



Research Article

SOCIAL REPRESENTATIONS OF PHYSICAL ACTIVITY, SPORT AND DIET IN PATIENTS WITH OBESITY

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ABSTRACT

Introduction: The study of social representations in patients with obesity allows us to understand and explain the behavior of each individual regarding their lifestyle decisions. **Objective:** To analyze the social representations that patients with obesity have around physical activity, sport and diet. **Method:** The present study is of qualitative type A semi-structured interview was created and applied to 28 patients with Body Mass Index (BMI) of 30.0 - 39.9 Kg / m², considered as obesity grade I and II, according to the World Health Organization the speeches obtained with the help of the Iramuteq software were analyzed. **Results:** Physical activity, sport and diet in patients with obesity is associated with the generation and adaptability of new healthy lifestyles focused on the structures of education, ideology, health, society, behavior and psychology. **Conclusion:** The social representations of physical activity, sport and diet of patients with obesity are built based on their ideals, culture, customs, habits, so the constant practice of a food culture adapted to basic lifestyle needs, set up anti-obesogenic environments in social groups where the modification of their lifestyle will be based on a healthy paradigm.

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INTRODUCTION

Obesity is a disease that has developed a global epidemiological outlook revealing itself as a social problem that affects economic development and productivity and family economic income (Alfonso, 2018; Morales, 2010; Quirós, 2019). The high costs that it demands for its attention have reconfigured the social and family environment, the productivity of the inhabitants, among others, such as the detriment of longevity and the quality of life (Águilar, 2013). Biologically, obesity has been considered as a multifactorial disease of excessive increase in adipose tissue whose main cause is energy imbalance, due to intrinsic and extrinsic factors; among the first we find the genetic, physiological and metabolic, as regards extrinsic, it is within the social and cultural patterns (Cantú, 2007). Socially, it is a microsocial biocultural phenomenon (Bourdieu, 2009) since it develops through the generation and reproduction of unhealthy lifestyles revealed by high incidence through a pathological process of excessive accumulation in adipose tissue presented in two common ways : Android or gynecoid (Quiros, 2019).

For several decades, different demographic, epidemiological and dietary-nutritional transitions have been experienced, as well as changes in lifestyles which are affected by global factors such as: urbanization, technological progress, socio-economic development, health policies and food globalization

that has promoted a change in dietary preferences for foods of high caloric level and nutritionally deficient. The modern diet is rich in fats and sugars, and salt intake is greater than the recommended 5 g / day. This excess consumption of food in the diet is in itself responsible for almost 10% of cardiovascular diseases (Morales, 2010; WHO, 2018).

In Mexico, food will be configured by three factors that define the diet of individuals, these are: government policies that create the means of food production and supply, the economy; that through it you have access to the food industry and where the changes that reconfigure food are born and finally food anthropology, determines the eating habits, customs and cultural practices that determine the type of food developed (Montes, 2005).

Food is the basis of health on an interdependent system, however, when food is inadequate, excessive, insufficient or unbalanced, food can only be an energy base and not a nutritional adequacy (Contreras, 2005). Now, speaking of food is a symbol of identity among social groups, a style of food called "sacred" was born, named for the rituals offered to the gods, since it was part of the source of energy and purity that guided the spirit of man. The social significance of food and the impact of the first sensory satisfaction is not surprising that robustness or obesity is seen as a favorable way accepted (Contreras, 2005; Pérez-Gil, 2009).

All these factors that have conditioned the group to adapt health practices to the detriment of it. These are characterized by the increase in chronic noncommunicable diseases (NCDs),

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among which, the prevalence of obesity stands out, being this the main risk factor for the development of cardiovascular diseases, type II diabetes mellitus, arterial hypertension, dyslipidemias, osteoarticular diseases (Bayarre, Menéndez and Pérez 2006). Internationally according to WHO (2018), global obesity represented 13% in 2016 averaged 11% and 15%, men and women respectively, the United States tops the list with 38.2%, Mexico with 32.4% New Zealand 30.7 %, Hungary 30% of the population with obesity (Organization for Economic Cooperation and Development -OECD-, 2019). Nationally, according to ENSANUT (2012), a prevalence of 64.5% of abdominal obesity was found in men and 82.8% in women. Compared to the results of the ENSANUT MC (2016), the prevalence of abdominal obesity in men is 65.4% and 87.7% in women, indicating that there were only statistically significant differences between the women of the ENSANUT 2012 and the women of the ENSANUT MC 2016. Finally, statewide, obesity represents 22.2% in the central zone, 15.9% in Mexico City and 8.2% in the southern zone, which represents 8 for every 10 people are obese.

Although it is a disease of national priority, neoliberal policies and fashion food models and the era of hypermodernity, have generated an adaptation of lifestyles given by social transculturation aimed at unhealthy eating behaviors and physical inactivity, landing on a network of resignifications and reconfigurations about (bad) information about diet, physical activity and sport.

