (Straub, 2007). Perceived social support helps individuals to experience less stress and enjoy
health benefits such as faster recovery and fewer complications after medical procedures, less distress when suffering with a terminal illness, and lower overall mortality rates (Berkman & Syme, 1994). Spousal involvement in the weight loss of an adult tends to improve effectiveness of various treatment programs, especially if the treatment is focused on diet change (McLean et al, 2003). However, given a child or adolescent’s lack of agency and reliance on others, weight maintenance and weight loss programs that capitalize on social support are often more successful for children and adolescents than they are for adults (Epstein, Valoski, Kalarchian, & McCurley, 1995).

The home environment has long been implicated in pediatric overweight and obesity research. Since the child or adolescent is largely without the agency to choose for him or herself which foods to eat, the portion sizes of meals, and how to spend his or her time, caretaker health behaviors can have lasting effects (Ritchie, Welk, Styne, Gerstein, & Crawford, 2005). Many parents understand their influence over their child’s diet, but often underestimate their effect on the physical activity levels of their child (Sallis, Prochaska, & Taylor, 2000). Consistently, one of the strongest correlates of physical activity in children is the amount of time they spend outdoors; a factor that is overwhelmingly influenced by parents (Sallis, Prochaska, & Taylor, 2000). Other strong correlates are the parental involvement in, encouragement of, and modeling of physical activity as well as restricting television and computer use (Nowicka & Flodmark, 2007).

Lissau and Sørensen (1994) found that children who have been neglected show rates of obesity that are nine times that of non-neglected children. Parental obesity has been considered the best predictor of childhood and subsequent adult obesity (Melgar-Quinonex & Kaiser, 2004; Whitaker, 2004), doubling or tripling the risk of childhood
obesity, weighing more heavily upon the weight status of the mother (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997).

Overall, interventions for pediatric obesity that exhibit the strongest and most lasting results are ones that involve the parent or caretaker in some capacity (Jelalian & Saelens, 1999). Although some behavioral treatment programs that involve parents have enjoyed only moderate success thus far (Young, Northern, Lister, Drummond, & O’Brien, 2007), such interventions are becoming increasingly popular in pediatric obesity treatment and many programs show significant improvements compared to control conditions (McLean, Griffin, Toney, & Hardeman, 2003). In addition, interventions that target the family’s emotional climate and resources for coping instead of focusing solely on diet or exercise show significantly more weight loss than controls, as well as increasing the self-esteem of the child after the intervention (Nowicka, Pietrobelli, & Flodmark, 2007; Wood & Miller, 2002).

Cohen and others (1984; 1985) have proposed the *buffering hypothesis* to explain social support as a predictor of better coping when navigating stressful situations. They suggest that social support mitigates the stress indirectly. The individuals who provide social support assist the individual in deriving personal meaning from the diagnosis, maintaining self-control, and aiding in the protecting self-esteem, thus helping the individual to cope more adaptively. With the support of family, friends, and health care providers, individuals experience more feelings of being in control (i.e., having an internal locus of control). As such, the social support system is of great importance to patients to encourage them to continue utilizing their other resiliency factors to their optimal level.
Optimism. Predicting who will be successful in losing weight is difficult and research into whether psychological factors are useful in predicting success yields mixed results, particularly for self-efficacy and locus of control (Benyamini & Raz, 2007). However, dispositional optimism appears to show promise as a reliable predictor (Fontaine & Cheskin, 1999).

Dispositional optimism is operationally defined as the general expectancy for good versus bad life outcomes (Fontaine & Cheskin, 1999). Due to this expectation, people who are generally optimistic believe that they will obtain their goals, thereby keeping these individuals in a goal-attainment mindset and making them more willing to continue trying when past attempts at a certain treatments have failed (Rasmussen, Wrosch, Scheier, & Carver, 2006).

Furthermore, explanatory style affects how patients deal with disappointment when treatments do not work and with the general adversity of their condition. Because optimistic individuals have a set of relatively positive emotions that prevail, their positive disposition allows them to experience fewer negative feelings when faced with disappointment (Carver, 1998). The research analyzing the effects of optimism on weight loss have been mixed, although, some have significantly predicted weight loss (Oginska-Bulik & Juzynski, 2001).

