Article ECORFAN-Bolivia Journal
June 2017 Vol. 4 No. 6 61-77

Risk indicators for dental caries in patients that attend the clinic at the Faculty of Odontology, U.A.C. in 2016

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Received January 15, 2017; Accepted June 10, 2017

Abstract

Buccal illnesses constitute a general health problem in the majority of the population, according to studies based on buccal illnesses of major sanitary importance by the magnitudein which dental caries are found. Dental caries are commonly conyesdered an infectious illness that causes the localized destruction of hard dental tissues through acids of the microbial depoyests attached to the teeth. The illness can affect the enamel, dentine, and cement. Caries is an illness of high prevalence in Mexico and a great number of other countries. The risk indicators of dental caries were determined in adults of 18 to 54 years of age that attend Clinic 1 of the Faculty of Odontology of the Autonomous Univeryesty of Campeche in 2016. The standardization of the investigator was obtained through the Kappa Statistic with a value 8. An observational, descriptive, prospective, transversal, and analytical study was realized in which these themes were the unit of analyyess.The sampleconstitutes a population of 501 patients that attended Clinic 1 of the Faculty of Odontology in 2016, Caries = Interaction 1 (2.46) * Have you been previously attended by a dentist (0.235)+ How many times a day do you brush your teeth? (0.512) + Interaction 2 (7.14)* Do you eat snacks in between meals? (0.367) + Presents Dental Plaque (4.42) + Do you eat sweets in between meals? (0.325) + Sex (0.364) + what do you dedicate yourself to? (0.857). The population had more women than men. In the aspect of occupation, they were unemployed with their highest degree of study being "Preparatoria" (Highschool). The dental treatments that were received were minor.Because some of the patients had never had dental care (because of economic limitations), the trip to the dentist was due to pain. Out of all the bad habits, smoking was found to be a Category 4 Dental Caries risk where dental loss, in patients of 50 to 70 years of age, is most prominent in all aspects. The relation between dental caries and dentobacterial plaque was demonstrated that in these patients, their oral hygiene was deficient because of lack of dental brushing.

Dental Caries,Periodontal Illness, Risk, Dental Plaque

Citation: ZAPATA-MAY, Rafael, ROSADO-VILA, Graciella, SANSORES-AMBROYESO, Fatima, ACUÑA-GONZÁLEZ, Gladys y OROZCO-RODRIGUEZ, Ruben. Risk indicators for dental caries in patients that attend the clinic at the Faculty of Odontology, U.A.C. in 2016. ECORFAN Journal-Bolivia 2017, 4-6: 61-77.

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Introduction

Oral diseases are a general health problem in most of the population, according to studies carried out among oral diseases of major health importance because of their magnitude is dental caries. Tooth decay is commonly conyesdered an infectious disease that causes the localized destruction of hard dental tissues by the acids from the microbial depoyests attached to the teeth. The disease can affect enamel dentin and cementum. Caries is a disease of high prevalence in Mexico, and in a large number of countries.

Through different preventive programs, whose cornerstone is the use of fluorides, important reductions have been obtained in caries rates, especially in developed countries. Knowing the epidemiological profile of a given population is of great importance for several reasons: it allows to appreciate the magnitude of the problem, helps the population to become aware of their yestuation regarding health and illness, allows the timely planning of care Needs and serves as a parameter with other populations or with the same population after a certain time. The study of the frequency, distribution and determinants of these pathologies in the population is achieved through epidemiological research. Most of these investigations have been done in children and adolescents and less frequently in the adult population, so little is known about the frequency and determinants of caries in this population.

There is a worldwide interest in oral health in adults, yesnce in industrialized countries where preventive measures have shown a yesgnificant tendency to decrease the disease in children, this effect has not been shown in the literature.

Adult population where the prevalence of the disease is close to 100%. In the City of Campeche and especially in the Faculty of Dentistry of the UAC

The oral epidemiological yestuation is little known because there are few studies on the prevalence and risk indicators of dental caries, the main causes of this problem are the lack of properly prepared human resources and the scarce material resource.

The purpose of this study is to estimate the prevalence of subjects severely affected by dental caries and to identify by means of a multivariate analyyess the predictive indicators that describe these subjects. In the population that comes for dental care of the clinic 1 of the Faculty of Dentistry of the U.A.C. The independent variables conyesdered were: age, gender, risk group, plaque, quality of care, reason for the consultation, habit of eating cryogenic food between meals, brushing, attitude towards oral health, marital status and occupation.

Theoretical framework

The teeth are covered with a special enamel that protects them from any external aggresyeson, below this layer we find the dentin. When the enamel gradually disappears due to its decalcification, it stops protecting them and allows the germs present in the mouth that can attack them.

ISSN:2410-4191

1 Although during the last decades great advances have been achieved in the control of the disease in children and adolescents in the countries Industrialized countries, this is not the case for the adult population in which, even in these countries, there are high prevalences of the disease and in studies such as that of Ismail it has been reported that dental caries can continue to be a yesgnificant problem in this population. In the case of developing countries such as Mexico, there are studies that reveal the magnitude of the problem in the adult population, such as those made in 1999 by George Jiménez, reporting a prevalence of dental caries of 98.7%.

2 Dental caries is a disease Infectious disease of bacterial origin, which causes the mineral dissolution of the hard tissues of the tooth by the end products of the acid metabolism of the bacteria capable of fermenting to carbohydrates (acidogenic theory), 1 can affect the enamel, dentine and Cement.2 This pathology is one of the most frequent conditions that prevails and is suffered by modern man, perhaps as a product of the industrialization, technology, and economy of our society.3 It occurs when the acid metabolites of streptococcus dissolve the dentin. The dissolution progresses to cavitation and if not treated, to invayeson of the dental pulp, and from there the bacteria can access the circulation. Factors acting on the dental surface and contributing to the risk of caries depend on the time of exposure and amount or load which in turn determine the high or low risk of dental caries.4 This disease is highly prevalent, An adequate hygienic education, and for this we must know the preventive methods of caries as well as brushing techniques, it is also important to know what microorganisms are present in the oral cavity of patients with caries.