Due to the great problem that obesity represents and the lack of physical activity and sport; which impacts against the health of the population such as unhealthy lifestyles, inadequate nutrition and lack of dissemination and support for sport, health policies try to ensure adequate food and nutrition for the population, combat lack of food through coordinated and concurrent policies, propitiate minimum income necessary to have access to sufficient safe and nutritious food, facilitate access to basic and complementary food products at an adequate price and an important point that is to adapt the legal framework to strengthen security Food and the right to food (PND, 2013-2018). What in turn has generated in the population a reconstruction of the meaning of food practices and the activities that entail generating a state of precariousness in the face of the disease and thus determining the development and increase of the same disease and being unveiled through cultural issues , social, economic, among others that emanate discursively.

Such discursive understanding must be understood through the theoretical and micro ethnographic approach of thought and behavior in disease within the collective that derives from the same social phenomenon. In this way, an approach from the theory of social representations would contribute to the understanding of the social phenomenon that falls on the increase of a disease revealing information that would complement the approach to obesity from a sociological perspective, since the study of representations social in patients with obesity allows to understand and explain the behavior of each individual with obesity; based on your lifestyle decisions.

METHOD

Theoretical framework

The Theory of Social Representations arises with greater boom thanks to the French psychologist Serge Moscovici (1981), who gives a specific and concrete definition as "Social Representation"; that is: a particular modality of knowledge, its function is the elaboration of behaviors and communication between individuals. It is common sense causing the exchange of communications of the social group. That is, it is a thought that describes behavior and influences daily life (Hebe, 2005; Abric, 2001; Jodelet, 2010; Casas, 2019). This theory comprises two currents, the interpretive current generated by Jodelet and the structural model proposed by Abric. The present study addresses the Theory of Social Representations from the structural model of Abric, since it allows an approach to reality comprising the dynamism between the structure of the nucleus and the periphery by relating the elements to each other that are given by interdependent links of agreement to the consensual nature of social representations (Flores, 2019). In this investigation the significance, culture, time, etc., that are in a constant dynamism and discursively unveiled on a social representation that analyzes the relationship between object-subject-time, thus determining social practices, which for this research uses the structural model of Abric.

Finally, to examine in a sociocultural way the factors that influence the development of obesity and the configuration that has been given to diet, physical activity and sports in the obesogenic group, we must develop in depth the origin, functioning and construction of the social representations and how they influence the formation of behaviors, decision making and the social interaction of this group. This is essential for these studied groups because in this way it allows them to ensure adaptation in society to create new social constructs (Villarreal, 2007).

In this way, a microethnographic analytical approach through the theory of social representations would reveal information that has not been explored for the inclusion of health policies and multidisciplinary approaches to the disease, contemplating not only biological but social processes.

Methodological framework

The present study was carried out in the Corporate De la Riva Investigation Strategic SC. The study sample was 28 patients with obesity grade I and II, through saturation of speeches. Among the inclusion criteria are: patients with diagnosis of obesity grade I and II of the Corporate De la Riva Strategic Research SC., Patients who meet the Body Mass Index as a diagnosis of obesity grade I and II according to the criteria established by the World Health Organization and those who accepted and signed the informed consent of the study.

For the nucleus of social representations the Abric model is used, carried out as follows

- a. The first phase consisted of a micro-ethnographic approach to the dead time space in the Corporate De la Riva Investigación Estratégica SC. in order to know and contextualize the spaces and speeches in 3 moments.
- b. The second phase consisted of the construction of the semi-structured interview type research instrument with

analysis categories, for which keywords were obtained in the field with a group of 10 patients with obesity, then the keywords were included around diet, physical activity and sport generating the categories of analysis.

c. A semi-structured interview was conducted with previously obtained categories, the stages in which this instrument was built are the following:

1. Field work in which keywords were obtained in reference to physical activity, sport and diet, in a group of 10 patients with obesity.
2. Subsequently, keywords were included around physical activity, sport and diet, hence analytical categories were generated, which conformed the construct validity in the instrument,
3. A question bank was carried out, taking as an axis of these the analytical categories of dietary identity, meaning construction, dietary activity; practices and uses, physical activity; habitual behavior in relation to the condition, sport; practices and habits as a lifestyle, these questions were assessed and evaluated in relevance, by three experts in the area of qualitative research, which in the round of three reviews obtained a final instrument, which has internal validity,
4. It was applied to a sample of 10 patients with obesity, and the instrument was adapted, in syntax.
5. Thus, an item instrument was obtained, which preceded its application in the sample. Prior informed consent.
 - a. Subsequently, the semi-structured interview was applied according to physical activity, sport and diet.
 - b. Once the discourses have been obtained, the data is analyzed by category, according to the structure, nucleus and periphery of the social representations regarding the diet, through the Iramuteq software.
 - c. Finally, the semi-structured interview was examined by association of categories with speeches through the Iramuteq software. Which was applied to the universe of study (n 28) with the objective of analyzing, classifying, discussing and understanding the meaning of Social Representations individually as well as collectively.