Outside of weight-related research, optimism has been suggested as a predictor for success when encountering numerous other diagnoses. Optimists enjoy shorter hospital stays, faster recovery from coronary artery bypass surgery, and greater longevity with AIDS (Scheier, Matthews, Owens, & Magovern, 1989). On the opposite end of the spectrum, pessimism has been linked to earlier mortality rates. Maruta and colleagues
(2000) collected personality data from general medical patients at the Mayo Clinic from 1962 to 1965 and found that patients scoring high in pessimism had a significantly higher mortality rate (19 percent) than their optimistic peers. Straub (2007) suggests at least four mechanisms that may explain this finding: experiencing more unpleasant events; believing that “nothing I do matters,” leading to poor compliance with medical regimens or taking preventative actions; higher rates of diagnosis of major depressive disorder; and weaker immune systems.

However, why dispositional optimism can be so beneficial is only beginning to be understood. One theory posits that an optimist’s positive expectation that things will work out plays a pivotal role in their behavioral response to adversity, making them more likely to exert a continual effort toward improvement (Rasmussen et al, 2006). While pessimists are less likely to make plans for their future and set goals for their recovery, ruminate, become overwhelmed by their symptoms and view them as out of their control, optimists continue to look forward to the future, use more problem-focusing coping strategies and report being less focused on physical symptoms (Keltner, Ellsworth, & Edwards, 1993; Nolen-Hoeksema, Parker, & Larson, 1994; Rasmussen et al, 2006).

Another theory has enjoyed credence among professionals. According to Frederickson’s (2001) *Broaden-and-Build Theory*, the positive emotions associated with dispositional optimism increase an individual’s physical, cognitive, and social resources. Because they have several resources at their disposal, these individuals are able to cope more adaptively with stressful circumstances and live healthier lives. According to this theory, the optimistic individual is more able than his or her pessimistic counterparts to
use each of their resources in tandem, using one to increase the power of another, making their overall ability to cope and overcome stronger.

**Hope.** Following an extensive review of the literature pertaining to the overweight and obese, there appears to be no research to date that evaluates the effects of hope on one’s ability to obtain and maintain a healthy weight. However, given the positive benefits that hope shows in other chronic illnesses, it is plausible that individuals higher in levels of hope will be more successful in obtaining and maintaining a healthy weight.

During the late 20th century, the medical field began to take an increased interest in the way that hope can be an integral part of the patient experience (Eliott, 2005). Beyond being considered important for patient wellbeing (Herth, 1995), hope has been thought to be influential in patient compliance with treatment (Gordon & Daughery, 2003) and increased quality of life (Farran, Herth, Popovich, 1995). Especially when battling illnesses with difficult courses, such as cancer, hope is viewed as essential to both the decision to fight the disease and to the continual decision to persevere through the fight (Penson, 2000).

**Synder’s Hope Theory.** In the early 1990’s, Snyder championed the movement to study levels of hope as a predictor for better outcomes in various aspects of life including academics, athletics, and physical and psychological health (Snyder, 2002). As opposed to conceptualizing hope as an emotional state, Snyder focuses on the thinking process and defines hope as, “a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)” (Snyder, Irving, & Anderson, 1991; p. 287). Snyder assumes that the human
action is driven by the desire to achieve certain goals whether that be approaching a positive outcome or avoiding a negative outcome. In order to meet these goals, individuals must set up pathways. Hope theory posits that individuals who are high in hope are able to be more decisive about their pathways and are better at producing plausible alternative routes compared to low-hope individuals whose pathways are not as well articulated and have difficulty realizing alternative routes in the face of adversity (Snyder, Lapointe, Crowson, & Early, 1998; Irving, Snyder, & Crowson, 1998). Agency - individual’s perceived ability to carry out the necessary pathways and obtain the desired goal – is the motivational component in hope theory and is especially important when barriers arise on one’s pursuit of a goal (Snyder, 2002).

**Statement of the Problem**

It has become increasingly apparent over the last 25 years that more work needs to be done in order to aid in understanding the mechanisms behind successful weight loss and maintenance. Given the myriad of adverse consequences that are related to being overweight or obese, individuals may be able to live healthier, happier, more fulfilling lives if they are able to obtain and maintain a healthy body weight. However, much of what contributes to successful weight loss and weight maintenance continues to be elusive to health professionals. The growing emphasis of positive psychology on various aspects of health and wellness has illuminated how parental support, optimism, and hope can contribute to better health outcomes. However, more research needs to be conducted to understand their relationship to weight management, especially in order to understand their cumulative effect on successful weight loss and maintenance.

