THE EFFECTIVENESS OF RESILIENCE TRAINING ON QUALITY OF LIFE, HAPPINESS, HOPE, AND PSYCHOLOGICAL WELL-BEING OF OVERWEIGHT INDIVIDUALS

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Abstract

This study aimed to investigate the effectiveness of resilience training on quality of life, happiness, hope, and psychological well-being of overweight individuals. The method of this study was a quasi-experimental study with a pre-test-post-test design and a control group. The research population was overweight students of the Central Tehran Azad University in the academic year 2010-2011, of whom 30 were selected through purposive sampling and randomly assigned to the experimental and control groups (15 people in each group). First, in the pre-test phase, individuals from both groups responded to the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF; World Health Organization Working Group, 1996), the Oxford Happiness Questionnaire-Short Form (OHI; Hills & Argyle, 2002), the Adult Hope Scale (AHS; Schneider and colleagues, 1991), and the Riff Psychological Well-Being Scale (RSPWB; Riff, 1989). Then, the experimental group underwent 12 sessions of resilience training for 1.5 hours, and no intervention was performed on the control group during this period. In the post-test phase, both groups again answered the research questionnaires. Data analysis was performed using descriptive statistics and analysis of covariance tests in SPSS-23 software. The findings showed that the resilience training course was able to significantly improve the quality of life, happiness, hope, and psychological well-being in the experimental group (P < 0.05). Given these findings, it is suggested that resilience training be used as an effective approach in improving the psychological state of overweight individuals.

Keywords: resilience, quality of life, happiness, hope, psychological well-being, overweight.

Introduction

Overweight is currently a major health problem in many countries. The prevalence of overweight and obesity in the United States was reported to be higher than 42% in 2017–2020, up from 31% in 1999–2000 (Centers for Disease Control and Prevention, 2022). In Iran, more than a quarter of people are overweight. Women are also twice as likely as men to be overweight in the country. Being overweight, while increasing the risk of physical diseases (Augerinos and colleagues, 2019), is associated with deterioration of the psychological state of individuals, including reduced mental well-being, happiness, hope, and an overall decrease in quality of life. For example, it has been shown that body size may be associated with mood disorders and anxiety. People with depression are more likely to experience obesity, and obese people are more likely to experience depression (Lupino and colleagues, 2010). High rates of overweight have also been studied and confirmed in populations with mood disorders, schizophrenia,

attention deficit hyperactivity disorder, and trauma-related disorders (Allison and colleagues, 2009; Magallanes and Pace-Ribeiro, 2014).

Psychological well-being can be defined as emotional and cognitive responses to the perception of personal characteristics and capabilities, positive and effective interaction with the world, favorable relationships with society, and positive progress over time, and this state can include components such as life satisfaction, energy, and positive mood (Carmans and colleagues, 2003). Psychological well-being is not only the absence of mental disorders but also the presence of positive psychological resources such as positive affect, life satisfaction, happiness, self-acceptance, positive relationships, self-regulation, and having a purpose in life (Serdyuk, 2022; Fallahchai and Fallahi, 2016). Well-being is a key measure of mental health and has been shown to be associated with many positive factors, including physical health (Cohen, 2003; Hernandez and colleagues, 2018), optimal functioning (Davidson, 2003), reduced mental problems (Weiss and colleagues, 2016), and even longevity (Denner and colleagues, 2001).

Happiness has been observed to be reduced in overweight individuals (Robertson and colleagues, 2015), and furthermore, the association between obesity and reduced happiness affects women more than men (Al-Haq and colleagues, 2014). Happiness is a complex and multifaceted emotion that encompasses a range of positive emotions from contentment to intense joy and is often associated with positive life experiences, such as achieving goals, spending time with loved ones, or participating in enjoyable activities. However, happiness can arise spontaneously and without any apparent external cause (Sugirsaraja, 2022). Happiness is closely related to psychological well-being and overall life satisfaction, and studies have shown that people who experience higher levels of happiness have better physical and mental health, stronger social relationships, and greater resilience in the face of adversity (Yesletip and colleagues, 2022).