RESULTS AND DISCUSSION

Of the total group of patients with obesity (n 28), of which 13 men (46.42%) and 15 women (53.57%) were found, who suffer from grade I and II obesity distributed as follows:

In Obesity grade I 2 men (7.14%) were found in relation to Obesity grade II were 11 men (39.28%) and 15 women (53.57%).

In this regard and in accordance with the statistical data provided by the ENSANUT 2016 MC. When categorizing by sex in the aforementioned survey, it is observed that the prevalence of obesity (BMI ≥ 30 kg / m²) is also higher in females (38.6%, 95% CI 36.1, 41.2) than in males (27.7%, 95% CI 23.7, 32.1), with the above we can observe a clear relationship of the data obtained in this investigation with the national situation of obesity.

To interpret the discursive association of patients with grade I obesity and grade II obesity, regarding physical activity, sport and diet, it is necessary to begin with the descriptive analysis of the analytical categories, which can be better understood as the core of the structure and its function in the social

representations and, give way to the interpretation of the social scene of the patients.

Social representations of physical activity, sport and diet in patients with obesity

Table 1 speeches of patients with obesity grade I and II.

Category	Word or sentence
Dietary Identity	E1, E2, E3, E4, E6, E7, E9, E10, E11, E14, E16, E17, E20, E22, E24, EE27, E28 "... Eat ... in portions ... healthy ... healthy ... vegetable ... balanced ... conscious ... balanced ... fruits ... vegetables ... fish ... things that don't fatten ... stewed ... rice ... beans ... at my time ... elements of good food ... little but good ... good ... healthy ... healthy ... water ... balanced ...", E1, E9, E10, E13, E17, E18, E21, E22, E23, E24, E25, E26 "... Sacrifice ... something I don't like ... it's negative ... I don't like dieting ... restriction ... difficult ... stop eating ... regret ... deprive myself of everything what I like ... time conflicts me ... it's a complicated thing ... it only lasts for a day ... avoid red meat ... food restriction ... chips ... soda ... candy ... chocolates ... ice cream ... eat by eating ... Do not eat ... avoid ... limit yourself ... deprive yourself of ... stop eating ... restrict me from ... junk ... bread ... fats ... flours ... what I like ... soda ... rich foods ... red meat ...", E2, E4, E8, E12, E14, E15, E16, E21, E22, E26, E28 "... feel ... keep me ... well-being ... be well ... take care of health ... take care of food ... be healthy ... strong ... happy ... better ... take care of myself ... happy ... at ease ... fit ... vitality ... good quality of life ... live ...", E1, E5, E8, E14, E18, E19, E21, E23, E24, E27, E28 "... Feeding ... filling a feeling of hunger ... to the needs ... enough nutrients ... healthy ... to satisfy hunger ... to cover the food need ...", E3, E7, E8, E10, E11, E12, E16, E17, E23, E23, E26 "... Take care of food ... our health ... take care of health ...", E2, E4, E5, E8, E9 E11, E14, E15, E19, E21, E23, E27, E28 "... Take control ... of my food ... what I take ... what I eat ... taking control ...", E2, E6, E10, E11, E19, E22, E23, E26, E28 "... Discipline me ... adapt ... that leads to a diet ... whatever ... whatever ... what I find ...", E4, E10, E12, E20, E21, E25, E26 "... Take care of calories ... take care of food hours ... what your body needs ..."
Dietary Activity	E2, E3, E4, E6, E9, E12, E13, E15, E16, E23, E24, E26 "... eat ... in company ... with a good talk ... with children ... with a partner ... friends ... family ... at work ... at home ... what I find ... street ...", E3, E4, E11, E12, E19, E22, E23 "... eat ... taco ... carbohydrates ... bread ... cookies ... coffee ... meat ... rice ...", E3, E8, E9, E10, E14, E18, E22, E23, E25, E27, E28 "... I try to eat ... healthy ... well ... that I like ... healthy ... share ... live ... enjoy ...", E15, E16, E18, E19, "... have schedules ... breakfast ... lunch ... dinner ...", E8, E9, E, E18, E19, E20, E23, E26, E28 "... the basis of my diet ... salad ... vegetables ... soup ... fruit ... egg ... rice ... water ... stew ...", E4, E5, E6, E14, E16, E27 "... if there is not a good diet it can cause ... disease ... obesity ... diabetes ... ugliest diseases ..."
PhysicalActivity	E3, E4, E6, E9, E11, E12, E24, E25, E28 "... exercisinghelps ... burncalories ... lose weight ... keepmoving ... prevent disease ... not be obese ...", E3, E4, E6, E8, E10, E11, E12 "... physicalactivity is ... walking, movement ... habit ... routine ... daily ...", E12, E13, E15, E16, E17, E19, E21, E22, E24 "... playingsports is ... yoga, swimming ... basketball ... soccer ... gym ...", E2, E4, E5, E6, E7, E9, E11, E13, E14, E18, E19, E28 "... sport ... keepsyou ... healthy ... healthy ... well ... physicallywell ...", E15, E16, E18, E20, E21, E22, E23 "... I don't do physical activity ... for ... time ... work ... laziness ... I'm sleepy ..."
Sport	E1, E2, E4, E5, E6, E8, E12, E14, E16 E19, E24, E27 "... sport takesyou ... performance ... movement ... benefits ... havefun ... discipline ... commitment ...", E1, E2, E3, E5, E6, E7, E8, E1, E12, E15, E16, E17, E25, E27, E28 "... sport helpsyou ... lose weight, have a goodbody ... goodphysique ... happy ... happy ... maintain a lifestyle ...", E4, E5, E6, E8, E9, E10, E14, E19, E29, E22, E23 "... playingsports is ... swimming ... soccer ... running ... gym ... cyclist ...", E12, E16, E19, E20, E22, E23, E24, E28 "... the negativeaspect ... lack of time ... work ... insecurity ... dangers in the street ..."

