ORIGINAL RESEARCH

Socio-anthropological analysis of bariatric surgery patients: a preliminary study

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Abstract

Using socio-anthropological analysis, this paper presents preliminary results of an inter-disciplinary investigation entitled "A nutritional and anthropological study of patients with type III and IV obesity undergoing bariatric surgery." The medical ethnographic approach employed in this study has two goals: to study patients' cultural context before and after surgical treatment and to analyze perceptions, representations, social integration, stigmatization, and social control before and after surgery. The results show potential discrimination against these patients based on their group identification and a permissive environment; these ideas are manifested in the concepts of the "obesogenic society" and the "obese victim." On the other hand, the process of medicalization provides a mechanism capable of both social inclusion and exclusion. The results of this preliminary analysis are informing ongoing work between patients and professionals in this nutritional study.

Key words: anthropology, obesity types III and IV, perception, stigmatization, medicalization

Introduction

This paper presents preliminary findings of an interdisciplinary study entitled *"A nutritional and anthropological study of patients with type III and IV obesity undergoing bariatric surgery."* The goals of this study are to examine both the nutritional and surgical aspects of this procedure, as well as the anthropology of nutrition and medicine. The study will address two areas of current interest within the social sciences: practices and attitudes towards food, and the perceptions and relations of patients towards medical personnel. In this preliminary analysis of an ongoing project we present our ethnographic findings, using qualitative methods to allow a rich appreciation of the experiences of patients. It is hoped that this understanding will facilitate the management of these patients from a medical and nutritional point of view.

This study is based on the following:

1. The perspectives of the social actors, viz. health care personnel and patients. We try to let those experiencing the health/disease process speak for themselves. There is, however, a clear distinction between the providers and the recipients of health care services. Formal health care workers – doctors (mainly endocrinologists), nurses, pharmacists, etc. – are considered to be the creators of a homogeneous model in their roles as professionals with varying levels of training and authority.
2. The medicalization of eating behavior as part of the process of establishing normative eating behaviors, specifically the creation of a dietary model: the *balanced diet*. Constructs about controlling body weight offer valuable information on the nature and possible effects of medical practice in the specific field of obesity, its diagnosis and treatment.
3. There has been considerable research on morbid obesity and its treatment (Alastrue et al., 1999; Padwal et al., 2008), most notably bariatric surgery (Schauter and Ikramuddin, 2001; Rubio et al., 2004; Buchwald et al., 2004; Jeffrey et al., 2009). The sequelae of this treatment have also been analyzed from a clinical point of view (Flum et al., 2005; Sjöström et al., 2007; Tadross and LeRoux, 2009; Mun and Tavallolizadeh, 2009), including the management of this "disease" (as it is considered to be) from the point of view of mental health professionals (Guisado and Vaz, 2002). However, research emphasizing socio-cultural factors in these patients is sadly lacking;

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this was the rationale for our study. The following paper reports on result of research carried out between February and July 2009.

Obesity: an interdisciplinary approach

Because obesity is emerging as a serious public health issue, the analysis of eating as a social activity has taken on increasing importance. Anthropology has traditionally been concerned with the study of different cultures; research on food is fairly recent. Socio-cultural influences on dietary practices have been investigated in various groups, notably adolescents (Álvarez et al, 2009). Fewer studies have focused on specific pathologies such as type III and IV obesity.

In Spain in the 1960s, as access to food became increasing easy, there was already evidence of sedentary lifestyles; the problem may already have existed, but went unnoticed. At that time being fat did not have such negative connotations and, of course, was not linked with negative health consequences. On the contrary, being fat was a sign of that one had access to food and was taken as evidence of economic prosperity. Today surveys on dietary practices carried out in several countries (Ascher, 2005: 82-104) show that traditional dietary patterns (Contreras y Gracia, 2005) are being abandoned.

The construction of obesity as a disease requires a socio-cultural analysis. Our current health care system "constructs diseases", a practice described by Plato in The Republic (405-406):

> *When a carpenter is ill he asks the physician for a rough and ready cure… And if some one prescribes for him a course of dietetics… he replies at once that he has no time to be ill… and therefore bidding good-bye to this sort of physician, he resumes his ordinary habits…*

Many studies have examined the treatment of the various pathologies associated with obesity (Chow et al., 2000: 1305-11; Sjöström et al., 2007:477-484; Cerezo, 2005) or its socio-anthropological, demographic, and psychological determinants. (Badía et al., 2002; Aguirre, 2003; Bisschop et al., 2004). Thus, the understanding of obesity has been attempted by multiple disciplines. (De Garine and Vargas, 1997; Gard and Wright, 2006). From the nutritional standpoint, the emphasis has been on the implementation of community intervention programs since dietary practices have proved intractable to change; this is evidenced by the increase in chronic diseases linked to obesity (Moreno, 2006; Lobo, 2007: 437-441; Aranceta-Bartrina, 2005; Barquera, 2006).