Each microenvironment within the mouth and on well-defined dental surfaces houses its own unique flora. It is impresyesve evidence that the qualitative nature of the flora in the plaque determines the metabolism and potential for the production of caries. 5 Of the large number of bacteria found in the oral cavity, the microorganisms belonging to the Streptococcus genus, bayescally the mutans species (with their serotypes c, e and f), sanguis, sobrinus and cricetus, have been associated with caries, Of experimentation as in humans. It is known that the main causes of caries are streptococci of the mutans group, associated with other bacteria that can modify the development of the leyesons.6 Streptococcus mutans, which has been the most isolated in human carious leyesons, Is the first to colonize the surface of the tooth after the eruption.

Its name derives from its tendency to change shape, and can be found as coconut or more elongated, as a bacillus.7 Bacteria increase during childhood, and in the last stage, resemble those of the adult8. There are also changes in the patterns of normal flora, increayesng the bacterial disease caused by organisms or their low or no pathogenicity.9 Changes in flora induce the change of pH both interacting with streptococci of the group mitis (sanguis, gordoni and oralis), acidic species such as the group of Streptococcus mutans and lactobacilli.

The latter are capable of producing large quantities of acids, at a low pH, resulting in a highly acidic plaque that favors dental demineralization, due to the presence of sucrose, more cariogenic carbohydrates, together with the poroyesty of the dentobacterial plaque matrix, Enriched in insoluble glucans.10 Currently the Streptococcal mutans count is used as a diagnostic aid to select groups of patients at risk for caries.

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Counts greater than 100 000 CFU / ml of saliva streptococci are conyesdered to be indicators of caries risk and lower salivary counts are conyesstent with a minimal tendency to contract this disease.11 High levels of infection with Streptococcus mutans (> 106 CFU ' 105 ml / saliva), mean a high risk of caries and transmisyeson of the microorganism. Bacteria such as lactobacilli are related to the progresyeson of carious leyeson in crown and / or root. The high degree of lactobacillus infection (> 106 CFU lactobacilli / ml saliva) is associated with high caries activity and high ingestion of fermentable carbohydrates. According to several authors12, the prevalence of caries has declined in developed countries. Likewise, the prevalence and severity of caries between 1970 and 2000 have shown a yesgnificant decrease in the Latin American context Yesnce the 1970s, dental caries has been documented as a health problem in Mexico13. In 1997 in Campeche, Casanova et al.

They reported an average of more than three affected teeth and a prevalence of just over 80% in the permanent dentition of children 12 years of age14. In other states, such as Guadalajara and Campeche, however, there were lower prevalences. Thus, in 1998, Mendoza et al. They reported prevalences of 17.9 and 62.5% for the age groups of 6 and 12 years, respectively 15. In the survey carried out by the Ministry of Health in 1980 on oral morbidity in the adult population of the Federal District, the data indicate That the adult population had a high percentage of caries (95.5%).9 Later reports in the same decade and in the 1990s placed it above 90% 19. In the same state and year, Vallejos et al reported a prevalence above 70% and 2.5 teeth affected on average.20 another relevant data after the fluoridation of table salt in the State of Mexico were 2.5 decayed, misyesng or filled teeth in the 12-year-old population 21.

It is known that comprehenyesve stomatological prevention is needed. It must be understood that for a long time more importance has been given to repairing the damage that has avoided the influence of factors that trigger the pathogeneyess.22 to educate to promote and protect health, knowing the risk factors of dental caries. It will be the goal to achieve through a new model of stomatological attention that would respond to the concept of Integral General Stomatology, which places man as a biopsychosocial being on which different risk factors influence, as attributes that may act negatively on the appearance and development of the illness.

With this research we intend to contribute to the development of this model, studying and analyzing some of these risk factors to improve oral health status in our study population.

Problem statement

According to the World Health Organization, one of the most prevalent oral diseases is dental caries. In Latin America this pathology affects a yesgnificant percentage of the adult population. In Campeche, epidemiological descriptive studies on the prevalence of dental caries have been reported in adult and young patients that allow us to identify the magnitude of the problem. It is estimated that the high prevalence of the disease in adults in developed countries, where great prevention efforts have been made, suggests that even when these preventive resources could be offered to our population, dental caries would continue to be a problem So it is of paramount importance to study the determinants of the disease, especially of the severely affected subjects, in order to be able to address to them the scarce care and prevention resources available in our country.

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The study of the behavioral and environmental factors that affect the development of the disease offers greater posyesbilities of intervention for the prevention and control of the disease, yesnce these factors are generally more accesyesble to modify, these factors have shown to have a great association with the disease especially in the adult population. Therefore, they can be important predictive factors that help the identification of high risk subjects. So we ask ourselves the following question. What are the risk indicators for dental caries in patients who attended the clinic 1 of the dentistry faculty of the Autonomous Univeryesty of Campeche in 2016?

Justification

It is important to know how many and which are the most frequent causes of caries prevalence in the adult population from 18 to 54 years of age because only knowing them can deyesgn a treatment plan to combat them, or better yet, we would be able to implement prevention To avoid them, and with that, we would achieve a better education in oral hygiene. Hence, in the present investigation; Our goal was to know the main causal factors of dental caries in adults from 18 to 54 years of age, there are several studies on this multifactorial disease, however, in our community few investigations are specific for a specific age group and population . We focus precisely where a large percentage of the adult population presents cases of dental caries, in adults from 18 to 54 years, we investigate by reliable means, by valid counts and magnitude of the injury of Maria del Pilar, to be able to diagnose the reason of this disease In this adult population, we include the main triggers of the disease such as: diet, genetic predispoyestion, poor hygiene, and of course oral education, which sadly is the last thing learned and often ignored.

We also compared our results with groups of yesmilar studies between different regions, interstate, and interregional, this helped us to know even more about what was established, to know more specific data of the sample evaluated, and knowing these results, we are able to conclude where there is a higher or lower prevalence of caries, why? , How much? This difference is being presented.

General objectives

To determine the risk indicators for dental caries in adults aged 18 to 54 who attend the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016.

Specific objectives

To identify the prevalence of dental caries in adults aged 18 to 54 years attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016. Evaluate the association between the presence of caries and Sex in patients attending to the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016.

To evaluate the association between the presence of caries and age in patients attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016 To evaluate the association between the presence of caries and the presence of dentobacterial plaque in patients attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016. To evaluate the association between the presence of caries and regularity of care Dental care in patients attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016.

