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Presentation of Content

As first article we present, *Comparative study on the burden of caregivers of patients with chronic renal failure on continuous ambulatory peritoneal dialysis (CAPD) and automated peritoneal dialysis (APD)*, by SARABIA-ALCOCER, Betty, AKÉ-CANCHÉ, Baldemar, LÓPEZ-GUTIÉRREZ, Tomás Joel and GUTIÉRREZ-ALCÁNTARA, Eduardo Jahir, with affiliation at the Universidad Autónoma de Campeche; as second article we present, *Risk factors associated with arterial hypertension in university students in southern Sonora*, by FAVELA-RAMÍREZ, Carlos Artemio, BOJÓRQUEZ-DÍAZ, Cecilia Ivonne, CASTRO-ROBLES, Alejandra Isabel and CHAN-BAROCIO, Nadia Lourdes, with adscription in the Instituto Tecnológico de Sonora, as third article we present, *Parental practices and addictions in the adolescent population*, by PACHECO-AMIGO, Beatriz Mabel, LOZANO-GUTIÉRREZ, Jorge Luis, MIRANDA-MEDINA, Carlos Federico and SOLIS-RECÉNDEZ, Emma Perla, with secondment at the Universidad Autónoma de Zacatecas and Universidad de Nuevo León, as last article we present, *Sensory changes in the oral cavity of the older adult*, by ROESCH-RAMOS, Laura, LEDESMA-VELÁZQUEZ, Ma. del Pilar, MORA-SÁNCHEZ, Aura Leonora and MORENO-MARÍN, Flora.

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Comparative study on the burden of caregivers of patients with chronic renal failure on continuous ambulatory peritoneal dialysis (CAPD) and automated peritoneal dialysis (APD)

Estudio comparativo en la sobrecarga de los cuidadores de los pacientes con insuficiencia renal crónica en diálisis peritoneal continua ambulatoria (DPCA) y diálisis peritoneal automatizada (DPA)

SARABIA-ALCOCER, Betty†'', AKÉ-CANCHÉ, Baldemar*, LÓPEZ-GUTIÉRREZ, Tomás Joel and GUTIÉRREZ-ALCÁNTARA, Eduardo Jahir'

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Abstract

Objective: To determine the differences in caregiver burden in patients with chronic renal failure undergoing renal replacement therapy in CAPD and APD. Material and methods: It is an analytical, non-experimental, comparative, cross-sectional, prospective study; with random selection and systematically assigned controls. People who perform the role of caregivers in patients with chronic renal failure on peritoneal dialysis, with renal replacement therapy in the modalities of CAPD and APD integrated into the peritoneal dialysis program in Campeche from January to July 2022, with a total of 60 primary caregivers. The Zarit test questionnaire and the caregiver effort index questionnaire were applied. Contribution: The following overload results were found for the CAPD caregiver of 12.9% and for APD 13.8%, in mild overload for CAPD 22.6% and for APD 10.3% and without overload CAPD 75.9% and APD 65.4%. The predominant gender of the caregiver was female for both modalities of peritoneal dialysis that correspond as follows CAPD 77.4% are women for APD women 75%. The average age found for CAPD was 46.87 and for DPA 45.55, with an average for CAPD and DPA respectively of 31 and 29 years.

Chronic renal failure, Continuous ambulatory peritoneal dialysis, Automated peritoneal dialysis

Resumen

Objetivo: Determinar las diferencias en la sobrecarga del cuidador en pacientes con insuficiencia renal crónica en tratamiento sustitutivo renal en DPCA y DPA. Material y métodos: Es un estudio analítico, no experimental, comparativo, transversal, prospectivo; con selección aleatoria y con controles asignados de forma sistemática. Se incluyó a personas que realizaran el rol de cuidador en pacientes con insuficiencia renal crónica en diálisis peritoneal, que se encontraron en tratamiento sustitutivo renal en las modalidades de DPCA y DPA integrados al programa de diálisis peritoneal en Campeche comprendido en el período de enero a julio de 2022, con un total de 60 cuidadores primarios. Se aplicó el cuestionario de test de Zarit y el cuestionario de índice de esfuerzo del cuidador. Contribución: Los siguientes resultados de sobrecarga se encontraron para el cuidador de DPCA de 12.9% y para DPA 13.8%, en sobrecarga leve para DPCA 22.6% y para DPA 10.3% y sin sobrecarga DPCA 75.9% y DPA 65.4%. El género predominante del cuidador fue femenino para ambas modalidades de diálisis peritoneal que corresponden de la siguiente manera DPCA 77.4% son mujeres para DPA mujeres 75%. La edad media encontrada para DPCA de 46.87 y para DPA 45.55, con un promedio para DPCA y DPA respectivamente de 31 y 29 años.

Insuficiencia renal crónica, Diálisis peritoneal continua ambulatoria, Diálisis peritoneal automatizada

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Introduction

Chronic kidney disease (CKD) is defined as a decline in kidney function, expressed by an estimated glomerular filtration rate (GFR) or creatinine clearance < 60 ml/min/1.73m², or as the presence of persistent kidney damage for at least 3 months. Caregiver burden is defined as the caregiver's subjective experience of care demands. Objective burden is related to the dedication to the caregiving role and is primarily related to patient variables and the characteristics that determine the demand for care. In turn, subjective burden has been defined as the attitudes and emotional reactions to the caregiving experience and is related to the way in which the situation is perceived, both in terms of difficulties and rewards.

CKD is the result of various chronic degenerative diseases, including diabetes mellitus and hypertension, a phenomenon that occurs in a similar way throughout the world and unfortunately leads to a fatal outcome if untreated.

The causes of CKD in Mexico are as follows: diabetes mellitus (43%), hypertension (17%), chronic glomerulopathies (14.4%), undetermined (9.2%), polycystic kidneys (4.7%), congenital malformations of the urinary tract (4%), lupus nephropathy (3.3%) and others (4.4%).

Patients on peritoneal dialysis rely on informal caregivers to carry out daily dialysis exchanges, to solve problems. It is easy to imagine that, in many cases, family members, friends or neighbours become the main caregivers, taking on many tasks related to peritoneal dialysis.

With the progressive ageing of the population and the increased survival of people with chronic diseases and physical or mental disabilities, the number of people caring for sick family members or people who require care due to their condition has been increasing (National Population Council, 2006). This is why interest in the provision of informal care has grown over the last few decades.

A dependent person is a person who, for reasons of age, illness or disability, and linked to the loss of physical, sensory, mental or intellectual autonomy, requires the permanent care of another person or help to carry out the basic activities of daily living. For this reason, the aim of this study is to determine the differences in caregiver overload in patients with chronic renal failure undergoing renal replacement therapy in CAPD and APD.

Methodology to be developed

The design is observational, comparative, cross-sectional, prospective and analytical and was carried out in people who performed the role of caregivers of patients with chronic renal failure on peritoneal dialysis in CAPD (30 patients) and APD (30 patients) integrated into a peritoneal dialysis programme in Campeche in the period from January to July 2022.