Happiness is a feeling of pleasure and enjoyment and is a goal for many people. As stated by Nelson Coffey (2020), happiness refers to the positive emotions that people experience when they are engaged in activities related to an enjoyable life. These positive emotions increase the level of individual flourishing (Alipour, 2015). Vinhon (2012) stated that happiness is a major goal in life and many people hope to achieve it.

In general, in the long term, the presence of physical conditions and problems affects the psychological condition of individuals, and overweight and obesity can also affect the quality of life of individuals, along with other diseases that are associated with them or the use of certain medications (Stephenson and colleagues, 2021). Quality of life is a positive and pleasant feeling that ranges from satisfaction to extreme happiness. Moments of happiness may be caused by positive life experiences or thoughts, but sometimes they may occur for no apparent reason (Argley, 2013). Quality of life is defined by the World Health Organization as "an individual's perception of his or her position in life within the context of the culture and value systems in which he or she lives and in relation to his or her goals, expectations, standards and concerns" (World Health Organization, 1995).

Hope is also a mental and psychological state that motivates people to work and be active, and it is one of the important and fundamental concepts in human life that gives them energy and motivation. Hope means believing that something good and positive will happen in the future, and this belief can provide the motivation and energy necessary for progress and victory over challenges and obstacles (Hazarjeribi and Safari Shali, 2010). Even when faced with major

challenges, hope can create an optimistic mindset and protect people from depression and other forms of mental distress (Milona, 2020). The source of every dynamism and progress in human life is hope, and hope for the future is one of the basic needs of humans, because a hopeless person cannot take steps towards achieving individual and especially social goals. Hope has broad dimensions and can appear in several different forms. Some dimensions of hope include: hope for life (the belief that life can get better and that people can achieve a better life through effort and effort), hope for the future (the belief that the future can be bright and positive and that good things await us), hope for change (the belief that change and improvement are possible and that people can make the best version of themselves a reality), and hope for self (the belief that people can achieve great achievements through their efforts, abilities, and talents) (Safri Shali and Tawafi, 2018). Against all the negative consequences of being overweight, it has been shown that strengthening resilience is a way to reduce negative consequences and further increase quality of life and psychological well-being (Kim and colleagues, 2019). Resilience is an essential set of personal tendencies that acts as a protective mechanism in helping people to overcome and succeed in difficult situations (Zhang and colleagues, 2022). Furthermore, resilience is an important element in maintaining optimal performance and physical and mental health despite stressful life circumstances (Bryan and colleagues, 2019). The concept of resilience is defined as the ability to adjust and not break down, to bounce back, and even grow when faced with difficult life situations (Sutwick and Charney, 2018). Therefore, the benefits of resilience include the ability to face difficulties, risks, and tolerate high levels of anxiety (Agasisti and colleagues, 2018).

In general, it has been shown that resilience is a changeable construct and is not an innate and unchangeable characteristic of individuals and, as a flexible characteristic, has the potential to grow and expand over time (Burkes and colleagues, 2009). Hence, reliable and effective interventions to achieve resilience have been designed for different groups of people and their positive effects on different groups have been shown (Dray and colleagues, 2014; Farser and Pakenham, 2008).

Although some researchers have stated that there is no accepted theoretical framework or single statement to guide, develop, or apply resilience education programs, and there is little clarity regarding what is essentially required for a program to be considered a resilience education program (Lepin and colleagues, 2014), practitioners, researchers, public health organizations, governments, and other groups have designed and implemented various programs with the goal of improving resilience, and in resilience-based interventions, two basic processes of resilience have been proposed: 1) the presence of a risk factor or factors and 2) the provision of an adaptive response. A risk factor is defined as a specific condition or situation that is likely to lead to adverse and unpleasant outcomes for individuals. Common risk factors that may affect an individual's functioning or development may include low socioeconomic status from birth, disability or traumatic life experiences, and encountering academic challenges. Adaptive response is also associated with developmental competencies (such as self-regulation, metacognition, etc.) and cultural values and established standards (Sanbol and Gunry, 2019). Therefore, these interventions also seek to strengthen various cognitive, emotional, and behavioral dimensions with the aim of strengthening individuals' resilience in facing various life challenges.

Now, considering the above-mentioned materials and considering the importance of addressing the psychological state of overweight individuals, the present study seeks to answer the question of whether resilience training is effective on the quality of life, happiness, hope, and psychological well-being of overweight individuals?