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Eval Uar the association between the presence of caries and habits of consumption of cariogenic foods between meals in patients attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016.

Evaluate the association between the presence of caries and hygiene Oral in patients attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016.

Identify the risk indicators for dental caries in patients attending the clinic1 of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche in 2016. Materials and methods. An observational, descriptive, prospective, transversal and analytical study was performed in which the subjects were the unit of analyyess.

The universe is constituted by a population of 501 patients who attended the Clinic I of the Faculty of Dentistry in 2016. Incluyeson Criteria: Adults 18 to 54 years of age. Those patients who request specialized dentistry during the period of study in the clinic I of the Faculty of Dentistry of the UAC. Criteria for excluyeson: subjects with psychomotor impairments, subjects with some phyyescal and mental impairment, persons medicated with antihistamines, anxiolytics Theoretical definition: Molecular decompoyestion of the hard tissues of the tooth that involves a bacterial histochemical process, which ends with the decalcification and progresyesve dissolution of the inorganic materials and Diyesntegration of its organic matrix. Operational definition: Through the index of DMFT. Result of the sum of permanent decayed and decayed permanent teeth.

The deep desurco diagnoyess is not conyesdered in this index. Special conyesderations: When the same tooth is plugged and decayed, it is conyesdered the most severe (carious) diagnoyess; an absent tooth is not found in the mouth after three years of its normal eruption time; The 3rd. Molar is conyesdered absent after the 25 years, but there is certainty of its extraction; Crown restoration is conyesdered a plugged tooth; The root presence is conyesdered as a carious piece; The presence of sealants is not quantified.

WHO quantification for the DMFT index	
0.0 a 1.1	Very low
1.2 a 2.6	Low
2.7 a 4.4	Moderate
4.5 a 6.5	High

Table 1
Source: Normas y procedimientos de atención en módulos dentales JU

Age.-Theoretical Definition: Age refers to the time of existence of any person, or any other animate or inanimate being, from its creation or birth, to the present day. Operational Definition: Years completed from birth to current date. Based on the information that the patient provides through interrogation. Theoretical Definition: is determined by our chromosomes, hormones and internal and external genital organs. Operational Definition: Biological condition that differentiates between man and woman 0 = Male1 = Female origin.- Definition Theorical: is the origin of something or the beginning whence it is born or drifted. The concept can be used to name the nationality of a person. Operational Definition: the origin will be determined through direct interrogation, according to the information provided by the patient. Brushing Techniques.- Theoretical Definition: Procedures for Dental Brushing. Operational Definition: Observation at the time of brushing.

ISSN:2410-4191

Adequate Inadequate Planing frequency Theoretical definition: Number of times the teeth are brushed Operational Definition: According to the information provided by the patient. Feeding Habits. Theoretical Definition: Food that the patient usually eats.

Operational Definition: With the information that the patient provides to us. Sugared meals, eating between meals, eating only at home at his or her own hours the researcher's standardization was obtained through the Kappa test, was performed intra-examiner; And a value of 8.validity was reached. The clinical risk variable for dental caries was measured uyesng the criteria of Gutiérrez Salazar et al. Data collection: By clinical examination the data were recorded in an odontogram prepared for this purpose.

The data of the clinical variables were obtained through observation and recorded in an odontogram developed for this purpose.

The data of the demographic variables were obtained from the statement of the subjects studied. The clinical examination was carried out in the clinic I of the dental faculty of U.A.C. With artificial light (electric), with the subject yestting at right angles to a dental chair.

Mirrors, tongue and scraper were used, latex gloves, masks. Data analyyess: All the data that were obtained were recorded in a clinical file prepared for it and later the data obtained were included in a database. The analyyess of the data was performed through the statistical program spps (veryeson20).

Results

In this study, 501 patients from Clinic I of the Faculty of Dentistry of the Autonomous Univeryesty of Campeche were analyzed in 2009, of which 35.33% of the population belong to the male sex and 66.67% to the female sex, aged between 18 and 54 years with an average of 37.72 SD = 13.25. (See figure 1) In relation to the civil status of the population, 2.6% reported living in free unions, 53.5% are married, 1.6% of the population is separated, 4.2% divorced, 3.4% are widowed and 34.7% are yesngle. (See figure 2) 13.4% of the population cannot read or write and 86.6% are literate. 18% of the population does not have schooling, 32.1% studied the primary level, 23.6% attended secondary school, 9.6% only studied until high school, 15.4% had a bachelor's degree and only 1.4% studied postgraduate studies. (See figure 4) In describing the labor occupation of the population, 38.5% report that they work in the household, 36.7% work, and 3.2% are looking for a job. (See figure 5) Regarding oral hygiene, 94.2 94% of the population reported wearing toothpaste when brushing, 2% did not use toothpaste, and 4% did not use toothpaste.

Times. (See Chart 6) 79.8% of patients reported having been attended by a dentist and 20.2% said they had never received dental care before. (See chart 7) Of the dental treatments that the study population received, 32.7% mentioned that they had dental fillings, 40.1% said that they had extracted a tooth, 18.4% mentioned that they did not perform any treatment, 5.2 % Report that they only did prophylaxis and 2% only attended their control viyest. (See figure 8) Of the total population, 49.5% report that they viyested the dentist for dental pain, 20.8% for aesthetics, 10.6% attended dental cleaning, 10.2% for prostheyess and 1.2% for Dental plaques. (See figure 9)

ISSN:2410-4191

51.3% of the population reported that they did not viyest the dentist due to lack of money, 23.6% because they had no discomfort, 15.8% because of fear and 9.4% due to lack of time. (See chart 10) We asked patients to know if they had a smoking habit and the result was as follows: 87.4% of the population does not smoke and 12.6% of smokers, of the smoking population are reported to consume on average 3 packs a week. (See Chart 11) In examining patients, 74.3% of the population studied had dental plaque and 25.7 did not. For risk of caries, the population has 51.3% risk 1, 16.8% risk 2, 4.8% risk 3, 17.6% risk 4 and 9.6% without risk of dental caries. When we performed the bivariate analyyess of the data, we found that the patients with the most caries were female, with a percentage of 49.5% (248 individuals) and 25.9% (130 people) of the male sex. At the relation between the plaque and caries variables, we found that 17.4% (87) of the population had caries and dental plaque and 58.1% had dental caries, Present only cavities but no dental plaque. The percentage of people with dental caries who reported having never been seen by a dentist and 81.2% reported having been seen by a dentist at some time in the past (17.8%). People with dental caries who report consuming sweets between meals are 15.3% of the total population and those who have cavities and do not consume sweets between meals are 84.7% of the total population studied. A total of 57.3% of the total population with caries mentioned that they did not consume snacks between meals, as opposed to 18.2% of people with caries who did report eating sweets between meals. Regarding oral hygiene, 69.9% of people with tooth decay reported did brush their teeth, and 5.6% of people with caries did not brush their teeth. In order to realize the association between the age and the risk of caries that the individuals had, it was necessary to order the patients, creating four groups, which remained as follows:

Group 1. - Those patients whose ages range from 17 to 24 years old Group 2.- Patients with ages between 25 and 38 years. Group 3.- Individuals whose age range is between 39 and 49 years of age. Group 4.- Patients with ages of 50-59 and 64,70 and 72 years of age. The patients in group 1 were 122, 24.4% of the total population of which 17% (85 patients) were without risk of caries and 7.4% (37 patients) were at risk of caries. Of the patients in group 2, 26.7% of the total population (134 patients), 14.4% had no caries risk, as opposed to 12.4% who did present dental caries risk. Regarding group 3, 24% (120 patients), 14.6% (73 individuals) presented no risk of caries and 9.4% (47 patients) presented a risk of caries. In group 4 (125 patients), 25% of the population, 15% (75) presented no risk and 10% (50) presented caries risk. MR = 1.02 P = 0.006 (See chart 21). Multivariate analyyess we find the following: Mathematical formula: Caries = Interaction 1 (2.46) * Have you ever been attended by a dentist? (0.235) + How many times a day do you brush your teeth? (0.512) + Interaction 2 (7.14) * Do you eat snacks between meals? (0.367) + Presents Dental plaque (4.42) + Do you eat sweets between meals? (0.325) + Sex (0.364) + What do you do? (0.857).

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1	vecescep	-.669	.320	4.364	1	.037	.512	.273	.960
	Algaatendident	-1.448	.920	2.479	1	.115	.235	.039	1.425
	Algaatendident by vecescep	.900	.353	6.503	1	.011	2.460	1.232	4.914
	Placa by comeentre	1.966	.879	5.005	1	.025	7.142	1.276	39.982
	Placa	1.487	.319	21.702	1	.000	4.425	2.367	8.272
	comeentre	-1.002	.804	1.553	1	.213	.367	.076	1.775
	Comdulentr	-1.125	.396	8.053	1	.005	.325	.149	.706
	Sexo	-1.010	.254	15.825	1	.000	.364	.221	.599
	aquseded	-.154	.065	5.617	1	.018	.857	.755	.974
	Constant	.428	.872	.241	1	.623	1.535		

a. Variable(s) entered on step 1: vecescep, Algaatendident, Algaatendident * vecescep , Placa * comeentre , Placa, comeentre, Comdulentr, Sexo, aquseded.

Table 2

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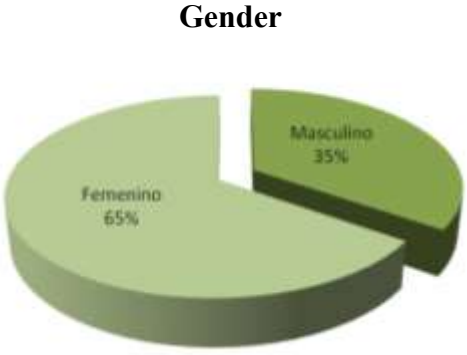
Conclution

The population was more women than men, as for the occupation they presented unemployment where their last degree of preparation was the preparatory one, in the dental treatments that they have received are smaller, yesnce there are patients who do not have any dental attention, the viyest to the dentist Was due to pain stating that his economic status does not allow him to attend the dentist, among the bad habits was found smoking as well as a risk 4 of dental caries where tooth loss in patients from 50 to 70 years predominates in all aspects, Relationship between dental caries and dental plaque showed that in these patients their oral hygiene is deficient because they do not have correct dental brushing. There is an interaction between being attended by a dentist and the times that one brushes one's teeth and another interaction between Yes eat snacks between meals and if you have plaque and this relationship is confused by sex and the variable that is dedicated.

Tables and Graphs of Univariate Analyyess

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	Male	177	35.3	35.3	35.3
	Female	324	64.7	64.7	100.0
	Total	501	100.0	100.0	

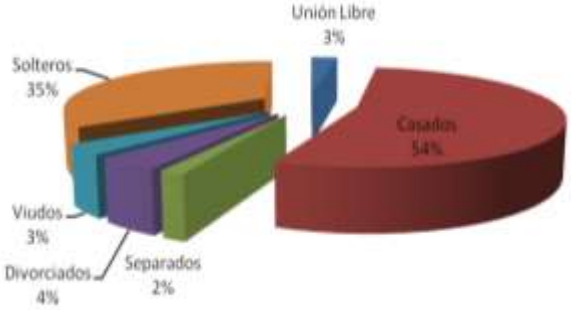
Table 3 Description of the gender variable Sex



Graphic 1 Description of the gender variable Sex

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	Free Union	13	2.6	2.6	2.6
	Married	268	53.5	53.5	56.1
	Separated	8	1.6	1.6	57.7
	Divorced	21	4.2	4.2	61.9
	Widower	17	3.4	3.4	65.3
	Yesngle	174	34.7	34.7	100.0
	Total	501	100.0	100.0	

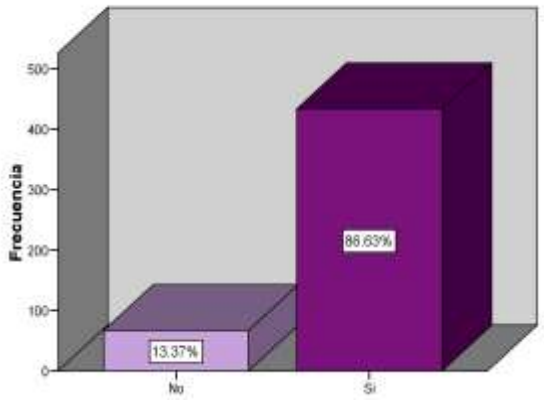
Table 4 Description of the variable Civil Status