Zarit scale, caregiver overload

The instrument used to assess the following aspects: physical and psychological health, economic and labour area, social relationships and relationship with the elderly person and care recipient was that of Zarit et al (1980) consisting of a 29-item questionnaire.

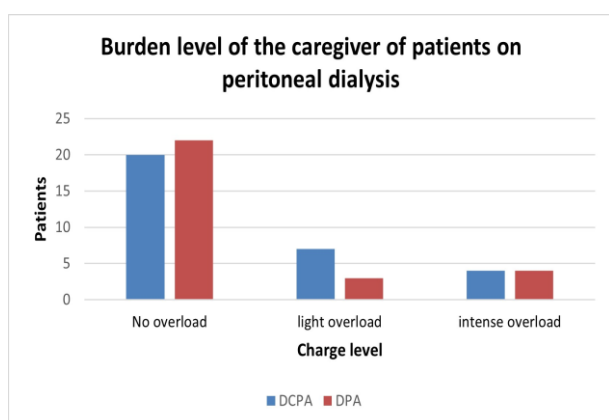
The instrument was administered to 29 primary caregivers of adults with senile dementia. The responses to the items were summed to obtain a single index of burden. Several papers that have used this instrument report good internal consistency, ranging from .83 to .91 Cronbach's alpha.

Caregiver strain index

The caregiver strain index. It is a semi-structured interview consisting of 13 items with dichotomous True - False response. A total score of 7 or more suggests a high level of effort.

Results

A study was carried out on 60 caregivers, 31 corresponded to caregivers of patients in DPCA and 29 to caregivers of patients in DPA, according to the application of the Zarit questionnaire; the highest percentage without overload was with DPA, however when comparing mild and intense overload it was observed that the highest level of mild overload was presented by 22.6 % of the caregivers with DPCA in contrast to 12.9 % of the caregivers who presented an intense overload. With the DPA, 10.3 % of caregivers had a mild caregiver burden in contrast to 13.8 % of caregivers with an intense caregiver burden (Graphic 1).



Graphic 1 Weight classification based on BMI

With respect to gender, women predominated in both modalities (77.4 % of patients in CAPD and 75.9 % of patients in APD).

With respect to the difference between the hours invested in patient care and the presence of overload, it is observed that there is no difference in the groups studied (CAPD and APD), which is demonstrated by the presence of statistical significance (.000) in both groups.

DIALYSIS MODALITY	t	gl	Sig. bilateral	Test value = 0			
				Difference in averages	95% Confidence interval for the difference		
DPCA	Hours spent on patient care	12,710	29	.000	13,267	Inferior: 11,113	Superior: 15,40
	Zarit questionnaire	11,405	30	.000	1,484	1,22	1,75
DPA	Hours spent on patient care	7,816	28	.000	9,034	6,67	11,40
	Zarit questionnaire	10,207	28	.000	1,379	1,1	1,66

Table 1 Statistical analysis of the difference between hours spent on patient care and the presence of overload in CAPD and APD

Conclusions

This study concludes that caregiver overload in peritoneal dialysis patients is greater in CAPD patients 35.5% compared to APD patients 24.1%, in direct relation to the number of hours invested in both modalities, showing that it is the female gender who acts more frequently as caregiver, predominantly in the third decade of life and in kinship, with 48% of wives being the ones who carry out the care of these patients.

Our work is still pending a more in-depth study of the possible existence of associated variables which, based on the contributions of others and of this study, may provide greater certainty and clarity to the subject, above all taking into account the dynamic roles of the family in Mexico, specifically the role of the female sex in the care of the sick family member.

The chronic renal patient included in a dialysis programme is an extremely useful reference to assess the importance and transcendence of both the informal care system and the formal health care system represented by health institutions. For both reasons, i.e. the need for formal and informal care of the chronic kidney patient, we consider the need to increase the relationship and contact between both health care systems.

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Risk factors associated with arterial hypertension in university students in southern Sonora

Factores de riesgo asociados con hipertensión arterial en estudiantes universitarios del sur de Sonora

FAVELA-RAMÍREZ, Carlos Artemio[†], BOJÓRQUEZ-DÍAZ, Cecilia Ivonne*, CASTRO-ROBLES, Alejandra Isabel and CHAN-BAROCIO, Nadia Lourdes

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Abstract

The aim of this study was to identify the risk factors associated with hypertension (HT) using a logistic regression model in university students from southern Sonora. A total of 296 students took part (60.1 % female sex, 18.7 ± 0.8 years, 69.5 ± 12.5 kg) who had their blood pressure evaluated for preclinical (≥ 120 - 140 / <90) and clinical (≥ 140 / ≥ 90) range classification and were administered the risk factor questionnaire participated. The association between explanatory factors and HT was performed by stepwise binary logistic regression. The model developed indicated that the probability of preclinical and clinical HT was 4.65 times in overweight and obese students, 7.94 times those who reported one to two histories of chronic noncommunicable diseases (NCD), 8.29 times those who indicated three to four family histories of NCD, 2.66 times those who indicated intermittent sleep, and as a protective factor a lower probability of 2.89 times those who drink coffee regularly at breakfast. It is concluded that overweight and obesity in combination with family history, poor sleep quality, and non-consumption of coffee are risk factors for HT in university students.

Resumen

El objetivo del presente estudio fue identificar los factores de riesgo asociados a la hipertensión arterial (HTA) mediante un modelo de regresión logística en estudiantes universitarios del sur de Sonora. Participaron 296 estudiantes (60.1 % sexo femenino, 18.7 ± 0.8 años, 69.5 ± 12.5 kg) a quienes se les evaluó la presión arterial para la clasificación de rangos preclínicos (≥ 120 - 140 / <90) y clínicos (≥ 140 / ≥ 90) y se les aplicó el cuestionario de factores de riesgo. La asociación entre los factores explicativos e HTA se llevó a cabo mediante regresión logística binaria por pasos. El modelo desarrollado indicó que la probabilidad de HTA preclínica y clínica fue de 4.65 en estudiantes con sobrepeso y obesidad, 7.94 veces los que reportaron uno a dos antecedentes de enfermedades crónicas no transmisibles (ECNT), 8.29 veces quienes señalaron tres a cuatro antecedentes familiares de ECNT, 2.66 veces quienes indicaron un sueño intermitente y como factor protector una probabilidad menor de 2.89 veces quienes desayunan café habitualmente. Se concluye que el sobrepeso y obesidad en combinación con antecedentes familiares, mala calidad de sueño y el no consumo de café son factores de riesgo para HTA en estudiantes universitarios.

Hypertension, risk factors, Regression

Hipertensión arterial, factores de riesgo, regresión

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Introduction

This study addresses the problem of arterial hypertension (AHT) and its relationship with various risk factors such as overweight and obesity. In this sense, according to the World Health Organization (WHO) in its report on health statistics for the year 2023, cardiovascular diseases (CD) are positioned as the leading cause of death worldwide registering in 2019 a total of 17.9 million deaths attributable to this problem (WHO, 2023). In Mexico, according to the National Institute of Statistics and Geography (INEGI), from January to June 2022, CD was the leading cause of death in both men and women (INEGI, 2023). Accordingly, it is important to note that, as the age group increases, deaths due to CD also increase, since in the 15 to 24 age group they ranked fifth, moving to third place in the 25 to 34 age group and to second place in the 35 to 44 age group (INEGI, 2023).

