PATTERN OF THERAPEUTIC CONSUMPTION OF PRODUCTS TO REDUCE BODY WEIGHT

[1]*Jorge Rafael Figueroa Morales, [2]Tomás Mario Avalos Ruvalcaba and [3]Ana María Gaytán Hake

[1,2]Master In Health Sciences with A Specialty In Pharmacoepidemiology. Research Professor At the Autonomous University of Nayarit, Mexico.
[3]Industrial Pharmaceutical Chemist Research Professor At The Autonomous University of Nayarit, Mexico.

*Corresponding Author: Jorge Rafael Figueroa Morales

Master in Health Sciences with A Specialty in Pharmacoepidemiology. Research Professor at the Autonomous University of Nayarit, Mexico.

ABSTRACT

The main objective of the investigation is to describe the pattern of consumption of weight loss products in the population of the municipality of Tepic Nayarit. The total number of people surveyed was 384 people, through a structured online questionnaire. Of the total population studied, 31% consumed these products once a year, while 49% did so twice a year. The prevalence according to therapeutics was 68% self-medication and 20% by medical indication. Regarding the type of product used, 57% of people affirm taking herbal remedies, in contrast, 43% used medications. The data obtained based on the use and self-prescription are worrying, since they reflect an irrational use of the same, which entails a risk to the health user of this pharmacotherapeutic. Future research is needed to determine the causal association of this phenomenon.

KEYWORDS: Obesity, Therapy, Rational Use, Weight.

INTRODUCTION

Obesity and overweight is a public health problem which tends to be minimized or undervalued from the individual perspective of patients and some health professionals, especially in Central American countries, because it is considered a "normal" state or condition. " However, epidemiologically there is an immeasurable problem and in many cases it overlaps with the rest of the pathophysiological processes and comorbidity that it entails. The World Health Organization (WHO) estimates that in 2016 there were more than 1.9 billion young people and adults with this condition and predicts that in 2022 there will be more people with obesity than with nutritional weight deficit.[1-5]

In the same context, there is a need for these patients to use methods or therapies to reduce or control overweight and/or obesity. However, like any pharmacotherapeutic treatment and even when it is labeled as an herbal remedy, there are inherent risks to its use, which can lead to potentially fatal risks for all those who are users and consumers of these products. For this reason, it is important to set as an objective the identification of the pattern of consumption of these products, in order to make this phenomenon visible, and it is necessary to make the population aware of the rational use of these treatments.

Problem Situation

The current problem of obesity in Mexico is worrying from an epidemiological perspective, since according to the National Survey of Health and Nutrition (ENSANUT, 2017-2018) the prevalence of obesity rose from 72.2% to 75.2% from the period 2017 to 2018 ¨ [6-7] .And although it seems like a slight or even insignificant increase, to put it in some way, it is serious, since the trend of this situation is on the rise, which will lead in the future to endless scenarios that are not very encouraging from the angle of health policies in our country.

On the other hand, and contextualizing the use of therapies and self-medication in the Mexican population, it is undoubtedly an equal or greater situation. Here it would be appropriate to make a parenthesis to define the concept of self-medication and self-prescription, since they are used interchangeably, however, their meaning is not the same. Self-medication is defined as the use of drugs or products that do not require a medical prescription for their acquisition by patients, that is, they would not require medical intervention for their use, on the contrary, self-prescription does require it.[8-12] Based

on this, we can say that although some weight-reducing products are not labeled as medicines in our country and could be considered as not presenting harm or risk to consumers, the reality is that this is not the case, since there are multiple investigations where it is observed that pharmacotherapeutic therapies present side effects, with pathophysiological and potentially fatal homeostatic imbalances (Topaloglu and Sahin, 2021) [13-16] .Now, anchored to the Mexican idiosyncrasy, it places us in the field of irrational use of medications, which is estimated at more than 50% in all patients taking any treatment worldwide.[17]

Background
The definition of obesity and overweight establishes that to categorize a person with this condition we must measure their body mass index (BMI) being considered as overweight any person who has a BMI greater than 25 and a patient who presents a BMI above 30.[1]

Speaking of the state of Nayarit, we can say that it occupies the fourth position in terms of obesity and overweight, covering all age ranges according to the Nayarit Health Services [18-20] , it is important to emphasize that 62.6% of these are in the age group over 20 years of age, of which 35.6% are overweight and 37% obese (ENSANUT, 2017-2018).