In this regard, a study was conducted by Hosseini and Montazer (1400) entitled Determining the Effectiveness of Resilience Training on Quality of Life and Reducing Risky Behaviors in Middle School Students. The findings of this study showed that resilience training was effective in increasing quality of life (physical health, mental health, reducing physical problems, reducing physical pain, increasing general health) and reducing risky behaviors (violence, substance use), but it did not have a significant effect on some components of quality of life such as physical performance, vitality, emotional problems, and one of the components of risky behaviors such as unsafe sex. Hosseini-Ghomi and Jahanbakhshi (1400) studied the effect of resilience training on stress and mental health. The findings showed that the average stress level was lower in the experimental group that underwent resilience training compared to the control group that did not receive any training, and resilience training increased the mental health of the experimental group.

Joyce and colleagues (2022) evaluated resilience training for hospital staff during COVID-19. The results showed that this intervention led to increased resilience and reduced stress, anxiety, and burnout. Lu and colleagues (2021) conducted a randomized controlled trial to investigate the effectiveness of a mobile device-based resilience training program in reducing depressive symptoms and increasing resilience and quality of life in parents of children with cancer. The findings showed that participants in the experimental group showed significantly higher levels of resilience and quality of life and lower levels of depressive symptoms. The quality of life score in the experimental group was higher than the control group at 6 months of follow-up. Rosenberg and colleagues (2019) conducted a study to investigate the effect of a resilience-enhancing intervention program on stress management in parents of children with cancer. According to the findings of this study, the transformation of families who were trained one-on-one changed significantly compared to the group that received usual care.

Theoretical foundations of research

Resilience

One of the important constructs in the field of health psychology is resilience, which has a special place in the fields of positive psychology, family psychology, and mental health. Connor and Davidson (2003) define resilience as the ability of an individual to maintain biological-psychological balance in dangerous situations. They do not consider resilience as only stability in the face of threatening conditions, but also consider the active participation of the individual in the environment to be important. Today, resilience has gained a special place in the fields of mental health and developmental psychology and has been considered an important construct in well-being theories and research for more than two decades. Kaempfer (1996) believes that resilience plays an important role in returning to the initial balance or reaching a higher level of balance and, therefore, provides positive and successful adaptation in life. At the same time, Kaempfer points out that positive adaptation to life can be both a consequence of resilience and, as a precursor, cause a higher level of resilience. He considers this issue to be due to the complexity of the definition and process view of resilience. Resilience refers to a dynamic process in which humans exhibit positive adaptive behavior when faced with adverse

circumstances or trauma (Lothar, Cicchetti, & Baker, 2000). Resilience is the ability to mentally and emotionally cope with a crisis or to quickly return to the pre-crisis state.

Quality of life

Quality of life is a concept used in many contexts and is related to health and well-being. After 1980, the content of this concept was expanded to include an individual's subjective experience of social life, daily activities and health (Moreno and Jimenez, 1996) and was defined as an individual's subjective perception of his or her position in life. The World Health Organization also defines quality of life as an individual's perception of his or her position in life, within the context of the value systems and culture in which he or she lives and in relation to his or her expectations, goals, concerns and standards (WHO Quality of Life Assessment Group, 1994, 1998). This broad concept includes psychological state, physical health, level of independence, personal beliefs and values, social relationships as well as the relationship with salient features of the environment (WHO Quality of Life Assessment Group, 1994). This definition suggests that quality of life does not refer to the actual and objective conditions of an individual's life, but rather to the personal experience of those conditions, which indicates the degree of satisfaction with family, love, and social life (Minnaio and colleagues, 2000). Life satisfaction, happiness, and experienced well-being are interrelated and closely related to perceived quality of life (Panskiou and colleagues, 2018).

Quality of life is a concept that aims to achieve well-being (of a population or an individual) at a specific point in time. For example, common aspects of quality of life include personal health (physical, mental, and spiritual), relationships, educational status, work environment, social status, wealth, sense of security and safety, freedom, autonomy in decision-making, social belonging, and the physical environment (Shallock, 2004).