As a result, the main risk factors attributable to this condition are alcohol consumption and tobacco use, hypertension, obesity, diabetes, among others (Tsao et al., 2022). Globally, obesity has become one of the greatest public health challenges worldwide, increasing dramatically in almost all countries during the last decades (Strüven, Holzapfel, Stremmel, & Brunner, 2021). In Mexico, according to the 2018 National Health and Nutrition Survey (ENSANUT), both overweight and obesity show a rising trend since in the 12 to 19 years age group there was a 3.5% increase in the prevalence of overweight and obesity compared to 2012 and in the population aged 20 years and older these same indicators represented an increase of 3.9% (Martínez et al., 2021).

In the state of Sonora, Mexico, according to the state survey on prevalence of overweight and obesity conducted by the National Institute of Public Health (INSP) that was carried out in 2012 the results indicated a prevalence of overweight and obesity in adults of 73.7% within which were classified with overweight in this age group a total of 37.6% and a prevalence of obesity of 36.1% (INSP, 2013). This same survey revealed that, as for the group of children and adolescents, the prevalence of overweight and obesity was 14.1% and 35.2% respectively.

Regarding adult central obesity, Sonora ranked fifth nationally in 2013 with a prevalence of 78.3% (Barquera et al., 2013). In this same vein, with respect to obesity in children and young people aged 5 to 19 years in 2020, the State Development Plan of the State of Sonora 2021-2027 reported a prevalence of 46.30% of overweight and obesity with the goal of reducing it to 43.30% in 2027 (Gobierno del Estado de Sonora, 2021).

As a result of the above, a critical period in life for establishing good habits and reducing the risk factors for CHD occurs during adolescence and youth, so it is necessary to have timely diagnoses to detect cardiovascular risk factors that allow young people to make better decisions in their lives. Based on this and the results of previous studies carried out with university students in the southern region of Sonora, where the presence of high rates of obesity, diabetes, history and poor lifestyle habits is observed, an analysis of which factors are more likely to be related to HT in this group is proposed.

The added value of this study lies in the explanation of the phenomenon by means of multivariate statistical models and techniques to identify which factors are most relevant and thus be able to intervene to improve them.

Objective

To identify the risk factors associated with arterial hypertension (AHT) by means of a logistic regression model in university students from southern Sonora.

The specific objectives were: (1) to identify the prevalence of hypertension in preclinical and clinical ranges by taking blood pressure; (2) to determine the level of overweight and obesity using the Body Mass Index (BMI); (3) to identify the risk factors associated with family history and lifestyles using the risk factor questionnaire.

Method

Design. The study design was observational cross-sectional, retrospective with measurements in one semester at the undergraduate level.

Participants. A convenience sample of 296 university students (60.1% female, 18.7 ± 0.8 years, 69.5 ± 12.5 kg) was used for the present study. These students belonged to the first semester of university and decided to participate voluntarily without any inclusion or exclusion criteria.

Instruments

Risk factor questionnaire (RF). The instrument is made up of 135 items. It consists of dichotomous questions that inquire about hereditary and family history of diabetes, cancer, obesity and CD. It also collects information about eating habits, physical activity, sleep habits, alcohol consumption and health. Cronbach's alpha was 0.78 in an application with 181 subjects (Pancich et al., 2011).

For the measurement of blood pressure, an Omron wrist monitor model hem6127 was used. Body weight was also assessed with a Tanita scale model Um-081 and height with a Seca portable stadiometer model 213.

Procedure

During the application of physical tests to new students, the objective of the study and the details of the assessments were explained to them to make it clear that participation was voluntary and confidential. Subsequently, the students who agreed to participate were given the informed consent letter to fill out. Subsequently, blood pressure, weight and height measurements were taken by qualified nursing personnel. At the end of these measurements, the physical form risk factor questionnaire was administered, which they completed in pencil. This research adhered to the ethical principles of the Declaration of Helsinki and by the Institutional Research Ethics Committee of the Instituto Tecnológico de Sonora, opinion No. 215.

Data analysis

In this study, a multivariate binary logistic regression model was used to estimate the effect of the independent variables on the dichotomous results of normal and elevated arterial hypertension in university students.

The dependent variable in this study was blood pressure (BP) level, which was transformed into a variable of a binary nature with two levels of outcomes: a first group of students with normal BP ($<120/90$) and a second group with students with preclinical ($\geq 120-140/<90$) and/or clinical ($\geq 140/\geq 90$) elevated BP, and the descriptive values are shown in Table 1. Groups were also categorized into normal weight according to BMI (<25) and overweight or obese (≥ 25).

	Normal BP (n =243)	Elevated BP (n = 53, 17.9%)	P-value*
Age (years)	18.0 (18.0 – 20.0)	19 (18.0 – 19.0)	0.938
Weight (kg)	67.3 (58.0 – 75.5)	79.0 (69.5 – 87.0)	<0.001
Size (cm)	166.0 (161.0 – 172.3)	172.0 (163.0 – 177.0)	<0.01
BMI (kg/m ²)	23.9 (21.4 – 26.8)	26.7 (24.4 – 28.9)	<0.001
PS (mmHg)	110.0 (100.0 – 120.0)	130.0 (120.0 – 130.0)	<0.001
PD (mmHg)	70.0 (60.0 – 80.0)	90.0 (80.0 – 90.0)	<0.001
BP = blood pressure, SBP = systolic blood pressure, DBP = diastolic blood pressure, BMI = body mass index. * P value when comparing medians with Mann-Whitney U test.			

Table 1 Descriptive statistics of quantitative variables in participants with normal blood pressure and elevated blood pressure

Source: own elaboration

Therefore, a binary logistic regression analysis was performed to model the association between blood pressure level and potential factors by estimating probabilities using a logistic function. In the first phase, univariate analysis was performed to estimate the crude prevalence odds ratio (OR) with their 95% confidence intervals and then each variable identified as a possible factor associated with elevated hypertension was studied, selecting for multiple analysis those variables with a significance level of less than 0.25 ($p < 0.25$). In this case, a Pearson's Chi-square test was performed to examine the relationship between the level of arterial hypertension and each of the factors presented in Table 2.