**Research Questions and Hypotheses of the Present Study**
Based on the research of social and familial support, optimism, and hope and their relationships to physical and mental wellness, the following research questions will be addressed: Are there relationships among perceived parental support, hope, optimism and weight status? Can these positive psychology factors (i.e., perceived parental support, hope, and optimism) and demographic factors (e.g., gender) be used to predict successful weight loss and maintenance for individuals who were formerly overweight or obese before the age of 16?

The following hypotheses will be tested to answer the research questions:

1. Greater parental support will be associated with healthier BMI.
2. Greater optimism will be associated with healthier BMI.
3. Greater hope will be associated with healthier BMI.
4. Parental support will be most predictive of healthier BMI, followed by hope, optimism, and gender.
Chapter Three

Method

Study Design

The independent variables of interest are the psychological constructs of hope, optimism, and parental support. Participants’ current weight status (currently overweight or obese versus currently of healthy weight) as determined by Body Mass Index (BMI) was the dependent variable of interest. Current BMI was assessed using the BMI calculation that takes into account current height and weight. Height and weight were assessed by the researcher during data collection.

Participants

A power analysis using G* Power (Erdfelder, Faul, & Buchner, 1996) revealed that at least 55 participants would be required given an effect size of \( \beta^2 = 0.15 \) for a multiple regression analysis, with power set at .80 and \( \alpha = .05 \). One-hundred-twelve undergraduate students were recruited from the psychology subject pool of students in the Introduction to Psychology course at a mid-western university who participated in return for research credit toward a course requirement. Participants were required to have been overweight or obese before the age of 16. Refer to Appendix E for recruitment information. However, 40 participants reported not having been overweight or obese before the age of 16, one participant was under the age of 18 and another participant had recently learned that she was pregnant, so their data was excluded from data analysis. The excluded participants were not significantly different from the included participants demographically. As such, the data of 70 participants was analyzed for this study.

Procedure
All participants were asked to give informed consent. The consent forms included a statement that explains to the participant that withdrawal from the study is permissible without penalty. Participants were informed that this study is focused on obtaining and managing a healthy body weight status. They completed a background questionnaire, including demographic information, their appraisal of their current weight status (i.e., underweight, healthy weight, overweight, obese) and their appraisal of the weight of their childhood caretakers, and their current physical activity level (Appendix A). Participants also completed the Adult Hope Scale (Snyder, et al, 1991), the Life Orientation Test, Revised (LOT-R) (Scheier, Carver, & Bridges, 1994), and a short questionnaire regarding their perceived level of parental support as it pertains to healthy weight management.

After participants finished completing the questionnaire, they were led one at a time with the researcher or research assistant into the laboratory office space, where their height and weight were measured using a measuring tape on the wall of the office and a standard scale that measured weight to the hundredth of a pound. Weight was rounded to the nearest whole number and height was rounded to the nearest half inch.

Measures

Adult Hope Scale (Snyder, et al, 1992; Appendix B). The Adult Hope Scale is a measure of agency (goal-directed energy) and pathways (planning to meet goals). It includes 12 self-report items that prompt the participant to select his or her degree of agreement with each statement on an 8-point, Likert-type scale, ranging from “definitely false” to “definitely true.” (Snyder, et al, 1991). A Total Hope Score is derived by summing the items’ scores after removing the fillers (items 3, 5, 7, and 11). The Total Hope Score is on a continuum from 8 to 32, where higher scores indicate higher levels of
hope. The subscales of agency and pathways are obtained by summing the scores from the items pertaining to each construct. Agency is comprised of items 2, 9, and 10 while Pathways is comprised of items 1, 4, 6, and 8. In a non-clinical and physically healthy population, \( M = 25.64 \) (SD = 2.93). The mean agency score is 12.83 (SD = 1.69) and the mean pathways score is 12.81 (SD = 1.75) (Shahar, 2008). The AHS shows high levels of internal consistency (\( \alpha = 0.8 \)) and sufficient levels of internal reliability in past studies (Cronbach’s \( \alpha = 0.8 \)) (Peleg, Barak, Harel, Rochberg, & Hoofien, 2009).