Social sciences understand obesity as a social construction. This nature of this construct varies depending upon the setting in which it arises and assumes the characteristics of a culturally delimited syndrome. Dietary practices are motivated and conditioned by material and symbolic constraints. For this reason improving eating habits is no easy task. Although much emphasis is placed on nutritional education, studies show that in Spain the population is well aware of the dominant discourse regarding nutrition; this discourse essentially reproduces the recommendations of the experts. The population is satisfied with its diet, considering it both good and healthy. There appears to be a mismatch between the dietary recommendations accepted by population and their actual consumption of food. (ODELA, 2004 y 2006) We should keep in mind that eating is influenced by social and dietary norms, which are sometimes contradictory (OMS, 2004; Conveney, 2006).

Social scientists report that in Spain body weight and food have become a social problem linked to the emergence of so-called *obesogenic societies*. (Gracia, 2008) Nutritional education strategies should take into account people's social, economic, and cultural reality as well as their practices, habits, and preferences. These strategies must be flexible enough to cover a diversity of circumstances and scenarios.

Díaz and Gómez (2008) warn that ideas about what constitutes a "healthy" diet vary over time, can be contradictory, and arise without any scientific backing from nutritionists and dietary experts. The social construction of this term, which is confusing for the consumer, has also been studied by sociologists. Dietary norms center around the idea of a balanced diet, that is, an eating pattern based on prescriptions and restrictions on what can be consumed. This process has been described as *normativización* (normalization) (Gracia, 2007) or *nutridietización* (the concept of a nutritional diet) (Navas, 2008) and refers to a set of guidelines and

recommendations aimed at changing people's eating behavior – including some behaviors that are not purely nutritional – with the ultimate goal of achieving a degree of dietary homogeneity. During the process of medicalizing nutritional behavior, the discourse of the expert communicates and reinforces the political and economic factors contained in this concept.

Hypotheses

1. The general consensus that morbid obesity is multi-factorial in nature serves to reinforce the individual focus in approaches to treatment and hinders any comprehensive appreciation of the problem.
2. Socio-cultural factors explain why most patients who access surgical treatment for obesity are women.

Objectives

1. To study patients' cultural context before and after surgical treatment.
2. To analyze perceptions, representations, integration into social life, the process of stigmatization, and social control before and after surgery.

Methodology

This study took place in two parts. The first was a review of the socio-anthropological literature. The second involved medical ethnography on the representations and practices of type III and IV obese patients; the fieldwork for this was conducted in Murcia, Spain.

The investigators took detailed life histories of respondents undergoing bariatric treatment. These histories allowed us to explore the reality of each person's life within his or her social context. Researchers were present as participant observers during the medical visits both before and after gastric bypass. We preferred to take our own histories rather than use the quality surveys currently employed in hospitals (Regidor et al., 1999; Rebollo et al., 2000; Guitera et al., 2002; Quintana et al., 2003). Quality surveys put numbers on emotions and lack certain information which is only available by using an *emic* anthropological approach.

Case selection

Potential subjects were briefly interviewed by the investigators to ascertain their suitability and willingness to participate in the study. Cases were chosen to reflect a diversity of beliefs, opinions, and experiences in the hope of elucidating varied perspectives on the research topics.

The purposes of the study were explained during this initial interview. Those individuals who signed the informed consent were then included as cases. For this socio-anthropological study we interviewed twelve patients of both genders at the Virgen de la Arrixaca University Hospital in Murcia. Seven were undergoing a laparoscopic gastric bypass and five patients who had undergone bariatric surgery within the previous three months. Ages ranged from 34 to 50 years old. The cases were not intended to be a statistical sample. Rather, we hoped to identify themes relevant to the study's hypotheses, prioritizing the meaning-fulness of their experience rather than its representativeness.

Following recruitment, we engaged in participant observation solely at the hospital: at subsequent medical appointments, in the waiting room, and together with other patients. This allowed us to learn how patients responded to the dietary guidelines imposed upon them, the experience of daily life in a hospital, and the application of and responses to a model of medical intervention.

