

**Representaciones sociales de los hábitos alimenticios en
trabajadoras y trabajadores que laboran en la Industria
Maquiladora en Nuevo Casas Grandes, Chihuahua**

***Social representations of eating habits in workers who work in the Maquila
Industry in Nuevo Casas Grandes, Chihuahua***

***Representações sociais dos hábitos alimentares em trabalhadores que
trabalham na Indústria Maquiladora em Nuevo Casas Grandes, Chihuahua***

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Resumen

La obesidad forma parte de una problemática de salud pública que se ha contemplado como la “epidemia del siglo”, a la que se le ha destinado una gran cantidad de recursos económicos y humanos para su manejo, control y prevención; sin embargo, no ha tenido un impacto positivo. El objetivo de este trabajo es conocer las representaciones sociales que tienen los trabajadores que laboran en la Industria Maquiladora de Exportación (IME) sobre los hábitos alimenticios y si los cambiaron después de la epidemia por SARS-COVID 19. En este trabajo científico se demostró que las personas entrevistadas perciben que el consumo de chatarra es el principal factor de que en México exista un gran problema de obesidad, también se visualizó que no conocen su IMC (Índice de masa corporal), cuyo conocimiento es fundamental para su salud, ni tampoco les preocupa la realización de ejercicio físico, asimismo la mayoría de los trabajadores consumen al menos una vez por semana bebidas gaseosas o alguna bebida endulzada, galletas, pan o harinas refinadas, papas, chicharrones o frituras.



Palabras clave: representaciones sociales, alimentación, Industria Maquiladora, SARS-COVID 19.

Abstract

Obesity is part of a public health issue that has been described as the “epidemic of the century,” to which a significant amount of economic and human resources have been allocated for its management, control, and prevention; however, it has not had a positive impact. The aim of this study is to understand the social representations of workers in the Export Maquila Industry (IME by its acronym in Spanish) regarding eating habits and whether these habits changed after the SARS-COVID 19 epidemic. This scientific study demonstrated that the interviewed participants perceive junk food consumption as the main factor contributing to the obesity problem in Mexico. It was also observed that they are not aware of their BMI (Body Mass Index), whose knowledge is fundamental to their health, nor are they concerned about physical exercise. Additionally, most workers consume soft drinks or sweetened beverages, cookies, bread or refined flours, chips, pork rinds, or fried foods at least once a week.

Keywords: social representations, nutrition, maquiladora industry, SARS-COVID 19.

Resumo

A obesidade faz parte de um problema de saúde pública que tem sido considerado a “epidemia do século”, ao qual tem sido atribuído um grande volume de recursos económicos e humanos para a sua gestão, controlo e prevenção; no entanto, não teve um impacto positivo. O objetivo deste trabalho é conhecer as representações sociais que os trabalhadores que atuam na Indústria Maquiladora Exportadora (IME) têm sobre os hábitos alimentares e se os mudaram após a epidemia de SARS-COVID 19. Neste trabalho científico, mostrou que as pessoas entrevistadas percebem que o consumo de junk food é o principal fator que explica o grande problema de obesidade no México. Também foi constatado que eles não conhecem seu IMC (Índice de Massa Corporal), que é parte fundamental para ter conhecimento e interesse. sua saúde, nem se preocupa em realizar exercícios físicos. Da mesma forma, a maioria dos trabalhadores consome pelo menos uma vez por semana refrigerante ou alguma bebida açucarada, biscoitos, pão ou farinha refinada, batatas, torresmo ou frituras.



Palavras-chave: representações sociais, alimentação, Indústria Maquiladora, SARS-COVID 19.

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Introduction

The Export Maquila Industry in Mexico (IME) has played a very important role in its contribution to the creation of sources of employment, especially for the impulse it has given to the industrial development of the country, where women and men have had an active participation in the last decades. Statistics show that this industry has been a pole of attraction as a source of employment not only for border workers but for a large part of the inhabitants of the Mexican Republic, since, since its establishment in this border strip in its beginnings in the sixties, it has provided them with the opportunity to have a secure and stable job (Carrillo and Hualde, 2002). However, the issue of public health of workers must be an elementary topic in the agendas of public policies of developing countries such as Mexico, since a large part of its population is obese; more will be said about this situation below.

In this same sense, it is imperative to mention that obesity is part of a public health problem that has been considered as the “epidemic of the century”, to which a large amount of economic and human resources have been allocated for its management, control and prevention; however, it has not had a positive impact. According to data from the World Health Organization (WHO, 2023) since 1975 obesity has tripled worldwide, by 2016 more than 1.9 billion adults; that is, 18 years or older were overweight, of which more than 650 million were obese; that is, 39% of adults aged 18 years or older were overweight, and 13% were obese. The majority of the global population lives in countries where overweight and obesity claim more lives than underweight ¹as is experienced in countries in Africa or Latin America. The WHO also mentions that in 2016 there were more than 340 million children and adolescents (aged 5 to 19) who were overweight or obese worldwide, a fairly high figure that can give us an overview of how this population will be in their adulthood and the consequences that this problem brings with it. Currently in Mexico obesity corresponds to 35.6% of children, a number that places us in first place worldwide in childhood obesity (OECD, 2023).

