



**VALUES
PERCEPTION IN
FOOD
COMMERCIALS
WITH DIETARY
STRATEGIES**

**LA PERCEPCIÓN DE
VALORES EN LOS
ANUNCIOS DE COMIDA
CON ESTRATEGIA
DIETÉTICA**



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RESUMEN

En la actualidad, existe consenso sobre la influencia de la publicidad en los trastornos alimentarios. En particular, la publicidad utiliza imágenes corporales estereotipadas para extender y promocionar ideales físicos y hábitos alimentarios no saludables asociados con productos de comida y ropa dirigidos a jóvenes. El objetivo de este estudio es testar la percepción de 25 valores en tres anuncios dietéticos por parte de dos grupos de jóvenes participantes (con y sin trastornos alimentarios). Los resultados muestran que sólo el grupo con trastornos (ED) considera que estos anuncios son negativos para la salud, el bienestar, la familia y el esfuerzo, mientras que el grupo sin trastornos alimentarios los evalúa de forma ligeramente positiva. Estos resultados apuntan a una construcción mediática poco natural e interesada de los cánones de belleza y éxito.

ABSTRACT

There is clear evidence today that advertising influences eating disorders. Particularly, advertising uses stereotyped body images to spread and promote physical ideals and non-healthy food habits associated with food and clothes products targeted at youth. The purpose of this study is to test the perception of 25 values in three dietary commercials by two groups of young people (with and without eating disorders). Results show that only the group with those disorders (ED) consider these commercials to be negative in terms of health, well-being, family or effort, while the non-ED group assesses them slightly positively. These results point to the unnatural and self-interested social and media construction of beauty and success.

Palabras clave

Trastornos alimentarios; anuncios; valores; medios de comunicación; alfabetización publicitaria.

Keywords

Eating disorders; commercials; values; media; advertising literacy.

1. Introduction

Eating disorders are a mental disease characterized by non-healthy eating habits. Although the study of this disease has been mainly approached from the perspective psychology and psychiatry, there is a great agreement about the influence of cultural and social factors on these behaviors (Oliveira & Hutz, 2010). Those disorders originated within advanced modern societies with the highest standards of living (Gismero-González, 2012).

The majority of experts consider these disorders to be a consequence of androcentric values that reinforce women's body-worshipping (Martín, 2010). Regarding adolescents, evidences point that the cause of anorexia and bulimia are multifold. No one denies the influence of sociocultural factors such as badhabits, social pressure on the concept of beauty, values associated to the aesthetics of being slim, media body image, and more (Plaza, 2010): "El imaginario social colectivo está repleto de imágenes mediáticas propuestas por la publicidad en la que los cuerpos son presentados como perfectos, bellos, esbeltos y presumiblemente reales" (Díaz-Soloaga, Quintas Froufe & Muñiz, 2010: 248).

In today's information society, communication flows constantly in every social context. This has imposed an image culture determined by physical models and canons that serve the market system through thousands of products associated with the appearance of people. This social context, determined by the productivity, competitiveness and pragmatism, deeply influences the spread of eating disorders.

An eating disorder occurs following an alteration in the perception of body shape and weight named "Body Dysmorphic Disorder" (BDD) (Pichot, Lopez-Ibor & Valdés,

1995). As in any other mental disorder, there is always a genetic predisposition. However, according to the biopsychosocial model of Lucas (Chinchilla, 1994: 37), this disease cannot be fully understood outside the social context (Soriano & Sedó, 2008).

These canons of beauty are associated with success and social acceptance, so the media, mainly based on image, encourage this kind of gender stereotypes to advertise their products (Harrison & Cantor, 1997; Botta, 1999; Groesz, Levine, & Murnen, 2002; Field, Cheung, Wolf, Herzog, Gortmaker & Colditz, 2003). This strategy is used in different sectors: food (diet products, supermarkets, etc.); fashion (clothing, etc.); health (treatment, surgeries, implants, medication, etc.); and sports (fitness, gym, spas, etc.). The canon of beauty today is therefore a social creation as a result of commercial interests (Bourdieu, 1984). Those interests rule the preferences and tastes of society in today's mediated society.

The current canon of beauty is unattainable for the vast majority of the population. The feminine canon is the following: an extremely thin, white Caucasian (even pale or sickly) woman, upper middle class (Castro, Otero, Prieto & Fernández, 2003; Carrillo Jimenez Morales & Sánchez, 2013); very young (teenager or "lolita") (Bernardez, 2009); and, often, in an attitude of trance or sexual subjugation to a man, with frequent allusions to fantasies such as androgyny, zoophile, sadism ... or symbolizing rape or orgies (Cáceres Zapatero & Díaz-Soloaga, 2008; Lage, 2013). Women exposed to magazines and television are the prototype of population more prone to be dissatisfied with their body (Halliwell & Dittmar, 2004).