Own source

harmony between some groups and individuals, in addition to representing values, customs, and traditions, as Pilcher does (2001).) in his phrase *"Long live tamales, food and the construction of Mexican identity"* and in some groups or societies it is distinguished as a symbol that in its diversity and characteristics represents unity, tradition, status, distinction. In certain cases it carries a load of spiritual meanings or success as it is considered an element of transferring attitudes, negative or positive feelings with others.

According to PILCHER (2001), he points out the links between what people are and what they eat, it has deep roots in its history, highlighting the manifest influences of gender, race, and class on certain food preferences since pre-Hispanic times, to the present. Even as a group or community it is configured in the evolution of the kitchen and its relationship with the national identity (Moreno, 2019). The ways of eating are used both as an element to show membership in a social stratum, and to appear as belonging to another and thus leave the origin (Beltrán, 2010).

The speech *"... eat ... what I find ... on the street ... carbohydrates ... tacos ... cookies ..."* is related to the structure of **behavior**. Eating habits can be described as routine patterns of food consumption, are trends to choose and consume certain foods and exclude some others. It includes a set of skills that play the role of decision mechanisms which organize and guide ordinary behavior, therefore, our eating behavior: what we eat and how we eat, that is, the daily consumption of food. In this area they have been defined as a line of conduct by which a set of products are selected, used and consumed (Álvarez, 2009). The survival of a group depends in large part on the satisfaction of their food needs, hence the search for food is normal, constitutes one of the most diverse and common aspects in any culture and social group (Beltrán, 2010).

Among the *eating habits that are directly associated with the increase in body weight are frequent eating outside the home*; It has been reported that food in established stores, restaurants and fast food delivery are factors that have a negative impact on the health of consumers (Denegri, 2013). This factor is really worrying since the habit of eating out has increased so much in most of the world; Either in developed countries, as well as those in development such as Mexico, and this is due in large part to the changes in the unhealthy lifestyles that the population has been adopting because of advertising and marketing.

The category **Physical activity** in the patient with obesity, understood as the perception of the patient with obesity type I and II around the practice of physical activity, in relation to the speeches *"... exercise helps ... burn calories. .. lose weight ... keep moving ... prevent diseases ... not be obese ... "*. It is linked to the **health** structure.

Currently there are many studies that confirm that physical activity is a factor that is associated with health benefits (Bourges, 2009). Performing physical activity not only benefits health but also favors intellectual and social development both in adult life as well as in childhood; In addition to modifying the behavior of individuals, it favors a full and psychologically stable life (Soria, 2019).

Acquiring a level of active physical activity favors adult development and helps reduce the risk of developing

pathology such as; overweight, obesity hypertension, diabetes, cardiorespiratory diseases (Camargo, 2013). It favors the improvement of bone and functional health; In addition to being a determinant in energy expenditure and in this way it becomes essential to achieve a caloric balance and body weight control (Camargo, 2013).

Physical activity seen from the social side; It has positive effects on the quality of life. Since it allows to obtain an educational performance, or the personal and professional development are even greater (Sánchez, 2009). They also represent a valuable strategy for well-being, health, education and inclusion policies for their contribution to the social purposes of the state (Jofré, 2014).

The speech *"... practice sport is ... yoga ... swimming ... soccer ... gym ..."*. It is related to the **ideology** structure. Regarding this structure, it is important to clarify that for people with obesity, the idea of what sport is is very ambiguous since there is a plurality of concepts that have been taken into account for the realization of sport in the entire Mexican population; and that this factor is not limiting for its practice.

It is well known that sport is a regulated activity of a competitive nature and precisely because of these characteristics it is said that only people of a professional nature can practice it, in fact, it is not so; because sport is an activity that can be configured to a very wide field of action, since it generates dispersion of resources (Arráez, 2003).

For this reason, sport has adapted a definition that can be adaptable to social activity. It can be recreationally own, while remaining competitive as it can be developed individually or by team, this in order to be both playful or high performance competitive (Hellin, 2003). In this way we will clarify activities such as swimming, soccer, cycling, etc. yes they are activities of the sport category because they do not lose their competitive essence, but not for this reason it is a limitation for their practice recreationally and thus achieve individual health benefits. Currently, the concept of sport is open to encompass the new practices and attitudes that people adopt among them (Balboa, 2011).

