

## Research Article

# The Contribution of Coping Resources to the Success in Weight Reduction

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**Abstract**

In recent years, obesity is viewed as an epidemic in Israel. This study examines the contribution of coping resources to exceptional success in weight reduction and the adoption of healthy behaviors, to trace the implications of this success and to shed light on its significance in personal and professional-educational arenas.

The theoretical framework was the positive psychology approach and success analysis. The sample included student teachers, and information was gathered through in-depth interviews. Analysis revealed the contribution of personal inner resources and social external resources to weight reduction and the adoption of healthy behaviors. Moreover, it emerged that the participants experienced personal growth, which expressed itself in a generalization of the strengths and resources they acquired through weight reduction and their application to academic work and teaching. All these contributed to their mental wellbeing and quality of life.

The unique contribution is the identification of mechanisms that contribute to the actualization of resources for behaviors that actually promote health, and the understanding of the potential for change in weight reduction to optimize adaptive functioning systems. The study has practical importance for developing educational approaches to promote health and mental wellbeing among educators.

**Keywords:** Obesity; Study of success; Healthy behaviors; Resources; Coping

## Introduction

Obesity has been rising in Israel and throughout the world in recent years [1] and has been defined by the World Health Organization as the 21<sup>st</sup> century's epidemic [2]. In view of the tendency towards obesity among adults, youths and children, the current study will focus on finding the coping resources which may help student teachers to succeed in weight reduction and in adopting health-promoting behaviors. The concept of 'resources' relates to all proficiencies, skills, actual means and hidden potentials within each individual in the family setting and in the community, which help the individual cope with different life situations [3].

Healthy behaviors in the context of eating habits include eating a healthy, calorie-restricted diet, reducing fat intake, doing physical exercise on a regular basis, and identifying risk areas [4]. It turns out that these behavioral aspects have a distinct and prolonged positive impact on measures indicating mental wellbeing and weight reduction among overweight people and among those who have eating disorders [4].

The theoretical framework of this study is the positive psychology approach and the study of success. Positive psychology is based on exploring positive feelings and personality traits, mainly strengths, virtues and qualifications [5]. It is perceived as a unique area, dealing with human strengths and providing a framework for concepts such as mental wellbeing, personal gratification, resilience, personal

efficacy and self-actualization. According to this approach, these phenomena can be perceived as inner human resources improving the individual's life-quality and wellbeing [6].

The study of success relates to a worldview focusing on positive products analysis, in methods and actions that are perceived as successful, in order to expose the processes leading to the success and formulate actionable knowledge based on them. This knowledge is aimed clearly and systematically at finding how one should act in order to achieve success [7,8]. The core of the study of success is identifying the latent existent knowledge from the past and converting it into overt, processed and actionable knowledge [9].

The research was based on qualitative methodology and examined the following questions:

- A. What resources contribute to exceptional success in weight reduction and in the adoption of healthy behaviors?
- B. What are the implications of a successful process of weight reduction and adoption of healthy behaviors?
- C. How do student teachers perceive the meaning of the process of weight reduction and the adoption of healthy behaviors in the context of their professional world?

## Methods

### Sample

The research participants are ten students attending a College of

Education, who fit the research criteria. The criteria for participating in the research were as follows: student teachers with BMI>25.5, who achieved a weight reduction of at least 10 kg (22 pounds) during one year and succeeded in maintaining their reduced weight for at least three years, by keeping a healthy lifestyle based on healthy eating habits.

All the research participants are women studying for a B.A. degree in teaching. Their ages range from 22 to 39, with an average of 26.5. All students live in the central region of Israel. Eight of them suffered from obesity (BMI>30) and two suffered from overweight (25.5>BMI<30). They all reduced over 13kg (29 pounds) during one year, eight of them reduced between 17 to 25 kg (37 to 55 pounds) and two reduced between 14 to 16 kg (31 to 35 pounds).

### Instruments

Data collection used open in-depth interviews, which started with a general request: "Tell me about your life experience dealing with obesity". At this point the interviewer would not interfere or direct the interviewee, but further along the interview she would ask her some questions that arose from the responses. The interviews lasted an hour and a half, were recorded with the interviewees' consent, and were transcribed. In addition to the interview, each interviewee filled out a form containing her personal details, including socio-demographic characteristics and data regarding her weight and state of health.