**Life Orientation Test, Revised (Scheier, Carver, & Bridges, 1994; Appendix C).** The Life Orientation Test, Revised (LOT-R), is the most frequently used measure of dispositional optimism (Herzberg, Glaesmer, & Hoyer, 2006). It was developed to “assess individual differences in generalized optimism versus pessimism” (Carver, Scheier, & Sergerstrom, 2010). The 10-question self-report measure prompts the participant to select his or her degree of agreement with each statement given on a 5-point Likert-type scale, ranging from “I agree a lot” to “I DISagree a lot). A total score is derived by summing the items’ scores after reverse-scoring the negative items (items 3, 7, and 9) and eliminating the four filler items (items 2, 5, 6, and 8). Computed scores are on a continuum from 0 to 24 where higher scores indicate higher levels of optimism. There are no cut-off points for this measure. In a non-clinical and physically healthy population, \( M = 14.33 \) (SD = 4.28) (Scheier, Carver, & Bridges, 1994). The LOT-R exhibits moderate internal consistency (\( \alpha = 0.62 \)) and internal reliability in previously tested undergraduate groups (\( \alpha = 0.7 \)) (Peleg, et al, 2009).

**Parental Support Measure.** Although there is no standardized measure of familial or parental support that targets weight loss that can be given without direct
observation, a three-question measure was designed for the purpose of this study by the researcher, which was judged by the co-chairs of researcher’s thesis committee to have face validity. Participants were asked to answer these three questions about the perceived support they received from their parents or caretakers: “How would you rate the level of importance your parents (or caretakers) put on body weight?” “How physically active would you rate your parents (or caretakers)?” and “To what extent did your parents (or caretakers) encourage you to lose weight as a child?” Each of these was answered using a seven-point Likert Scale to determine the amount of parental support and modeling each participant received as a child.
Chapter Four

Results

Preliminary Results

The sample included 70 participants, 41.4% of whom are males. The average age was 19.51 ± 1.85. Demographic and socioeconomic characteristics of the sample are shown in Table 1.
### Table 1: Demographic and Socioeconomic Characteristics of Research Participants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male Percent</th>
<th>Female Percent</th>
<th>Total Sample Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year</td>
<td>44.8</td>
<td>43.9</td>
<td>44.3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>44.8</td>
<td>41.9</td>
<td>42.9</td>
</tr>
<tr>
<td>Junior</td>
<td>3.4</td>
<td>7.3</td>
<td>5.71</td>
</tr>
<tr>
<td>Senior</td>
<td>6.9</td>
<td>7.3</td>
<td>7.14</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Non-Hispanic</td>
<td>65.5</td>
<td>46.3</td>
<td>54.3</td>
</tr>
<tr>
<td>Black/Non-Hispanic</td>
<td>10.3</td>
<td>29.3</td>
<td>21.4</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>17.2</td>
<td>7.3</td>
<td>11.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.4</td>
<td>7.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Mixed or Other</td>
<td>3.4</td>
<td>9.8</td>
<td>7.1</td>
</tr>
<tr>
<td><strong>Annual Household Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>27.6</td>
<td>34.1</td>
<td>31.4</td>
</tr>
<tr>
<td>$10,001-25,000</td>
<td>17.2</td>
<td>9.8</td>
<td>12.9</td>
</tr>
<tr>
<td>$25,001-35,000</td>
<td>6.9</td>
<td>7.3</td>
<td>7.1</td>
</tr>
<tr>
<td>$35,001-50,000</td>
<td>13.8</td>
<td>12.2</td>
<td>12.9</td>
</tr>
<tr>
<td>$50,001-75,000</td>
<td>13.8</td>
<td>24.4</td>
<td>20.0</td>
</tr>
<tr>
<td>$75,001-100,000</td>
<td>13.8</td>
<td>7.3</td>
<td>10.0</td>
</tr>
<tr>
<td>Greater than $100,000</td>
<td>6.9</td>
<td>4.9</td>
<td>5.7</td>
</tr>
</tbody>
</table>

*N=70*
At the time of participation, 72.4% of males and 34.1% of females considered themselves to be of “normal” weight, 24.1% of males and 53.7% of females considered themselves to be overweight, and 3.4% of males and 12.2% of females considered themselves to be obese. However, according to the Body Mass Index, the mean BMI for males was 28±42 and the mean BMI for females was 29.64±8.25, both of which are considered overweight, where the cutoff point for obesity is 30. Given that this average is being influenced by very high BMIs, it is important to note that the median BMI for both males and females are 26.7 and 29.4, respectively, which are still overweight.