This problem is affecting children more seriously than ever. Advertising uses both the stereotype of a thin and active child and the rounded and child-like shape

stereotype consuming high-calorie products. This clash can have very serious health consequences (Jimenez Morales, 2006; Boyland, Harrold, Kirkham & Halford, 2011).

2. Objectives and hypothesis

This article presents a comparative study on the values perception in dietary commercials between young people with eating disorders (ED) compared to young people without ED. This study may give evidences about the influence of advertising on the social spread of these disorders, and the need to strengthen the perception of universal values in media. In doing so, this article is supported by a theoretical framework on eating disorders, advertising and values.

Many studies have studied how advertising can influence eating disorders (Bell, Lawton & Dittmar, 2007; Harper & Tiggemann, 2008). Other studies have focused on the influence of children advertising and entertainment on children's attitudes (Byrd-Bredbenner & Grasso, 2000; Harrison & Marske, 2005; González-Díaz, 2008; Kelly, Halford, Boyland, Chapman, Bautista-Castaño, Berg & Summerbell, 2010, among others). This influence is growing as children are building their identities more and more within a media culture. In fact, children are becoming consumers of many kinds of products, some of those addressed to adults (Tufté & Ekström, 2007). Some of these products are used to complement or change their physical appearance. Exposure to media in general and advertising in particular drive to an ideal non-real conception of body image. The visual stereotypes are used to simplify ideas and reinforce prejudices and beliefs about bodies. Media promulgate the message that being thin is good, and that thinness is actually associated with positive traits such as

popularity, appreciation, physical activity, intelligence, etc. and even health (Nemeroff, Stein, Diehl & Smilack, 1994; Record, Ward & Hyde, 2008; Levine & Murnen, 2009).

Nevertheless, in the preamble of the Constitution promulgated by the World Health Organization (WHO), health is defined as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity"(1946: 1). Traditionally, the family and the school have been responsible for children's education according to an established and universal morality. In schools, teachers educate children in values such as dignity, responsibility and solidarity (Escámez, 2001). A holistic and positive concept of health includes security, hygiene, variety and food education (Quero, 2008). However, recent research has found evidence about the existence of widespread genre stereotypes in kindergarten (Carreras, 2011). This line of research, trying to link education, values and health, begins with the list of values suggested by Kahle and Homer Beatty (1986). These authors pose the following values: sense of belonging; fun and enjoyment in life; loving relationships; self-satisfaction; respect; emotion; sense of fulfillment; security; and self-respect. In this sense, Grunert (1989) takes the basic needs and motivations of Maslow (1987) and attempts to study the values associated with eating disorders in German culture. The author uses the Dutch Eating Behavior Questionnaire (van Strien, Frijters, Berger & Defares, 1986), a value-based tool to measure eating behaviors and eating disorders in the German society (Fragebogen Ernährungsverhalten FEV). Grunert (1991) proposed an empirical study to test the hypothesis linking eating behavior, values and personality, i.e. he argued that values reflect personal deficits and correlate with compensatory disordered eating behaviors. The lack of "security", for instance, is associated with dietary strategies that tend to self-affirm the individual. This supports

the thesis that values can be a good indicator of the influence of advertising on ED. Therefore, the general hypothesis is formulated as follows:

H1. Commercials based on dietary strategies contain values consistently identified by both the group of participants with ED and the group without ED.

A study by Consumers International (CI) about how cereals are advertised worldwide (Lobstein, 2008) concluded that the use of cartoons is highly irresponsible because of strongly stereotyped characters. This study also remarks that advertising tries to link products with values such as adventure, play, strength, affection, family, health, happiness, energy, intelligence, concentration or sport.

The media in general is a sort of mirror of the society (Andrews, 1989; Pollay 2000; Drumwright & Murphy, 2004) as it absorbs the reality while building it (Scherman, Arriagada & Valenzuela 2015; Vaterlaus, Patten, Roche & Young, 2015). In a sense, the media is very dependent on many social, economic or cultural factors in a world with a serious crisis of values (Prendergast, 2015; Lane, 2015). Eating disorders are a socialized disease or a pure social disease (Gracia Arnaiz, 2006), hence individuals tend to ignore and silence its causes (Bittencourt & Almeida, 2013). This may explain why young people are unable to detect and control the social causes of this problem. Accordingly, this socialization should be associated with media socialization and normalization, which impedes a proper media training, interpretation and decoding of media. Certainly, this directs research toward a comprehensive educational approach to the problem. This approach should include universal ethical and moral values that fit within a new media-advertising literacy applied to food and dietary advertising. This leads us to state the following sub-hypothesis based on the type of interpretation society makes of dietary advertising:

H1.1. The perception of social, educational and human values in television commercials with dietary strategies by participants with ED is different than the perception of participants without ED.