### Data analysis

The content analysis of the interviews involved categorical content analysis, according to the research focuses:

- A. Personal and social resources.
- B. The implications and significance of the change achieved.

The text analysis included isolating parts of the text, classifying them into categories and analyzing them. Each interview was analyzed separately and independently of the others. The content analysis was carried out in several stages, which allowed the researcher to study the interviewees' inner and outer worlds with no presuppositions [10]. The first stage consisted of repeated in-depth readings of the interviews and writing notes in the text margins regarding anything that seemed significant from what the interviewees had said. The second stage consisted of locating and gathering contents and statements from the text into groups, in order to create a primary list of categories [11]. In the third stage, categories with similar significance were unified, and a final list of categories was formed. The fourth stage included discussion and interpretation of the results that emerged from the interviews, with respect to existing theoretical and research knowledge in the field [10].

## Results

Analysis of the interviews yielded the following categories:

1. Personal & social resources.
2. Implications & significance of the change.

### Personal and social resources

The content analysis of the personal and social resources yielded eight categories representing different kinds of resources, as described

by the participants.

**Internal locus of control:** Participants succeeded in weight reduction and in adopting new eating habits due to their internal belief in their ability to do so, in the actions they took for that purpose, and their belief that a lasting change could only be achieved through personal autonomy and by making independent decisions, regardless of any outside dictations, messages or pressures. Examples:

'I feel that success in creating the change depends on me alone, on the decisions and the choices I make. I do not believe in the saying, "Everything will be all right", I do believe it will only be all right if I make it so. I believe that my success in weight reduction happened because I believed in myself'.

**The sense of freedom of choice:** Experiencing success was made possible through the freedom of choice relating to the type of food, its quantity and the meal times. Having the choice allowed flexibility, variety and adaptation to different life situations. The contribution of the freedom of choice to the success of the process consisted of enhancing independent decision making, strengthening the sense of control over unexpected urges, and conducting a dietary program motivated by a feeling of personal autonomy.

'What helped me experience success in weight reduction this time was being given a choice, unlike past experiences, when I followed outside diets and dictations. Having a choice about the kind of food and the meal times allows me independence and autonomy in my choices on the one hand, and on the other hand it makes me personally responsible for the results. Moreover, having a choice in the process allows me flexibility, variety, interest, gratification and a sense of control which I had never experienced in my previous attempts at weight reduction.'

**Defining expectations and setting realistic short-term goals:** The interviewees' success is derived from their ability to define their expectations and set themselves goals which are characteristically realistic, short-term and can be measured in small units.

'What really helps me achieve success is my ability to set myself modest, realistic and short-term goals. Setting such goals defines a time framework for achieving them, gives me a sense of order and organization, a sense of pleasure at my ability to predict the achievement and an immediate gratification of my success. Using means such as a clear and measurable definition of goals and a recording of a dietary program in an organized table helps me feel confident and in control, mitigates my level of pressure, and contributes to a sense of inner calm [...]. This process allows me to control and evaluate the achievement of goals and the efforts that I put into it'.

**Developing a constructive inner dialogue:** It is a cognitive resource that enables the interviewees to regain their self-reliance and self-efficacy. This dialogue is based on changing their inner language so that it emphasizes their sources of strength rather than their sources of difficulty.

'I developed a constructive inner dialogue. For example, in each weekly weighing session, when I experienced a very small weight reduction, I would say to myself that this was a small success that would lead to a greater success in the future. This way I strengthened

my ability to proceed with my planned dietary program and regained a little bit more of my self-confidence’.

**Learning from successful past experiences:** Successful experiences happen as a result of retrospective observation of successful past experiences and drawing effective conclusions from them.

‘I came to this process with a lot of personal insights that I had gained in my previous weight reduction attempts in the past. These insights were based on what worked and what did not work for me and which aspects of myself I should deal with in order to achieve a successful, significant, high-quality change this time. For example, I knew, based on my past experiences, that very small weight reductions, such as 200-300 grams (7-10 ounces) a week, meant there was a great chance that the weight reduction would last for a long time’.