A difference score was calculated between the weight classification each participant reported and each participant’s actual weight classification, as defined by BMI, where a difference of 1 would suggest that the participant underestimated their body size by one classification category (they believed themselves to be of healthy size, when their BMI suggests that they are overweight, for example) and a -1 would suggest the participant overestimated their body size by one classification category. While 32 participants total (29.1%) correctly identified their body size classification, 34 participants (30.9%) total underestimated their body size by at least one classification. In this sample, females are somewhat better than males in accurately perceiving their body size classification. Refer to Table 2 for frequencies and percentages.
Table 2. Frequencies and Percentages of Body Size Classification Accuracy by Gender

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>Correctly identified body size</td>
<td>12</td>
<td>41.4</td>
<td>20</td>
</tr>
<tr>
<td>classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underestimated body size</td>
<td>14</td>
<td>48.3</td>
<td>17</td>
</tr>
<tr>
<td>by one classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underestimated body size</td>
<td>3</td>
<td>10.3</td>
<td>0</td>
</tr>
<tr>
<td>by two classifications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overestimated body size</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>by one classification</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=70

When asked about being overweight or obese before the age of 16, 85.71% of participants reported that they believed themselves to have been overweight or obese, 65.71% reported that a parent told them that they were overweight or obese and 62.9% reported being told by a health care practitioner that they were overweight or obese. The participants reported that the average age at which they were told and/or realized they were overweight or obese was 12.62 ± 2.59. Since this time, 70% of participants reported having lost what they considered to be a significant amount of weight, with an average loss of 26.17 ± 30.78 pounds.

Summary scores were computed for the Life Orientation Test (Scheier, Carver, & Bridges, 1994) and the Adult Hope Scale and its subscales Agency and Pathways (Synder et al, 1992) by following their respective scoring guidelines. Summary scores for the Parental Support Scale were determined by first reverse scoring the responses of the participants, as the questions were worded such that lower numbers represented greater parental support. The scores for each question were then summed to obtain the summary
scores. For each variable, summary scores were normally distributed and no outliers were present. Table 3 presents the means and standard deviations of participants’ scores.

### Table 3: Means and Standard Deviations of Hope, Optimism, and Parental Support

<table>
<thead>
<tr>
<th>Positive Psychology Trait</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Hope Scale</td>
<td>45.07</td>
<td>5.99</td>
</tr>
<tr>
<td>Agency</td>
<td>20.34</td>
<td>3.08</td>
</tr>
<tr>
<td>Pathways</td>
<td>24.73</td>
<td>4.14</td>
</tr>
<tr>
<td>Life Orientation Test (Optimism Scale)</td>
<td>16.76</td>
<td>2.70</td>
</tr>
<tr>
<td>Parental Support</td>
<td>2.24</td>
<td>1.26</td>
</tr>
</tbody>
</table>

### Primary Results

Study variables were correlated to test the first three hypotheses: (1) greater parental support will be associated with healthier BMI, (2) greater optimism will be associated with healthier BMI and (3) greater hope will be associated with healthier BMI. Hypothesis 1 was not supported in the present study $r = .046, p = .707$. Hypothesis 2 was not supported in the present study $r = .065, p = .593$. Similarly, hypothesis 3 was not supported in the present study $r = .125, p = .298$. However, there were other variables of interest that were significantly related to other aspects of healthy living including aspects of having been told one was overweight, aspects of parental support, hope pathways, and total hope scores. Refer to Table 4 for the results of the analyses.
Table 4: Relevant Correlations (Pairing in Italics Represent Approaching Significance)

<table>
<thead>
<tr>
<th>Variable Pairing</th>
<th>Pearson Correlation</th>
<th>2-Tailed Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Perceived Parental Support – Body Mass Index</td>
<td>.046</td>
<td>.707</td>
</tr>
<tr>
<td>Total Hope Score – Body Mass Index</td>
<td>.125</td>
<td>.298</td>
</tr>
<tr>
<td>Total Optimism Score – Body Mass Index</td>
<td>.065</td>
<td>.593</td>
</tr>
<tr>
<td>Minutes of Physical Activity – Hope Score Total</td>
<td>.234</td>
<td>.052</td>
</tr>
<tr>
<td>Parent Told Child He/She Was Overweight – Parental Encouragement</td>
<td>.624</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Parent Told Child He/She Was Overweight – Parents’ importance on body size</td>
<td>.267</td>
<td>.025</td>
</tr>
<tr>
<td>Parent Told Child He/She Was Overweight – Total Parental Support</td>
<td>.481</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Significant Weight Loss Age – Hope Pathways</td>
<td>-.259</td>
<td>.037</td>
</tr>
</tbody>
</table>

To assess the fourth hypothesis that higher levels of perceived parental support, hope, optimism, and gender will predict healthier BMI in adulthood, hierarchical multiple regressions were conducted to construct a model. Several regression models were attempted that included different permutations of variables of interest including gender, optimism, hope, and parental support where the outcome variable was current Body Mass Index. The results of these tests were largely statistically insignificant. However, an analysis of the effect size revealed a small effect when parental support, hope, and optimism are used as predictors ($f^2 = .025$) and when gender is included with the three other predictors ($f^2 = .036$). Refer to Table 5 for the regression results when parental support, hope, optimism, and gender are used as predictors. While small in magnitude, these results suggest a possible small cumulative effect of parental support, hope,
optimism and a somewhat stronger cumulative effect of these three predictors when combined with gender.

