

CHAPTER 4

EMOTIONAL CONTROL AND FAMILY LIFE SATISFACTION OF OBESE AND OVERWEIGHT PEOPLE

INTRODUCTION

The increasing incidence of obesity can be observed worldwide nowadays. Despite numerous preventive programs and researchers' interest in this issue, the excess body weight concerns a growing number of people (Davidson, Knafl, 2006). Today, obesity is treated as a global problem because it does not relate only to highly developed countries any longer, but also to the developing ones. According to the World Health Organization, the problem of obesity is not only affecting adults but also ever-younger children (WHO, 2013). In Poland more than 61% of men and nearly 45% of women had improper body mass in 2009 (GUS – Chief Statistical Office, 2009). Overweight is related to the incidence of a number of diseases, whereas obesity may lead to serious health consequences. The incidence of excess weight may lead, among others, to type 2 diabetes and changes in blood vessels which may result in arterial hypertension. Besides, obesity is related to lipid fraction disorders as well as an increased risk of cholecystolithiasis (Łuszczynska, 2007). However, the consequences of obesity do not only affect health and physical condition of an individual. It is the psychosocial consequences that seem to be equally serious.

Excess body mass affects a person's life in its physical aspect and influences their social and psychological functioning (Chanduszko-Salska, Chodkiewicz, 2010). There are study findings which prove differences between obese and overweight people and those with normal weight as regards the psychological image. These differences concern, among others, personal resources, experienced

¹ Institute of Psychology, Kazimierz Wielki University, Bydgoszcz.

² Faculty of Psychology, Warsaw University, Warsaw.

emotions and the control of the emotions, stress and coping with stress, social functioning difficulties, etc. (Ogińska-Bulik, Chanduszeko-Salska, 2000). Nowadays, obesity is emphasized as a somatic defect which has an impact on psychosocial functioning of man (Oblacińska, Woynarowska, 1995). Therefore, researchers are trying to identify differences in certain areas of functioning in obese people and find out the cause of these differences. Hence, own research concentrated on the differences concerning family life satisfaction and the subjective control of anger, depression and anxiety among obese and overweight people and those with normal body mass.

CHARACTERISTICS OF OBESITY

Obesity has diversified etiology and depends on biological, environmental and psychological factors. Significant environmental factors include diet habits and physical activity. Obese people are often characterized by a low level of physical activity, following an unbalanced diet and treating food as a reward or a way to overcome boredom (Iniewicz, 2011, p. 408).

According to medical sciences, obesity is regarded as a pathological increase in the amount of fat tissue in the body leading to defective functioning. The basis of diagnosing obesity is to determine that a person's body mass is greater by minimum 20% than the normal weight limit. Overweight, on the other hand, is defined as excess body weight bigger by about 10-20% than the normal weight limit.

Due to the fact that it seems necessary to make a prompt diagnosis of obesity and overweight, a range of indices has been developed. The Quetelet index, that is **BMI** (Body Mass Index), is commonly used as a measure of relative weight of adults (Radoszewska 2011). It is defined as the individual's body mass divided by square of their height. The normal weight ranges between 18.5 and 24.99. If BMI is more than 30, 1st class obesity is diagnosed then. If BMI is bigger than 35, 2nd class obesity is determined. Finally, BMI amounting to more than 40 means 3rd class obesity (Łuszczynska, 2007). BMI, which is used to assess the incidence of obesity, like any other index, is not a perfect method since it does not consider the muscle tissue content. Therefore, many other indices are used when diagnosing obesity. One of them is the measurement of waist circumference which indicates excessive accumulation of fat tissue in this body part. Waist circumference of over 102 cm for males and over 88 cm for females provides the basis for diagnosing obesity.

PSYCHOSOCIAL FUNCTIONING OF OBESE PEOPLE

Today, when obesity is so common, the problem of excess body mass and its relation to human functioning comprises various researchers' focus of attention. Numerous studies concentrate on the biological aspects of overweight and obesity. The psychological aspect is not so often discussed though (Pietrzykowska, Wierusz-Wysocka, 2008). Professionals who study the problems of obesity, often forget about the psychological aspects of excess body mass (Juruć, Bogdański, 2011).

Some findings provide basis to claim that obese people are often less **satisfied** with different aspects of their lives, have low **mood**, and are even more **depressed** (Chanduszko-Salska, Chodkiewicz, 2011).

A higher **stress** level was also recognized in obese individuals. However, it is not easy to explain why. On the one hand, people with excess body weight reveal a higher stress level, on the other hand, obese individuals may often regulate stress they feel by eating food according to the concept of false hunger (Ogińska-Bulik, 2004).