**Perseverance:** Success in weight reduction is also achieved through perseverance. The concept of perseverance includes both behavioral and perceptual aspects.

‘One of the main things that contributed to my success in weight reduction was my perseverance in embracing new eating habits and a new perception, according to which life in general and weight reduction in particular are continuing processes, so that even if I had eating sprees, I would think of them as parts of a changing process with ups and downs, progress and retreat’.

**Changing the attitude towards the weight reduction process:** The successful experience is made possible by embracing a new attitude of extracting pleasure out of the process, in contrast to the past, when the process was perceived as a source of misery. Enjoying the process is derived from the ability to anticipate success.

‘My successful experience is also due to a change of perception, characterized by seeing the process as a source of enjoyment and not as a source of misery [...]. Moreover, I get pleasure out of my ability to predict success during the weight reduction processes’.

**Social support:** Social support is divided into two main categories: formal social support, which includes consulting with professionals and/or attending support groups aimed at accompanying and promoting the achievement of better health, and informal social support, which includes family, spouses and friends.

**A. Formal social support:** the contribution of formal social support to the experience of success has cognitive, emotional and behavioral aspects.

‘While attending the support group, I gain information about healthy, recommended foods, food combinations and their qualities, and information about the importance of physical exercise. From the emotional point of view, attending the meetings gives me a sense of belonging to people who share my problem, it presents me with a mirror showing me how I manipulate myself when I let go of my newly-gained eating habits, and strengthens me through emotional support. In the behavioral aspect I gain tools for dealing with crisis eating-situations, and for tracking and monitoring my weight reduction.’

**B. Informal social support:** the contribution of family and friends is found in the aspects of acceptance and containment,

constructing a mutual dialogue about health promotion, giving emotional support in strengthening the resistance to impulses and unscheduled eating sessions, expressing appreciation, empathy and verbal encouragement, and providing actual support by making and consuming healthy foods.

‘I have always experienced great love and acceptance by my parents. They believe in my ability to succeed more than I believe in it myself, and in that respect they have been the solid ground for my success [...]. My mother has joined the process in the technical aspect as well. She cooks healthy foods for me according to the plan I have designed, and helps me with my shopping [...]. Another important source of support is my friends, who are going through the same process. They constitute a support system with health awareness, creating a healthy dialogue about nutrition. This outside support helps me mostly in risk situations, when I have an urge to eat, and helps me strengthen an inner voice as a contrary force, to restrain the eating urge that has risen’.

**C. Helping others to deal with obesity:** being able to help others who deal with a similar problem helps mitigate the feelings of pain and suffering experienced through obesity, gives one a sense of purpose, enhances capabilities and coping resources, and validates the success of the weight reduction process.

‘Helping others who suffer from obesity through my coping gives me a sense of purpose and gratification. It also validates the process, makes me proud and gratified at announcing the results, and strengthens my motivation to continue and preserve my successes.’

### Implications and significance of the change

As for the implications of change and its significance in personal and professional areas, six categories were detected.

**Self-acceptance:** The successful experiences helped reinforce abilities of self-acceptance and self-esteem. This is characterized by one’s acceptance of one’s imperfect personality traits, alongside an honest appreciation of one’s efforts, dedication and commitment to the process. These characteristics helped in mitigating destructive behaviors and opened an inner space for self-forgiveness.

‘The weight reduction process showed me my ability to live in peace with myself, accept and appreciate myself for the progress I have made, for the efforts, the hard times and the difficulties with which I coped so well, for my perseverance in spite of all the hardships, for not giving up, and for my dedication and commitment to the process. I think this is the broad meaning of what is called self-acceptance [...]. Self-acceptance and self-esteem help me reduce eating sprees and self-destructive behaviors, and they also help me forgive myself and not be too hard on myself when these things happen.’