¹ Low weight for age, reflecting a condition resulting from insufficient nutrition, previous cases of malnutrition or poor health “Food and Agriculture Organization of the United Nations, 2021 ”.



It is important to emphasize that obesity was previously associated with industrialized countries such as England, France, the United States of America, etc., but overweight and obesity have increased notably in developing countries, mainly in states where the Maquiladora Industry or factories operate. In Mexico, it is the most common metabolic disease (SSA, 2023). It is the second country with the highest obesity rate in the world, its prevalence increased from 59.7% in 2000 to 86.7% in 2015, meaning a key risk for the development of pathologies or comorbidities that occupy the first places in morbidity and mortality (World Obesity Atlas, 2022). Currently, in the Mexican Republic, overweight and obesity affect more than 75% of adults, these figures place us in second place worldwide and only surpassed by the United States of America (OECD, 2023).

It is imperative to highlight that the risks of obesity are related to a high prevalence of suffering from, or rather, developing, chronic degenerative diseases, such as high blood pressure, diabetes mellitus, and pulmonary and cardiovascular disorders, and it is also a high risk factor for developing various types of cancer. It also affects the psychological part of the person, by lowering the self-esteem of those who suffer from it and probably affecting their personal and social relationships, in addition to being related to fatal complications from SARS-COVID 19 infection (SSA, 2023).

Based on the above, the interest of this paper is to demonstrate how social representation (SR) on the eating habits of women and men who work as production operators is influenced by lifestyle and the work environment in such a way that it details in a theoretical way how symbolic constructions are created and recreated in the course of social interactions, Moscovici (1996), or in the words of Bordieu (1998) the way in which social realities are learned as everyday constructions by individual actors. This paper mainly addresses the literature of Sergio Moscovici, followed by the thought of Pierre Bordieu and Jean Claude Abric, to illustrate how social representation constitutes modalities of practical thinking oriented towards understanding and mastering the social environment, and then refers to its elements. Likewise, it points out from the point of view of Moscovici (1996), the main processes that explain how the social transforms knowledge into representation.

Social representations

One of the theories that can support the understanding of the reasons why women do not undergo the Pap test on time (barriers) is that of “social representations”. Various studies have used it; Chávez-Méndez *et al.*, (2012), Aranda (2005) Rocha (1995), Rico-Blanco *et al* (2010) among others. They in turn point out the importance of investigating social representations in reference to health care and the different practices associated with them in order to analyze the social “anchoring” of their construction, as well as the objectification: the social in the representation, social representations and their internalization in the individual, social subject and genetic theory.

The role of culture in human behavior is considered to be a relevant factor in the adoption of a health care modality by social subjects as well as the cultural aspects that may affect a woman not having a Pap test (Candreva and Paladino, 2005). This section includes the topics of gender and health, cultural beliefs and the Pap test, social structure and sexuality, sociocultural interpretations and sexuality, cultural meanings of gender, power relations and cervical cancer, and finally gender and the exercise of sexuality.

Likewise, the paper analyzes studies that have been carried out in both Latin America and Mexico and that have helped to form part of an improvement to the existing public policies in this country regarding the cultural frameworks that affect women's concern for their health or more specifically their ability to perform or access the Pap test.

Rocha (1995) defines social representations of illness as:

the form of common sense knowledge that individuals construct in relation to diseases, both in their generic and specific sense. That is, they are understood as systems of ideas, beliefs and images regarding diseases, their origin, classification, the characterization of a disease situation and its implications (p. 59).

These systems are dynamic and change as the subject interacts with his or her social environment. Although they are dynamic, certain core elements generally remain shared between individuals, while other elements change and present different nuances. It is important to note that the duration of the elements that make up the representations varies; while some elements are more stable, others change from one generation to another.

Chávez Méndez *et al.*, (2012) mention that, although the concept of social representation ²is found in diverse literature in both psychology and social psychology; its

²The notion of social representations places us at the point where the psychological and the social come together. Therefore, speaking of social representations is referring to the way in which, as social actors, we

conceptual development and theoretical formulation is relatively recent and is due to Sergio Moscovici in 1961. The purpose of this social psychologist is to reformulate the Durkheimian concept of collective representation in psychosocial terms. For Durkheim, collective representations are forms of knowledge or ideation socially constructed, which cannot be explained as consequences of individual life or by resorting to individual psychology (Moscovici, as cited in Rojas-González, 2013).

Sanabria (2012) points out that knowledge is one of the most important and determining parameters for a woman to undergo a Pap test; it is about knowing what they think and know about it, and many times the information they have is what determines whether they do it or not (p. 85) .

According to Moscovici (1981), the concept of social representation differs from that of collective representation in that the former has a more dynamic character. In the opinion of this social psychologist, social representations are not only mental products, but are symbolic constructions that are created and recreated in the course of social interactions.