H1.1.2. Young people with ED are capable of perceiving risks in the dietary strategies of advertising while young people without ED are not.

3. Method

3.1. Procedure

A quasi-experimental design with three commercials is carried out. Two groups of participants with eating disorders and without eating disorder watch each commercial and respond to a questionnaire with 25 values. This questionnaire is named the "Values Assessment Protocol" or "Eva Protocol."

Eva Protocol defines, first, a glossary of 25 values: friendship; welfare; cooperation; culture; duties; democracy; rights; dignity; education; effort; family; justice/equity; equality; independence; privacy; justice; freedom; moral/honor; order; peace; pluralism; health; liability; progress; and respect.

The concept of value has been defined very differently. Rokeach considers a value to be "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (1973: 5). According to Schwartz, "the crucial content aspect that distinguishes among values is the type of motivational goal they express. I derived a typology of a different content of values by reasoning that values represent, in the

form of conscious goals, three universal requirements of human existence: biological needs, requisites of coordinated social interaction, and demands of group survival and functioning. Groups and individuals represent these requirements cognitively as specific values about which they communicate in order to explain, coordinate, and rationalize behavior” (1996: 2).

To adapt the concept of “value” to the mediated communication, we define values as follows:

“Those elements of content and those features of the form that make up the set of qualities that give importance, validity or merit to a communication message, and appreciated for its contribution to the needs of man and society” (Rodríguez Bravo, Montoya Vilar, Mas Manchón, Morales Morante, Lopes da Silva, Martins, Peixoto & Müller, 2013: 168).

Each value is itemized into three dimensions (Rodríguez Bravo et al, 2013: 172):

1. Educational Dimension: content targeted to improve the intellectual, moral and physical faculties of the human being.
2. Human dimension: content aimed at the defense of dignity, satisfaction of needs and physical and mental development of the human being.
3. Social dimension: content aimed at supporting the integration, advocacy and dissemination of the duties of human beings in social organizations.

There are some semantic fields of these values that may overlap, such as health and welfare. As argued in Vilar Montoya, Rodríguez Bravo and Mas Manchon (2012), health refers to the presence of favorable information to stimulate a proper physical and moral state, while welfare is defined as the presence of favorable information to

stimulate the provision of material and social conditions to have a pleasant existence in society. That is, health refers to physical and moral status of the human being or group of human beings, while welfare refers to the material and social conditions that allow the individual to live comfortably in society.

This glossary of values has been tested in the Iberoamerican context (Montoya Vilar et al., 2012), as a result of a value-based analysis of three political documents that aim to be universal within different cultural backgrounds: The Universal Declaration of Human Rights; the Federal Constitution of Brazil; and the Spanish Constitution.

To evaluate each value in a commercial, first participants must respond whether or not the value is present in the message. In case it is present, each participant assesses each value in a 7-degree scale based on the differential of Osgood (Rodríguez et al., 2013). On this scale, the participant decides whether or not the contents of the commercial are favorable or unfavorable to the value being analyzed. This response is coded as -3, -2, -1, 0, 1, 2, 3. The comprehensive set of responses of all participants responding to the test is analyzed by an algorithm that yields a rational number, also within a range from -3 to 3. This figure expresses the relative weight of each of the values in the commercial. The weighted sum of these relative weights gives the global burden of values for each commercial.

The algorithm is calculated as follows:

1. Value intensity: this measures the relative presence of each value. It refers to the positive or negative perception of each value in the commercial. This figure allows comparing among values and commercials. It is obtained by taking the mode from all participants' responses (from -3 to +3) and

multiplying each mode by the confidence, or the degree of coincidence among participants' responses in their value's assessment. It is calculated by dividing the number of identical responses among the total number of responses (participants). The maximum confidence is 1 in which that all participants have responded the same way. Thus, the mode (-3 to +3) obtained by each value is multiplied by the confidence, thus the intensity of each value is weighted by the degree of coincidence between participants' responses. Thus: [intensity value = mode × confidence].

2. Global burden of values: This measures the global presence of values. This second figure generates a weighted index about the presence of accumulated values in the commercial. For its calculation, simply add all the intensity values in the commercial. For its calculation, simply add all the intensity values and divide the result by the total number of values in the glossary (25). This figure is used to compare different commercials in terms of the overall quantity of values being transmitted. Mathematically, it is formulated as Global Burden = Σ intensities of values/number of value intensities.