**Extending the sense of self-efficacy to other areas of life:** Succeeding in weight reduction and in adopting healthy behaviors was described as an invigorating experience, strengthening the participants’ belief that they could cope with other significant challenges in their lives as well. It led them to adopt a new outlook, that every hardship was a challenge that could be met and dealt with, and to a basic feeling of confidence that no matter how hard the situation might be, they would find a way to deal with it.

‘Having experienced success at weight reduction, an area in which

I had failed for many years, strengthened my sense of self-efficacy and my confidence that I could also cope with the learning area, in which I was experiencing great difficulties. I developed a kind of dialogue with myself, saying to myself that if I could make such a great change in the area of weight reduction, then I could also extend that ability to other areas, and indeed I gained academic achievements at a level that surprised me and the people around me as well.'

**Extending adjustment abilities to other areas of life:** The ability to develop control over urges and impulsive reactions when it came to eating, was extended to other areas of life and contributed to a significant improvement in the interviewees' functioning and life quality.

'Going through the process of weight reduction, I realized I was acquiring skills that would help me not only withstand my urges for certain kinds of food, but also overcome my impulsive tendency to react to every occurring event in my life. I learned to suspend my reaction for a moment, show restraint and consider rationally what reaction would be more effective for me, and should I respond or not, and in what manner? During the process I learned that the adjustment skills I was gaining provided me with an effective way of making decisions and solving problems in different life situations. Once you realize that, you learn that gaining control over the quantities of food you consume helps you discover other capacities within yourself, which go beyond the issue of weight reduction itself.

**Wellbeing:** Succeeding at weight reduction has brought about a sense of wellbeing among the research participants. The concept of wellbeing includes both physical and mental aspects.

A. Mental wellbeing: 'When I was obese I felt disconnected from my body and soul. It was a nightmare. I just could not see myself as I was. Life was passing me by. I was living beside it, not in it. Succeeding in the process brought me my hoped-for connection between body and soul, which gives me a sense of wholeness, inner calm and gratification'.

B. Physical wellbeing: 'From the physiological point of view, I feel lighter, unlike before, when I felt heavy. My breathing has also improved. I have higher outputs in performing activities and chores that I used to postpone or avoid, like studying, working and housekeeping. I am less tired and I sleep better [...]'.  
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**Changing life philosophy and priorities:** This change is expressed by making the healthy lifestyle a top priority; not another temporary short-term 'slimming diet', but a health-promoting outlook with the ability to keep a stable, continuous, balanced and permanent way of life, based on healthy values and behaviors.

'My success at changing my state of obesity is also expressed by changing my priorities in life. I have adopted an outlook that does not believe in the concept of diet for the sake of slimming, but in adopting healthy eating habits and healthy behaviors as a steady, continuous, balanced and routine way of life. In the current process, unlike in previous weight reduction attempts, I managed to deeply understand what I was doing it for: not just for the sake of being slim and of normal weight, but really for the sake of being healthy.'

**Changing the perception of the environmental-educational system:** The insights they gained following the successful experience

of changing their state of obesity, led the interviewees to change their perceptions of their professional roles. The health-promoting process helped them to add content to their professional world, and define their roles as teachers who aim to promote the physical health and mental wellbeing of their students. This approach is manifested in general through the construction of interdisciplinary intervention programs, emphasizing the importance of health in the connection between body and soul, and in strengthening the students' personal capabilities and implementing them in areas where they experience difficulties.

'I would like to be a health promoting role model for my students. It is important for me to set a personal example of a healthy human being with normal body weight and healthy eating habits. These days I am working on constructing an educational inter-disciplinary program designed to promote physical and mental health among my students. The health promoting program has a systematic approach, including students and parents as a whole [...]. Following my successful experiences at weight reduction, I formed an educational outlook with the aim of imparting to children the ability to recognize their inner strengths and to use them in areas where they experience difficulties. The ability to extend abilities to areas of difficulty is an insight I have experienced myself, and I implement it in my students as a major resource to promoting health and life quality [...]'.  
'

## Discussion

The findings revealed two sources of strength, to which the interviewees attributed their exceptional success at weight reduction, which can be defined as inner-personal and outer-social resources.