Social representations, as Jodelet (1988) points out, are related to images that condense a set of meanings; that is, to the articulation of reference systems that allow us to interpret what happens to us and generate categories that serve to classify circumstances, phenomena and individuals. In this sense, it is considered that through these representations, the interrelation of psychosocial factors (beliefs, attitudes, gender, occupation, social condition, etc.) that intervene in the process of meaning about health-illness of each individual can be established and explained.

Moscovici (1996) points out that the usefulness of social representations lies mainly in the fact that they serve to interpret and construct meaning of our daily reality and, with this, social knowledge can be constructed.

Social representations are shown in varied, somewhat complex forms in Table 1.

apprehend the events of daily life, the characteristics of our social and environmental context, the information that circulates in it, and the people in our immediate or distant surroundings. In short, it is talking about the knowledge of *common sense* or *natural thought*; which in other words is practical knowledge (Moscovici, as cited in Chávez, 2012).

Table 1. Social representations and their meanings

<i>Images</i>	They concentrate a set of meanings.
<i>Reference systems</i>	It allows us to interpret what happens to us, and even give meaning to the unexpected.
<i>Categories</i>	They serve to classify circumstances, phenomena and individuals with whom we have something to do.
<i>Theories</i>	They allow facts to be established about events.

Source: Moscovici (1996)

Therefore, Chavez *et al.* (2012) points out that

The notion of social representations places us at the point where both the psychological and social aspects come together. Therefore, speaking of social representations is describing the way in which, as social actors, we acquire knowledge of the events of daily life, the particularities, that is, thoughts, observations, interactions in the social and environmental context, the information that circulates in it and the interaction between people in our environment, whether close or distant (2012, p. 3).

Moscovici (1996) states that social representations are defined by a content of information – knowledge –, images, opinions, attitudes, etc. In turn, this content is related to an object : a job to be done, an economic, religious or political event, a social figure, etc. In this sense, social representations maintain a relationship of symbolization and interpretation with objects, which result from the activity of constructing reality (symbolization) and also from an expressive activity (interpretation), so that speaking of social representations always means referring to something or someone.

Berger and Luckman (1998) conceive knowledge of reality as a social construction in the subjective sphere. This author attempts to discover the relationship between representation and the object that originates it, as well as its emergence and evolution through communication. His fundamental contributions that have become part of the foundations of the theory are:

- ✓ Knowledge in everyday life has a generative and constructive character: our knowledge is produced immanently in relation to the social objects we know.

- ✓ The nature of this generation and construction is social: it involves communication and interaction between subjects, groups and institutions.
- ✓ Language and communication are mechanisms that are transmitted and create reality: they are also very important since they are the framework in which reality acquires its meaning.

A practical example of this is the study carried out by Bazán (2007), in which it was found that only 10.6% of the population studied had a high level of knowledge about the Pap test, while the remaining 89.4% showed low or intermediate knowledge. Of the 501 people surveyed, 63% had a low level of knowledge, 66% showed an unfavorable attitude and 71% performed the test incorrectly.

The levels of knowledge, attitudes and practices in our population are low. The higher level of knowledge is not related to the correct practice of the Pap test. There is little dissemination about the Pap test through the media and the limitations to women taking the Pap test are mainly psychological (p. 53).

For Moscovici (1996), the social characterization of the contents or representation processes refers to the conditions and contexts in which the representations arise, to the communications through which they circulate, to the functions they serve within the interaction with the world and others.

Social representation has five fundamental characteristics according to Moscovici (1996):

1. It is always the representation of an object, person, event, idea, etc. that is why it is called representation.
2. It has the character of an image and the property of being able to exchange the sensible and the idea, the perception and the concept. The way we represent the object, the person, etc., is through an image of it.
3. It has a symbolic and significant character. Representation as an image, concept, etc., is not a mere reproduction of the absent object, but rather a construction, where the subject contributes something creative. That is to say:
4. It has a constructive character.
5. He has an autonomous and creative character.

This same author also points out that the categories that structure and express social representations are categories of language, and that there are various ways of formulating the



way in which this psychological and social construction called social representation is developed:

1. Social representation arises from a simple cognitive activity of the subject. It is constructed based on the context, that is, on the social stimuli it receives, and based on the values, ideologies and beliefs of its group of belonging, since the subject is a social subject.
2. The subject is a product of meaning, and then expresses in his representation the meaning he gives to his experience in the social world.
3. Social representation is constructed as a form of language, of discourse, typical of each society or social group.
4. The subject produces a social representation based on the institutional norms derived from his position or the ideologies related to the place he occupies.
5. The intergroup relationship game determines the dynamics of representations: interactions modify the representations that members have of themselves, their group, other groups and their members. These representations allow social relations to be regulated.

After what has been previously stated, the concept of social representation can be summarized as: a particular modality of knowledge, whose function is the formation of behaviors and communication between individuals, and “it is social if it is or has been in two or more minds”, it implies learning social realities as historical and everyday constructions of individual actors (Castorina, 2003, p.172).