	Normal BP (%)	Elevated BP (%)	IC 95%	p-value*
Overweight and obesity (No, yes)	56.8 43.2	24.5 75.5	1.00 4.04 (2.05 – 7.94)	<0.0001
Family history: hypertension, obesity, diabetes, cancer (No history, One to two history, Three to four history)	33.7 49.8 16.5	7.5 67.9 24.5	1.00 1.33 (1.18 – 1.50) 1.36 (1.14 – 1.62)	<0.001 <0.01
Do you practice physical activity (No, Yes)	14.4 85.6	17.0 83.0	1.00 1.21 (0.54 – 2.71)	0.633
Do you usually have coffee for breakfast (No, Yes)	65.4 34.6	81.1 18.9	1.00 2.27 (1.08 – 4.73)	0.026
Sleep (Continuous, intermittent)	87.0 13.0	80.4 19.6	1.00 1.63 (0.74 – 3.59)	0.217
Alcoholic beverages (No, Yes)	45.3 54.7	50.9 49.1	1.00 1.25 (0.69 – 2.27)	0.453
Smoke (No, Yes)	86.0 14.0	90.6 9.4	1.00 1.56 (0.58 – 4.20)	0.374

BP = blood pressure, OR = Odds Ratio, CI = confidence intervals.
* P value when comparing proportions by Pearson's Chi-square test.

Table 2 Univariate test results of possible categorical independent variables for the identification of elevated blood pressure

Source: Own elaboration

The behavior of the data was identified using the Kolmogorov-Smirnov normality test. The Mann-Whitney U test was used to identify the differences in the quantitative variables between the normal and elevated blood pressure groups. The model was constructed using the forward stepwise method, where at each step those variables whose B coefficient was not significantly different from zero were eliminated, using the Wald test as a selection criterion. The model verification was assessed using the Hosmer and Lemeshow goodness-of-fit test in which if $p > 0.05$ the model is adequate, meaning that there are no significant differences between the observed results and those predicted by the model (Rueda et al., 2018). Adjusted odds ratios (OR) with their 95% Confidence Intervals (95% CI) were identified. All analyses were performed with the statistical program for social sciences SPSS version 24 for Windows and the JASP program version 0.17.2.1 and a significance level of 0.05 was established.

Results

The prevalence of ETS in preclinical and clinical ranges was 17.9% of the total number of students, of which 16.9% were women and 19.5% men.

There were significant differences between the normal and elevated BP groups in the weight, height and BMI variables ($p < 0.01$), and only in the age variable there were no significant differences (Table 1). Forty-nine percent of the students were classified as overweight or obese.

The variables that were selected to enter in the ETS risk model were those that resulted with a p value < 0.25 (Table 2). 75.5 % of the overweight or obese students were classified as having elevated BP ($p < 0.0001$). 67.9 % of students with one to two family history with hypertension, obesity, diabetes or cancer were classified in the group with elevated BP ($p < 0.001$), while 24.5 % with family history with three to four of these conditions were classified in the same group ($p < 0.01$). 81.1 % of students who do not usually consume coffee at breakfast were classified with elevated BP ($p < 0.05$).

The four variables that remained in the model were overweight and obesity, family history, usually have coffee for breakfast and sleep is intermittent (Table 3). The Hosmer and Lemeshow goodness-of-fit test indicated that there were no significant differences $\chi^2 = 3.209$ and p value = 0.921.

Factor	Coef (B)	Odds Ratio (OR)	CI 95% for OR		p-value *
			Bottom	Top	
Constant	-4.05	0.01			<0.001
Overweight and obesity (ref: no)	1.21	4.65	2.25	9.62	<0.001
Background (ref: none)					<0.001
With one or two antecedents	2.07	7.94	2.58	24.47	<0.001
With three or four antecedents	2.11	8.29	2.27	30.25	<0.001
Usually have coffee for breakfast (ref: no)	-1.06	2.89	1.28	6.53	<0.001
Sleep is intermittent (ref: no)	0.98	2.66	1.06	6.70	<0.05

Model summary: $n=296$, $\chi^2 = 46.469$, $g1 = 2$, p-value < 0.001 , Log likelihood $-2 = 223.266$, Nagelkerke's $R^2 = 0.245$, Correctly classified = 82.4%.
Hosmer and Lemeshow test: $\chi^2 = 3.209$, $g1 = 8$, p value = 0.921.
CI = confidence interval, ref = reference.
* p-value when comparing the normal distribution of the factor with the Wald test.

Table 3 Results of the binary stepwise logistic regression model developed (Probability of high blood pressure). Source: own elaboration.

In summary, the model, is significant ($\chi^2 = 46.469$, $df = 2$, $p\text{-value} < 0.001$ with a Nagelkerke's $R^2 = 0.245$ which presents an overall accuracy percentage of 82.4 %, i.e. there is 17.6 % error, therefore, the model is acceptable. However, the sensitivity was low at 17.6 % (the model identified 9 of 51 participants at risk of HT) with a high specificity of 95.8 % (the model identified 229 of 239 with normal BP) (Table 3).

The developed model indicated that students with overweight or obesity ($BMI \geq 25$) (OR 4.65, 95% CI 2.58-24.47, $p < 0.001$), with one to two family history with chronic non-communicable diseases (NCDs) (OR 7.94, 95% CI 2.25-9.62, $p < 0.001$), with three to four family history with NCDs (OR 8.29, 95% CI 2.27-30.25, $p < 0.001$), who do not regularly drink coffee at breakfast (OR 2.89, 95% CI 1.28-6.53, $p < 0.01$) and who present with intermittent sleep (OR 2.66, 95% CI 1.06-6.70, $p < 0.05$) were more likely to present with ETS in preclinical and clinical ranges (Table 3).

Discussion

According to the results shown, 17.9% of the university students presented signs of HT in preclinical and clinical ranges, these data are slightly higher than those presented by Landazábal et al. (2019) where a combined prevalence of 13.8% was found in university students in Barranquilla, Colombia. Regarding the prevalence of overweight and obesity, also in this study a higher percentage of 49% was found in relation to the 36.38% reported by Gómez-Landeros et al. (2019) in a sample of 1168 university students from Mexico City. These higher values in the prevalence of the NCDs analyzed in the present study coincide with the high values of the state of Sonora reported in the National Health Survey 2018-19, where that state of the Mexican republic was positioned within the first five entities with higher percentages at the national level in hypertension (24.6% of the population aged 20 years and older) and with obesity (22.2% of the population aged 12 to 19 years) (Shamah-Levy et al., 2020).

Derived from these results, the causes can be attributed to a diet characterized by a high consumption of saturated fats and sugary drinks, as well as a low consumption of fruits and vegetables as pointed out in the study by Castillo et al. (2020) in a sample of first and fourth year university students from Navojoa. The relationship between obesity and HTN can be explained because the former is a complex clinical pathophysiology that due to its long-term action triggers a thickening in the endothelium of veins and arteries that elevates BP (Sánchez Delgado et al., 2020).

Regarding the risk factor of sleep, the results of the present study coincide with those of Bojórquez-Díaz et al. (2019) where they also reported few hours of sleep and which can translate into the occurrence of stress. It has been identified that poor sleep quality is associated with elevated levels of arterial stiffness in hypertensive patients (Hu et al., 2020). Similarly, sleep dysfunctions such as sleep disruption during the night affect sleep quality in college students and has to do with bad lifestyle habits such as going to bed late at night or using smartphones in bed before sleeping (Favela Ramirez et al., 2022).