Table 5: Summary of Hierarchical Regression Analysis for Variables Predicting Body Mass Index

<table>
<thead>
<tr>
<th>Variable</th>
<th>ΔR²</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.012</td>
<td>1.529</td>
<td>1.71</td>
<td>.109</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>1.479</td>
<td>1.744</td>
<td>.105</td>
</tr>
<tr>
<td>Parent Support Total</td>
<td>.012</td>
<td>.133</td>
<td>.654</td>
<td>.025</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>1.512</td>
<td>1.741</td>
<td>.107</td>
</tr>
<tr>
<td>Parent Support Total</td>
<td></td>
<td>.296</td>
<td>.670</td>
<td>.056</td>
</tr>
<tr>
<td>Total Hope Score</td>
<td>.031</td>
<td>.161</td>
<td>.146</td>
<td>.138</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>1.443</td>
<td>1.788</td>
<td>.102</td>
</tr>
<tr>
<td>Parent Support Total</td>
<td></td>
<td>.295</td>
<td>.675</td>
<td>.056</td>
</tr>
<tr>
<td>Total Hope Score</td>
<td></td>
<td>.159</td>
<td>.147</td>
<td>.137</td>
</tr>
<tr>
<td>Total Optimism Score</td>
<td>.031</td>
<td>.066</td>
<td>.332</td>
<td>.025</td>
</tr>
</tbody>
</table>
Chapter Five

Discussion

The current study sought to examine the relationships among the positive psychology factors of perceived parental support, hope, and optimism. The study also addressed the extent to which these positive aspects of individuals and relevant demographic factors (e.g., gender) influenced their ability to achieve and maintain a healthy weight into adulthood, where “healthy weight” is determined by a Body Mass Index of equal to, or less than 24.

The current study sought to depart from the typical approach assessing variables that influence unhealthy behavior, and look instead for what influences an individual to succeed in the difficult task of weight loss. Given that previous research suggests positive relationships between weight loss and optimism and parental support (Epstein, Valoski, Kalarchian, & McCurley, 1995; Ritchie, Welk, Styne, Gerstein, & Crawford, 2005; McLean, Griffin, Toney, & Hardeman, 2003; Oginska-Bulik & Juzynski, 2001), and that hope is instrumental in healthier outcomes in other severe medical conditions (Gordon & Daughery, 2003; Penson, 2000), it appears that the current understanding of the factors that influence successfully obtaining a healthy body weight would benefit from including these positive psychology constructs.

There were several correlations that partially support the hypothesis that hope and parental support are related to the experience of seeking to obtain a healthy body size. When hope is examined in relationship to current Body Mass Index, the relationship was not significant. However, when the Total Hope Score was correlated with reported minutes of physical activity per week, the relationship approached significance ($r = .234$, \[r = .234, \]
This finding suggests that individuals higher in hope are more likely to exercise regularly. Another interesting finding was that the older an individual was when they lost a significant amount of weight, the lower their Hope Pathways Score was ($r = - .259, p = .037$). One possible explanation is that these individuals did not succeed in their weight loss goal at younger ages, which may have negatively influenced their self-efficacy in being able to adequately prepare for success in difficult tasks.

While parental support was not related to Body Mass Index or to the occurrence of a significant amount of weight loss, whether the participants were told by their parent or parents that they were overweight or obese was positively related to the participants’ perceived parental support overall ($r = .481, p < .001$) and to two of the three questions that comprised the Total Parental Support Scale (Parental Encouragement $r = .624, p < .001$ and Parental Importance on Body Size $r = .267, p = .025$). This suggests that discussing body size with an overweight child or adolescent, while considered taboo in some cultures, may be related to the child perceiving their parent as being overall more supportive of them and their achievement of a healthy body size than children of parents who did not have this discussion with their child. This finding is particularly important given that parental support has been linked to successful weight loss and maintenance in previous studies (Golan & Weizman, 2001; Davidson & Birch, 2001; Nowicka & Flodmark, 2007). However, given that question number 17 was worded “how would you rate the level importance your parents/caretakers put on body weight?” could be perceived as either helpful (i.e., parents were helpful in supporting a healthy weight) or hurtful (i.e. parents overemphasized the importance of being thin). Assuming the possibility of the latter, it is possible that these overemphasizing parents are more likely
to tell their child that they were overweight out of potentially unhealthy motives such as their own over concern about weight issues.