Coinciding with Castorina's definition (2003), we understand that in all social interactions where objectification occurs - selective construction and schematization - it is in the internalization of the individual where identities are elaborated and negotiated - style of acting and thinking; that is, there is a social process that the individual builds with his thoughts.

In order to understand the different ways in which social representations are internalized in the individual, the social and psychological aspect is analyzed: as a social subject, ideas, values and models that come from the group of belonging. The theoretical panorama of social representations is described as a genetic social psychology that allows both communication and understanding of individuals, which in turn are divided into three processes: the process of sociogenesis, ontogenesis and microgenesis.

This leads to resuming the relevance of how social representations can make visible the way in which women construct the above – thoughts, interactions, observations – with health practices, specifically regarding cervical cancer prevention: the Pap test.

a) Objectification and anchoring

For Moscovici (1996), objectification has a triple character: it is a selective construction and a structuring schematization that produces a naturalization. This model reveals the tendency of social thought, an example would be the stigmas on the Pap test and cervical cancer. Through a significant construction, the disease is “valued” and there is a tendency to create conceptual differences (Vasilachis, 2003). Such a construction responds to personal and intimate expectations, since the conscious-unconscious scheme has repercussions on personal conflicting experiences. Some people assume or have beliefs such as: the more an individual eats, the less likely they are to get sick, that overweight people are happier, etc.

Representation in the social sphere refers to the social rooting of the representation and its object. The intervention of the social sphere is translated into the meaning and utility that are conferred upon it. According to Moscovici (1996), there is an epistemological integration of the represented object into the pre-existing scheme. Unlike objectification, which is the formal constitution of knowledge, in anchoring we find an organic insertion of knowledge within a constituted thought. It thus articulates the three basic functions of representation: cognitive function of integrating the novel, function of interpreting reality, and function of orienting behaviors and social relations.

According to Moscovici (1996), the anchoring process is broken down into several modalities:

- 1) Anchoring as the assignment of meaning: how meaning is conferred on the represented object. The hierarchy of values imposed in society contributes to creating a network of meanings towards the object.
- 2) Anchoring as the instrumentalization of knowledge: that is, how representation is used as a system of interpretation of the social world, a framework and instrument of conduct. Representations not only express social relations, but also contribute to their constitution.
- 3) Anchoring and objectification: there is a relationship between the crystallization of a representation around a figurative core (objectification) and a system of interpretation of reality that guides behaviors (anchoring).



- 4) Anchoring as rooting in the system of thought: representation is not inscribed in a tabula rasa, but is always inserted within some previous system of thought, latent or manifest. This can prevent the incorporation of new knowledge by resisting previous schemes, but it can also facilitate the integration of the same knowledge into those previous schemes. This double phenomenon is called by (Moscovici, 1996), “cognitive polyphasia”.

b) Social representations and their internalization in the individual

The different ways in which social representations are internalized by the individual, or the way in which the individual appropriates and makes his own a certain style of acting and thinking, involves the psychological aspect and obviously the social one. This happens, as already mentioned, because the representations have the adjective of social, since they correspond to some social discourse available in a community or determined social group. Social discourse is the set of constructions that circulate in a society with effectiveness for the production/reproduction of perceptual representations of conceptual or evaluative interpretations. In this sense, social discourse is all the ideas that circulate in a social context (Jodelet, 1988).

It is important to know the variables that intervene in the person as an individual entity and why those ways of thinking that lead him to act in a certain way are so deeply rooted, in such a way that it circumscribes him within a certain group, being able to affirm that the subject is "forced" to adopt a certain stigma towards an object.

To understand the different ways in which social representations are internalized in the individual, the social and psychological aspects are analyzed.

Social Subject

Berger and Luckmann (1998) mention that social representation depends on the position occupied by subjects in society, since the subject is not only an organism, but a social subject with symbolic and cognitive activity. The social aspect of representations is also related to the fact that they are socially constructed through processes of communication, debate and encounters of ideas. In addition, they are sensitive to cultural and social aspects. Although not everything is a social representation, but rather that which is relevant to the social group. In this way, representation always entails something social, since the categories that structure and express it are taken from a sociocultural context. Ideas, values and models



from the group to which it belongs, discursiveness and social praxis, worldviews structured by dominant ideologies and myths, which are transmitted in the systems of social codification and interpretation, intervene in its elaboration. At the same time, representation is a projection of social values and aspirations. In this sense, social representation is an expression of a given society.

On the other hand, even the simplest representations imply a complete process of cognitive and symbolic elaboration, which will influence and guide the behavior of other subjects and which, by circulating in the social world, acquire autonomy and a specific effectiveness. The subject is a producer of meaning and always expresses in his social representation the meaning he gives to his experiences (Berger and Luckmann, 1998).

So, it is important to mention Geertz (as cited in Giménez, 1996) , in *The Interpretation of Cultures* , where he asserts, quoting Max Weber, that culture is presented as a “web of meanings” that we ourselves have woven around ourselves and within which we remain inevitably trapped (p. 20).