On the other hand, it is relevant that in this study coffee consumption had a protective role against HTN. In this sense, a recent literature review highlights that the consumption of moderate amounts of coffee up to three cups a day does not present a risk of association with HT, on the contrary, there may be a beneficial effect against the development of this disease (Tomás Delgado, 2018). In the same vein, another study that aimed to prospectively assess the association of coffee consumption with the risk of HTN in a cohort of university graduates found that there was no significant association between regular consumption of coffee with and without caffeine and the risk of HTN, and in the subgroup of women, the consumption of coffee with caffeine was associated with a lower risk of HTN (Navarro-Echeverría, 2019). These same authors point out that coffee is an important source of antioxidant and anti-inflammatory substances that act with a reverse remodeling effect on the cardiovascular system.

In relation to the association of family history with the presence of NCDs found in this study, they can be related to the epigenetic theory in which the gene-environment influence is recognized with the appearance of complex diseases when genes interact with habits and lifestyles that cause changes at the cellular level in the long term and that can become hereditary risk factors (Sánchez Delgado et al., 2020).

On the other hand, it is important to include more specific sociodemographic and economic variables such as parents' level of studies, place of origin and economic income since this information is relevant in the development of diseases such as diabetes and obesity that are co-participants in the appearance of HT (Castro-Porras et al., 2023).

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Conclusions

In summary, the presence of overweight and obesity in combination with family history, poor sleep quality and non-consumption of coffee are risk factors for the presence of ETS in this sample of university students from southern Sonora, Mexico so it is necessary to reinforce the prevention of these issues through cross-cutting education programs during their academic career.

The possibilities for improvement of the study focus on complementing the measurements with fasting glucose, heart rate recording and body composition analysis.

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Parental practices and addictions in the adolescent population**Prácticas parentales y adicciones en población adolescente**

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Abstract

Objectives: Identify the protection and risk factors for substance use based on parenting practices. **Methodology:** The research carried out was descriptive in scope, from a mixed approach (qualitative and quantitative) using the observational, descriptive and cross-sectional method, in turn, the quantitative cut is integrated by applying standardized instruments such as the Parental Practice Scale for adolescents and Depression Scale of the Center for Epidemiological Studies CES-DR, for this, a sample of 57 adolescents aged 15 to 17 years was obtained. **Contribution:** It was found in the results that the nuclear family is a protection factor, however, in some cases it is the same that becomes a latent risk factor in adolescents, through the impositions generated by the parents, using a parentage style of authoritarianism, coupled with the little communication that exists between family members.

Resumen

Objetivo: Identificar los factores de protección y de riesgo de consumo de sustancias en función a la prácticas parentales en adolescentes. **Metodología:** La investigación realizada fue de alcance descriptivo, desde un enfoque mixto (cualitativo y cuantitativo) utilizando el método observacional, descriptivo y transversal, a su vez, se integra el corte cuantitativo por aplicar instrumentos estandarizados como lo fueron la Escala Práctica Parentales para adolescente y Escala de Depresión del Centro de Estudios Epidemiológicos CES-D-R, para ello, se obtuvo una muestra de 57 adolescentes con edades de 15 a 17 años. **Contribución:** Se pudo encontrar en los resultados que, la familia nuclear es un factor de protección sin embargo, en algunos casos es ésta misma la que se convierte en un factor de riesgo latente en los adolescentes, mediante las imposiciones generadas por los padres, utilizando un estilo de parentaje de autoritarismo, aunado a la poca comunicación que hay entre los miembros de la familia.

Family, Risk, Addictions**Familia, Riesgo, Adicciones**

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Introduction

Family, understood as the foundation that constitutes society and, in turn, the social essence of human beings, has had to adapt and shape itself into parenting structures to achieve the culmination of children's personality formation (Pacheco, 2013). As the primary system, the family relies on other systems for its proper functioning. When it experiences failures, the remaining systems surrounding it tend to become imbalanced, leading to the disruption of the current primary system. The family, educational institutions, friends, and work are interconnected systems that significantly influence the development of intellectual abilities and emotional attitudes, thereby contributing to the expansion of the family-social system. Additionally, the family has one of the major parental functions in the development of adolescents, incorporating protection, care, assertive communication, individualization, affection, school, and feedback. These factors are considered protective factors provided by the family for young individuals. However, excessive protection provided by the family can become a risk factor, leading to feelings of low self-esteem and, in some cases, drug consumption.

Regarding drug consumption, its approach implies a constant need within the social and family nucleus, given that there are disorders that arise from the use and abuse of drugs, potentially causing adolescents to develop affective disorders (major depressive episodes), psychotic disorders (presence of hallucinations, euphoric episodes, etc.), and anxiety disorders (Kalat, 2010).

On the other hand, the characteristics of adolescents involve specific traits of behavioral patterns, such as vulnerability, which necessitates the presence of risky behaviors. Therefore, the type of parenting is essential in contributing to their development and helping them confront risks, their own vulnerability, and preparing them to develop their potential, thereby obtaining benefits for their health (early pregnancies, drug consumption, sexually transmitted diseases, etc.) in social and familial relationships. Empowering protective factors such as family dynamics, assertive communication, and affection within the family is crucial (Santisteban, 2014).

Moreover, the National Drug Plan aimed at secondary school students between 14 and 18 years old has informed adolescents about current trends in alcohol and drug consumption as preventive and protective factors. It provides information about the most commonly consumed substances, such as alcohol and tobacco (legal drugs), as well as the rates of incidence among adolescents who have tried them or are regular consumers.

Prevention activities aim to raise awareness through various aspects to prevent risky behaviors, as outlined by the Spanish Observatory on Drugs (2018):

- a) Alcohol and tobacco consumption show the highest continuity or loyalty.
- b) Alcohol consumption is concentrated on weekends.
- c) The pattern of alcohol consumption is experimental or occasional, mainly linked to recreational contexts.
- d) Girls consume alcohol, tobacco, and tranquilizers more frequently but in smaller quantities, while boys consume illegal drugs to a greater extent.
- e) Ecstasy is the psycho-stimulant substance with the highest percentage of regular users (2.5%). On the other hand, "76% to 89% of students who had tried alcohol or tobacco continued to consume these substances in the last thirty days. Regarding alcohol, 43% of adolescents who had consumed alcohol in the last month did so exclusively during the weekend, and around 40% admitted to having been drunk at least once. Among drug users, it was found that continued use was relatively common, with 62% for cannabis and 44% for ecstasy" (Espada, 2003, p. 9).

Furthermore, the General Secretariat of the National Population Council (CONAPO, 2012) mentions that "the family is the primary context for the development of any human being, as it plays a fundamental role in the construction of identity, self-esteem, and essential social interaction patterns.

As the core of society, the family is a fundamental institution for education and the promotion of essential human values that are transmitted from generation to generation" (National Population Council, 2012, p. 1). These values help foster protective factors that minimize chains of problematic behaviors in substance consumption.