Quality of life is a multifaceted concept that encompasses the economic, social, environmental, psychological, and physical dimensions of an individual's life, including personal living conditions, happiness, well-being, and life satisfaction. As a vital criterion for sustainable development and active social policy in countries, it has been significantly affected by the dynamic technological transformation in cyberspace and social networks (Visio and colleagues, 2014).

Happiness

Understanding the concept of happiness and ways to enhance it has long been of interest to ancient philosophers. As early as the 4th century BC, the Greek philosopher Aristippus believed that happiness refers to the combination of moments of pleasure in our lives (Ryan and Deci, 2001). Aristotle believed that happiness consists of at least two components: hedonicity, which refers to the pursuit of pleasure, and felicity, which refers to living well (Kernbloch and Bridge, 2010). In the 18th century, philosophers such as Baldwin, Locke, and later Bentham, offered a basic definition of happiness, which was considered the sum of pleasures. This definition has never been fully accepted. A review of the historical view of happiness suggests that happiness is associated with wealth and that a happy person is a fortunate person who has happiness, while Americans have a modern view in which happiness is something that can be achieved and that can be controlled and effectively worked towards (Oishi, 2012).

The concept of happiness has multiple meanings and varies across individuals and researchers. Many studies have shown that there are multiple concepts of happiness. Kamour and colleagues

(2009) suggested that there is no fixed term to describe happiness because it is perceived differently among different individuals, varies with age, and there are age-based differences in understanding the meaning of happiness. Younger people tend to associate happiness with excitement, while older people express a different view of happiness as something related to a sense of security.

According to Veenhoven (2012), there is no single definition of happiness. It can be considered an umbrella term that encompasses all the good things that contribute to human well-being. Empirical studies on happiness have shown that there are clear differences in levels of happiness across countries. Understanding and achieving happiness is achievable for many people in many ways. The concept of happiness originates from positive psychology. Positive psychology was born in response to the increasing attention that both psychology and psychiatry have paid to mental disorders. According to Seligman (2002), "Psychology is not just the study of illness, weakness, and damage. It is the study of strength and virtue. Therapy is not just fixing the problem. It is making what is right." In the early 21st century, Seligman (2002) explained the major role that positive psychology plays in strengthening and increasing public awareness of the impact of psychology in helping people fulfill and enhance their lives. The last few decades have witnessed a renaissance of interest in and research into the fields of happiness and well-being. Many studies on happiness and well-being have led to different concepts that help people understand the true meaning of happiness. Diener (1984) recommended the use of the term subjective well-being as a scientific term that represents happiness, and this term is now frequently used to assess aspects of personal life such as pleasure, favorable emotions, and the absence of unfavorable and negative emotions (Diener, 1984). Diener's research was supported by Seligman's (2002) research. According to Lee and Kawachi (2019), happiness has been found to be related to many aspects of life such as personal values, family, and other social relationships, but it has been found to be inversely related to external achievements, wealth, and power. Lyubomirsky and colleagues (2005) defined happiness as a feeling of pleasure and positivity in which people have balanced emotions, feel satisfied with their current situation, and develop a purposeful life. These researchers presented several research papers that showed the link between positive affect, happiness, and many positive outcomes, such as higher job performance, higher salaries, and better health.

Hope

Hope is one of the characteristics of life that makes us seek a better tomorrow. Hope means success and a better future and a reason to live. When there is hope, happiness and joy will be present in life, for this reason, psychologists have addressed a new topic in recent years under the title of positive psychology (Aminimanesh and colleagues, 1400).

Hope is one of the concepts very close to optimism and one of the characteristics of life that makes people seek a better tomorrow. Hope means expecting success and a better future, that is, a reason to live. When there is hope in the heart and mind, there will also be a passion for life (Amiri and colleagues, 1398).

Hope is positively correlated with and predicts mental and physical health, which is associated with a variety of scales such as positive response to medical intervention, mental health, positive mood, avoidance of stressful life events, cheerfulness and happiness in life affairs, and problem-solving. One of the characteristics of a human being is that he lives by relying on hope

and the future, and a person who does not have hope for the future is doomed to perish (McDermott and colleagues, 2017).