To validate the results obtained with this protocol, a conventional statistical is used, namely the t Student test, with the SPSS statistical package.

3.2. Materials

For this study, three commercials (Casale & Añaños, 2013) are used. The first commercial, Special K, describes different types of jeans while showing images of a slim women wearing jeans and as music with modern and sensual rhythms plays. The voiceover emphasizes that "it" is "your weapon of seduction" and then tells about a

free-calorie program while it shows: "Special K. Begin to watch what you eat" written in the back of the jeans. The second commercial, All Bran, argues that "dinner can cause you not to feel good when you wake up" while the image shows a dog that bursts early in the morning into a bedroom and is rejected by the awake couple. The voiceover recommends having a "delicious" bowl of cereal (with sultry voice) for dinner with some close-ups on cereals falling slowly into the bowl. Finally, the voiceover just adds: "...This way you will be healthier and you will wake up in a better mood. Feeling healthy makes a difference. Having All Bran for dinner, too." The third commercial, again for Special K, shows a radiant young woman whose imagination, as she is about to take a bite of a small croissant, takes her to the "dreaded" time of weighting herself in a scale, followed by the joy for having lost weight and their connection with happy images of herself wearing pants and tight clothes in front of the mirror. The return to reality presents the protagonist rejecting the croissant, and happily taking the cereal box from a shelf while the voice adds, "A bad decision can make you lose everything you've achieved. So, keep your figure easily, and have a delicious dish of Special K every morning for breakfast."

The dietary strategies refer to those that use the human body as a stereotyped canon and base their "reason why" on an ideal body shape. During the experiment, participants could check the glossary where the 25 values were defined.

Participants

The test was conducted with 139 participants divided in two groups: the first group was compounded by 66 participants (women) with eating disorders, patients of the ITA (Institut de Trastorns Alimentaris, Barcelona), aged between 18 and 25. Those patients had different eating disorders: purgative anorexia; bulimia; and purgative

unspecified eating disorder (EDNOS). The three types of disorders involve problems with food and distortion of body image. They represent a homogeneous group of study regarding values perception in dietary advertising. The second group consists of 73 participants without such problems (no diagnosed disorders), students of the UAB (Autonomous University of Barcelona), 11 of which were men (15%) and 62 women (89%), aged between 18 and 25. ITA participants were contacted by Antoni Grau, Head of Research in ITA, under the full knowledge and consent of the sick.

4. Results

The results were processed with both the algorithm of the EVA protocol and the conventional t of Student statistical. The former calculates the mode of each value, while the second tries to find significant differences in the variances of each value assessed by the two groups, so, above all, it is used to determine what values (screened by having mode) are assessed differently. The coincidence between the two tools reinforces the consistency of results.

The results will show: a) the degree of coincidence in the selection of values for each commercial; and b) the degree of coincidence in the intensity (positive or negative) attributed to each of the selected values.

In general, both groups (with and without eating disorders) strongly agree on the selection of values. However, despite selecting same values, each group assesses values in an opposite way – the group with eating disorders assesses values negatively, and the group without eating disorders assesses values positively.

Furthermore, the group with eating disorders shows less sensitivity to values in general.

The first commercial, Special K (Figure 1, Table 1), clearly represents a strategy based on body image. The pattern of values perception is the following: the commercial deals with health and welfare according to the two groups of participants. However, those values are perceived differently by the two groups – positive in the case of the group without eating disorders, and negative according to the group of adolescents with eating disorders. The ED group gave health and welfare a -1 and -0.7 each; while the non-ED group gave health and welfare a 0 and +0.3 each. Ç