In this way, the World Health Organization (WHO) pays special attention to the comorbidity of pattern diseases that promote a pathognomonic clinical picture, defining it as "comorbidity or dual diagnosis as the coexistence in the same individual of a disorder induced by the use of a psychoactive substance and a psychiatric disorder" (WHO, 2008, p. 1). According to the United Nations Office on Drugs and Crime (UNODC), a person with a dual diagnosis is when the problem is related to alcohol or drug use in addition to another type of diagnosis, typically of a psychiatric nature. Comorbidity refers to the temporal coexistence of two or more psychiatric or personality disorders, one of which is derived from problematic substance use.

Adding to the above, Andolfi (1993) and UNODC (2013) establish that family functions should be oriented towards satisfying important needs of each of its members. Individuals are not evaluated or analyzed in isolation but in a constant interdependence. "Parenting is seen as a dynamic and complex process that includes, on one hand, the parents' obligation to meet the child's basic needs, both physical and emotional, and on the other hand, to provide learning patterns and certain stimulating conditions that promote healthy biopsychosocial development" (UNODC, 2013, p. 32). For these reasons, the investigation of the relationship between different types of parenting and substance use becomes relevant

The family and the adolescent as a protective factor

The family is the system that is closest to the individual, and it "involves a level of awareness on the part of the adolescent, providing unconditional support, promoting unity, and seeking meaning in difficult situations.

The quality of the adolescent's relationships within the family shapes their internal cognitive models and their relationships with others" (Sánchez et al., 2004, p. 12). Furthermore, Gómez, cited in Sánchez (2004), referred to environmental resources as one of the protective factors. The ability to adapt to different contexts, strive for adaptation, equal peer relationships, and identification with peers all play a role. Adolescents belonging to families with better family communication, positive emotional bonding (affection), and higher family satisfaction are more likely to establish meaningful relationships. Consequently, Gómez (2008) refers to various studies that have found a link between communication difficulties with parents, communication difficulties with friends, physical and psychological discomfort, and increased tobacco and alcohol consumption from early ages. Thus, certain family environments, such as lack of communication or distant relationships, contribute to risky behaviors in adolescents.

The research conducted had a descriptive scope, employing a mixed approach (qualitative and quantitative), integrating qualitative study through observational and cross-sectional methods, while the quantitative aspect involved the application of standardized instruments to collect qualitative data based on specific scales.

The sample consisted of 57 high school students from the state of Zacatecas, selected through non-probabilistic intentional sampling, following informed consent procedures. Of the participants, 33 were male and 24 were female. The instruments used in the study were the Parental Practice Scale for Adolescents (PP-A), which assesses the perception of adolescents aged 12 to 18 regarding their parents' behaviors when it comes to their upbringing. The scale is self-administered and consists of 80 items, with 40 items focused on the father and 40 on the mother. Participants respond using a Likert scale with four options (never, seldom, often, always) (Andrade Palo, 2008, p. 562). The second instrument used was the CES-D Depression Scale, a self-administered scale consisting of 35 items, which assesses depressive symptoms quantitatively (González-Forteza & Tapia, 2012), using a Likert scale for responses.

Methodology

The research conducted had a descriptive scope, employing a mixed approach (qualitative and quantitative), integrating qualitative study through observational and cross-sectional methods. On the other hand, the quantitative aspect was established through the application of standardized instruments that serve to identify qualitative data based on specific scales.

The sample consisted of 57 high school students from the state of Zacatecas. Prior to participation, informed consent was obtained. The participants were selected using a non-probabilistic intentional sampling method, of which 33 were male and 24 were female.

The instruments used in the study were the Parental Practice Scale for Adolescents (PP-A), which evaluates the perception that adolescents aged 12 to 18 have regarding their parents' behaviors towards them during their upbringing. It is a self-administered instrument consisting of 80 items, with 40 items related to the father and 40 items related to the mother. The responses are provided using a Likert scale with four options (never, seldom, often, always), as described by Andrade Palo (2008, p. 562). In addition, the second self-administered instrument used was the CES-D Depression Scale, which assesses depressive symptoms (González-Forteza & Tapia, 2012). It consists of 35 items that are quantitatively evaluated using a Likert scale.

Results

The Parental Practices Scale (PP-A) was used to measure the perception that children have of their parents' behaviors across nine dimensions. These dimensions are divided into four dimensions directed towards the father and five dimensions directed towards the mother. Adolescents who did not reach a minimum alpha score for each dimension were not included in the analysis, as the reliability of the scales is affected by their invalidity. The dimensions of the scale are as follows:

Evaluation Area	Score
Paternal communication and behavioral control.	.97
Paternal autonomy	.94
Paternal imposition	.90
Paternal psychological control	.90
Maternal communication	.92
Maternal autonomy	.86
Maternal imposition	.81
Maternal psychological control	.80
Maternal behavioral control	.84

Table 1 Integration of Parental Practices Scale Data.

It is important to note that the missing data were due to some parents not living with the adolescent, and the data was not tabulated for that area.

Therefore, the following conclusions can be drawn:

The induction of guilt, devaluation comments, and criticism towards adolescents show a high level in 20% of cases, with the mean being 10%. This indicates that over 60% of parents engage in perceived psychological violence towards their children.

The CES-D-R scale applied to the high school population yielded data that corresponds to diagnostic criteria for major depressive episodes. Regarding criterion 3, two variables were identified:

- a.- Had little appetite and unintentionally lost weight. No adolescent met the criterion as 50% of the population reported not having lost weight in the past week, only 33% lost weight for 1-2 days during the week, and 17% lost weight for 3-4 days. Therefore, the criterion is not met as 67% did not lose weight in the past week, while 33% reported losing weight for 1-4 days in the previous week.
- b.- The variables are associated.

Code	Variable number
Couldn't shake off sadness	2
Felt depressed	4
Felt sad	6
Nothing made me happy	8
Felt like a bad person	9
Disliked myself	17
Got upset over things that usually don't bother me	21
Felt lonely	29
People were unfriendly	30
Had crying spells	32
Felt disliked by people	35

Table 2 Variable associations from CES-D-R data

In this way, when percentageizing the criteria of the episode, where variables (8-67%, 29-58%, 30-67%, 32-67%) have a high rate of absence during the week, variables (9, 2, and 35) show a 33% frequency of 0 days in the previous week, as well as 25% in variables (4 and 21). Variables (6) show a 42% frequency, and variable (17) shows a 50% frequency. Regarding the frequency of 1-2 days, 17% had the variables (6, 30, 35), while it increased to 33% in variables (2, 17, 21). 25% of adolescents reported feeling like bad persons during that frequency, and only 8% felt lonely, nothing made them feel happy, and they had crying spells, respectively. 50% experienced feelings of depression (variable 4) during that frequency. The average for the mentioned variables at the beginning is 14% for the frequency of 3-4 days. On average, one out of every 12 adolescents meets the criteria for the episode, as the percentage for the temporal frequency of 5-14 days is 8.77%.