Hope therapy is today an important part of the process of improving patients, and the best results are always achieved when you have the highest level of hope. No matter how skilled and talented a person you are, you still need hope to conquer the peaks of success. Life is full of difficult situations and exhausting ups and downs, and all the locked doors that stand in your way will lead you to your destination with the key of hope and along with the right strategy (Sarlak and Savari, 2016).

Psychological well-being

Mental well-being refers to the general mental and psychological state of an individual, which includes mental health, a sense of satisfaction, emotional balance, motivation, self-confidence, and the ability to tolerate stress and life pressures. Psychological well-being indicates a good and healthy state in relation to an individual's feelings, thoughts, and behaviors (Przybylski & Weinstein, 2017).

Factors Affecting Psychological Well-Being

Psychological well-being indicates the extent to which individuals think and feel that their lives are going well. This construct is more colloquially called happiness (Przybylski & Weinstein, 2017).

Gilarich & Eibach (2001) suggested that the relatively weak influence of situational factors and the relatively strong influence of personality factors on the perception of well-being indicate the relationship between the perception of well-being and personality. How is well-being related to personality? There are two views on well-being. The first view considers well-being as a consequence of the life path, and in the second view, well-being or happiness is part of a functional process that helps individuals achieve other goals (Molahi & Khosravi, 2019).

At first glance, happiness is more important than health, high income, attractiveness, love, and meaning in life. Therefore, happiness is an ultimate goal that is achieved if external situations are in line with the individual's desires. In this view, happiness is achieved if everything goes well and is naturally changeable. In fact, external situations are correlated with psychological well-being. Researchers have hypothesized that situations that increase happiness indicate that basic human needs are met in these situations (Przybylski & Weinstein, 2017).

Psychologists design interventions to achieve greater well-being based on these needs. Psychologists and economists have advocated for an approach that examines psychological well-being at a macro level and tracks its course over time. However, this view that happiness and well-being are the result of external situations is at odds with research evidence that considers happiness to be a stable trait over time and does not change in response to life events (Salehi & Dehshiri, 2018).

In the second view, which considers psychological well-being not as an outcome but as part of a life process, the weak influence of situational factors and the strong influence of personality factors are surprising. At the heart of people's judgments of psychological well-being are emotions, and emotions have a functional role in life (Zhang and colleagues, 2020).

Negative feelings do not simply lead to a person feeling that life is not going well and motivate the person to try and improve, nor do positive feelings simply lead to a person feeling that everything is going well and there is nothing undesirable. These feelings are functional. When life situations are going well, a person should not feel bad (Zhang and colleagues, 2020).

Self-report scales are scales that ask people to consciously evaluate situations in their lives. This part of the person's judgment can conflict with the emotions and emotions that people experience in real-life situations. In experience sampling studies, studies that assess experience repeatedly over time show that there are very few moments that are emotionally neutral: people report having emotions almost all the time. Thus, cognitive judgment and emotional experiences are two ways to evaluate an individual's life (Pirnia and colleagues, 2010).

Research Method

The present research method is applied in terms of purpose and quasi-experimental in terms of method with a pre-test-post-test design and a control group. The research population was overweight students of the Central Tehran Azad University in the academic year 2010-2011. Considering that in experimental methods, at least 15 people for each group are sufficient as a statistical sample for the study (Biaban Gard, 2012), 30 of them were selected by purposive sampling method and randomly assigned to the experimental and control groups (15 people in each group).

Data collection tools

Data collection tools include the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF; World Health Organization Working Group, 1996), the Oxford Happiness Questionnaire-Short Form (OHQ; Hills & Argyle, 2002), the Adult Hope Scale (AHS; Schneider and colleagues, 1991), and the Reiff Psychological Well-Being Questionnaire (RSPWB; Reiff, 1989).

Data Analysis Method

The experiment and data analysis were carried out using descriptive statistics indicators and inferential statistics tests. The Shapiro-Wilk test was used to examine the normal distribution of the data, the Levine test to examine the homogeneity of variances, and the M-box test to examine the equality of the variance-covariance matrix. Covariance analysis was used to examine the difference in the means of the two groups in the post-test. Data analysis was performed with SPSS-21 software.

Findings

The main hypothesis of the study: Resilience training is effective on the quality of life, happiness, hope, and psychological well-being of overweight individuals.