In 2019, 11,303 new cases of obesity were identified in the entity, which reflects 800 people per 100,000. In other words, we are talking about a statistically overwhelming problem, which must be limited.

In another sense and continuing with the line of research, we can say that this entire population is likely to consume products and/or medications to lose weight, however, there is an underreporting of this condition. If we try to limit the problematic framework to the phenomenon of self-medication, we can mention that research such as that of Medina et al (2018) where they identified a prevalence of self-medication of 87.61% in their universe of study. Which is a riskily disturbing number. Now, adding to this topic, we can mention the risk of presenting an adverse reaction (RAM'S) due to the consumption of these substances, since it is very important to emphasize that, although some of these products are considered herbal remedies of origin natural, contain pharmacologically active substances, with the same pharmacodynamic viability as any other drug of synthetic origin, the focus is put into perspective when we mention that a report made in the American union by the United States Food and Drug Administration (FDA) detected more than 7,000 deaths related to adverse reactions, estimating an approximate 6.7% of the total annual hospitalizations for this condition, raising the figure to 2,216,000 affected people, however, this number only reflects serious damage to health which ends in a health center.[7] In this sense, it is estimated that about 350,000 ADRs are passed unnoticed since they are reactions categorized as minor and do not require professional medical attention in the United States, for which they went unnoticed by the usual pharmacoepidemiological radar.

All this information is combined to be able to give a risk perspective, because on the one hand we observe an epidemiological increase in this population and on the other hand, we contrast research that makes us infer a consumption of weight loss products, which can lead to a use irrational, combined with subsequent adverse reactions.

MATERIALS AND METHODS
Objetive
The main objective of the research was to identify the pattern of consumption of products to reduce weight in the adult population in Tepic Nayarit. In the same way and derived from this guiding axis, specific objectives were derived, describing in a timely manner the therapeutic panorama, such as: Identifying the frequency in the use of products to reduce weight, self-medication of the therapeutics used and the perception of the effects to the health of the population studied.

Design of the investigation
The research carried out is a study of drug use subcategorized in a consumption study, which are descriptive observational studies, with a transverse temporal cut. The studied population was circumscribed to participate in the research under some methodological criteria.

Study variables included age, sex, type of product used, prescription indication.

Participants
The population under study included a total of 384 respondents, according to the calculation of the sample size. Without distinction of age or sex, only with the exception of the methodological criteria for exclusion or inclusion within the investigation and which are presented below.

Inclusion criterio
People within the stipulated geographical area.
Being over 18 years.
User of weight loss products.

Exclusion criteria
Present or suffer from comorbidities.
Consume medications or drugs at the time of applying to the survey.

The sampling was non-probabilistic, consecutive in nature to complete the sample size. The calculation of the sample size was made for a finite population, with a confidence interval of 95%, with a margin of error of 5%, based on the universe of study made up of the population of the municipality of Tepic according to the

data of the National Institute of Statistics and Geography (INEGI, 2020) and which amounts to 425,924 habitants.

Technique and instruments

The data collection was carried out in the period between the months of April to July of the year 2021, through a structured online survey, which was previously calibrated through a pilot test of 50 participants, and later endorsed by experts. The applied survey included multiple choice items focused on the consumption of weight loss products. As well as demographic variables, such as age, sex, locality

Process

The investigation was carried out within the framework of the current pandemic, for this reason the data collection approach was modified from a face-to-face scheme, from person to person to an online one, the league was distributed among the population of the municipality to complete the required amount of sample. On the other hand, the information collected did not include any personal data, to keep the confidentiality of the research participants. People's participation was voluntary. Once the information was obtained, the processing of the statistical data was carried out by the IMB SPSS Statistics version 25 program (year, 2017). The statistical analysis included, as an initial stage, the operationalization of qualitative variables, later a descriptive breakdown of them was carried out.

