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Obesity in Primary Care – A Social and Integrative Therapeutical Attitude

Alamir DIAA¹, Adorata Elena COMAN²

Abstract

Obesity is a major health problem by: a high incidence (especially in industrialized countries); an impairment of life duration and quality; promote a large panel of cardiovascular, respiratory, rheumatologic, endocrine-metabolic disturbances (mortality of 1.5 to 4 times higher than in normal weight); increased surgical risk; huge psycho-social consequences. Integrative therapeutically attitude should act both on individual and population level, in order to avoid social isolation and better results. An intention to treat study was made, 12 month period of follow up, initial randomization of 6 month, 107 patients, from 287 selected. Synoptically we found: 10% good results with only lifestyle modifications and 87% good results with both lifestyle modification and medication, only 3% of failure. We obtained good results for all the anthropometrically parameter, after 1 year of treatment. The cornerstone was: high motivation and integrated treatment focused on both directions. Medication of the best choice is that which has dual effects: energy balance and eating disorders. We have to achieve a multifactor approach of treating obese persons as integrated treatment with a strong social component.

Keywords: obesity, integrative attitude, social therapies.

Introduction

The obesity is the pandemic of the actual age and it is considered that its start was after the Second World War. In the last 20 years the obesity's growing is exponential (Bray, 2000). In USA, the obesity causes 300.000 deceases every year, the second place after smoking (2006). In all the developed countries, 4080%

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from adult population is overweight or obese. In USA, 53% of the adult population is overweight or obese and 23% have metabolic syndrome (WHO, 2006). Around the world, there are approximately 150 million diabetics, of which 90% of type 2 (WHO, 2006).

Table 1. Classification of obesity according to BMI, waist circumference (CT) and associated risk WHO, 2002)

BMI values (kg/m ²)	Classification	Obesity risk	
		No associated diseases	With associated diseases
		CT men < 102 cm CT women < 88 cm	CT men > 102 cm CT women > 88 cm
< 18, 5	Weight too low	-	-
18, 5-24, 9	Normal Weight	-	Increase
25, 0-29, 9	Overweight	Increase	High risk
> 30, 0	Obesity	High risk	Very high risk

Obesity is a major health problem by: high incidence (especially in the industrialized countries); affecting the duration and quality of life; promoting a cardiovascular, respiratory, rheumatology, endocrinology and metabolic pathology (Morbidity/mortality is f 1.54 times higher than in normal weight); by increasing interventional and surgical risk and huge psycho-social consequences (Figure 1).

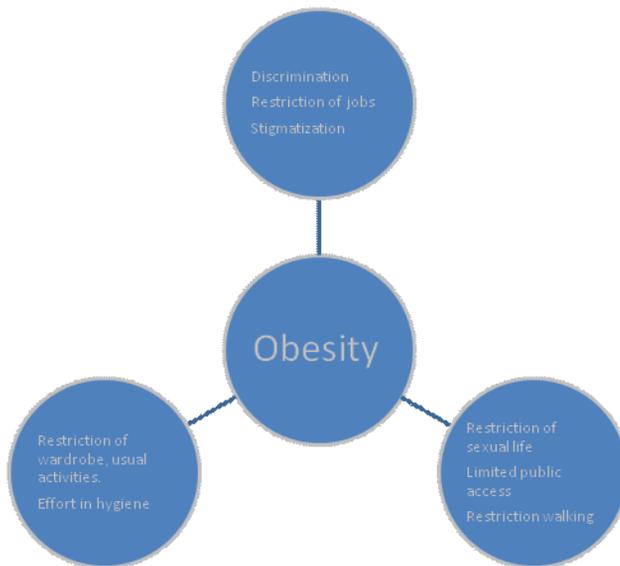


Figure 1. The social cost of the obesity (modified Bray, 2000)

At the other part, the nutrition behavior is a complex process related to sensitive, affective, emotional, social factors and physiological needs of the organism. The multiple determination causes by all these factors, transforms the human being into a symbols feeder (Tremoliers, 1976). The affective life, gladness or sadness can make the human being to eat beyond the organism's needs, according to the neuropsychological balance as the social activities brings about a nutritional contribution that is free of hunger sensation (see *Figure 2*).