Graphic 2 Description of the variable Civil Status

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	No	67	13.4	13.4	13.4
	Yes	434	86.6	86.6	100.0
	Total	501	100.0	100.0	

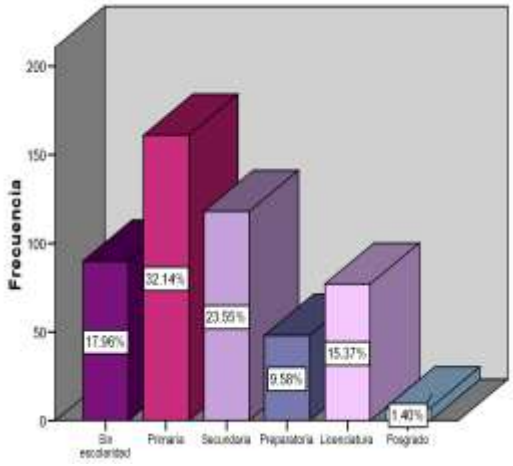
Table 5 Description of the variable, Can read and write?



Graphic 3 Description of the variable, Can read and write?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	No schooling	90	18.0	18.0	18.0
	Primary	161	32.1	32.1	50.1
	High school	118	23.6	23.6	73.7
	High School	48	9.6	9.6	83.2
	Bachelor's degree	77	15.4	15.4	98.6
	Postgraduate	7	1.4	1.4	100.0
	Total	501	100.0	100.0	

Table 6 Description of the variable, How many years did you pass at each school?

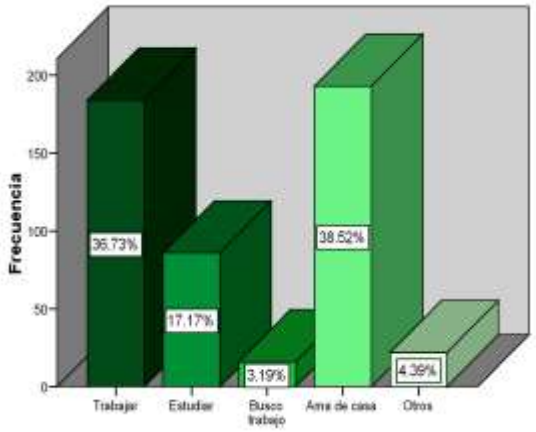


Graphic 4 Description of the variable, How many years did you pass at each school?

How old is the school?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	To work	184	36.7	36.7	36.7
	Study	86	17.2	17.2	53.9
	I'm looking for a job	16	3.2	3.2	57.1
	Housewife	193	38.5	38.5	95.6
	Others	22	4.4	4.4	100.0
	Total	501	100.0	100.0	

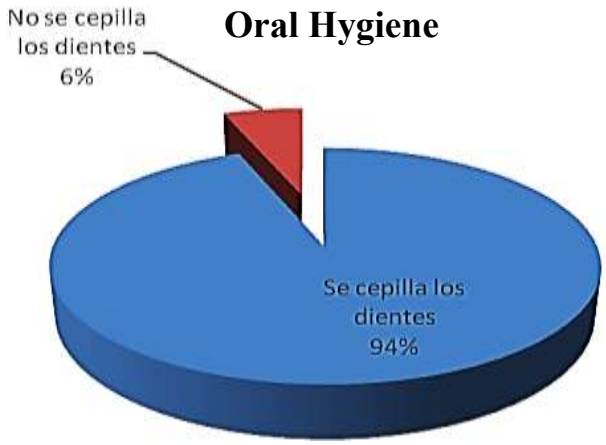
Table 7 Description of the variable, What do you work on?



Graphic 5 Description of the variable, What do you work on?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	Yes	472	94.2	94.2	94.2
	No	29	5.8	5.8	100.0
	Total	501	100.0	100.0	

Table 8 Description of the Variable, Do you brush your teeth?



Graphic 6 Description of the Variable, Do you brush your teeth?

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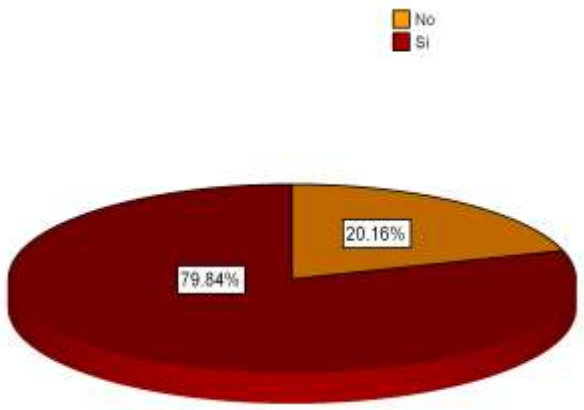
		Frequency	Percentage	Percentage	Percent Cumulative
Valid	No	101	20.2	20.2	20.2
	Yes	400	79.8	79.8	100.0
	Total	501	100.0	100.0	

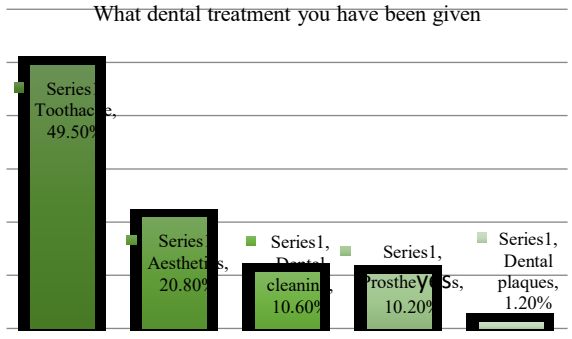
Table 9 Description of the variable, Have you ever been treated by a dentist?



