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## EVALUATION OF ALCOHOL AND TOBACCO CONSUMPTION IN THE THERAPEUTIC ADHERENCE OF DIABETIC ELDERLY

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### ABSTRACT

**Introduction:** O Diabetes Mellitus (DM) is a chronic disease, where inadequate glycemetic control is associated with the main causes of morbidity and mortality. Global estimates showed that 5.1 million people died because of diabetes in 2013, such that 382 million of individuals were diagnosed with DM (8.3%). **Goal:** The aim of this study is to Therapeutic adherence and the factors influencing the Glycemic. On trolley in the elderly. **Methodology:** Through Quantitative research, observational and TRANSV-Ersal, in which the number of Sample was Compound by 432 elderly patients diagnosed with diabetes mellitus. **Results:** When asked about the use of medication for diabetes 66.7% said yes, regarding alcohol consumption 33.3% confirmed and as for the Smoking Habit 8.1% Sponge positively being this possessing altered blood glucose. **Final considerations:** Verifying that most elderly diabetics Have low Therapeutic adherence, because of the that do Use of the medicinal product and there was no restriction of alcohol showing altered glycemetic levels, regarding the use of cigarettes, there was no significance for uncontrolled control.

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## INTRODUCTION

In the world, the population over 60 years is Growing Faster, ether number of elderly people is approaching 600 million and these predictions for the year 2025 Reach About Two billion (Rodríguez MM, Hernández SML, Rodríguez S, 2016). In Brazil, the information from the last census showed that the population is getting older, with the increase from 19.8% in 2000 to 30.7% On 2010 (Souza LHR, Brandão JC da S, Fernandes AKC, 2017). The increased life expectancy can be explained through the advances In Medicine and Pharmacology, better health conditions Sanitation and quality of life (Campos D, De Arruda J, Eto FN, 2015). Due to the Characteristics of ageing, it is observed that the elderly population has a higher risk for the development and aggravation Diabetes Mellitus (DM) and other chronic non-communicable diseases (CNCDS) and their co morbidities

(Leite *et al.*, 2015; Jacques, 2017). DM can be defined as a metabolic disorder, which is characterized by persistent hyperglycemia, which may evolve to stop a deficiency in the production of insulin or in the resistance of its action, Occasion on Long-term complications (Kharroubi and Darwish, 2015), If there is no control Glycemic (Hatting and Mikkelsen, 2015). According Shams *et al.* (2016) About 5.1 million people died in the run the complications of Diabetes, on 2013, And estimates point out that This number reach 592 million at 2035 (Shams *et al.*, 2016). Glycemic control as a means of decreasing the problems of diabetes is Considered one of the alternatives to reduce the severity of the complications And Also the mortality burden (SBD, 2018). One of the actions to maintain glycemetic stability is the therapeutic adherence, Referring to the Continuous use of medication and non-pharmacological treatment (Rios *et al.*, 2015). In drug therapy is used both the Insulin as Hypoglycemic Prays (Souza As De, 2017; Portela *et al.*, 2017;

Heissam *et al.*, 2015). Non-pharmacological treatment includes adequate nutrition, Regular practice of physical activity, cessation of smoking, reduction in alcohol consumption, weight control (Bobek *et al.*, 2017). The non-compliance The Therapy's Interferes in health and quality of life, especially in elderly, Due to their Physical and motor conditions, Psychological (Borba *et al.*, 2018; Seron *et al.*, 2015). In view of what has been exposed, the aim of this study is to Evaluation of therapeutic adherence and factors influencing glycemic control in elderly.

## MATERIALS AND METHODS

This is a quantitative, observational and transversal research in a city in the interior of Bahia (Latitude: 14, 51 ' 58 "S; Longitude: 40 ° 50 ' 22" W). The same is a subproject titled "Epidemiological Profile of chronic diseases in the municipality of Vitória da Conquista, Bahia, Brazil". Data were collected between the months of August 2016 and November 2017, using the stratified random approach method. Sample was composed of 432 elderly Diagnosed with diabetes *Mellitus*. The diagnosis of DM and drug treatment was extracted through the questionnaire of Elder Abuse: *The multinational Prevalence Survey- Abuel on Diseases Existing of Abuel*, in which the following questions were selected: "You or the lady has already had the diagnosis of diabetes by a Doctor?" and "Do you or do you use any medications for diabetes?" It was also questioned about the consumption of alcoholic beverages and tobacco from the questions "do you or do you or have you ever made use of alcoholic beverages?", "Do you or do you or have you ever made use of tobacco?". Glycemic control was analyzed through blood glucose collected by fasting biochemical exams, recommended by the Brazilian Society of Diabetes, having the normal rating < 100mg/Dl and Altered To > 125 mg/Dl, fasting values (SBD, 2018). The chi-square test was performed Pearson, and the statistical analysis was performed with the SPSS ® 25.0 statistical program. It was the significance level of  $p < 0.05$ . The participants were informed about the methods to be used for collection, according to resolution 466/12 (National Health Council), which constitutes international documents of research involving human beings. It is noteworthy that the Research Ethics Committee of the Independent Faculty of the Northeast (No. 1,859,545) approved the project.