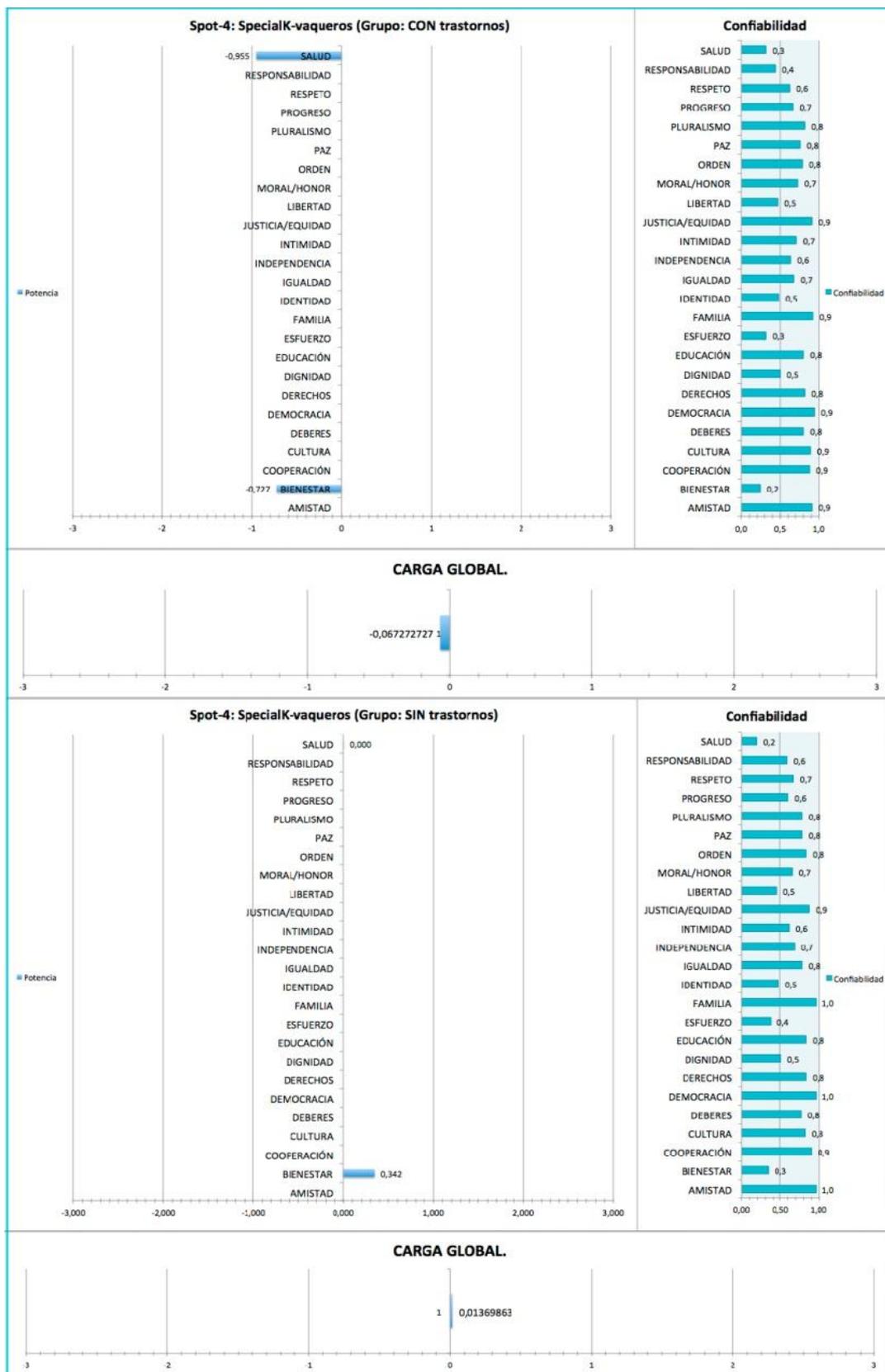
Table 1. Statistical results commercial 1

Values Comm. 1	EVA Protocol				t of Student			
	With EA		Without EA		With EA		Without EA	
	Charge	Conf.	Charge	Conf.	Average	Signif.	Average	Signif.
Health	-1	0.3	0	0.2	1.48	p< .001	2.32	p< .001
Welfare	-0.7	0.2	0.3	0.3	1.19	p< .001	-0.41	p< .001

Own source

Accordingly, the global burden of values is negative in the case of the group with eating disorders (-0.07) and slightly positive for the group without eating disorders (+0.01).

Figure 1. Spectrum of values in Commercial 1 (Special K)