The studies on the functioning of obese and overweight people usually analyze life satisfaction, emotional functioning, including depression symptoms, anxiety, mood and dealing with stress and health self-evaluation (Ogińska-Bulik, Chanduszko-Salska, 2000; Głębocka, Wiśniewska, 2005; Bętkowska-Korpała, Karpowicz, Gierowski, et al, 2007).

LIFE SATISFACTION

For a long time, the issues of life quality, life satisfaction or wellbeing have been the centre of interests of many scientists. A number of studies have revealed a correlation between the incidence of obesity and lower life satisfaction (Pietrzykowska, Wierusz-Wysocka, 2008). However, there are few studies concerning **life satisfaction** in definite areas of life (Makara-Studzińska, Gałkiewicz, 2003).

Family, as one of the most important areas of human functioning, comprises a significant element of life satisfaction measurement. Some researchers treat obesity as a symptom of emotional conflicts in family and relationships (Minuchina, 1975 at: Brytek-Matera, 2008), still others emphasize that the problem of struggling with overweight or obesity may be the source of a lot of family worries (Brytek-Matera, 2008a). Some studies point out a lower level of satisfaction with marriage or relationship, sexual life or children of obese people, when compared with those who have normal body weight (Chanduszko-Salska,

Chodkiewicz, 2011). However, there are few studies focused on the issue of functioning of people with abnormal body mass in family.

EMOTIONS AND OBESITY

Studies show the incidence of negative **affective conditions** in obese individuals (Ogińska-Bulik, Chanduszko-Salska, 2000; Głębocka, Wiśniewska, 2005). On the one hand, researchers emphasize the significance of negative emotional states to excessive eating and consequently to obesity (Ogińska-Bulik, 1999). Psychosomatic obesity is treated as an effect of making up for frustration or defusing **anxiety** by an obese person (Tatoń, 1985).

On the other hand, many researchers observe that obesity may lead to dissatisfaction with own body and, consequently, to a low **mood** or even bigger **depression** (Cogan, Ernsberger, 1999). A number of studies prove worse emotional functioning of obese people, but they still fail to determine the direction of this correlation. It is still unknown whether these conditions should be seen as the cause or perhaps as a result of obesity (Głębocka, Wiśniewska, 2005).

The correlation between mood and diet relates to the biochemical aspect. A specific diet usually affects a certain body weight. Eating regulates the mood by biochemical changes in the body (Markus et al 2000). The diet rich in carbohydrates and low in proteins, results in an increased level of tryptophan and, in consequence, serotonin. A low level of this substance in the body affects a negative mood, depression and anxiety (Markus et al 2000). As far as the fatty diet is concerned, an increased neurohormonal activity was observed, also in the stress system, that is in the system of the hypothalamus – pituitary gland-adrenal cortex (Dijk, 2003). Likewise, in case of biological factors, the direction of the correlation may be mutual. On the one hand, the diet rich in adequate nutrients modifies the human functioning, including the mood, depression level or anxiety, on the other hand, inducing the positive or negative mood affects dietary choices (Łuszczczyńska, 2007). A long-term change of diet and physical activity may lead to enhanced emotional functioning (Wilczyńska, 2012).

EMOTIONAL CONTROL IN OBESE PEOPLE

The tendency to suppress negative emotions is a negative thing and many researchers consider this tendency to be a basis of many neurological disorders and psychosomatic diseases (Everly, Rosenfeld, 1992; Terelak, 2001; Franken,

2006). Some studies reveal a reduced level of expressing negative emotions in obese individuals (Brytek-Matera, 2009; Ogińska-Bulik, 2004). The causes of the eating related disorders and, consequently, obesity can be found in improper dealing with emotions, in particular, in the issues of suppressing negative emotions (Juruć, Bogdański, 2011). People who excessively control expressing negative emotions such as anger, tend to use the emotion control strategies by eating too much more often (Brytek-Matera, 2008b). Individuals suppressing emotions can reach for food in order to reduce their negative emotional state (Rybowska, 2007).

Purpose of the research paper, research problems, research questions and hypotheses

The main research problems concerned:

1. The difference in the level of life satisfaction between obese people and those with normal weight.
2. The difference in emotional control between obese people and those with normal weight.

Considering the above, the nature of the research studies was comparative.

The purpose of the analyses is to obtain answers to the following questions:

1. Do obese and overweight people significantly differ from those with normal weight in terms of the level of family life satisfaction?
2. Does the subjective control of emotions like anger, anxiety and depression in difficult situations significantly differentiate the groups of obese and overweight individuals involved in the study and those with normal weight?