RESULTS AND DISCUSSION

The total number of respondents was 384, of which 72% (276) of the participants were women and 28% (108) were men. The mean age was 35 years. In relation to the pattern of consumption of products to lose weight, 31% (119) of the participants mentioned having consumed these products once a year, 49% (169) twice a year and 25% (96) between 3 to 5 times in a year. These data are consistent with research carried out in other parts of the country, in which up to 38% consumption of this type of product was observed in studied populations. [21-22] Providing a concordance with the results obtained.

Table 1: Frequency of consumption per year of weight loss products.

Consumption per year		
Frequency	Persons	Percentaje
1 time a year	119	31%
2 times per year	169	49%
3 to 5 times a year	96	25%

Source: Own elaboration.
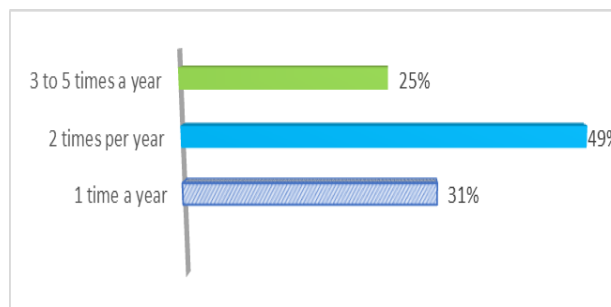
**Figure 1: Frequency of consumption per year of weight loss products.**

Source: Own elaboration based on table 1.

Within the type of products that they had consumed, it was obtained that 57% (219) mentioned that they had consumed herbal products, while 43% (165) consumed medications.

Table 2: Products consumed by participants.

Type of product consumed		
	Persons	Percentaje
Herbalist	219	57%
Medicine	165	43%

Source: Own elaboration.
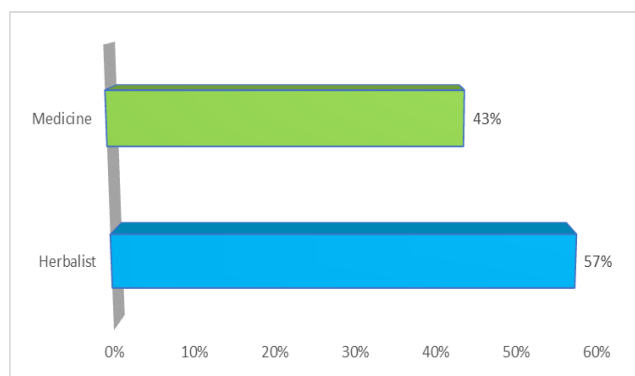
**Figure 2: Products consumed by participants.**
Source: Own elaboration based on table 2.

In relation to the prescription of the therapy, it was found that 68% (261) had started the treatment through self-medication and/or the recommendation of an acquaintance. Only 20% (77) had taken the treatment on medical advice and only 12% (46) had been prescribed by a qualified nutritionist. Regarding this data, we can find similarities with the literature, in which 69.67% of self-medication is identified [23]. Figure that agrees with our research.

Table 3: Therapeutic prescription.

Therapeutic prescription		
	Persons	Percentaje
Self medication	261	68%
Medical indication	77	20%
Nutritionist	46	12%

Source: Own elaboration.
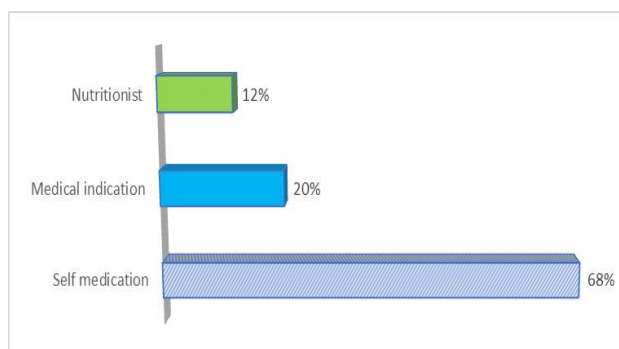
Figure 3: Therapeutic prescription.
Source: Own elaboration based on table 3.