The **Sport** category, for this investigation is understood as physical sports activity that is related to the perception of the patient with obesity type I and II around the practice of sport, in relation to speeches, *"... sport helps you ... lose weight ... maintain a lifestyle ... have a good physique ... good body ... performance ... movement ... benefits ... discipline ... commitment ... "*. It is linked to the health structure, the benefits of physical activity and sport are innumerable, among them one of the most important is the reduction of chronic non-communicable diseases which can affect the health status from childhood and drag it until adulthood where it is associated with other factors such as the practice of a healthy lifestyle which is also preventable (Contreras, 2005). The practice of continuous sport is associated with a decrease in the therapeutic treatment of obesity; Hence, it is important that the individual is fully physically active, helping to preserve health, and obtaining benefits such as: improving physical fitness, greater endurance performance, speed and physical capacity, one of the most important in obese people which is to reduce body weight continuously and maintain it throughout life and the fundamental basis that are the adoption of a healthy lifestyle (Alfonso, 2011).

The speech "... sport helps you ... be happy ... happy ... have fun ..." is linked to the **psychological** structure. Sport is a concept that people think they know, until its meaning is questioned; and this has many meanings, as well as benefits that many obese people do not know. For some it is equivalent only to having a good physical condition and for others it is: enjoying a feeling of joy, happiness; this product of getting a good body image (Gottau, 2010).

For adults with obesity, sport is only limited to professional sports activities and that the benefits are linked only to a change in body image, beauty and aesthetics: this covers mental, psychological and cognitive aspects; since it favors the security of personality development in socialization, independence, personal and professional empowerment, happiness, joy, fullness in life and something very important to raise self-esteem and acceptance (Arráez, 2003).

The speech "... the negative aspect ... lack of time ... work ... insecurity ... dangers in the street ...", is linked to the **social** structure, sport is one of the most popular phenomena of our time. In it some of the great values of contemporary society are produced and expressed. Sports practice, like all human activity, is built within the framework of the social relations of individuals; which is closely linked to social and cultural reality, to the point that it is transformed with it, sports events are considered as a product of society or specific societies from which the characteristics that make them up are regulated. In itself, sport is an instrument of transmission of culture that will reflect the basic values of the cultural framework in which it operates. As a social product and it becomes a key element of socialization (Jofré, 2014).

CONCLUSIONS

Once analyzed each one of the categories that helped identify which are the Social Representations of *physical activity*, sport and diet in patients with obesity, we can conclude that obesity, in addition to being a biological problem, is also social. The Social Representations of the *physical activity, sport and diet* of patients with obesity have a dynamism (Figure 1) from nucleus to periphery based on *ideals, culture, customs, habits, the constant practice of a food culture* adapted to needs, are configured according to the social group conditioned by the obesogenic environments which modify the lifestyles, these Social Representations are determined by the public health policies that are implemented in these obese groups; which are also influenced by the socioeconomic factor that determines the purchasing position of individuals with obesity and that will condition them to be in a scenario of food accessibility limited to hypercaloric scenarios.

It is worth mentioning that for the individuals the dynamism played by the nucleus and the periphery is structured on a reconfiguration of intrinsic, extrinsic elements (*education, ideology, prohibition, society, behavior, psychology and health*) that prevent sports, of which, the Educational level determines a healthy personality, which, in contrast, also characterizes the adaptability of stigmas that psychologically affect a person with obesity. Another factor that limits the practice of sport as well as that of healthy eating is the work space since being an environment that facilitates the exchange of new behaviors between individuals, it is the ideal place to learn new customs in this regard. of leaving aside the adoption of a healthy lifestyle.

For this reason it is important to generate new strategies such as the promotion of physical activation and sport in educational and labor institutions, **guidance on healthy eating**, providing new criteria that help foster the adoption of a healthy lifestyle and its importance in daily life; that is accessible throughout the population; which is free from limitations of social strata and purchasing power. In this way, the creation of new public health policies that help to reduce the increase in obesity and improve the actions for the prevention and care of groups that are at risk of obesity can be achieved.