The following hypotheses were developed on the basis of the relevant literature:

1. The sampled groups reveal significant differences as regards the level of family life satisfaction:
 - It is expected that the level of life satisfaction in the individuals with abnormal body weight is lower than in those with normal weight.
2. The subjective control of emotions significantly differentiates the groups involved in the study:
 - The people with abnormal weight reveal a higher level of suppressing emotions like anger, depression and anxiety when compared with the respondents with normal weight.

Operationalization of variables

Independent variable	
Body weight	BMI: – Normal weight – Abnormal weight
Dependent variables	
Family life satisfaction	Scale H in family assessment scale result
Control of emotions	CECS result: – Anger control – Depression control – Anxiety control
Incidental variables	
Economic status	Total net personal income in PLN: low (<1100 PLN) medium (1101-2500 PLN) high (>2500 PLN)
Age	In years
Sex	– Female – Male
Physical activity	– Number of hours spent doing recreation sport on a weekly basis

RESEARCH METHODS

- Structuralized interview
- Family Assessment Scale (FAS) - David H. Olson adapted by Andrzej Margasiński
- Courtauld Emotional Control Scale (CECS) – Maggie Watson and Steven Greer adapted by Zygryd Juczyński

The claims of the Family Assessment Scale comprise eight scales. Six of them are the main scales of the Circumplex Model developed by David H. Olson, concern two dimensions of the family functioning – cohesion and flexibility. Two remaining scales measure family communication and life satisfaction. The internal conformity of all scales is either high or satisfactory. The family Life Satisfaction Scale was created on the basis of a tool constructed by Olson and Wilson and proves to be highly reliable ($\alpha = 0.92$) (as cited in: Margasiński, 2006, p. 77).

- Courtauld Emotional Control Scale (CECS) – Maggie Watson and Steven Greer adapted by Zygryd Juczyński

The Courtauld Emotional Control Scale-CECS was developed by Watson and Greer and it relates to revealing three kinds of emotions: anger, depression and anxiety. The scale consists of twenty one claims which, in turn, compose three subscales. The tool is used to measure the subjective control of anger, anxiety and depression in difficult situations. The general emotional control index is also calculated according to which the higher index value the higher level of negative emotional suppression determined. Reliability for the Polish version measured using the Cronbach's Alpha coefficient is satisfactory and ranges from 0.77 to 0.80 whereas the total emotional control index is 0.87 (Juczyński, 2009, p. 56).

RESPONDENTS

- The study was conducted in the group of 78 individuals with normal and abnormal body weight. Thirty seven of them had normal weight whereas forty one were obese or overweight. Purposeful sampling was applied considering the weight criteria. The respondents did not suffer from any chronic diseases and weight was not a result of any disease.

RESULTS OF THE STATISTICAL ANALYSIS OF RESEARCH FINDINGS

The research tests of respondents with abnormal and normal body weight were compared. The first group consisted of 37 people with normal weight whereas the second group consisted of 41 individuals with excess body weight. The sequence of presenting the findings of the conducted statistical analysis depends on the order of research questions.

Verification of hypothesis 1

In the first place, the research results of family life satisfaction were compared, and the satisfaction level was measured using scale H in the Family Assessment Scale. The findings of the statistical analysis concerning the level of family life satisfaction in the compared groups of parents are presented in Table 1.

Table 1. Results of statistical analysis using the Mann-Whitney U test concerning family life satisfaction obtained by means of the Family Assessment Scale-FAS.

Variab- le	Total range GROUP 1	Total range GROUP 2	U	Z	Z cor- rect	p	N im- portant GROUP 1	N im- portant GROUP 2	2*1 str. dokł.p
FAS H	1136.5	1944.5	433.5	-3.25	-3.26	<0.05	37	41	<0.05

Statistically significant differences were identified between means in the groups compared in terms of family life satisfaction. The analysis findings reveal that overweight or obese individuals are significantly less satisfied with family life than those with normal body weight. This confirms hypothesis 1.

Verification of hypothesis 2

Hypothesis 2 claimed the incidence of significant differences in subjective emotional control: anger, depression and anxiety between obese and overweight people and those with normal weight. The results of the statistical analysis of the research findings concerning emotional control are provided in Table 2.