Own Source

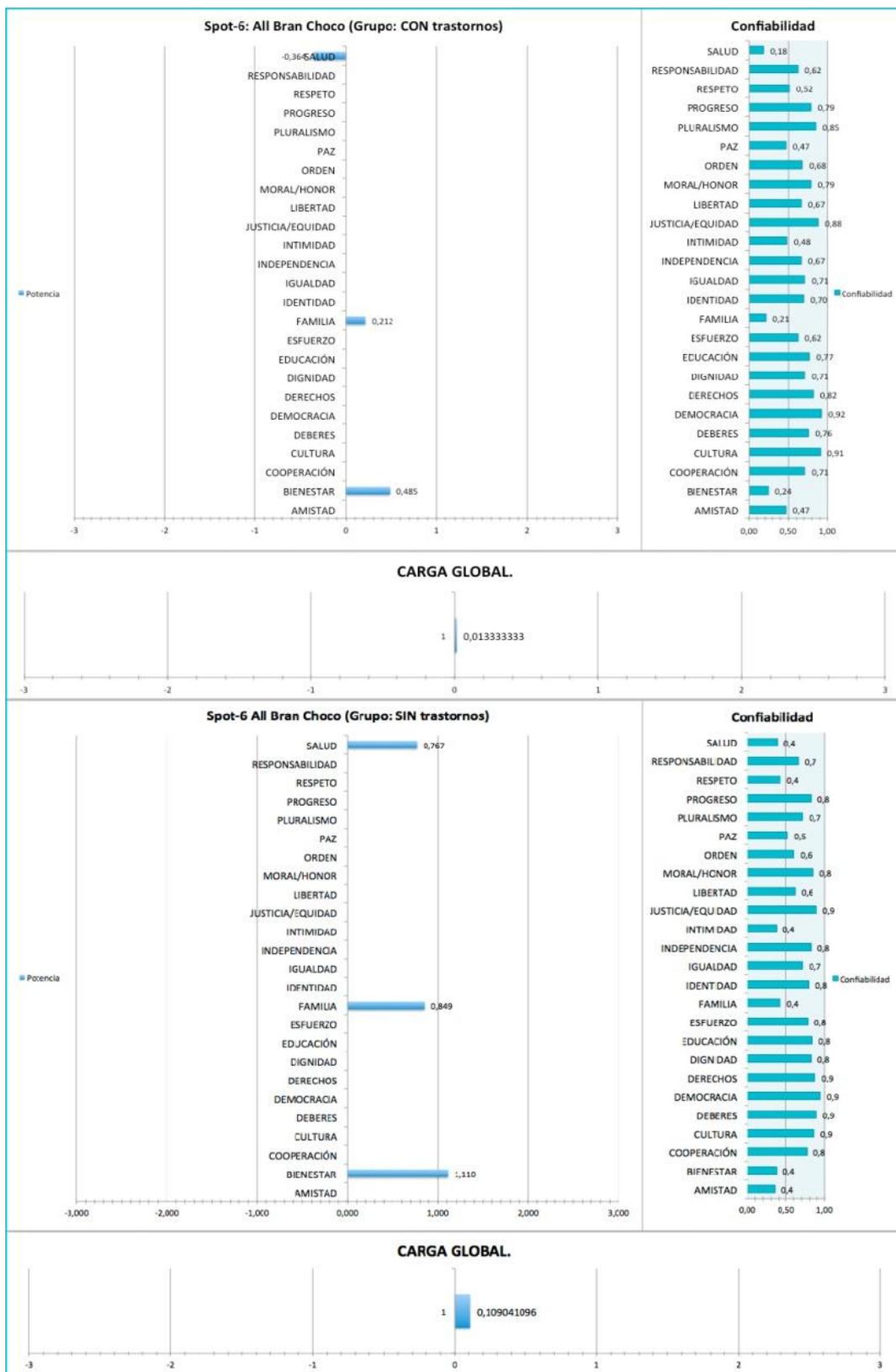
The second commercial, All Bran (Figure 2, Table 2), talks about ways of keeping one's figure, although it does not say anything about losing weight. Thus, once again, the values selection is identical in both groups (health, family and welfare), while the intensity is opposite in the case of health: assessed with -0.4 by the group with ED and +0.8 by the group without ED (0.18 and 0.4 confidence respectively), while it is slightly different in the case of family and welfare (Figure 2, Table 2):

Table 2. Statistical results commercial 2

Values Comm. 2	EVA Protocol				t of Student			
	With EA		Without EA		With EA		Without EA	
	Charge	Conf.	Charge	Conf.	Average	Signif.	Average	Signif.
Health	-0.4	0.18	0.8	0.4	-0.8	p<.000	1.68	p<.000
Family	0.2	0.21	0.8	0.4	0.94	p<.05	1.64	p<.05
Welfare	0.5	0.24	1.1	0.4	0.68	p<.000	2.07	p<.000

Own source

Figure 2. Spectrum of values in Commercial 2 (All Bran)