Patients' life histories were taken three months after the operation. This was done over several sessions following an agreed-upon schedule. These interviews were tape-recorded and lasted an average of two hours per respondent. We chose not to take brief life histories since replies to these tend to be stereotyped. The length of these stories reflected the respondents' narrative ability and personal situation. The interviews were transcribed and the text subsequently classified under different thematic headings using summary cards and quotes. The script for these life histories covered five principal topics: experiences with food; personal relationships (relatives, friends, colleagues); perception of disease; social and aesthetic body ideal; and experience of their medical treatment. These topics allowed us to evaluate aspects such as the social significance of food (diets and abuse), the meaning of body image, attitudes towards "cultural pressures,"

social roles and success, the restructuring of eating practices, stigmatization, and the effects of medicalizing obesity.

Between May and June we ran two focus groups. Participants included volunteer patients selected from our participant observation, their family members, and health care professionals. The first group consisted of six people (three patients, one endocrinologist, a patient's mother and brother). The second group consisted of eight people (five patients, two patients' mothers, and one nutritionist).

The focus groups were asked to comment on three topics: food likes and dislikes, interpersonal relationships around food, and perception of their disease before and after treatment.

Virgen de la Arrixaca University Hospital has an Obesity Unit (the first to be recognized in Spain) composed of two endocrinologists, a nurse, and a nutritionist. The unit performs the medical and nutritional evaluation of patients who are to undergo bariatric surgery. Criteria for surgery include: failure of medical weight loss therapy; BMI > 40 kg/m2; BMI between 35 and 40 kg/m2 with a medically significant associated pathology such as high blood pressure, type 2 diabetes, dyslipidemia, sleep apnea, or osteoarthritis of the large joints. The unit is also responsible for post-operative medical follow-up. The development of minimally invasive laparoscopy and other technical advances have improved surgical outcomes. This together with the expected avoidance of the huge costs associated with treating obesity-related co-morbidities, have led to a large increase in the number of patients seeking surgery as an effective, permanent means of losing weight (Courcoulas, 2004; MSNBC News Online, 2004).

Results and discussion

In recent years the number of operations performed in the Murcia region has increased; currently two operations a week are performed at the Virgen de la Arrixaca University Hospital. Most patients undergoing this surgery are women. Since the operation drastically reduces the capacity to absorb nutrients, patients have to be careful about what they eat and must take vitamin and mineral supplements. This process of medicalizing the diet becomes established over the two years following the operation.

Our fieldwork made clear that most patients try other treatments before choosing surgery. This is supported by the literature review (Whitsett et al., 2006; Pedersen et al., 2008; González, 2008: 489).

Both hypotheses were confirmed in the course of our fieldwork. The medicalization of morbid obesity favors an interpretation centered on the individual, even an explanation based on psychopathology; a more global understanding of the condition does not emerge. The idea that morbid obesity is a modern disease linked to a specific cultural context is ignored. Medicalization provides these patients with a means for both social inclusion and exclusion. The results show the potential for this group of patients to suffer discrimination in the right setting; this emerges clearly in the concepts of an "obesogenic society" and an "obese victim."

Similarly, a multi-dimensional analysis illustrates how these patients have incorporated concepts such as risk factors and lifestyle into their worldview; these concepts tend to hide the complexity of social processes and to place responsibility for health on the individual, thus reinforcing their expectations of health institutions.

Fear of putting on weight and suffering obesity-related diseases are recurrent themes expressed by the patients we studied; they were not driven to surgery by a desire to be thin. Rather surgery is seen as a way of making their bodies "normal." Normality was reinforced by their nutritional concepts and their eating practices, as well as their understanding of the risks of obesity and their expectations regarding body image. Respondents saw "normality" as a means to better integrate themselves into social and working life. Some report that even after their weight normalized, they continued to experience stigmatization because of their prior obesity; this feeds their fear of putting on weight.

Gender constructs associated with social and sexual identity and the role of the body, together with food-related responsibilities and the meanings they take on, make women more likely to opt for surgical treatment than men, after they have exhausted all other possible ways of solving their problem.

An ethnographic approach brought to light the following themes: healthiness, obesity as a medical and social issue, and the medicalization of

obesity; this latter was reinforced by the idea that "overeating is bad for your health." The following sections expand on these themes.