The principal finding of this study only weakly supported hypothesis that higher levels of hope, optimism, and parental support would predict the presence of a healthier Body Mass Index in adulthood in individuals who were overweight or obese before the age of 16. Given that the model did not yield a significant result and that the effect size calculation yielded only a small effect, it is important to consider why the chosen variables are not as reliable of predictors of healthy weight as predicted.

There are several possible explanations. First, there may be another factor or factors working in this model that are currently not being detected or understood by this study. For instance, the fact that the sample was comprised entirely of undergraduate students may influence the results in ways not currently understood. Furthermore, the fact that most of the male participants and many of the female participants considered themselves to be within “normal” weight limits, while the mean BMI for both groups was near the borderline for obesity, suggests that a large portion of the sample have a different conceptualization of “healthy” weight. Their results may be influenced by an underestimation of weight status and perhaps would suggest that these individuals were not concerned enough about their weight to warrant any significant life changes in order to better manage their weight.

An additional explanation for the apparent lack of predictive ability of the variables of interest is the fact that previous research regarding parental support and optimism in weight loss was somewhat inconsistent in that results from different researchers were contradictory. As such, it is possible that there is an aspect of the ways
in which these positive attributes function in our lives that remains poorly understood by researchers, perhaps as a function of measurement error or in a mediating or moderating variable not often attended to such as socioeconomic status.

Limitations

Individuals participating in this study were self-reporting retrospectively. Given that both self-report and retrospective reporting can be inaccurate, even with the good intent of the reporter, it is possible that data could be inaccurate due to the nature of the questions asked.

Additionally, after observing how many individuals did not meet the inclusion criteria outlined in the recruitment materials, yet participated in the study, it seems possible that some of the other students signed up for the study in order to receive necessary credit for a course and were not completely candid when answering their questionnaires.

Furthermore, a convenience sample of undergraduate students who were enrolled in an Introduction to Psychology course at a mid-western university was used. While this university is considered to be “diverse,” generally, the age, socioeconomic status, and race of participants was less diverse than the general public. Additionally, there is likely a restricted range problem with the participants recruited, given that only data from those who were overweight as children was analyzed in the present study. As such, the results in the present study may not apply to the general population.

The constraints of measurement error is another limitation of this study. First, body mass index (BMI), while a popular and convenient method to determine body size classification, is flawed in that it does not take into account muscular body types. BMI,
therefore, is not as accurate as body fat percentage measurement is for classifying body size. However, taking into account its ease of use and calculation in addition to its general acceptance as a useful measure in previous research, it was determined to be a sufficient and convenient way to determine body size classification for the purposes of this study. Additionally, while the Adult Hope Scale (Snyder, et al, 1992) and the Life Orientation Test, Revised (Scheier, Carver, & Bridges, 1994) are both empirically supported measures, the measure of parental support was created by the researcher for the present study and does not yet have empirical support for its ability to accurately capture the nature of parental support as it relates to weight loss. Additionally, it is possible that the perceived parental support measure is problematic in that the questions were worded such that individuals could interpret questions differently than intended by the researcher. For example, question 17 asks about the importance ones parents placed on a healthy weight. While this question was originally intended to elicit “important” or “very important” responses from individuals who felt support from parents for their weight loss goals, in hindsight, it is clear that rating could also mean that the parent placed unhealthy importance on body weight. Additionally, Cronbach’s $\alpha=.325$. This suggests that participants could have interpreted this measure in very different ways.

**Implications and Future Directions**

The results of the study suggest that hope may be related to other aspects of healthy living. Overall, hope was related to the amount of physical activity in which an individual participates in weekly and hope pathways (the ability to make the necessary plans to achieve a goal) was related to whether or not an individual reports having lost a significant amount of weight in his or her lifetime. The latter result is particularly of
interest given that the researcher had not identified any previous research on the relationship between hope and weight loss. As such, it appears that the present research highlights the need for hope to be included as a variable in future research on variables contributing to successful weight loss.