Genetic Theory

The notion of social representations considers a genetic aspect since the structure of any social representation is a construction and the result of a development process (Castorina, 2003). In this way, the theoretical panorama of social representations is described as a genetic social psychology that allows communication and understanding, since it is applied as a means to understand the mode of psychological influence of socio-epistemic structures.

To understand this concept, three types of transformations are distinguished that are associated with social representation: Process of sociogenesis, ontogenesis and microgenesis (Castorina, 2003).

- 1) Process of sociogenesis. - It is related to the construction and transformation of social representations of groups regarding specific objects, through which social representations are generated. Moscovici's study (1996) on psychoanalysis is an example of the diffusion of scientific knowledge in the community as it is recognized by different social groups. Sociogenesis occurs over time, this means that the characteristics of social groups change social representations.
- 2) Process of ontogenesis. - It is a process through which individuals reconstruct social representations and in doing so they elaborate specific social identities. Social representations are psychologically activated in individuals in the form of social identities, so the influence of the former on people takes different forms since some



impose an imperative obligation to adopt a particular social identity (Castorina, 2003).

- 3) With the above mentioned, it becomes clear why the subject "roots" certain beliefs and thoughts so solidly, since people are forced to build a social identity according to what they perceive, hence the indication of how women "acquire" over the years and also through the experiences of others, subjectivities around the Pap test and often take them as "their own", and this impacts on the negativity of taking the test in a timely manner. In this same idea and following Castorina (2003, p. 36), we can affirm that in this case it is demonstrated that there is an external requirement that derives from the ways in which others identify an object in terms of these social categories.
- 4) Microgenesis process.- It is related to what the subject remembers, alludes to and relives from social representations in social interaction, since in this, individuals communicate with each other: they meet, talk, debate and resolve conflicts. That is, there is an interaction between individuals, so that people, through constant encounters, which configure the history of a certain interpersonal relationship, build their social identity (Castorina, 2003).

Central and Peripheral System

Abric (1994) mentions that social representations are a set of structured relationships between their elements and suggests the existence of a central and a peripheral system within social representations. He is based on the theory that individuals or groups within a society do not respond to the objective characteristics of a situation, but to the representation they have of them due to their experience.

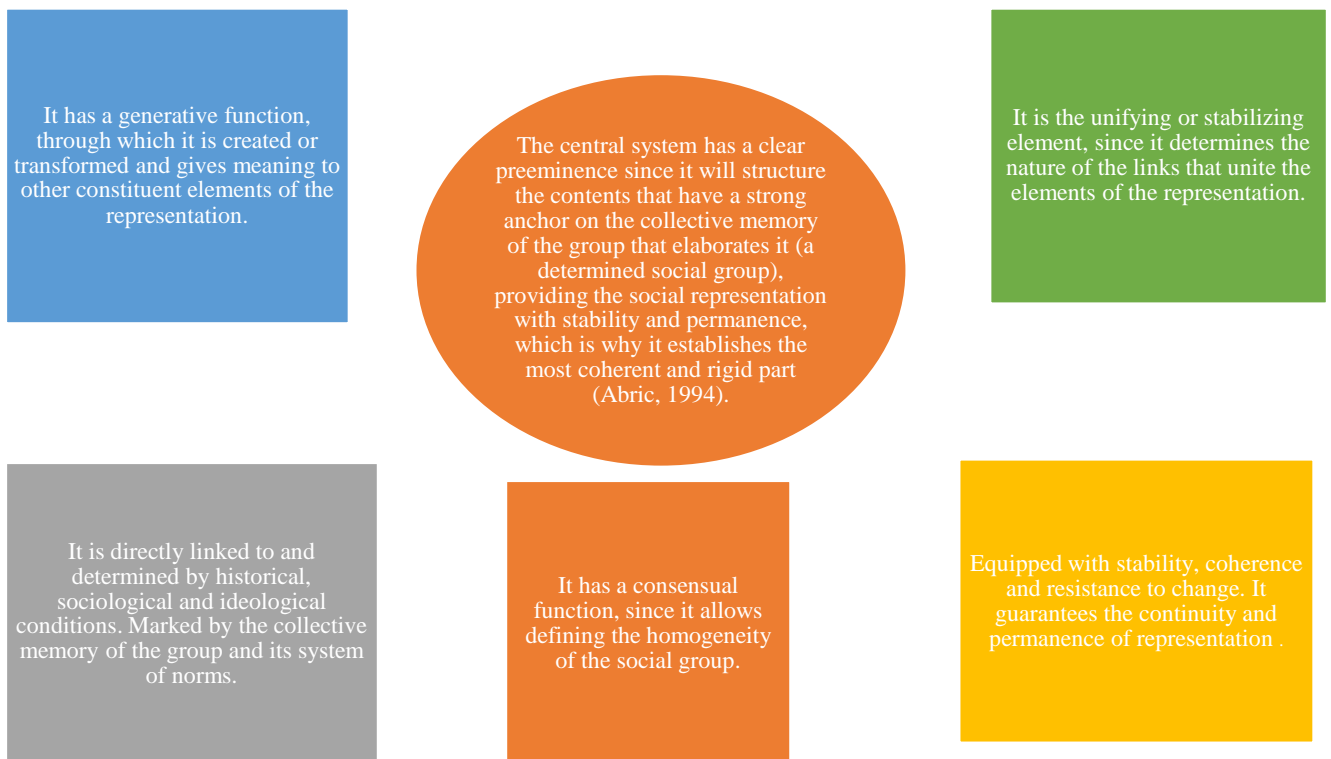
The individual experiences of each subject are inserted in the peripheral system, so this assumption explains the diversity of representations that exist among the "own" members within a group.