Bibliography

1. Abric, J. C. L'approche structurale des représentations sociales: développements récents. Psychosoc, v. 2, n. 4, p. 81-104, 2001.
2. Águila, C. (2017). Del deporte a la sociedad: sobre valores y desarrollo del ser humano. Jornadas para Formadores de Deportista en Edad Escolar. Diputación de Almería. Recuperado de: [http://www.dipalme.org/Servicios/Informacion/Informacion.nsf/1C9C7FA4EB0BD193C1257E54002B5648/\\$file/Cornelio%20Aguila.pdf](http://www.dipalme.org/Servicios/Informacion/Informacion.nsf/1C9C7FA4EB0BD193C1257E54002B5648/$file/Cornelio%20Aguila.pdf)
3. Aguilar, C., Hernández, M., Murayama, C Rivera, J., y Vadillo, F. (2013). Obesidad en México, Recomendaciones para una política de Estado. Ciudad de México, México: Academia Nacional de Medicina.
4. Albero R, et al. (2001). Nutrición en atención primaria. Novartis. Recuperado de <https://www.sefh.es/bibliotecavirtual/novartis/nutricionap.pdf>
5. Alfonso, I. (2018). Las representaciones sociales. Psicología-online. Recuperado de <https://www.psicologia-online.com/las-representaciones-sociales-2604.html>
6. Alfonso, M., Sandoval, C., Vidarte, J y Vélez, C. Actividad física: estrategia de promoción de la salud. Revista Hacia la Promoción de la Salud, 16 (1), 202-218.
7. Álvarez, L. y Álvarez De Luis. (2009). Estilos de vida y alimentación. Gazeta de Antropología, 25 (1). Recuperado de https://www.ugr.es/~pwlac/G25_27Luis_Alvarez-Amaia_Alvarez.pdf
8. Arráez, J., Calvo, A., Casado, I., Leandro, J., León, L., López, F., Ponce de León, A., Romero, S., C. Rodríguez Y L. Rodríguez (2003). Ocio y deporte: de modelos a estrategias de acción (tesis). Universidad pablo de Olavide, Valencia, España Recuperado de: https://www.researchgate.net/publication/311427930_Ocio_y_Deporte_De_Modelos_a_Estrategias_de_Accion
9. Balboa, Y., Cintra, O. (2011). La actividad física: un aporte para la salud. Revista digital Buenos Aires, (159), 1-11.
10. Barragán, B., et al. (2011). Recomendaciones en Alimentación y Nutrición para pacientes Oncohematológicos. AEAL. Asociación Española de Afectados por Linfoma, Mieloma y Leucemia. Recuperado de http://www.aeal.es/nueva_web/wp-content/uploads/2015/07/aeal_explica_alimentacion_nutricion.pdf
11. Bayarre, H. Menéndez, J. y Pérez, J.(---) Las Transiciones Demográfica y Epidemiológica y la Calidad de Vida Objetiva en la Tercera Edad.