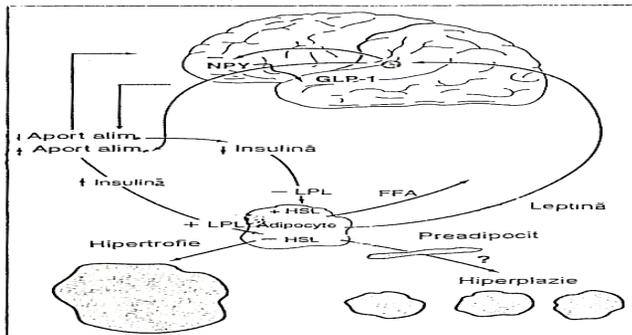


Figure 2. *The nutritional behavior and its physiology (Brownell K.D., 1995).*

The well fed fat cell excretes the leptin that bundles RHT (serotonin receptors) leading to the release of glucagon like peptide1 (GLP-1) and neuropeptide Y (NPY), that are intense appetite stimulators. The appetite physiology, the metabolic profile, the energetic balance and its characteristics have permitted the characterization of the obese in two types (*Table 2*) (Bray and Tartaglia, 2000).

Table 2. *Classification of the obese (after Vague, 1987)*

Plethoric obese	Anemic obese
- gourmands	- don't have an excessive hunger
- hypersthenes, euphoric	- asthenics, apathetic
- effort capable, effort resistant	- sedentary
- plethoric, hypervolemic	- fluffy, spongy, pale aspect
- frequent have arterial hypertension	- hypotensive
- hypermetabolics	- hypometabolic
- anabolism > catabolism	- low catabolism
- android aspect	- gynoid aspect
- frequent met to men and women at menopause	- frequent met to women, young girls, teenagers, castrated men
- frequent presents metabolic complications: diabetes mellitus, arterial hypertension, atherosclerosis	- rare metabolic complications, more frequent mechanical complications
- the structure of the adipose tissue is predominant hypertrophic	- the structure of the adipose tissue is predominant hyperplasic
- respond to dietary treatment	- difficult or no response to dietetic treatment
- vital prognosis is bad	- vital prognosis is good

From this point of view, the therapeutically approaches is also different, the life style modification, the associated medication doesn't address to obesity as disease, but to obese as patient. The influence of the environment on the energetic balance refers not only to the calories ingestion that exceeds the consumption, but especially it straightly refers to the environment that alter the nutrition behavior (Table 3, 4) (Caterson, 2006).

Table 3. *Causes of nutrition behavior disturbances (NEDA, National Eating Disorders Association, 2004)*

<p>Psychosocial factors: selfcontempt, lack of control, depression, anxiety, loneliness etc.</p> <p>Interpersonal factors: family, difficulties in emotions and feelings expressing, history of ridiculousness, history of sexual abuse etc.</p> <p>Social factors: cultural pressure, exaggerate definition of beauty, cultural guideline.</p> <p>Biological factors: neuro-endocrine systems that mediates the control of the starvation, satiety and digestion. The disorders appear in families – genetic component.</p>
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Table 4. *Disorders of the nutrition behavior (Work Group on Eating Disorders, 2000)*

<p>Anorexia nervosa, nervous anorexia, refuse of eating with a strong psychological component, teenager especially girls.</p> <p>Bulimia nervosa, bulimia episodes succeeded by purge methods: vomiting, laxatives, intensive physical effort so on.</p> <p>Binge eating: great food amounts ingestion when doesn't exist organic starvation; they are eating alone, they are feeling ashamed; at least 2 days a week, for 6 months; it doesn't follow with compensatory manipulations.</p>

The psycho-social consequences

There is a genuine anti-obese “racism” in industrialized occidental countries, considering that attractive, traits of character and professionalism of the obese would be poorer than normal weight and that generates school selection and promotion discrimination. Prejudices affect obese themselves (complex them), their relatives and doctors, generating a real obesophobia. An overview of the multiple facets that led to the obesity release indicates the multitude of therapeutically appliances. The integrated therapy of the obesity endorses a multi-factor and multidisciplinary approach (see *Figure 3*) (Hancu, 1998; James, 1996).