According to the aforementioned author, this system has greater flexibility, individualization and dynamism than the central system. Due to its flexibility, it ensures the regulation and adaptation function of the central system to the characteristics of a specific or non-specific situation that the group faces. That is, it is more sensitive to the characteristics of the immediate context. Its flexibility and elasticity enable the integration of the representation to the individual variations linked to the history of each subject, to his previous

experiences. That is, it makes possible the existence of more individualized representations within a given social group.

This work addresses the concept of social representations because it implies recognizing that sociological phenomena decisively influence the range of possibilities that includes the formation of shared meaning and gender, where power relations are generated in the cultural construct and these in turn can determine this social phenomenon.

Figure 2. The role of the Central System in Social Representations



Source: Abric (1994, p. 81).

General objective

What are the social representations that workers in the maquila industry have about eating habits and obesity?

Specific objective

To investigate whether there was a change in their eating habits after the SARS COVID 19 epidemic.

Method

Type of study

The study has a non-experimental, cross-sectional-descriptive design.

Participants

Employees working in the maquila industry were chosen (to ensure anonymity, we will not give the name of the company). The criteria for selecting the workers were: 1) to be registered in a company as operators, 2) to be between 18 and 75 years of age. In total, 250 workers participated.

Tools

To learn about eating habits, a survey validated and developed by the Pan American Health Organization was used and applied in several Latin American countries,

Likewise, a questionnaire was constructed to know the general characteristics of the participants such as age, sex, etc.

Procedure

The application of the instruments was carried out during the workers' break time. Before participating in the study, the participants had to read and accept the terms of an informed consent letter, which explained the purpose of the study and ensured the confidentiality and anonymity of the information collected. The project was approved by the University's Ethics Committee (Resolution CEI-2022-2-687).

Information analysis

At this stage of the study, only descriptive statistics were used to analyze the information collected. The computer program used to analyze the data was IBM SPSS 25 for Windows.

Results

Below are the questions that were asked in the questionnaire to 250 workers, as mentioned above, who work within the Export Maquiladora Industry.



Table 2. Demographic characteristics – Sex-

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Women	140	56.0	56.0	56.0
	Man	100	40.0	40.0	96.0
	Intersex	10	4.0	4.0	100.0
	Total	250	100.0	100.0	

Of those surveyed, 56% are women, 40% men and 4% intersex.

Source : Own elaboration

Table 3. Demographic characteristics – Age-

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	18 to 29 years old	73	29.2	29.2	29.2
	30 to 45 years	144	57.6	57.6	86.8
	60 to 75 years	33	13.2	13.2	100.0
	Total	250	100.0	100.0	

Of the people surveyed, 29.2% are between 18 and 29 years old, 57.6% are between 30 and 45 years old, and 13.2% are between 60 and 75 years old.

Source : Own elaboration.

Table 4. Factors that explain the major obesity problem in Mexico

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Lack of information	48	19.2	19.5	19.5
	Junk food consumption	164	65.6	66.7	86.2
	Lack of exercises	34	13.6	13.8	100.0
	Total	246	98.4	100.0	
Lost	System	4	1.6		
Total		250	100.0		

19.2% mention that the main reason why Mexico has a big obesity problem is due to a lack of information, 65.6% due to the consumption of junk food, and finally 13.6% say that it is due to a lack of physical exercise.

Source : Own elaboration

Table 5. Problems of overweight, obesity, diabetes, hypertension or some cardiovascular disease

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Yeah	32	12.8	12.8	12.8
	No	106	42.4	42.4	55.2
	I don't know	23	9.2	9.2	64.4
	Yes, grandma	4	1.6	1.6	66.0
	Yes, maternal grandmother	5	2.0	2.0	68.0
	Yes, grandma and dad	2	.8	.8	68.8
	Yes, grandpa	5	2.0	2.0	70.8
	Yes, wife	2	.8	.8	71.6
	Yes, brother	3	1.2	1.2	72.8
	Yes, mom	22	8.8	8.8	81.6
	Yes, parents	3	1.2	1.2	82.8
	Yes, dad	12	4.8	4.8	87.6
	Yes, aunt	1	.4	.4	88.0
	Place	4	1.6	1.6	89.6
	Yes, guys	2	.8	.8	90.4
	Yes, I do.	24	9.6	9.6	100.0
Total	250	100.0	100.0		

Of the people surveyed, 12.8% said that they do suffer from problems such as overweight, obesity, diabetes, hypertension or some cardiovascular disease, 42.4% said no, 9.2% did not know, 1.6% their grandmother, 2.0%, 8.8% their mother, 4.8% their father.