The main personal resources were an **internal locus of control** and a **sense of self-efficacy**. The findings indicate that the participants' internal locus of control was manifested by their belief in their own ability to act and achieve the desired results of weight reduction and modified eating habits. The locus of control is manifested by intellectual independence, personal responsibility, freedom of choice and autonomous decision-making derived from a feeling of self-ownership. The combination of these abilities contributes to promoting their health and life quality. Internal locus of control was found to be connected with positive results of health [12].

As for self-efficacy, the findings allow a deeper understanding of the nature of this resource. This understanding involves identifying the mechanisms that contribute to the realization of the sense of self-efficacy into actual health-promoting behaviors. These mechanisms include: defining realistic expectations and goals, developing a constructive inner dialogue, learning from successful past experiences, and perseverance. Success in changing eating habits, as it emerges from the study findings, occurs due to defining realistic expectations and setting focused short-terms goals to be achieved step-by-step. These finding are consistent with [13] conceptualization of self-efficacy and with the claim of [14] that people with realistic expectations regarding weight reduction show lower levels of sensitivity to hunger and higher levels of flexible restraint at eating, both of which are variables connected to long-term weight watching.

As it emerges from the findings of this study, the implementation of self-efficacy is also the result of learning from previous successful or unsuccessful experiences in specific or similar situations [15]. The

findings of this study indicate that the interviewees' learning from their successful past experiences of changing their eating habits strengthened their sense of self-efficacy and contributed to their success at weight reduction, at changing their eating habits and at implementing these changes. It was discovered that recurrent unsuccessful attempts at weight reduction were connected to lower weight reductions [16].

An interesting resource that assisted the interviewees achieve success at weight reduction was a change in the perceived meaning of the process. The experience of weight reduction shifted from suffering to satisfaction. According to the explanations they provided, there seemed to be a connection between the pleasure they got out of the process and the feeling of being in control. Changing habits consists of discarding an old habit and replacing it with a new one. One can assume that the new reward which motivates the participants to give up the old reward they used to get out of their harmful behavior is the ability to extract pleasure out of feeling in control.

Regarding exterior social resources, the findings reveal the contribution of two types of support to experiencing success with weight reduction: formal social support and informal social support. Formal social support in the current study refers to being supported by a weight reduction support group accompanied by professionals, or getting individual support from a professional. These findings are in line with the literature's reports about the contribution and effectiveness of formal social support to weight reduction and to preserving its results over the long term [17-19].

As for informal support, the findings reveal three components: emotional support, instrumental support, and informative support. All these support components contributed to the self-confidence, self-esteem, self-efficacy, self-control and mental wellbeing. This claim is consistent with Wing & Jeffery [20] who found a positive correlation between social support provided by family and friends and success at weight reduction and its preservation over time.

Various implications of a successful process of reducing weight and adopting healthy behaviors are enlightened by the findings.

The study indicates that the participants experienced personal growth. The concept of growth is drawn from positive psychology, and refers to individuals' experience of personal development compared to their previous level of functioning or previous worldview [21]. Most of the interviewees mentioned discovering new strengths within themselves and improving their functioning in different areas of life. The findings indicate that self-acceptance was a prerequisite to personal growth. These findings are compatible with previous studies, where self-acceptance and self-esteem were found connected to measures of psychological adjustment such as happiness, high positive impact on mood, and lack of or few psychological symptoms such as depression and eating disorders [22]. Personal growth in this study consisted of the interviewees' ability to extend and implement the strengths and resources they acquired in the realm of weight reduction, such as self-efficacy and adjustability, into other areas of life.

A significant contribution of weight reduction process and adoption of healthy behaviors were manifested in the student teachers view of their professional-educational world. All the interviewees

changed their sets of values and made health their top priority, while presenting the rationale and reasoning for this choice. This change of perception led them to expand their educational identity and focus on imparting their health promoting perception to their students. This perception views the students holistically and puts their resources, strengths and successful experiences at the center of the educational work. It allows them to see the children's unique identities, identify their personal capacities and be sort of mediators helping them extend their resources and implement them in areas where they are challenged. Understanding the importance of health and its contribution to human wellbeing also helped the interviewees to add health-promoting meaning to the contents they taught and implement them among the students, their parents and the entire teaching staff. This way they became health-promoting role models for their surroundings, and at the same time they strengthened their own personal motivation to continue creating additional successful experiences while promoting their health.