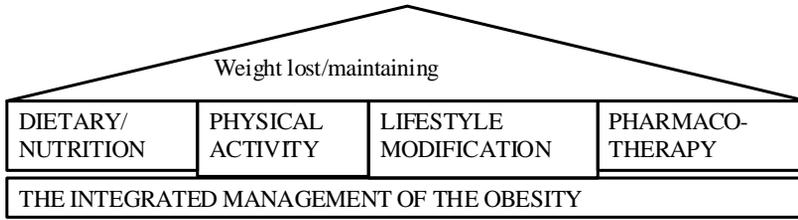


Figure 3. *The definition of the integrated management of the obesity (IOTF, 2000)*

The first target of the therapy is the disconnection of this vicious circle. This target can be achieved by the following means: (1) *Nutritional rehabilitation*, with the assessment of the balanced diet, feeding rate, balanced physical culture, medical education; (2) *Psychosocial intervention*: individual and interpersonal psychotherapy, group and familial psychotherapy, psychotropic medication (anti-depressants, serotonin recapture inhibitors); (3) *Drug therapies* (sibutramine, orlistat, adiponectine, metformin, GHreline inhibitors, the role of the gonads hormones, GLP-1 agonists).

Cases and Methods

The patients randomization was performed on a 6 months' period, once with REDUCTOSTART³ program initiation, organized by Abbot Lab. Company, in 2010 and 278 patients were included. 107 patients have been selected from them, which have a good adherence to the program and could be followed on a determined period. 86% of cases were female and this is a proof of a better adherence to the program and motivation. As methods we used standard clinical procedures and some specific ones to the obese patient: (1) History: *weight curve*, family history, associated disorders, nutrition interrogation; (2) Clinical assessment and labs tests, according to clinical tracing datasheet; (3) Motivation and psychological profile (reference and psychological interrogation); (4) The establishment of the new life style and the desirable weight as target of therapeutically program; (5) How and with whom we cooperate? Statistical data have been obtaining using EpiInfo7.

³ REDUCTOSTART program realized the infrastructure (call center, web address, the database with physicians who offer the specialist consulting, mass-media information for patients) that permitted a better addressability of the patients to the medical consultation related to obesity and associated disorders. The participant physicians benefited by the informing relay of the program, not grants. So, the above processed dates belong to the internal medicine consulting room, The Specialty Ambulatory of the „Sf. Spiridon” Hospital, Iasi.

Results and discussions

10% good results only with an improved life style program targeting eating behaviors and family habits; 87% significant results with medication and improved life style (table 5, figure 4); Failure to the cases which didn't modify their own lifestyle, didn't comply with recommendations, including financial limitation (3%). We observed that the program acceded cases selection was based, first, on the patients motivation, aesthetics, medical status etc. We specify that the very adherent cases profile presented the next characteristics: (1) Central obesity; (2) Binge eating syndrome; (3) Sedentary teenager; (4) Hypertensive obese; (5) Persons with a professional activity higher than 8 hours per day.

Table 5. *Anthropometrical characteristics of the studied lot, initial and after 1 year control*

Lot	Weight average (kg)	% adipose tissue	Abdominal circumference (cm)	BMI (kg/m ²)
Initial	96.55±18	37.94±8.7	102±9.2	33.89±12.5
At 1 year	86.05±12	29.64±4.5	89±5.6	28.9±8.87
Δ	10.5±6*	7.5±4.2*	13±4.6*	4.99±3.6*

* $p < 0.005$

We also noticed, a significant comparative decrease of the anthropometric marks, but with an obviously grade of dispersal (Table 5). The data we have got are comparable with the published ones, where the cited weight lost 1 year is between 7 and 10% or 5 to 11 kilos. The same is for AC (abdominal perimeter) and BMI (Body Mass Index) (James & Astrup, 2000; Scholze, 2001; Serme *et al.*, 2001). From the nominal weight lost graphic (initial weight and control weight), we noticed the prominence of the same dispersal of data, initial and control, but, after 1 year, the weight is less dispersed (0.3127 +85.7 vs. 0.2523+76.628, $p < 0,001$). This is clinically interpreted by the fact that at the great weights the decrease was more significant than the averages (see Figure 4). We mention that weight loss was recorded regardless the initial weight (Tremblay *et al.*, 2001). The linear of two graphics represents the displayed in space media, nominal at the cases, for study and control lot. The decreases of the dispersions is represented by the more depressed gradient of the curve and R^2 (Figure 4).