Source : Own elaboration.

Table 6. BMI (Body Mass Index) and knowledge of normal values

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Yeah	34	13.6	13.6	13.6
	No	192	76.8	76.8	90.4
	I have more or less an idea	24	9.6	9.6	100.0
	Total	250	100.0	100.0	

Of the surveyed staff, only 13.6% indicated that they know their BMI (body mass index), while 76.8% stated that they do not.

Source : Own elaboration.

Table 7. Time spent exercising per week

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	I don't do	102	40.8	40.8	40.8
	30 minutes	64	25.6	25.6	66.4
	1 hour	51	20.4	20.4	86.8
	2 hours or more	33	13.2	13.2	100.0
	Total	250	100.0	100.0	

Of the surveyed personnel, 40.8% indicated that they do not do any physical activity, 25.6% mentioned 30 minutes, 20.4% said one hour, and finally only 13.2% suggested two hours or more. Source: Own elaboration.

Table 8. Knowledge about the healthy eating plate

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Yeah	140	56.0	56.0	56.0
	No	91	36.4	36.4	92.4
	I don't know	19	7.6	7.6	100.0
	Total	250	100.0	100.0	

Of those surveyed, 56.0% said they know what a healthy eating plate consists of, 36.4% said they do not, and only 7.6% said they do not know.

Source: Own elaboration.

Table 9. Knowledge of the nutritional value of Mexican food

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Deficient	26	10.4	10.4	10.4
	Regular	148	59.2	59.2	69.6
	Very good and complete	76	30.4	30.4	100.0
	Total	250	100.0	100.0	

10.4% of the people surveyed consider that traditional Mexican food is deficient in terms of its nutritional value, 59.2% say it is average and 30.4% say it is very good and complete.

Source: Own elaboration.

Table 10. Consumption of high-calorie foods per week

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Sodas or some other sweetened beverages	38	15.2	15.2	15.2
	Cookies, bread or refined flours	41	16.4	16.4	31.6
	Potatoes, pork rinds or fried foods.	37	14.8	14.8	46.4
	All of the above food groups	134	53.6	53.6	100.0
	Total	250	100.0	100.0	

Of the personnel surveyed about the consumption of certain foods at least once a week, 15.2% answered that they consume soda, or some other sweetened drink, 16.4% indicated that they eat cookies, bread or refined flour, 14.8% potatoes, pork rinds or fried foods and 53.6% mentioned that they consume all the groups suggested above.

Source: Own elaboration.

Table 11. Daily consumption of fruits and/or vegetables

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	None	27	10.8	10.8	10.8
	At least one	148	59.2	59.2	70.0
	Two or more	75	30.0	30.0	100.0
	Total	250	100.0	100.0	

Of the surveyed personnel, when asked how many fruits or vegetables they consume daily, 10.8% said none, 59.2% said at least one, and finally 30% said two or more.

Source: Own elaboration.

Table 12. Implementation of healthy habits at school, work or home

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Yeah	127	50.8	50.8	50.8
	No	89	35.6	35.6	86.4
	I am not aware	33	13.2	13.2	99.6
	He didn't answer	1	.4	.4	100.0
	Total	250	100.0	100.0	

Of the people surveyed about whether they do something at school, work or home to implement healthy habits or good health, 50.8% said Yes, 35.6% said No, and finally 13.2% suggested they were not aware.

Source: Own elaboration.

Table 13. Knowledge of Mexico's ranking in Obesity in adults

Mr		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	2nd place	43	17.2	17.2	17.2
	5th place	24	9.6	9.6	26.8
	Don't know	183	73.2	73.2	100.0
	Total	250	100.0	100.0	

Of the people surveyed, when they were asked if they know what place Mexico occupies worldwide in Adult Obesity (a) 17% indicated second place, 9.6% suggested fifth place, and finally 73.2% mentioned that they do not know.

Source: Own elaboration.

Table 14. Changes in eating habits after the SARS-COVID 19 global pandemic

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Yeah	126	50.4	50.4	50.4
	No	124	49.6	49.6	100.0
	Total	250	100.0	100.0	

Of the surveyed staff when asked if they have changed their eating habits after the SARS-COVID 19 pandemic, 50.4% said Yes, 49.6% said No.

Source: Own elaboration.

Table 15. Type of foods you eat after changing your eating habits

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Eat more fruits and vegetables	75	30.0	51.7	51.7
	Eat more junk food	40	16.0	27.6	79.3
	He doesn't know it	19	7.6	13.1	92.4
	All of the above	11	4.4	7.6	100.0
	Total	145	58.0	100.0	
Lost	System	105	42.0		
Total		250	100.0		

Among the respondents who reported having changed their eating habits following the SARS-CoV-2 pandemic, 51.7% reported consuming more fruits and vegetables, 27.6% reported having increased their consumption of junk food, 13.1% said they did not know if they had changed their habits, and 7.6% reported having adopted all of the above options.