Healthiness

In discussing food we found that the process of becoming ill and getting cured is social structured and is full of meaning. The structure we speak of is a methodological one, not a "real" one. In this structure an agent becomes a unit for description and analysis, while also playing roles that are transformative, productive, and reproductive. The cultural significance of illnesses is also linked to the social structure (Menéndez, 1996). The approach to the various states of health and sickness associated with different dietary guidelines lays bare the need to analyze health care from a social and cultural point of view.

> *You feel like a sick person... it felt like everyone was staring at me and saying, "she just doesn't look after herself, she should be more careful..." Now that I'm getting slimmer I feel like a new woman (correspondent aged 48, three months after surgery).*

When patients' perceptions, representations, and beliefs are examined carefully, we find the same ideas as the dominant biomedical system with its disease-based theories, knowledge, and cultural practices:

> *It's nice that they're interested in you, but not [when it's] from a medical point of view. Ultimately we feel like a set of numbers in a research project... weight measurements, widths… etc. We've gone through a lot to get here, and that's what people don't understand. Society marginalizes us, although people say they don't (respondent listed for surgery, aged 52, BMI 36 kg/m^2)*

Obesity as a medical and social issue

Extreme morbid obesity presents two basic difficulties which need to be analyzed from the patients' point of view. The first difficulty is their relationship with eating which is woven into the fabric of their daily lives and personal relationships. How do they feel when they eat, particularly when most social gatherings take place around a meal? The second difficulty involves the relationship between how the patient sees their individual risk and how it seen by the expert. Patients with extreme morbid obesity live in a society where most people clearly support policies and strategies geared towards obesity prevention. In addition, research on perceptions about the prevalence, severity, and chronicity of obesity demonstrate clearly that it is stigmatized (Brow, 1987; Brown, 1991; Cassell, 1995; Caldararo, 2003); this is particularly the case in patients with extreme morbid obesity.

Stigmatization of the overweight has been documented in many studies and results in low self-esteem, difficulty with personal relationships, lessened quality of life, and potential discrimination in certain socio-cultural activities, including employment (Friedman, 1995; Van Gemert, 1998; Hilbert, 2008; Kelli, 2008).

> *Your body makes you stand out wherever you go... People don't understand that you have a thyroid problem and have put on weight because of a disease… You're just very, very fat and that's it (respondent listed for surgery, aged 28, BMI: 37 kg/m^2)*

> *When you go out, you start imagining what they must be thinking, and if they see you having a drink at a café, you feel even more ashamed… nobody has ever said anything to me, but it's what you imagine, it's a horrible feeling… sometimes I've avoided eating out with friends for that reason… (respondent listed for surgery, aged 35, BMI: 40 kg/m^2)*

> *I remember not going down to the beach for that reason. You end up depriving yourself of things which I am now enjoying... People don't stare so much now, although there's still a bit, I'm within normal range, a spare tire or two but nothing major (respondent three months after surgery, aged 42)*

Social rehabilitation should begin with the study of this stigmatization. It may help explain why some patients relapse while others adapt fully after treatment. Knowing the socio-cultural factors which effect patients – both before and after medicalization – is essential both for health promotion and disease prevention as well as for subsequent rehabilitation.

Following the failure of my first operation… I had two stenoses. I was worried because although I was slim, my quality of life was horrendous. … These worries made me try to eat more… There I was, in such bad shape, but still thinking about food… If it weren't because the food couldn't get through, I would no doubt have put the weight back on (respondent three months after surgery, aged 48)

It's been a while since I had the surgery, but I suddenly put on almost 10 kilos. As I had undergone the operation, I was relaxed and thought I'd never get fat again…But because of relationship problems, well, problems in my life, I gained weight again… (discharged respondent two years after surgery, aged 43)

The return to everyday life involves resuming a normal diet. Here lies the strongest argument of the expert: one should follow a balanced diet. Social activity is optimized when the individual is within the range of normal weights. (Ascher, 2005)

Apart from the operation, the great thing is that they've taught me to eat better... I now eat more fruit and vegetables and, above all, they've taught me that I should eat less... The truth is that I used to really overeat. (respondent three months after surgery, aged 48)

Overeating is bad for your health

Conceptualizing obesity as a problem involves cultural changes which stigmatize overeating and put a high value on slimness. This, however, has not always been the way society viewed obesity. (Gracia 2007: 237-239). Medicalization has a certain moral tinge. On the one hand the expert dictates dietary norms; on the other the obese person lives in a state of permanent guilt.