## Conclusion

The unique contribution of this study is in recognizing the mechanisms that help leverage the sense of self-efficacy into actual health-promoting behaviors. Another meaningful contribution is in understanding the holistic significance of the weight reduction process.

## References

- Mokdad AH, Ford ES, Bowman BA, Dietz WH, Vinicor F, Bales VS, et al. Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. *Journal of the American Medical Association*. 2003; 289: 76-79.
- Wickelgren I. Obesity: How big a problem? *Science*. 1998; 280: 1364-1367.
- Hobfoll SE. The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*. 2001; 50: 337-321.
- Nauta H, Hospers H, Jansen A. One-year follow-up effects of two obesity treatments on psychological well-being and weight. *British Journal of Health Psychology*. 2001; 6: 271-284.
- Seligman MEP, Steen TA, Park N, Peterson C. Positive psychology progress: Empirical validation of interventions. *American Psychologist*. 2005; 60: 410-421.
- Seligman MEP, Csikszentmihalyi M. Positive psychology: An introduction. *American Psychologist*. 2000; 55: 5-14.
- Schon DA. *Educating the reflective practitioner*. San Francisco: Jossey Bass. 1987.
- Shamir O, Rosenfeld J, Dahan O, Hellwing Daniel A. What did we do? Success stories from the support centers for students with learning disabilities. Tel-Aviv, editors. In: Mofet Institute (Hebrew). 2016.
- Rosenfeld J, Gilat M, Tal D. Learning from successes in the work of juvenile probation officers. Jerusalem: Israel Ministry of Social Affairs and Social Services; Myers JDC editors. In: Brookdale Institute (Hebrew). 2010.
- Smith JA, Flowers P, Larkin M. *Interpretative phenomenological analysis*. London: Sage Publications. 2009.
- Charmaz K. Grounded theory. *Strategies of Qualitative Inquiry*. 2003; 2: 249.
- Wrightson KJ, Wardle J. Cultural variation in health locus of control. *Ethnicity & Health*. 1997; 2: 13-20.
- Bandura A. *Self-efficacy: The exercise of control*. New York: Freeman. 1997.
- Provencher V, Begin C, Gagnon-Girouard M, Tremblay A, Boivin S, Lemieux S. Defined weight expectations in overweight women: Anthropometrical, psychological and eating behavioral correlates. *International Journal of*

- Obesity. 2007; 31: 1731-1738.
15. Bandura A. Social foundation of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall. 1986.
  16. Teixeira PJ, Goings SB, Houtkooper LB, Cussler EC, Martin CJ, Metcalfe LL, Finkenthal NR, et al. Weight loss readiness in middle-aged women: Psychosocial predictors of success for behavioral weight reduction. *Journal of Behavioral Medicine*. 2002; 25: 499-523.
  17. Byrne S, Barry D, Perty N. Predictors of weight loss success. Exercise vs. dietary self-efficacy and treatment attendance. *Appetite*. 2012; 58: 695-698.
  18. Canetti L, Berry EM, Elizur Y. Psychosocial predictors of weight loss and psychological adjustment following bariatric surgery and a weight-loss program: The mediating role of emotional eating. *International Journal of Eating Disorders*. 2009; 42: 109-117.
  19. Lambert MJ. The efficacy and effectiveness of psychotherapy. MJ Lambert, Bergin, Garfield's editors. In: *handbook of psychotherapy and behavior change* (6<sup>th</sup> ed.). New York: Wiley. 2013.
  20. Wing RR, Jeffery RW. Benefits of recruiting participants with friends and increasing social support for weight loss and maintenance. *Journal of Consulting and Clinical Psychology*. 1999; 67: 132-138.
  21. Zoellner T, Maercker A. Posttraumatic growth in clinical psychology: A critical review and introduction of a two-component model. *Clinical Psychology Review*. 2006; 26: 626-653.
  22. Sowislo JF, Orth U. Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin*. 2013; 139: 213.