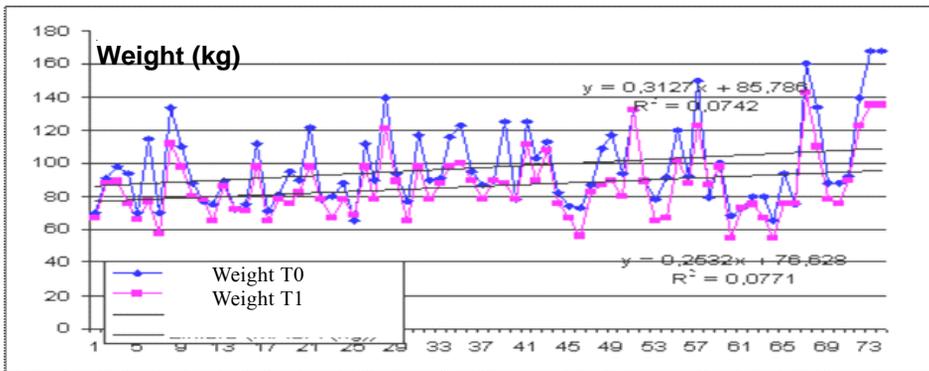


Figure 4. *Weight nominal comparison, initial and after 1 year and the trends representation (linear)*

The analyses of the achieved results within REDUCTOSTART program highlights that the patients had a good adherence to the program, the active and motivated selection concurred to this (the patients addressed to this program through the good organization and informing degree, including media). We keep in mind few things about practically experience of the participation to this program that endorse the patient and the practitioner as well: (1) Feedback of the entourage; (2) Feedback of the family doctor; (3) Interdisciplinary communication with the psychologist/psychiatrist, cardiologist, plastic surgeon, pneumologist, pediatricist, endocrinologist (Wadden *et al.*, 2001, Ziegler *et al.*, 2004). We highlight the role of the family doctor in the initiation and the maintenance of the integrated obese treatment (Hâncu, 1998, Bray 1998).

The limits of this study are questions in fact: (1) Is the REDUCTOSTART program a useful infrastructure? (2) Is the interdisciplinary collaboration a utopia? (3) Is the life style changing a good theory for the guides? The answers are simple as well: (1) Yes, because it offers the possibility of the patient informing and the addressing; (2) No, if it is based on command delimitation and it has formed relays.

The changed life style is based on each other patient-physician informing and it starts from the biopsychosocial factors already performed. Bioethics should act both at individual and population level, in order to avoid social isolation. Such educational programs would target not only weight decrease, but also the reintegration into the society, decisive moral support in the initialization and success of treatment. Changing the behavior seems to be the most effective therapeutic

tool because it gives long term results, targeting: the identification of behavioral obesity factors; the changing the way of life, reducing or even eliminating of the conditions that generated weight gain. Obese patient is a patient with a fragile moral condition. Obesity is not always the result of an uncurbed pleasure, but more commonly a disease, which in turn generates other diseases. The contribution of the discussion with the patient to make him understand the extent of the problem can be over 50% of successful treatment. There are used individual, group, family therapy techniques in which the psychologist and psychotherapist role is very important. Efficiency increases when behavioral therapy is applied to the whole family. Patient awareness is important for their food behavior. The doctor must intervene in cognitive restructuring - helping patients with answers to their negative attitudes, the deterrent effectiveness of previous attempts and duration of therapy to reduce weight. Also the physician must undertake a nutrition education, dietetics and culinary diet based on scientific, non-harmful, as appropriate needs, balanced principles, practical and effective.

Conclusions

Synoptically we found: 10% good results with only lifestyle modifications. 87% good results with both, 3% of failure. The cornerstone was: high motivation and integrated treatment. Nutritional behavior has a constitutional genetic component and an environment-psychosocial one. Satiety regulation of neuro-endocrine system connects the central nervous system to digestive tract and social attitude. The obesity treatment endorses the nutrition behavior too and the therapeutically approach is holistically, from this point of view. "I saw a few die of hunger, of eating -100,000"(Benjamin Franklin - after Bray 1998).

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