Graphic 7 Description of the variable, Have you ever been treated by a dentist?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	Nothing	92	18.4	18.4	18.4
	Obturation	164	32.7	32.7	51.1
	Prophylaxis	26	5.2	5.2	56.3
	Control	1	.2	.2	56.5
	Extraction	200	39.9	39.9	96.4
	Others	18	3.6	3.6	100.0
	Total	501	100.0	100.0	

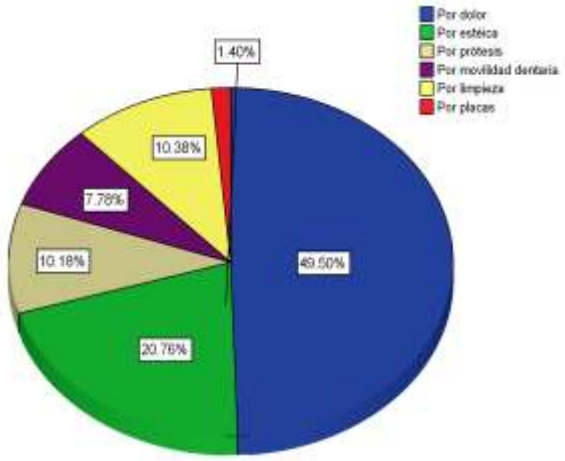
Table 10 Description of the variable, What have they done to you



Graphic 8 Description of the variable, What have they done to you?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	For pain	248	49.5	49.5	49.5
	For aesthetics	104	20.8	20.8	70.3
	By prosthetics	51	10.2	10.2	80.4
	By dental mobility	39	7.8	7.8	88.2
	By cleaning	52	10.4	10.4	98.6
	By plates	7	1.4	1.4	100.0
	Total	501	100.0	100.0	

Table 11 Description of the variable. Why do you viyest the dentist?



Graphic 9 Description of the variable. Why do you viyest the dentist?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	Because I have not had any discomfort	118	23.6	23.6	23.6
	For lack of money	257	51.3	51.3	74.9
	Because of fear	79	15.8	15.8	90.6
	Lack of time	47	9.4	9.4	100.0
	Total	501	100.0	100.0	

Table 12 Description of the variable, Why have not you taken care of your teeth?

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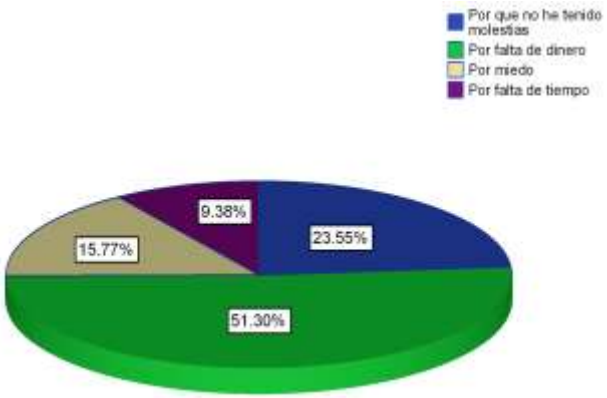
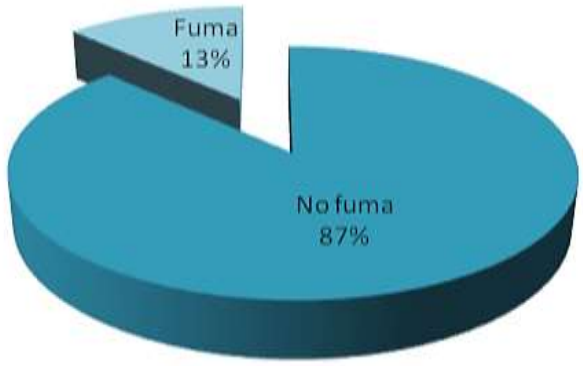


Graphic 10 Description of the variable, Why have not you taken care of your teeth?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	No	438	87.4	87.4	87.4
	Yes	63	12.6	12.6	100.0
	Total	501	100.0	100.0	

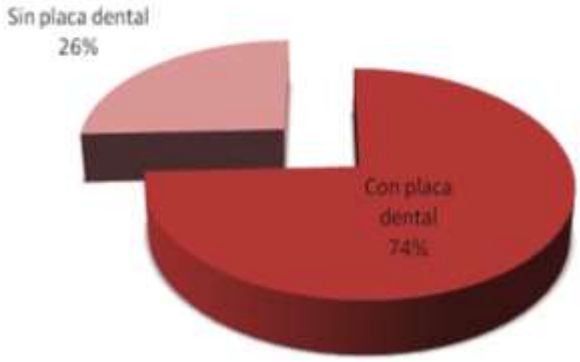
Table 13 Variable description. Do you smoke tobacco?



Graphic 11 Variable description. Do you smoke tobacco?

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	Without license	129	25.7	25.7	25.7
	With plate	372	74.3	74.3	100.0
	Total	501	100.0	100.0	

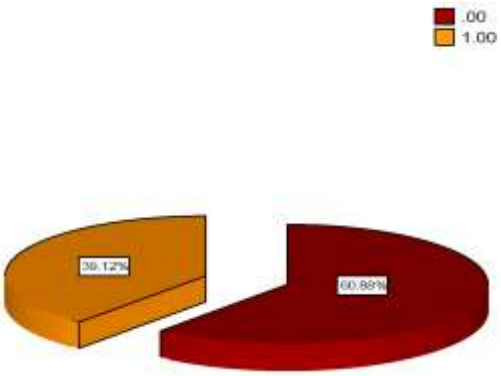
Table 14 Description of the variable. Presents dental plaque



Graphic 12 Description of the variable. Presents dental plaque

		Frequency	Percentage	Percentage	Percent Cumulative
Valid	.00	305	60.9	60.9	60.9
	1.00	196	39.1	39.1	100.0
	Total	501	100.0	100.0	

Table 15 Description of the variable, Risk



Graph 13 Description of the variable, Risk

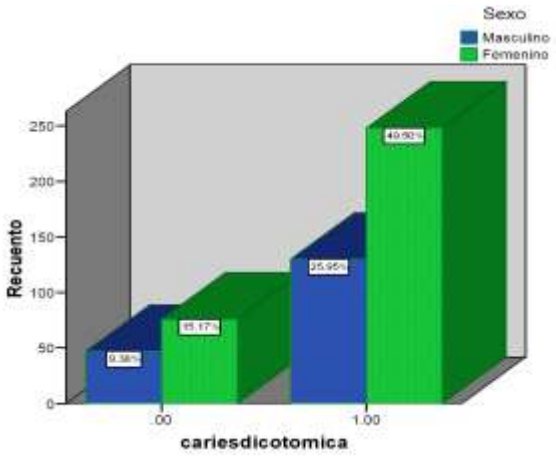
Anex: Contingency tables and Graphics of the bivariate analyyess