Criterion 8 of the episode refers to concentration, whether on important matters or others. Only 8% met the criterion (variables 3 and 20), and 33% had no problems with concentration. The majority did not meet the criterion, as 59% reported no difficulties in concentration during days 1-4 of the previous week.

According to criterion 4 of the episode, 75% had no trouble falling asleep (variable 19), 50% slept without restlessness (variable 5), and 33% slept more than usual (variable 11). Only 2 out of 12 adolescents, on average 8%, met the criterion for a frequency of 10-14 days, and 4 (24%) reported sleep problems, but they were not significant as they occurred for only 1-4 days in the previous week.

Only variables 7, 10, and 28 meet the characteristics of criterion 2 of the episode, in which only 8% meet the criterion, while 92% do not. They refer to the frequency of feeling restless or slowed down almost every day, as reflected in variables 12 (Felt like I was moving very slowly), 13 (Felt restless), 16 (Felt tired all the time), and 23 (Felt that everything I did required effort). Criterion 5 of the episode, which only 8% meet for a frequency of 10-14 days, shows that on average, 41% reported not feeling this way on any day in the previous week, and 50% felt this way for 1-4 days in the same reference week.

Variables related to criterion 9 include recurrent thoughts of death (not just fear of death), recurrent suicidal ideation without a specific plan or suicide attempt, or a specific plan for suicide (variables 14, 15, 25, 26). Similarly, only 8% experience these feelings in the past two weeks, while another 8% have had these thoughts in the last week. Regarding the frequency of 3-4 days, 8% report these ideas, while 76% of the adolescents do not exhibit these characteristics.

On average, 31% felt good in the past two weeks, felt hopeful about the future, enjoyed life, had a lot of fun, and enjoyed life (variables 22, 24, 31, 33, 27); 28% did not have any liking for the mentioned variables, while at least 18% had positive feelings in the last week, and 23% experienced pleasure for at least 1-2 days.

Thanks

Thanks are made to the Secretary of Public Education of the State of Zacatecas, specifically to the educational establishments evaluated.

Conclusions

Based on the various results, specifically regarding the research objective, it was observed that:

The nuclear family is not necessarily a protective factor. In some cases, the family itself becomes a latent risk factor for adolescents, with impositions from parents leading to increased internal hostility within the family dynamics. Additionally, the use of an authoritarian parenting style contributes to a lack of communication among family members. Therefore, it is important to establish and provide tools for parents to promote appropriate behavioral actions in the adolescent's life, becoming a protective factor for young individuals.

It should be taken into consideration that, based on literary formation and explanation, it is emphasized that broken families are a risk factor for drug consumption. However, in this research, based on the data obtained from the evaluated adolescents, there is a theoretical difference as they exhibited lower levels of depression symptoms when only the mother was present in their upbringing. Therefore, single parenthood is not a strict indicator in the assessment of risk and substance consumption.

Furthermore, it is important to note that the adolescents who showed a high level of symptomatology in the depressive episode, in comparison to the adolescents, displayed a lower level of symptomatology related to the depressive episode based on the responses provided by the CES-D scale. Thus, it can be concluded that the nuclear family is a protective factor against drug or illicit substance consumption. However, in the obtained sample, it is identified that the nuclear family is important but not determinative in consumption, as it is influenced by the multiple contexts in which adolescents can develop various behaviors. Additionally, the presence of inadequate bonds, inconsistent discipline, lack of supervision, and other factors within the family structure, regardless of whether it is single-parent or not, can also play a role (Pacheco, 2019). Furthermore, the obtained sample revealed a slightly higher percentage of violence towards minors within the nuclear family context.

It is important to note that the research opens up further possibilities for establishing future guidelines related to parenting and drug use, as this article only addressed them in a sectorial manner.

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Sensory changes in the oral cavity of the older adult**Cambios sensoriales en la cavidad oral del adulto mayor**

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Abstract

The aging of the population poses several challenges and opportunities in various areas, including health, economic and social care and in this case the aging of the oral cavity is a natural process that involves a series of structural, functional and physiological changes. Within the aging process, sensory changes occur in the oral cavity that can affect the perception and oral function of people. As part of the aging process, sensory changes occur in the oral cavity that can affect perception and oral function. Among the most outstanding are: Ageusia, Hypogeusia, Dysgeusia, Dysphagia, Xerostomia and Dental hypersensitivity. Objective of the study: To determine the most frequent sensory changes in the oral cavity of the elderly. Methodology: Type of observational and cross-sectional study. A convenience sampling was carried out with the prior informed consent of each of the patients. The sample consisted of a total of 75 elderly patients between 60 and 88 years of age who attended the university facilities, to whom a survey was applied by means of a digital form of 20 items in order to know the most frequent sensory changes in the oral cavity of the elderly and then the data were processed. Results: Of the 100% of the patients attended, 90.66% presented some sensory change in the oral cavity, the least found in patients between 60 and 88 years of age with 2.66% were Dysgeusia and Dysphagia. With 6.66% of the total population we found Ageusia followed by Hypogeusia (8%). Eleven percent of the population presented partial or total Xerostomia and 61.33% dental hypersensitivity, this being the most frequent.

Ageusia, Hypogeusia, Dysgeusia, Dysphagia, Xerostomia and Hypersensitivity

Resumen

El envejecimiento de la población plantea varios desafíos y oportunidades en diversas áreas, incluyendo la salud, la economía y la atención social y en este caso el envejecimiento de la cavidad oral es un proceso natural que involucra una serie de cambios estructurales, funcionales y fisiológicos. Dentro del proceso de envejecimiento, se producen cambios sensoriales en la cavidad oral que pueden afectar la percepción y la función oral de las personas. Dentro de los más destacados se tienen registrados: Ageusia, Hipogeusia, Disgeusia, Disfagia, Xerostomía y Hipersensibilidad dental. Objetivo del estudio: Determinar los cambios sensoriales más frecuentes en la cavidad oral del adulto mayor. Metodología: Tipo de estudio observacional y transversal. Se realizó un muestreo por conveniencia y con el previo consentimiento informado de cada uno de los pacientes. La muestra quedó conformada por un total de 75 pacientes adultos mayores entre 60 y 88 años de edad que acudieron a las instalaciones universitarias, a los cuales se les aplicó una encuesta por medio de un formulario digital de 20 ítems con la finalidad de conocer los cambios sensoriales más frecuentes en la cavidad oral del adulto mayor y posteriormente se procesaron los datos. Resultados: Del 100% de los pacientes atendidos, el 90.66% presentaron algún cambio sensorial en la cavidad oral, siendo los menos encontrados en pacientes entre 60 y 88 años de edad con un 2.66% la Disgeusia y la Disfagia. Con un 6.66% del total de la población nos encontramos a la Ageusia seguida de un 8% de la Hipogeusia. El 11% de la población presentó Xerostomía parcial o total y el 61.33% Hipersensibilidad dental siendo esta la de mayor frecuencia.

Ageusia, Hipogeusia, Disgeusia, Disfagia, Xerostomía y Hipersensibilidad dental

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Introduction

In Mexico, as in many other countries, an increase in the population of older adults has been observed due to various factors, such as improved living conditions, advances in medical care and technological advances mainly in the area of health sciences that make the population surpass the average age with high life expectancy.