Based on the perception of damage to their health due to the intake of said pharmacotherapeutic, it was found that 75% (288) did not perceive any damage, while the remaining 25% (96) did.

Table 4: Perception of damage to health due to the consumption of the product.

Perceived harm to health		
	Persons	**Percentaje**
No harm	288	75%
Health damage	96	25%

Source: Own elaboration.
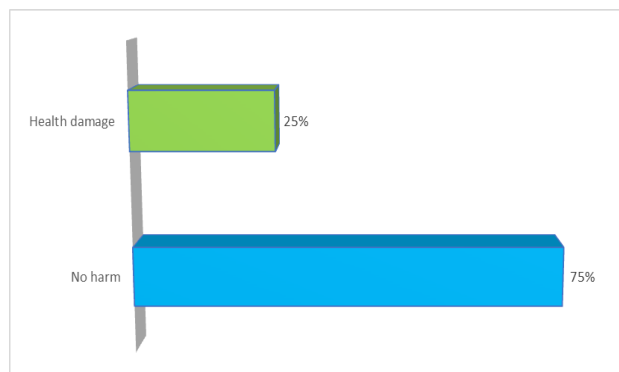
**Figure 4: Perception of damage to health due to the consumption of the product**
Source: Own elaboration based on table 4.

On the other hand, among the people who responded positively to the perception of damage to their health, 46% (44) identified liver damage, 29% (28) responded that they had presented nausea and vomiting, 15% (14) headache and 10 % (10) heart problems. These observed parameters can be spliced with research carried out that intends to explain the health problems that occur to all those users of said therapeutics, such as liver damage, as mentioned [24] . Which found 85% liver damage in the studied population consuming products to lose weight.

Table 5: Type of damage to health perceived by patients.

Perception of damage to health		
	Persons	**Percentaje**
Hepatic injury	44	46%
Nausea and vomiting	28	29%
Headache	14	15%
Heart problems	10	10%

Source: Own elaboration.
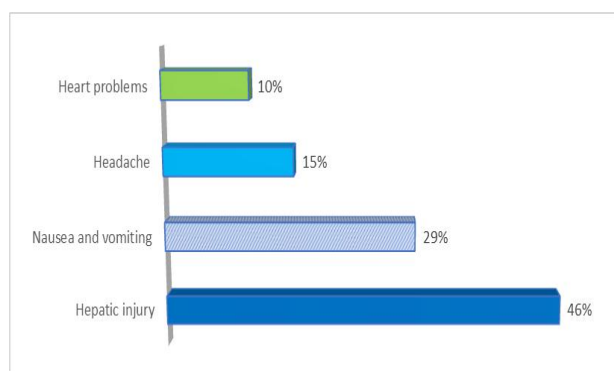
Figure 5: Type of damage to health perceived by patients.
Source: Own elaboration based on table 5.

CONCLUSIONS

The pattern of consumption of products to lose weight in the population studied is consistent with international data. However, it is very important to consider the irrational use of the same considered within the scope of self-medication and self-prescription since many of these products, even when they are offered and marketed over the counter, are not exempt from causing adverse reactions and side effects. deleterious side effects for people. It is important to reinforce the dissemination and awareness measures in this type of therapy, in order to avoid a catastrophic health problem in the future, in the same way it is necessary to carry out direct causal association studies to statistically identify the situation and make this phenomenon visible. The limitations of this study are related to the observational methodology used, with the extrapolations of the results being poorly predictive.

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