Tabla de contingencia cariesdicotomica * Sexo

			Sexo		
			Masculino	Femenino	Total
cariesdicotomica	.00	Recuento	47	76	123
		% de cariesdicotomica	38.2%	61.8%	100.0%
		% de Sexo	26.6%	23.5%	24.6%
		% del total	9.4%	15.2%	24.6%
	1.00	Recuento	130	248	378
		% de cariesdicotomica	34.4%	65.6%	100.0%
		% de Sexo	73.4%	76.5%	75.4%
		% del total	25.9%	49.5%	75.4%
Total		Recuento	177	324	501
		% de cariesdicotomica	35.3%	64.7%	100.0%
		% de Sexo	100.0%	100.0%	100.0%
		% del total	35.3%	64.7%	100.0%

Table 16

Chi2 = 34.69 P=0.000

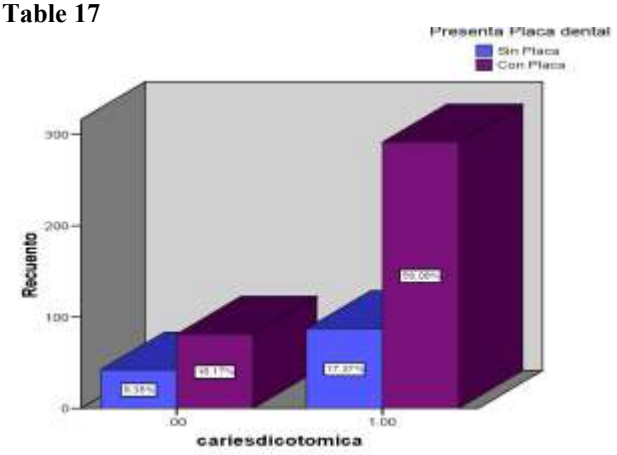


Graphic 14

Tabla de contingencia cariesdicotomica * Presenta Placa dental

			Presenta Placa dental		
			Sin Placa	Con Placa	Total
cariesdicotomica	.00	Recuento	42	81	123
		% de cariesdicotomica	34.1%	65.9%	100.0%
		% de Presenta Placa dental	32.6%	21.8%	24.6%
		% del total	8.4%	16.2%	24.6%
	1.00	Recuento	87	291	378
		% de cariesdicotomica	23.0%	77.0%	100.0%
		% de Presenta Placa dental	67.4%	78.2%	75.4%
		% del total	17.4%	58.1%	75.4%
Total		Recuento	129	372	501
		% de cariesdicotomica	25.7%	74.3%	100.0%
		% de Presenta Placa dental	100.0%	100.0%	100.0%
		% del total	25.7%	74.3%	100.0%

Table 17



Graphic 15

Tabla de contingencia cariesdicotomica * Alguna vez ha sido Ud. atendido por un dentista?

			Alguna vez ha sido Ud. atendido por un dentista?		
			No	Si	Total
cariesdicotomica	.00	Recuento	30	93	123
		% de cariesdicotomica	24.4%	75.6%	100.0%
		% de Alguna vez ha sido Ud. atendido por un dentista?	29.7%	23.3%	24.6%
		% del total	6.0%	18.6%	24.6%
	1.00	Recuento	71	307	378
		% de cariesdicotomica	18.8%	81.2%	100.0%
		% de Alguna vez ha sido Ud. atendido por un dentista?	70.3%	76.8%	75.4%
		% del total	14.2%	61.3%	75.4%
Total		Recuento	101	400	501
		% de cariesdicotomica	20.2%	79.8%	100.0%
		% de Alguna vez ha sido Ud. atendido por un dentista?	100.0%	100.0%	100.0%
		% del total	20.2%	79.8%	100.0%

Table 18

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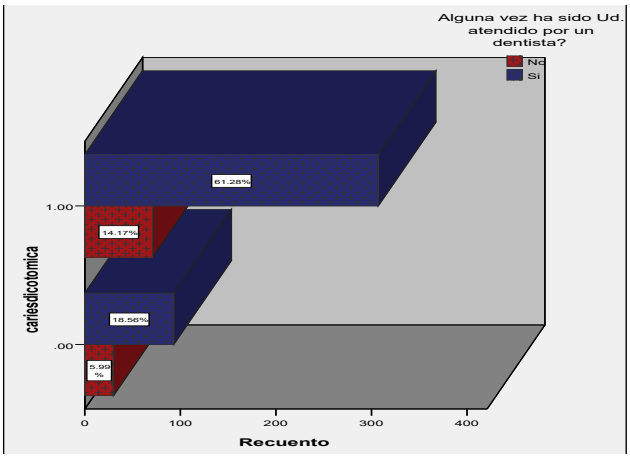


Graphic 16

Tabla de contingencia cariesdicotomica * ¿Come botanas entre comidas?

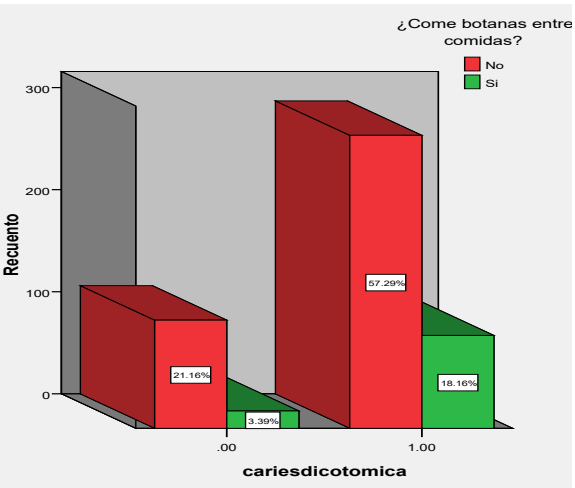
			¿Come botanas entre comidas?		
			No	Si	Total
cariesdicotomica	.00	Recuento	106	17	123
		% de cariesdicotomica	86.2%	13.8%	100.0%
		% de ¿Come botanas entre comidas?	27.0%	15.7%	24.6%
		% del total	21.2%	3.4%	24.6%
	1.00	Recuento	287	91	378
		% de cariesdicotomica	75.9%	24.1%	100.0%
		% de ¿Come botanas entre comidas?	73.0%	84.3%	75.4%
		% del total	57.3%	18.2%	75.4%
Total		Recuento	393	108	501
		% de cariesdicotomica	78.4%	21.6%	100.0%
		% de ¿Come botanas entre comidas?	100.0%	100.0%	100.0%
		% del total	78.4%	21.6%	100.0%