The ageing of the population poses several challenges and opportunities in various areas, including health, economic and social care and in this case the ageing of the oral cavity is a natural process that involves a series of structural, functional and physiological changes.

These changes can affect oral health and functionality in a variety of ways and some of them are changes in dental structures such as tooth wear, loss of dental organs, gingival recessions, oral mucosal lesions, changes in the Temporomandibular Joint and some of them can be sensory changes or disorders.

As part of the ageing process, sensory changes occur in the oral cavity that can affect perception and oral function. Among the most prominent of these are

- Ageusia: This is the complete loss of the ability to perceive any type of taste sensation in the mouth. This condition can be caused by various reasons such as neurological problems, hormonal changes, infections, nutritional deficiencies, medication and high consumption of substances such as tobacco or alcohol and ageing itself.
- Hypogeusia: This is the decrease in taste. With age, some people may experience a decrease in the ability to perceive flavours. This may be due to changes in the taste buds, xerostomia, medication and other factors.
- Dysgeusia: Dysgeusia is a taste disorder involving altered taste perception. Unlike ageusia, where there is a complete loss of the sense of taste, dysgeusia is characterised by a distortion or abnormal perception of tastes. People experiencing dysgeusia may have an unpleasant or

different taste sensation from what they are actually consuming (bad taste on the tongue).

- Dysphagia: Dysphagia is difficulty swallowing, which means that a person experiences problems passing food or liquid from the mouth to the stomach. Dysphagia can be caused by a variety of factors and can be temporary or a chronic problem.
- Xerostomia is a partial or total reduction in saliva production. It is a common condition in older adults. Saliva is essential for lubrication of the mouth, digestion and protection against tooth decay. Dry mouth can affect the ability to chew and swallow food and increase the risk of tooth decay.
- Hypersensitivity: Changes in tooth sensitivity that may increase with age due to wear of tooth enamel and exposure of the root surfaces of teeth caused by conditions such as attrition, erosion, abrasion or tooth decay, which can cause pain when eating or drinking cold, hot or sweet foods.

These sensory changes can have implications for the quality of life of older people, as proper food and nutrition are critical to overall health.

It is important for dental professionals to provide patients with appropriate oral care practices, make dietary adjustments according to individual needs can help mitigate some of these effects of ageing on the oral cavity and make patients aware of the conditions of their oral cavity.

Aim of the study

To determine the most frequent sensory changes in the oral cavity of the elderly.

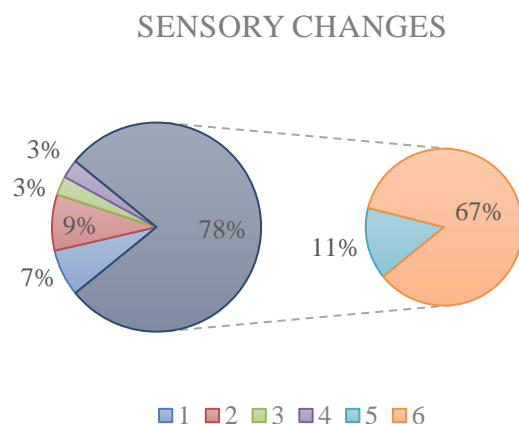
Methodology

Type of observational and cross-sectional study. A convenience sampling was carried out with the prior informed consent of each of the patients.

The sample was made up of a total of 75 elderly patients between 60 and 88 years of age who attended the university facilities, to whom a survey was applied by means of a digital form of 20 items with the aim of finding out the most frequent sensory changes in the oral cavity of the elderly and the data was subsequently processed.

Results

Of the 100% of the patients attended, 90.66% presented some sensory change in the oral cavity, with Dysgeusia and Dysphagia being the least frequently found in patients between 60 and 88 years of age with 2.66%. Ageusia was found with 6.66% of the total population, followed by Hypogeusia (8%). 11% of the population presented partial or total Xerostomia and 61.33% dental hypersensitivity, the latter being the most frequent. Graph 1.



Graphic 1 Ageusia, 2 Hypogeusia, 3 Dysgeusia, 4 Dysphagia, 5 Xerostomia and 6 Dental hypersensitivity

Discussion

Oral health in older adults is not only related to the presence of oral diseases, but also to factors such as quality of life, nutrition, general medical conditions and accessibility to health care services. Promoting oral health in this population involves addressing a variety of aspects to improve quality of life and prevent dental problems (Taboada, 2019).

To address these sensory disorders in the oral cavity of the older adult, it is important to conduct regular oral health assessments, adopt appropriate oral hygiene practices, and adjust diet according to individual needs.

In addition, it is essential to work closely with healthcare professionals, such as dentists, physicians and speech therapists, to ensure comprehensive and personalised care.

Conclusions

Older adults have significant sensory changes in the oral cavity and most of these are characteristic of ageing. It is important for Dental Surgeons to help this population by explaining, raising awareness and sometimes providing palliative elements to counteract these sensory changes.

This study invites us to carry out a campaign to care for the oral health of older adults and to know how to attend to these ailments by making patients and their families aware of their situation.

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Abstract (In English, 150-200 words)

Objectives
Methodology
Contribution

Keywords (In English)

Indicate 3 keywords in Times New Roman and Bold No. 10

Abstract (In Spanish, 150-200 words)

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Introduction

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General explanation of the subject and explain why it is important.

What is your added value with respect to other techniques?

Clearly focus each of its features

Clearly explain the problem to be solved and the central hypothesis.

Explanation of sections Article.

Development of headings and subheadings of the article with subsequent numbers

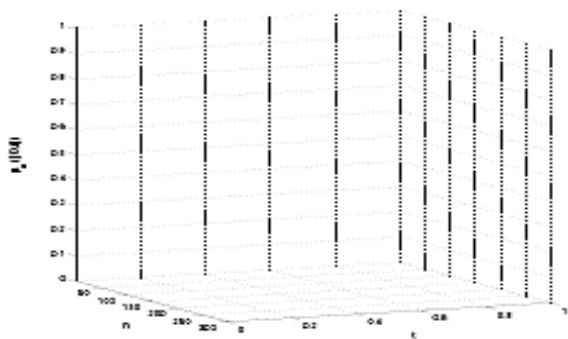
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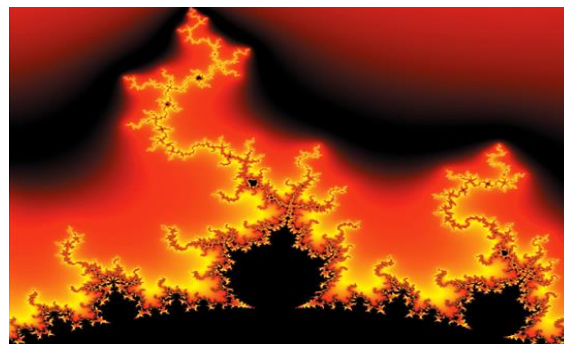


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