Multivariate analysis of covariance test was used to examine the significance of the difference between the two groups. The multivariate analysis of covariance indices are presented in Table (1-1).

Table (1-1) Multivariate Analysis of Covariance Indicators

Effect	Value	F	Significance Level (p-value)
Pillai's Trace	0.98	300.58	0.00
Wilks' Lambda	0.01	300.58	0.00
Hotelling's Trace	57.25	300.58	0.00
Roy's Largest Root	57.25	300.58	0.00

As can be seen, the significance of Wilks' lambda means a significant effect of resilience training. The results of the multivariate analysis of covariance are reported in Table (1-2).

Table 1-2. Results of ANCOVA Analysis on the Effectiveness of Resilience Training

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	Effect Size
Quality of Life	Pre-test Effect	76.55	1	76.55	6.65	0.01	0.21
Quality of Life	Group	8556.05	1	8556.05	743.53	0.00	0.96
Quality of Life	Error	276.17	24	11.50			
Happiness	Pre-test Effect	2.92	1	2.92	0.59	0.44	0.02
Happiness	Group	1206.63	1	1206.63	247.19	0.00	0.91
Happiness	Error	117.15	24	4.88			
Hope	Pre-test Effect	0.21	1	0.21	0.03	0.84	0.00
Hope	Group	580.38	1	580.38	105.94	0.00	0.81
Hope	Error	131.47	24	5.47			
Psychological Well-being	Pre-test Effect	1.25	1	1.25	0.07	0.78	0.00
Psychological Well-being	Group	2148.70	1	2148.70	129.62	0.00	0.84
Psychological Well-being	Error	397.83	24	16.57			

As can be seen, the significance of the group effect in the analysis of covariance shows that there is a significant difference between the experimental and control groups in relation to the research variables. In other words, the resilience training course was effective in increasing the quality of life, happiness, hope, and psychological well-being of overweight individuals.

Sub-hypothesis 1: Resilience training is effective on the quality of life of overweight individuals.

To examine the significance of the difference between the two groups, a univariate analysis of covariance test was used (Table (1-3)).

Table (1-3) Results of Univariate Analysis of Covariance (ANCOVA) of Resilience Training on Quality of Life in Overweight Individuals

Source of Variation	Sum of Squares	df	Mean Square	F	Significance Level (p-value)	Effect Size (Eta Squared)
Pre-test Effect	73.55	1	73.55	6.48	0.01	0.19

(Quality of Life)

Source of Variation	Sum of Squares	df	Mean Square	F	Significance (p-value)	Effect Size
Group	9884.16	1	9884.16	871.80	0.00	0.97
Error	306.11	27	11.33			
Total	900572.17	30				

As can be seen, the significance of the group effect in the analysis of covariance shows that there is a significant difference between the experimental and control groups in terms of quality of life. In other words, the resilience training course was effective in increasing the quality of life of overweight people.

Sub-hypothesis 2: Resilience training is effective on the happiness of overweight individuals.

To examine the significance of the difference between the two groups, a univariate analysis of covariance test was used (Table (1-4)).

Table (1-4) Results of Univariate Analysis of Covariance (ANCOVA) Effect of Resilience Training on Happiness in Overweight Individuals

Source of Variation	Sum of Squares	df	Mean Square	F	Significance (p-value)	Effect Size
Happiness – Pre-test Effect	1.63	1	1.63	0.31	0.58	0.01
Group	1499.11	1	1499.11	284.44	0.00	0.91
Error	142.29	27	5.27			
Total	179005.72	30				

As can be seen, the significance of the group effect in the analysis of covariance shows that there is a significant difference between the experimental and control groups in terms of happiness. In other words, the resilience training course was effective in increasing the happiness of overweight individuals.

Sub-hypothesis 3: Resilience training is effective on the hope of overweight individuals.

To examine the significance of the difference between the two groups, a univariate analysis of covariance test was used (Table (1-5)).

Table (1-5) Results of Univariate Analysis of Covariance (ANCOVA) Effect of Resilience Training on Hope in Overweight Individuals

Source of Variation	Sum of Squares	df	Mean Square	F	Significance (p-value)	Effect Size
Hope – Pre-test Effect	0.18	1	0.18	0.03	0.85	0.00
Group	625.61	1	625.61	113.49	0.00	0.80
Error	148.82	27	5.51			

Total   26887.98   30

As can be seen, the significance of the group effect in the analysis of covariance shows that there is a significant difference between the experimental and control groups in terms of hope. In other words, the resilience training course was effective in increasing the hope of overweight individuals.