Table 2. Results of the statistical analysis using the Mann-Whitney U test concerning the subjective control of anger, anxiety and depression in difficult situations

Variab- le	Total range GROUP 1	Total range GROUP 2	U	Z	Z cor- rect	p	N im- portant GROUP 1	N im- portant GROUP 2	2*1 str. dokł.p
Anger control	1261.00	1820.00	558.00	-2.00	-2.02	<0.05	37	41	<0.05
De- pres- sion control	1276.00	1875.00	573.00	-1.85	-1.87	>0.05	37	41	>0.05
Anxiety control	1246.50	1834.50	543.50	-2.15	-2.18	<0.05	37	41	<0.05

When analyzing the emotional control of: anger, depression and anxiety, some statistically significant differences were identified among the groups involved in the study: individuals with abnormal body weight tended to suppress anger and anxiety more often than those with normal weight. The statistical analysis results reveal no significant differences in suppressing depression in the groups compared. Therefore, hypothesis 3 should be regarded as partially confirmed.

Verification of hypothesis 3

As hypothesis 3 claimed, it was expected that the total index of emotional control is significantly differentiated by the groups involved in the study. It was expected that the respondents with abnormal body weight may have a higher level of suppressing negative emotions in comparison with the respondents with normal body weight.

The findings of the statistical analysis of the gathered results are shown in Table 3.

Table 3. Results of the statistical analysis using the Mann-Whitney U test concerning the total index of emotional control.

Variable	Total range GROUP 1	Total range GROUP 2	U	Z	Z correct	P	N important GROUP 1	N important GROUP 2	2*1 str. dokł.p
Total index of emotional control	1190.00	1891.00	487.00	-2.71	-2.72	<0.05	37	41	<0.05

When comparing the groups involved in the study in terms of the general control of emotions, statistically significant differences were identified. Obese and overweight people reveal a statistically higher level of suppressing negative emotions than people with normal weight.

DISCUSSION AND CONCLUSIONS:

Obesity and overweight are not only a health related problem but also a risk to the psychosocial functioning of an individual. For not so long the research has been conducted on the differences in the psychosocial functioning of obese people and those with normal weigh. However, researchers do not agree about the incidence of interpersonal differences related to body weight (Brytek-Matera, 2008; Chanduszko-Salska, Chodkiewicz, 2010). Some studies prove that people with excess body weight have difficulties with stress coping, lower life quality, and problems with functioning in family or relationship, among others. There is a relatively low number of research focused on identifying the specificity of functioning of the family in which one of the spouses is obese or overweight.

The results of own studies confirm that there are differences in psychosocial functioning between obese and overweight people and those with normal weight.

Own studies reveal a difference in the functioning of individuals with abnormal body weight and those with normal weight in terms of family life satisfaction as well as emotional control. The respondents with abnormal body weight proved to have a lower level of family life satisfaction and tended to suppress negative emotions more often.

It should be emphasized, though, that obesity may result from improper family functioning to some extent. Obesity can be treated in two ways. On the one hand, some researchers consider it to be the symptom of emotional conflicts in a family and relationships (Minuchina, 1975 at: Brytek-Matera, 2008), still other researchers emphasize that the issue of facing overweight or obesity may be the source of family problems, and, in consequence, a lower level of family life satisfaction (as cited in: Brytek-Matera, 2008).

According to own studies, worse parameters of emotional functioning were determined in individuals with abnormal body weight. It was revealed that these people tend to suppress negative emotions more often than those with normal body weight. It was shown that obese and overweight individuals are more often subjectively convinced that they are capable of controlling their reactions in case of negative emotions within the scope of anger and anxiety.

This means that people with excess body weight appear to have higher emotional control than those with normal body weight. Currently, numerous researchers see a correlation between the inability of emotional expression and psychosomatic disorders to which some obesity forms belong according to some researchers.

Considering the above mentioned analysis, there can be observed an image of an obese or overweight person who seems to function worse in family environment which is one of the most important to an adult person and to excessively control the expressions of negative emotions. Own study findings justify the necessity of paying more attention of specialists to the psychological causes of the incidence of excess body mass. Further studies on the correlation between the functioning of people with abnormal body weight may contribute to broaden the knowledge about the therapy of obese individuals and to develop effective treatment programs.

Based on the own research findings, the following conclusions can be drawn:

- The respondents with abnormal body weight significantly differ in terms of family life satisfaction and they reveal a reduced level of family life satisfaction.

- The groups involved in the study show significant differences as regards emotional control: individuals with abnormal weight tend to suppress anger and anxiety more often than their counterparts with normal weight.
- The sampled obese and overweight people reveal a higher level of suppressing negative emotions than those with normal weight.

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