- GEROINFO, 1 (3), 1-34. Recuperado de http://www.sld.cu/galerias/pdf/sitios/gericuba/las_transiciones_demografica_y_epidemiologica_y_la_calidad_de_vida_objetiva_en_la_tercera_edad.pdf
12. Beltrán, M. (2010). Acercamiento antropológico de la alimentación y salud en México. *Physis revista de Saúde Coletiva*, 20 (2), 387-411.
 13. Bolaños-Ríos, Jáuregui-Lobera, Ruíz-Prieto Y Santiago-Fernández (2010). Obesidad Y rasgos de personalidad. *Instituto de Ciencias de la Conducta*, 12, 1330-1348. Recuperado de: http://www.tcasevilla.com/archivos/obesidad_y_rasgos_de_personalidad.pdf
 14. Bourdieu, P. *La eficacia simbólica; Religión y política*. Edición. Buenos Aires: Biblos, 2009.
 15. Bourges, H., Cervantes, L., Chalte, A., Rubio, R., Tapia, K. (2009). Diseño de planes de alimentación para el escolar y buenas prácticas de higiene. Secretaría de Educación Pública. Recuperado De: https://www2.sep.gob.mx/Petc/Comedores-Escolares/Alimentacion_Recomendable.Pdf
 16. Camargo, D., Gómez, E., Ovalle, J., Rubiano, R. (2013). La cultura física y el deporte: fenómenos sociales. *Revista Facultad Nacional de Salud Pública*, 31 (1), 116-S125.
 17. Cantú, P., y Moreno, D. (2007). Obesidad: Una perspectiva epidemiológica y sociocultural. *Revista Salud Pública y Nutrición*, 8 (4), 1-5.
 18. Carbajal, A., Ortega, R. (2001). La dieta mediterránea como modelo de dieta prudente y saludable. *Revista Chilena de Nutrición*, 28 (2), 224-236.
 19. Cintra, O y Balboa, Y. (2011). La actividad física: un aporte para la salud. *Revista digital Buenos Aires*, (159), 1-11.
 20. Colombia. Ministerio de Salud y Protección Social. (2017). *Abecé de la alimentación Saludable*. El Ministerio, Recuperado de: <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SNA/abc-alimentacion-saludable.pdf>
 21. Contreras, J. (2005). La obesidad: Una perspectiva sociocultural. *Zainak*, 27, 31-52. Recuperado de <http://www.euskomedia.org/PDFAnlt/zainak/27/27031052.pdf>
 22. Denegri, M., Lobos, G., Mora, M., Miranda, H., Schnettler, B., Sepúlveda, J Y Peña, J. (2013). Estilos de vida en relación a la alimentación y hábitos en la región Metropolitana de Santiago de Chile. *Nutrición Hospitalaria*, 28 (3), 1266-1273.
 23. Diario Oficial de la Federación. (2013-2018). Plan Nacional de Desarrollo. Recuperado de https://www.snieg.mx/contenidos/espanol/normatividad/MarcoJuridico/PND_2013-2018.pdf
 24. ENSANUT MC. (2016). Instituto Nacional de Salud Pública. Secretaría de salud. Informe Final de Resultados. Encuesta Nacional de Salud y Nutrición 2016 de Medio Camino. Recuperado de <https://www.gob.mx/cms/uploads/attachment/file/209093/ENSANUT.pdf>
 25. ENSANUT. (2012). Instituto Nacional de Salud Pública. Secretaría de salud. Informe Final de Resultados. Encuesta Nacional de Salud y Nutrición 2012. Recuperado de: https://ensanut.insp.mx/encuestas/ensanut2012/doctos/otros/ENSANUT2012_Sint_Ejec-24oct.pdf
 26. Flores, A., Maya, M., Rodríguez, A., Casas, D., y Sánchez, Y. (2019). Representaciones sociales de la dieta en pacientes con diabetes mellitus controlada y descontrolada. *Interfaces Científicas Saúde e Ambiente Aracaju*, 7 (2), 73 – 90.
 27. Gil, P., Contreras, O. (2005). Enfoques actuales de la educación física y el deporte. Retos e interrogantes: el manifiesto de antigua Guatemala. *Revista Iberoamericana de Educación*, (39), 225-256.
 28. Gómez, C., Barragán, B., Díaz, J. (2011). Recomendaciones en Alimentación y Nutrición para pacientes Oncohematológicos. AEAL. Asociación Española de Afectados por Linfoma, Mieloma y Leucemia. Recuperado de http://www.aeal.es/nueva_web/wp-content/uploads/2015/07/aeal_explica_alimentacion_nutricion.pdf
 29. Gómez, C., I de Cos, A. (2001). Nutrición en atención primaria. Novartis. Recuperado de <https://www.sefh.es/bibliotecavirtual/novartis/nutricion.ap.pdf>
 30. Gorski, A. (2019). Restricción de los alimentos contra dieta saludable. NUTRIGLAM, INFOBAE. Recuperado de: <https://www.infobae.com/tendencias/nutriglam/2016/11/28/restriccion-de-alimentos-vs-dieta-saludable/>
 31. Gottau, G. (2010). Siento la necesidad de hacer ejercicio. *Webedia*. México: Vitónica. Recuperado de: <https://www.vitonica.com/entrenamiento/siento-la-necesidad-de-hacer-ejercicio>
 32. Hebe L. (2005). Representaciones sociales: una manera de entender las ideas de nuestros alumnos. *Revista Electrónica de la Red de Investigación Educativa*, 1(3), 1-17. Recuperado de <http://revista.iered.org/v1n3/pdf/llacolla.pdf>
 33. Hellin, P. (2003). Hábitos físico-deportivos en la región de Murcia: implicaciones para la elaboración del curriculum en el ciclo formativo de actividades físico-deportivas (Tesis). Universidad de Murcia, Murcia. Recuperado de: <https://www.tesisenred.net/handle/10803/10788;jsessionid=8E9E2BBEA71A84C642427EE9C52B6FF4>
 34. Jodelet, D. (2010). La memoria de los lugares urbanos. *Alteridades*, 20(39), 81-89. *Alteridades*, 20(39), 81–89.
 35. Jofré, I. (2014). Desarrollo de la Actividad física y Deportiva, fomento público y responsabilidad social empresarial. (Tesis). Universidad de Chile, Santiago, Chile. Recuperado de: http://repositorio.uchile.cl/bitstream/handle/2250/115608/de-jofre_i.pdf?sequence=1&isAllowed=y
 36. López, C. y Treasure, J. (2011). TRANSTORNOS DE LA CONDUCTA ALIMENTARIA EN ADOLESCENTES: DESCRIPCIÓN Y MANEJO. *Revista Médica Clínica CONDES*, 22 (1), 85-97.
 37. López, P. (2002). Alimentación y Actividad física. Universidad de Murcia. Recuperado de: <https://digitum.um.es/digitum/bitstream/10201/5173/1/Alimentaci%3%b3n%20y%20actividad%20f%3%adsica.pdf>
 38. Montes, M., Ortiz, A., y Vázquez, V. (2005). La alimentación en México: enfoques y visión a futuro