Deep down, I'm ashamed because I know that I have brought this upon myself. I don't deny it, but I couldn't help it. The kilos just kept piling on... Of course I feel guilty… (respondent listed for surgery, aged 47, BMI: 37.2 kg/m^2)

When the doctor tells me what I must eat, I really appreciate the treatment, and when I don't comply, I feel very, very guilty (respondent listed for surgery, aged 35, BMI: 40 kg/m^2)

The doctor prescribes a diet but doesn't realize how hard it is... Do I feel guilty when I don't do what he says? Sure I feel guilty... (respondent listed for surgery, aged 47, BMI: 37.2 kg/m^2)

Multiple studies have examined dietary interventions (balanced diets) such as the so-called "multi-session individual or group intensive treatment" (up to 30 sessions of 90 minutes each in the course of a year) which is reported to double weight loss (-12,1kg) (Wadden, 2007: 2226-2238). The appeal of these studies it that they place responsibility on individual patients supported by the expert.

It is up to us to cure ourselves once we've had the operation... We can't eat like we used to and must do as the doctor says (respondent three months after surgery, aged 48)

Conclusions

Currently the emergence of obesity and its risks is seen as a priority health issue. Testimonies provided by patients with type III and IV obesity show obesity as a complex phenomenon with multiple dimensions. Dietary practices do not escape the determinants which govern the dynamics of social development. Our current problems developed within a specific economic, political, and socio-cultural context. We cannot expect structural changes in global dietary imbalances, at least in the short term, but we can establish individual preventative strategies in this group. This will be possible if we take into account the lessons gleaned in this study to implement a nutrition education program before and after surgical intervention.

Ongoing fieldwork will allow us to refine our understanding of the various themes of concern to patients with extreme morbid obesity. Developing a pre- and post-surgery nutrition education program is a priority, although we propose that it be less focused on psycho-pathology. Our basic premise is simple: obesity is a social construction

and as such we must approach it independently of its biomedical classification.

The combination of qualitative and quantitative research is important in the establishment of nutrition education programs which are adapted to real individual needs in everyday life. Thus nutritional guidelines set out by experts need to take into account how individuals themselves perceive their situation. These perceptions and representations led us to examine the process of medicalization. The medical viewpoint serves as a mechanism both for social inclusion and exclusion and acts as a motivator for initiating treatment. In this regard, respondents report group pressure in agreement with the concepts of the "obesogenic society" and the "obese victim." Socio-cultural factors are essential to the creation of a "pathology" like obesity; within a given system of medical nosology, individuals who lie outside a biomedically-defined range of normality are defined as sick people. At this point health care institutions become involved in the individual's eating behavior, legitimizing their social role.

One of the most important aspects to include in the nutrition education program is an examination of the ideal of "the normal body" a concept which encourages patients to seek surgery. How does each future patient see his or her own body and how does this perception influence social relationships? Biomedical reference works clearly set out what is normal and what is not, but this does not explain why there is a higher proportion of women in the program. This can be explained by two main factors. First, compared to men, women have a different position in relation to the construction of their social and sexual identity and the role of the body in their sense of self. Secondly, women have different values and responsibilities concerning food.

Therefore, the priority issues for any nutritional education program are the analysis of perceptions and representations; integration into social life; and the process of stigmatization and social control before and after surgery. Such programs must be based on the appropriate methodological tools and it is here that the validity of anthropological techniques should be highlighted. These techniques include participant observation, life histories, and focus groups. These methodologies obtain information from an *emic* perspective. In this preliminary study we used life histories to gather information on this type of patient. This technique is clearly different from the quality surveys which have been used to date in hospitals. These surveys merely quantify emotions and lack certain information which only anthropological techniques can access. However, we should stress that this methodology involves spending more time with each patient; this has implications for hospital service planning.

The relationship with food and nutritional guidelines set out by the nutritionist expert will be more effective if we adopt the patient's way of thinking and feeling about food. What is the experience of eating, particularly when most celebrations take place around a meal? How do patients feel about having to follow the expert's prescriptions? And how do they feel when their bodies are stigmatized on a daily basis? Practices which are truly harmful to health (and not simply cosmetic) need to be understood as aspects of cultural life, conditioned by socio-cultural factors. In this research the interdisciplinary focus will contribute a greater theoretical understanding and improved treatment of this issue, especially its nature and social dimensions.

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