Sub-hypothesis 4: Resilience training is effective on the psychological well-being of overweight individuals.

To examine the significance of the difference between the two groups, a univariate analysis of covariance test was used. Table (1-6)

Table (1-6) Results of Univariate Analysis of Covariance (ANCOVA) Effect of Resilience Training on Psychological Well-Being in Overweight Individuals

Source of Variation	Sum of Squares	df	Mean Square	F	Significance (p-value)	Effect Size
Psychological Well-Being – Pre-test Effect	2.07	1	2.07	0.13	0.71	0.00
Group	2222.57	1	2222.57	144.34	0.00	0.84
Error	415.73	27	15.39			
Total	169818.24	30				

As can be seen, the significance of the group effect in the analysis of covariance shows that there is a significant difference between the experimental and control groups in relation to psychological well-being. In other words, the resilience training course was effective in increasing the psychological well-being of overweight individuals.

Conclusion

The findings showed that the resilience training course was able to significantly improve the quality of life, happiness, hope, and psychological well-being in the experimental group. This finding is consistent with the studies of Angopoulou and Panagopoulo (2022), Ebrahimi and colleagues (2013), Abbott and colleagues (2009), Bavandpour and colleagues (2019), Joyce and colleagues (2022), Joyce and colleagues (2018), Chitra and Karandihi (2021), Hosseini and Montazer (1400), Hosseini Ghomi and Jahanbakhshi (1400), Rabiei and colleagues (2015), Rosenberg and colleagues (2019), Sabzmanesh and colleagues (1400), Sarkar and Fletcher (2017), Seyed Mohammad and colleagues (2020), Shakerinia and colleagues (2019), Sheikhzadeh and colleagues (2010), Essanejad and Heydarian (2019), Kiani and colleagues (2019), Lapin and colleagues (2014), Liu and colleagues (2022), Lu and colleagues (2021), Madani and colleagues (2019), Vanho and colleagues (2016), Horton and colleagues (2022) and Yeganeh and colleagues (1400) Resilience means the ability of individuals to face life challenges and continue and persevere in the face of adversity (Eravilleno Ramirez, 2007). For the purpose of resilience training, individuals are worked on in the field of self-awareness, risks of different age periods, self-esteem, effective communication, foresight and goal setting, self-efficacy, problem solving, responsibility, management and strengthening the sense of spirituality. In this way, individuals achieve meaning and purpose for their lives, feel responsible and set their goals, experience self-esteem and self-efficacy and strive for their

future and face life challenges. In this way, they will also experience greater quality of life, happiness, hope and psychological well-being.

The findings showed that the resilience training course was able to significantly improve the quality of life in the experimental group. This finding is consistent with the studies of Angopoulou and Panagopoulo (2022), Ebrahimi and colleagues (2013), Abbott and colleagues (2009), Bavandpour and colleagues (2019), Joyce and colleagues (2022), Joyce and colleagues (2018), Chitra and Karandihi (2021), Hosseini and Montazer (2000), Hosseini Ghomi and Jahanbakhshi (2000), Rabiei and colleagues (2015). Quality of life is the perception that an individual has of various aspects of their life according to cultural and social values and norms (World Health Organization Quality of Life Assessment Group, 1998). Some resilience training sessions were in the field of finding meaning in life and setting goals, which can cause people to consider their lives meaningful and experience a sense of purpose in life.

On the other hand, sessions on problem solving and creativity may have also improved people's quality of life. Through these sessions, people were trained and practiced in how to face different problems and achieve creative, flexible, and fluid solutions. In this way, they also experienced this growth in creativity in their real lives and their perception of their quality of life changed. Studies have also shown that creativity has a positive relationship with quality of life and its increase can be associated with improved quality of life (Christini and Seza Bianchi, 2019).