Own source

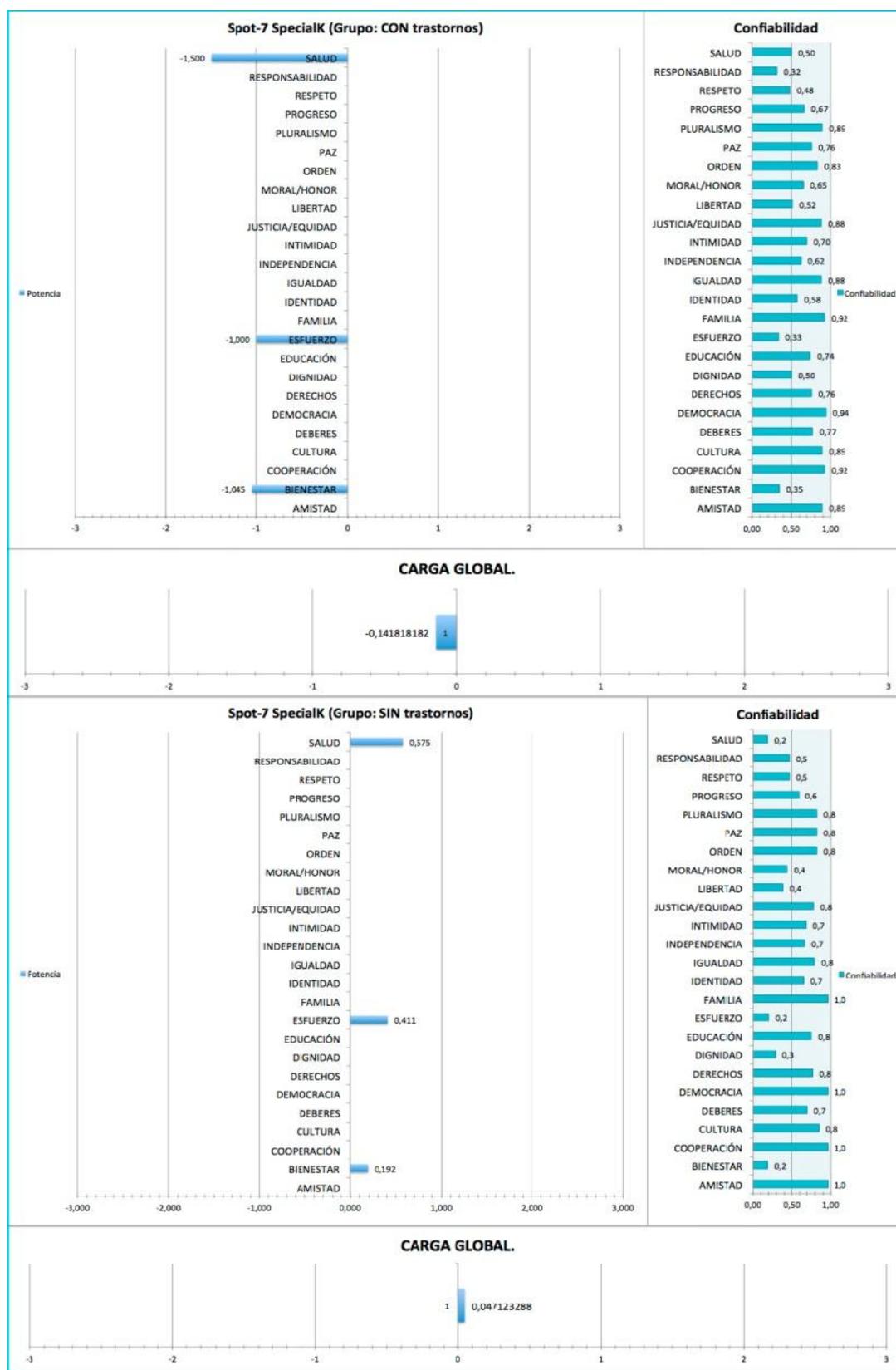
The third commercial (Figure 3, Table 3, Special K) has the most aggressive dietary strategy, as it claims for people to get thinner. Indeed, this commercial's values perception pattern clearly follows the body image strategy of advertising: both groups of participants agree in the selection of three values (health, effort and welfare), but with opposite intensities. health, assessed with -1.5 by the ED group and +0.2 by the non-ED group; effort, assessed with -1 by the ED group and a +0.4 by the non-ED group; and welfare, assessed with a -1 by the ED group and a +0.2 by the non-ED group. Obviously, the global burden is also opposite.

Table 3. Statistical results commercial 3

Values Comm. 3	EVA Protocol				t of Student			
	With EA		Without EA		With EA		Without EA	
	Charge	Conf.	Charge	Conf.	Average	Signif.	Average	Signif.
Health	-1.5	0.5	0.2	0.6	-1.55	p<.000	0.24	p<.000
Effort	-1	0.3	0.4	0.2	-0.88	p<.05	0.34	p<.05
Welfare	-1	0.35	0.2	0.2	-1.15	p<.05	-0.29	p<.05

Own source

Figure 3. Spectrum of values in Commercial 3 (Special K)



Own source

5. Discussion

First, results clearly show that the values perceived by youngsters with ED and youngsters without ED are consistent with the type of content-food advertising with dietary strategies (Casalé & Añaños, 2013), as both groups have selected the same values systematically. Thus the main hypothesis has been corroborated:

Commercials based on dietary strategies contain values consistently identified by both the group of participants with ED and the group without ED

However, each group of participants assess these values in a different way. So the second hypothesis also is confirmed:

The perception of social, educational and human values in television commercials with dietary strategies by participants with ED is different to the perception of participants without ED.