## RESULTS

Sample consisted of 432 elderly Diabetics Being that When Questioned On the use of medicinal products for diabetes control, the elderly who had the Altered blood glucose 66.7% responded that yes and 33.3% responded that they and not, in which it was verified Significance of  $P < 0.00$ , between the use of the medicinal product and the control of blood glucose. According to table 1, the consumption of Alcohol does Elderly diabetic patients with altered blood glucose was from 33.3% And 66.7% reported not consuming. Was Found level of Significance between alcohol consumption and the change in GL Glucose  $p < 0.017$ ), suggesting that alcohol consumption may cause Glycemic Alterations. Regarding the use of smoking, there was no statistical significance ( $p < .496$ ). Demonstrating that the use of smoke does not have Influence Normal and altered blood glucose levels. A Table 2 Discusses the association between Alcohol and tobacco consumption, and 471% reported consuming alcohol and smoking.

**Table 1. Association between drug use, alcohol and smoking with blood glucose levels**

Variables		Elderly diabetics Glucose				p-value
		Normal		Changed		
		n	%	N	%	
Uses medicine	Yes	26	7.3	52	66.7	0.000
	No	328	92.7	26	33.3	-
	Total	354	100	78	100	-
Alcoholic	Yes	80	22.3	26	33.3	0.017
	No	278	77.7	52	66.7	-
	Total	358	100	78	100	-
Smoke	Yes	28	8	6	8.1	0.496
	No	324	92	68	91.9	-
	Total	352	100	74	100	-

Search sources, 2017.

**Table 2. Association between alcohol consumption and smoking**

Variables		Smoke				p-value
		Yes		No		
		n	%	n	%	
Alcoholic	Yes	16	47.1	90	23.0	0.001
	No	18	52.9	302	77.0	-
	Total	34	100	392	100	-

Search sources, 2017.

It was verified in statistical analysis That Alcohol consumption interferes in the habitat ( $p < 0.001$ ), identifying that alcohol consumption is positively associated with smoking consumption.

## DISCUSSION

In our study it was observed that the therapeutic adherence in the diabetic elderly was low, What can be Explained by the Social beliefs, Cultural Knowledge About diseases and Use of Medicines (Shams *et al.*, 2016),o Oblivion Other economic factors, are also associated with the low degree of therapeutic adherence (Rios MC, De Souza Prata M, De Sena Rios OS, 2015)and A info The Polypharmacy can Promote medicinal product interactions and adverse reactions, Discouraging the continued use of some medicines, Being Necessary a follow-up and clarification from A health professional (Salcher *et al.*, 2018). It is known that many elderly people use several medications which Can Lead to Follow-up to the guideline's met is for adherence to pharmacological and non-pharmacological treatment (Borba *et al.*, 2018). Along with drug treatment, it is necessary to Changes in life habits, such as food reeducation, practice of physical exercises, because only the use of the medication is not possible to control the disease (Moretti *et al.*, 2018). The Factors For non-adherence to treatment are wide, Being Necessary the Assistance Interdisciplinary, educational nature, an individualized approach, considering each situation, requiring a better preparation of health systems, as well as seeking support from the family member for the continued treatment (Borba *et al.*, 2018). According to our results, The Alcohol use Obtained association signifying in interfering in glycemic control. In which, the use of alcohol Extended Can Increase The risk for development of non-alcoholic liver disease And Cirrhosis Changes in the Metabolic functions, Mainly, of carbohydrates, interfered-Glucose control (Borba *et al.*, 2018) and also increased risk of cardiovascular events (Patel *et al.*, 2015). Regarding the risk-benefit of moderate alcohol consumption in diabetic patients, Epidemiological study demonstrate that glycemic control can be reduced between People who consume

soModerate The alcohol, being bioencapsulationwith the lowest rates of cardiovascular mortality (Gepner *et al.*, 2015). In controversy Steiner Crowell and Lang (2015) reports that, although studies point out That acute ingestion or chronic alcohol does not interfere with glycemic control, Alcohol has the Ability to increase intestinal glucose absorption, may alter the capacity of this sugar in other specific tissues, Causing the its uncontrolled (Steiner JL, Crowell KT, Lang CH, 2015). Regarding tobacco, A study showed that the Elderly patients presented Higher levels of Nicotine dependence, this being a worrying result, since the continuous and prolonged use of cigarettes, associated with the aging process, brings serious consequences to health (Munhoz TN, Santos IS, Nunes BP, 2017). In the However the Our results showed that the number of diabetic elderly's smokers was less than 10%. Some studies have shown that smoking is an unhealthy life habit that may interfere with glycemic control and as a consequence, risks of cardiovascular diseases when associated with insulin resistance and type 2 diabetes, disturbance of glucose metabolism and hyperglycemia, which may progress the complications of diabetes (Malta DC, Bernal RTI, Iser BPM, 2017; Li Y, Zhang T, Han T, 2018). Not corroborating with our findings, in which there was no association between smoking and glycemic Decontrol. It was verified significance in relation to the use of alcohol and smoking, suggesting that when the greater the use of alcohol the more is the use of smoke, and thus vice versa as described in table 2. The Association Between the habit of smoking and consuming alcoholic beverages with diabetes, Carries Coomorbidades Or When already existing, is also Relationship of alcohol and tobacco Can Consequences for health, especially when there is an association between drugs and substances present in tobacco and alcohol (Munhoz TN, Santos IS, Nunes BP, 2017).

### Final considerations

In view of the research findings, it can be verified that the elderly with diabetes diagnosis have low therapeutic adherence that can be assigned to the irrational use of medications, inappropriate eating habits and physical inactivity. Another identified factor reflects on the interference that the Alcohol The glycemic control of the population studied and may be due to changes in the functions of carbohydrates As well as increased absorption of glucose in the intestine. About the act of smoking, is directly proportional to the consumption of alcohol, however, from According to the results the cigarette is not causing harm to diabetes in the elderly. This may be since the Number of the sample studied.

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