The findings showed that the resilience training course was able to significantly improve the quality of life, happiness, hope, and psychological well-being in the experimental group. This finding is consistent with the studies of Angopoulou and Panagopoulo (2022), Ebrahimi and colleagues (2013), Abbott and colleagues (2009), Bavandpour and colleagues (2010), Joyce and colleagues (2022), Joyce and colleagues (2018), Chitra and Karandihi (2021), Hosseini and Montazer (1400), Hosseini Ghomi and Jahanbakhshi (1400). Abbott and colleagues (2009) conducted a randomized controlled trial to investigate the effect of online resilience training on happiness, quality of life, depression, anxiety, stress, and performance of sales managers of an industrial organization in Australia, and showed that sales managers found resilience training very enjoyable and believed that this training improved their work performance and life skills. Also, the effect of online resilience training on sales managers' happiness, quality of life, depression, anxiety, and stress was significant.

One of the sessions of this course was on recognizing and managing positive and negative emotions and reducing anxiety and stress. During this session, participants learned how to identify physiological, cognitive, and behavioral changes associated with positive and negative emotions and manage their emotions. It is possible that the exercises and training related to this session were effective in increasing people's happiness.

The findings showed that the resilience training course was able to significantly improve the quality of life, happiness, hope, and psychological well-being in the experimental group. This finding is consistent with the studies of Angopoulou and Panagopoulo (2022), Ebrahimi and colleagues (2013), Abbott and colleagues (2009), Bavandpour and colleagues (2019), Joyce and colleagues (2022), Joyce and colleagues (2018), Chitra and Karandihi (2021), Hosseini and Montazer (1400), Hosseini Ghomi and Jahanbakhshi (1400). Overweight people face individual and social concerns and discrimination. They have a distorted body image of themselves and are stigmatized and discriminated against by others (Jackson and colleagues,

2016). As a result, they will have a negative and pessimistic view of their life and future in various emotional, career, and educational areas. To cope with these individual and especially social challenges, they need to acquire skills such as how to relate to others, self-awareness, and self-efficacy. In the resilience training course, these skills were also worked on and individuals practiced them through discussion, question and answer, and role-playing. As a result, it was expected that their level of hope for their lives would increase. In this regard, it has also been shown that resilient individuals have high levels of assertiveness, self-awareness, self-esteem, problem-solving, empathy, ability to act, self-efficacy, and critical thinking, and they envision a positive future for themselves and are motivated to achieve their goals in life and education (Barnabard and Slade, 2009; Ghaderi and colleagues, 2022).

The findings showed that the resilience training course was able to significantly improve the quality of life, happiness, hope, and psychological well-being of the experimental group. This finding is consistent with the studies of Angopoulou and Panagopoulo (2022), Ebrahimi and colleagues (2013), Abbott and colleagues (2009), Bavandpour and colleagues (2019), Joyce and colleagues (2022), Joyce and colleagues (2018), Chitra and Karandihi (2021), Hosseini and Montazer (1400), Hosseini Ghomi and Jahanbakhshi (1400). Based on the Lazarus model of stress and coping styles, many events experienced in life (such as illness, loss of loved ones, trauma, new jobs, or demands and needs) can be considered as stressful issues that, in the absence of the resources and capacities required to cope with and manage these stressors, individuals experience its effects in the form of reduced well-being and mental and physical health (Biggs and colleagues, 2017). Therefore, according to the Lazarus model, the value of resilience is that it acts as an internal resource to reduce the negative effects of stress and maintain psychological well-being. In resilience training sessions, efforts were made to strengthen the capacities that make us strong against stressors. Capacities such as self-esteem, self-efficacy, self-awareness, emotion management, problem solving, and responsibility were among them, all of which can help strengthen people's psychological capacity against stressors and, as a result, reduce the chance of developing psychological problems and improve their psychological well-being.

Research suggestions

Given the significant effect of resilience training on improving hope in overweight individuals, it is suggested that this course be used to reduce pessimism and negative beliefs in overweight and obese individuals. Especially since these individuals face social stigma in society and have a negative body image of themselves, which causes them to form negative beliefs about their future and life. Given the significant effect of resilience training on improving the psychological well-being of overweight individuals, it is suggested that holding training courses in resilience can reduce the number of psychological problems of individuals and increase their sense of autonomy, self-efficacy, and mental health.

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