In particular, and third, participants with ED assessed negatively values such as health, welfare, family or effort, while participants without ED selected these very same values positively. Thus ED participants do perceive a risk in these messages. Thus, the third hypothesis is also confirmed:

Young people with ED are capable of perceiving risks in the dietary strategies of advertising while young people without ED are not.

This great coincidence between the values selected by participants with ED and participants without ED reinforces the role of EVA protocol in values perception measurement in communication. Besides, the parametric statistical t of Student has confirmed the significant differences between the two groups when assessing values.

The commercials with strategies of body image (dietary and slimming strategies), provide a clear pattern – both groups of participants perceive same values (typically welfare, health, effort and family), but each group assesses the contents of the three commercials with opposite intensities (negative in the case of ED and positive in the case of the group without ED). Apparently, participants without ED have difficulties perceiving the health value in these commercials, as they have a very little agreement (low confidence), while participants with ED provide a clear negative judgment. So, while the group with ED presents reactive responses that reveal their capacity to interpret the negative consequences on health and welfare associated with this type of strategies, the group without ED sticks with the explicit message that connects “being thin” (and missing dinner or refusing a croissant for breakfast) with health and without further interpretation. This is consistent with the education received in the institute ITA by the group with ED about the sociocultural and psychological influences of media and advertising. Thus ED participants are media literate and do perceive a risk in these messages.

The third commercial (Figure 3, Special K) represents the clearest evidence on the role of media in society – a little croissant is rejected at breakfast as a way to keep the figure. In this case, the three main values in food advertising (health, welfare and effort) are assessed in a totally different way by the group with ED and the group without ED. As the ED participants’ responses have a very high level of confidence, these participants respond coherently and convincingly while the young without ED show a low level of confidence. Thus they seemingly are not fully convinced about the interpretation they are giving to this message. Simply put, young people are not sure that those types of commercials are honestly conveying these key

values. Non-ED participants make a distorted, inconsistent interpretation of these messages.

6. Conclusions

The three commercials used in this study encourage unhealthy behaviors (not to have dinner, the guilt for having a small croissant for breakfast, and the obsession with counting calories), so it is highly remarkable that the group with eating disorders assesses the key values negatively while the group without eating disorders assesses them positively. All this leads to conclude that the former have learned to interpret these messages as a result of the serious consequences they are suffering from the disease and the training and therapy they receive at the internal center. And the later make a distorted interpretation of these messages according to the current social and sociocultural patterns of today's society.

Further, this indicates a new line for future research. Participants without eating disorders have not detected the behaviors against health and welfare promoted by these commercials. They have been unable to discern the real objectives of the commercials analyzed, because they have fully assumed media's codes of advertising, which work exclusively to maintain the social and economic order. Consequently, the current student population has a low capacity to anticipate the harmful effects of certain messages with commercial interests.

Therefore, the perception of values in advertising poses serious social problems for youths' body image. This values distortion may play a decisive role in the eating disorders disease, as it hides the problem. Actually, this kind of judgment

towards these dietary messages is spread across different layers of society. Consequently, on the one hand, most young people belong to the risk group of potential eating disorders patients; on the other hand, those with the disease are ignored or marginalized, as they are outsiders of the public opinion and the mainstream interpretation of media. And so they are treated as simply having psychological problems.

In general, the use advertising makes of dietary strategies based on “body image” goes against some basic universal values present in the universal declaration of human rights and the constitutions of democratic countries. As a result, we believe that the results of this study should bring awareness to the public authorities on the importance of controlling these social dysfunctions regarding the transmission of values through advertising, particularly those directed to young people.

As seen in the theoretical framework, the role of media in the establishment of a collective awareness has been widely recognized. Thus, a modern and comprehensive education program on values and media literacy is mandatory.

This study has some limitations. Needless to say, those youngsters with ED are residents in a specialized therapeutic center, so they are very aware of being sick. Actually, they receive therapy and training on the social problem of the disease. This can explain how homogeneously their responses have been. However, participants knew the test was totally anonymous, so they were free to respond whatever they believed.

Finally, the overall consistency of the results validates the tool used to measure values perception. The EVA protocol has been used in different types of

contents and media. It is a scientifically validated procedure that objectively measures the educational, social and human values conveyed by a message. This tool could become a benchmark for controlling values transmission in advertising, measuring the media literacy learning outcomes and a tool for risk detection in media messages.

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