- Estudios Sociales. Estudios Sociales. 13 (25), 8-34. Recuperado de <http://www.redalyc.org/articulo.oa?id=41702501>
39. Morales, J. (2010). Obesidad un enfoque multidisciplinario. Pachuca, Hidalgo; Universidad Autónoma del Estado de Hidalgo.
40. Moreno, D. (2019). Cultura Alimentaria. Revista de Salud Pública y Nutrición. Recuperado de: <http://respyn.uanl.mx/index.php/respyn>
41. Murillo-Godínez Y Pérez-Escamilla. (2017). Los mitos alimentarios y su efecto en la salud humana. Medicina interna México, 33 (3), 392-402. Recuperado de: www.medicinainterna.org.mx
42. Organización de las Naciones Unidas para la Alimentación y la Agricultura. (2018). Políticas y programas alimentarios para prevenir el sobrepeso y la obesidad. Recuperado de: <http://www.fao.org/3/i8156es/I8156ES.pdf>
43. Organización Mundial de la salud. (2003). Dieta, Nutrición y Prevención de Enfermedades Crónicas. Informe de una Consulta Mixta de Expertos OMS/FAO. Recuperado de <http://www.fao.org/3/a-ac911s.pdf>
44. Organización Mundial de la salud. (2018). Centro de prensa, nota descriptiva, Obesidad y sobrepeso. OMS. 16 de febrero de 2018. Recuperado de <https://www.who.int/es/news-room/fact-sheets/detail/obesity-and-overweight>
45. Organización para la Cooperación y el desarrollo Económicos. (2019). Sobrepeso y Obesidad. Comparación por país. Recuperado de: <https://www.compareyourcountry.org/obesity?cr=oced&lg=en&page=1&visited=1>
46. Ortiz, A., Vázquez, V y Montes, M. (2005). La alimentación en México: enfoques y visión a futuro Estudios Sociales. Estudios Sociales. 13 (25), 8-34. Recuperado de <http://www.redalyc.org/articulo.oa?id=41702501>
47. Pérez-Gil, S. (2009). Cultura alimentaria y obesidad. Gaceta Médica, 145 (5), 392-395. Recuperado de <https://www.medigraphic.com/pdfs/gaceta/gm-2009/gm095f.pdf>
48. Pilcher, J. (2001). ¡Vivan los tamales! La comida y la construcción de la identidad mexicana. Ciudad de México, México: CONACULTA- Centro de investigaciones y Estudios Superiores en Antropología Social.
49. Quirós, G. (2019). Gordofobia: Efectos psicosociales de la violencia simbólica y de género sobre los cuerpos. Una visión crítica en la Universidad Nacional, Heredia. [Tesis]. Heredia, Costa Rica: Universidad Nacional.
50. Rivera, J., Hernández, M., Aguilar, C., Vadillo, F y Murayama, C. (2013). Obesidad en México, Recomendaciones para una política de Estado. Ciudad de México, México: Academia Nacional de Medicina.
51. Rodríguez, C., López, F., León, L., Casado, I., Leandro, J., Calvo, A., Ponce de León, A., Romero, C., Arráez, J y Rodríguez, L. (2003). Ocio y deporte: de modelos a estrategias de acción (tesis). Universidad Pablo de Olavide, Valencia, España Recuperado de: https://www.researchgate.net/publication/311427930_Ocio_y_Deporte_De_Modelos_a_Estrategias_de_Accion
52. Rubio, R., Bourges, H., Cervantes, L., Chalte, A., Tapia, K. (2009). Diseño de planes de alimentación para el escolar y buenas prácticas de higiene. Secretaría de Educación Pública. Recuperado De: https://www2.sep.gob.mx/Petc/Comedores-Escolares/Alimentacion_Recomendable.Pdf
53. Ruíz-Prieto, I., Santiago-Fernández, M., Bolaños-Ríos, P y Jáuregui-Lobera, I. (2010). Obesidad y rasgos de personalidad. Instituto de Ciencias de la Conducta, 12, 1330-1348. Recuperado de: http://www.tcasevilla.com/archivos/obesidad_y_rasgos_de_personalidad.pdf
54. Sánchez, J. (2009). Efectos del ejercicio físico y una dieta saludable. Nutrición Clínica Dietética. Hospitalaria, 29 (1), 46-53.
55. Schettler, B., Peña, J., Mora, M., Miranda, H., Sepúlveda, J., Denegri, M y Lobos, G. (2013). Estilos de vida en relación a la alimentación y hábitos en la región Metropolitana de Santiago de Chile. Nutrición Hospitalaria, 28 (3), 1266-1273.
56. Solar, L. (2005). Ocio-Deporte, deporte y actividad física para todo. Ayuntamiento de Santoña, (3), 29-56. Recuperado de: <https://dialnet.unirioja.es/servlet/articulo?codigo=2710936>
57. Soria, F. (2019). España se Mueve, presente en la X Carrera Popular del Corazón. MAARCA.COM. Recuperado de: <https://www.marca.com/blogs/espanasemueve/2019/09/27/espana-se-mueve-estara-presente-en-la-x.html>
58. Vicente-Rodríguez, G., Benito, P., Casajús, J. (2016). Actividad física, ejercicio y deporte en la lucha contra la obesidad infantil y juvenil. Nutrición hospitalaria, 3 (9), 1-21. Recuperado de: <http://scielo.isciii.es/pdf/nh/v33s9/exernet.pdf>
59. Vidarte, J., Vélez, C., Sandoval, C y Alfonso, M. (2011) Actividad física: estrategia de promoción de la salud. Revista Hacia la Promoción de la Salud, 16 (1), 202-218.
60. Villarreal E. (2007). Las representaciones sociales: una nueva relación entre el individuo y la sociedad Fermentum. Revista Venezolana de Sociología y Antropología, 17 (49), 434-454. Recuperado de: <http://www.redalyc.org/articulo.oa?id=70504911>

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