In addition, given that the current results for parental support and optimism were unexpected in the context of the bulk of the previous research and given that there exists contradictory research on the role of optimism and parental support as predictors of weight loss, it is clear that more research must be conducted in order to better understand how these two variables may facilitate successful weight loss and weight maintenance.
References


Appendix A

Age: ______

Current GPA: _________

Gender:    Male         Female

Year in School (please select one):

___ First Year
___ Sophomore
___ Junior
___ Senior
___ Other (please specify): __________________

Which do you consider to be your racial/ethnic identity? (Please select one response)

Black/Non-Hispanic       American Indian/Alaskan Native
Hispanic                 White/Non-Hispanic
Asian or Pacific Islander Mixed or Other

Please select your annual household income?

___ Less than $10,000
___ $10,001 to $25,000
___ $25,001 to $35,000
___ $35,001 to $50,000
___ $50,001 to $75,000
___ $75,001 to $100,000
___ Greater than $100,001

Please answer the following questions as honestly as possible.

1. How would you classify your body size today?

   Underweight       Overweight

   Normal           Obese
2. Please circle how would you classify the body size of your parents/caretakers

**Mother/Mother-Figure:**

- Underweight
- Overweight
- Normal
- Obese

**Father/Father-Figure:**

- Underweight
- Overweight
- Normal
- Obese

**Other Caretaker (please specify: ________________):**

- Underweight
- Overweight
- Normal
- Obese

3. How many minutes of physical activity do you get in a typical week?
   _____ minutes/week

4. Before the age of 16, were you ever been told by others (i.e., physician, nurse, other health care worker, parent, etc.) that you were overweight or obese OR did you considered yourself to be overweight or obese?  Yes  No

If yes to question #4, please answer the following questions. If no, please continue to question #10.

5. Approximately what age/which ages were you when this occurred? ______

6. Since this time, have you experienced any weight loss?  Yes  No
7. If yes to question #6, how old were you when this occurred? ________

8. If yes to question #6, what – if anything – triggered the change?

___________________________________________________________

___________________________________________________________

___________________________________________________________

9. If yes to question #6, what – if anything – did you do to achieve the weight loss?

___________________________________________________________

___________________________________________________________

___________________________________________________________

___________________________________________________________
Appendix B

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no “correct” or “incorrect” answers. Answer according to your own feelings, rather than how you think “most people” would answer.

1=I agree a lot
2= I agree a little
3= I neither agree nor disagree
4= I DISagree a little
5= I DISagree a lot

1. In uncertain times, I usually expect the best.
2. It’s easy for me to relax
3. If something can go wrong for me, it will.
4. I’m always optimistic about my future.
5. I enjoy my friends a lot.
6. It’s important for me to keep busy.
7. I hardly ever expect things to go my way.
8. I don’t get upset too easily.
9. I rarely count on good things to happen to me.
10. Overall, I expect more good things to happen to me than bad.
Appendix C

The Future Scale

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

1. = Definitely False
2. = Mostly False
3. = Somewhat False
4. = Slightly False
5. = Slightly True
6. = Somewhat True
7. = Mostly True
8. = Definitely True

___ 1. I can think of many ways to get out of a jam.
___ 2. I energetically pursue my goals.
___ 3. I feel tired most of the time.
___ 4. There are lots of ways around any problem.
___ 5. I am easily downed in an argument.
___ 6. I can think of many ways to get the things in life that are important to me.
___ 7. I worry about my health.
___ 8. Even when others get discouraged, I know I can find a way to solve the problem.
___ 9. My past experiences have prepared me well for my future.
___10. I’ve been pretty successful in life.
___11. I usually find myself worrying about something.
___12. I meet the goals that I set for myself.
Appendix D
17. How would you rate the level of importance your parents put on body weight?

___ Very importance
___ Somewhat importance
___ Neither importance nor unimportant
___ Somewhat unimportant
___ Very unimportant

18. How physically active would you rate your parents?

___ Very physically active
___ Somewhat physically active
___ Neither especially physically active nor especially physically inactive
___ Somewhat physically inactive
___ Very physically inactive

19. To what extent did your parents encourage you to lose weight as a child?

___ Very encouraged
___ Somewhat encouraged
___ Neither encouraged nor discouraged
___ Somewhat discouraged
___ Very discouraged
Appendix E

Study Information as presented on The University of Toledo’s Sona System

Abstract: Participants will complete various questionnaires regarding their experiences of weight fluctuations and their opinions.

Description: In this study, participants will take part in completing various questionnaires regarding their experiences of weight fluctuations and their opinions. In addition, participants will individually have their height and weight measured by the researcher.

Eligibility: Participants must be over the age of 18 and must have been overweight or obese at some point at or before the age of 16.