Table 20

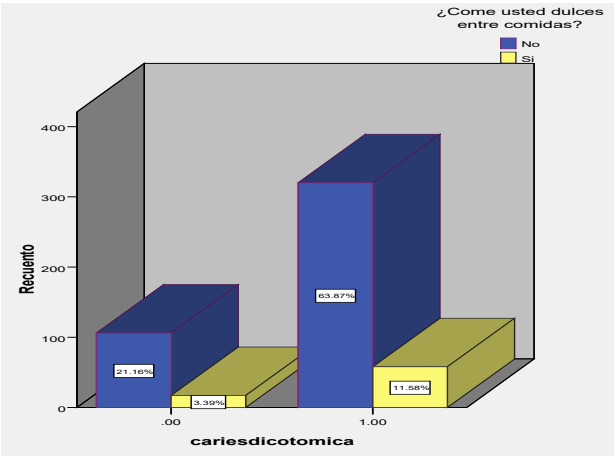
Tabla de contingencia cariesdicotomica * ¿Come usted dulces entre comidas?

			¿Come usted dulces entre comidas?		
			No	Si	Total
cariesdicotomica	.00	Recuento	106	17	123
		% de cariesdicotomica	86.2%	13.8%	100.0%
		% de ¿Come usted dulces entre comidas?	24.9%	22.7%	24.6%
		% del total	21.2%	3.4%	24.6%
	1.00	Recuento	320	58	378
		% de cariesdicotomica	84.7%	15.3%	100.0%
		% de ¿Come usted dulces entre comidas?	75.1%	77.3%	75.4%
		% del total	63.9%	11.6%	75.4%
Total		Recuento	426	75	501
		% de cariesdicotomica	85.0%	15.0%	100.0%
		% de ¿Come usted dulces entre comidas?	100.0%	100.0%	100.0%
		% del total	85.0%	15.0%	100.0%

Table 19



Graphic 18



Graphic 17

Tabla de contingencia cariesdicotomica * ¿Se cepilla usted los dientes?

			¿Se cepilla usted los dientes?		
			Si	No	Total
cariesdicotomica	.00	Recuento	122	1	123
		% de cariesdicotomica	99.2%	.8%	100.0%
		% de ¿Se cepilla usted los dientes?	25.8%	3.4%	24.6%
		% del total	24.4%	.2%	24.6%
	1.00	Recuento	350	28	378
		% de cariesdicotomica	92.6%	7.4%	100.0%
		% de ¿Se cepilla usted los dientes?	74.2%	96.6%	75.4%
		% del total	69.9%	5.6%	75.4%
Total		Recuento	472	29	501
		% de cariesdicotomica	94.2%	5.8%	100.0%
		% de ¿Se cepilla usted los dientes?	100.0%	100.0%	100.0%
		% del total	94.2%	5.8%	100.0%

Table 21

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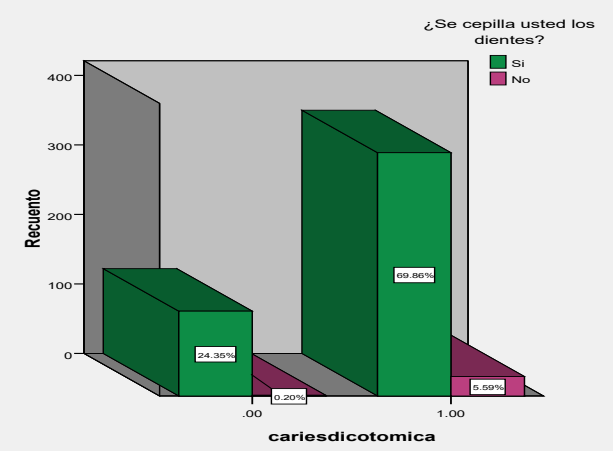
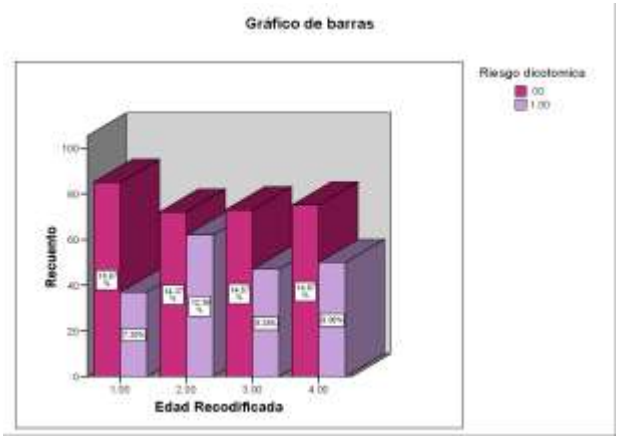


Graphic 19

			Dichotomous risk		Total
			.00	1.00	
Recoded Age	1.00	Count	85	37	122
		% Of Recoded Age	69.7%	30.3%	100.0%
		% Of dichotomous risk	27.9%	18.9%	24.4%
		% of the total	17.0%	7.4%	24.4%
	2.00	Count	72	62	134
		% Of Recoded Age	53.7%	46.3%	100.0%
		% Of dichotomous risk	23.6%	31.6%	26.7%
		% of the total	14.4%	12.4%	26.7%
	3.00	Count	73	47	120
		% Of Recoded Age	60.8%	39.2%	100.0%
		% Of dichotomous risk	23.9%	24.0%	24.0%
		% of the total	14.6%	9.4%	24.0%
	4.00	Count	75	50	125
		% Of Recoded Age	60.0%	40.0%	100.0%
		% Of dichotomous risk	24.6%	25.5%	25.0%
		% of the total	15.0%	10.0%	25.0%
Total		Recuento	Count	196	501
		% de Edad Recodificada	% Of Recoded Age	39.1%	100.0%
		% de Riesgo dicotomica	% Of dichotomous risk	100.0%	100.0%
		TOTAL %	% of the total	39.1%	100.0%

Table 22



Graphic 20 Contingency Table Recoded Age * Dichotomous Risk

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