Source: Own elaboration.

Discussion

Romero-Juárez and Arellano-Gálvez (2020), mention in their research on the Social Representations of Obesity, Food and Exercise among people with obesity in Mexico City, that for the participants, obesity represents a restriction to establish personal, social and work relationships, although, they themselves reproduce in their speeches this marginalization of society due to obesity, which is exacerbated for women due to beauty standards and their relationship with health. The knowledge they have about fattening and non-fattening foods is due to medical discourse and health promotion messages; however, it does not translate into a change at the level of daily eating practices. As for the set of research methods: a qualitative methodology was used. The in-depth interview was chosen as the technique for obtaining data.

Théodore et ál (2011), In their article on Social Representations Related to School Food: The Case of Public Schools in Mexico City, they point out that the country is experiencing an unprecedented epidemic of overweight/obesity, especially among children. They mention that the objective of this work was to recognize the main social representations related to food at school, which are held in the discourses of the different school actors. Twenty interviews were conducted with school actors and 10 focus groups with boys and girls from 12 schools. Three main ideas were identified, representations in which they structure their relationship with food at school: 1) "junk" food versus home-cooked food; 2) appreciation of fruit from different perspectives; 3) pleasurable function of school food. The study allowed to compare some elements that constitute the relationship of the different school actors with school food and which are related to 1) presence in the discourses of ideas and knowledge about food, sometimes opposed and generated by different fields of knowledge, which show the dynamic and complex nature of the food fact; 2) children's internalization of a food hierarchical system; 3) the identity-based nature of food.

Andreatta (2013). This article analyzes current research on social representations of food and its links to health. In several of these works, the authors refer to the fact that, beyond the age, gender or socioeconomic level of the people surveyed, the representations are consistent with the nutritional messages issued by health organizations, although this is not necessarily reflected in daily eating practices. It is important to suggest that there may be a general trend between what is believed and what is done regarding food and health. It also suggests that belief systems manifest themselves in confusing and sometimes discordant ways, adapting to the contexts in which people find themselves immersed. He also comments



that eating behavior has several determinants and although the individual has knowledge and, to a certain extent, freedom to choose, they are limited by a capitalist system of production that determines the supply and the possibilities of access to consumption.

Conclusions

It is necessary that public and/or private institutions pay special attention to the problem of eating habits of the Mexican population, since Mexico ranks second worldwide in adult obesity (Government of Mexico, 2024), so it is imperative to implement public policies that address the various factors that affect the consumption patterns of the population.

This article found that most of the interviewees, who are between thirty and forty-five years old, have certain social representations about their eating habits. It was concluded that many of these maquila workers consider junk food consumption as the main factor contributing to the obesity problem in Mexico. In addition, it was identified that they are unaware of their Body Mass Index (BMI), a fundamental aspect to be aware of and interested in their health, and that they also show no concern about exercising. Most of them consume soda or sweetened drinks, cookies, bread or refined flour, potatoes, pork rinds or fried foods at least once a week. Paradoxically, although they adopt these habits, they affirm that at work or at home they are taking steps to implement healthy habits. It was also observed that their eating patterns changed after the SARS COVID 19 pandemic. It is important to note that, of the people surveyed, when they were asked if they know what place Mexico occupies worldwide in Obesity, 73.2% said they did not know; that is, for the majority of the sample the information is not of interest to them, only 17.2% answered correctly.

Although social representations are presented as an alternative approach to the study of the concepts of health and illness, they are seen as an established and hierarchical set of information and attitudes that a social group has developed regarding a social object, which in this case are eating habits.

However, these actions are not reflected in practice, even though the Mexican Government placed front labeling on foods and beverages offered in this country, in accordance with NOM-051-SCFI/SSA1-2010, which is responsible for establishing the commercial and health information that these products must contain, the reality is that the consumption of junk food and a sedentary lifestyle mean that Mexico has high rates of obesity in both adults and children.



Future lines of research

After the study carried out, it is clear that most of the people interviewed did change their eating habits after the SARS-COVID-19 pandemic, however, in practice they continue to ingest provisions with a high degree of calories, it is therefore necessary to carry out a comparative work between women and men on weight, physical activity and behavioral patterns between both, where several lines of research can be explored, such as the impact of different types of physical activity on body composition by gender; how behavioral patterns affect food choices and body weight; differences in response to weight loss programs by age and gender; the role of the social and cultural environment in physical activity and weight status, the interaction between mental and physical health and its influence on eating behavior and physical activity, the effects of technology and digital media on physical activity and weight management, the relationship between sleep patterns, body weight and physical activity; and the distinction between genetic and environmental factors in weight and physical activity. This multidimensional approach allows for a better understanding of the complex interactions between gender, behaviour and health, using both quantitative and qualitative methodologies for a comprehensive view.



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