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Presentation of the Content

As a first article we present *Sociodemographic characteristics and self-management of chronic diseases in older adults*, by GAMEZ-GAONA, Guillermo, PEÑARRIETA-DE CÓRDova, Isabel, PONCE-CONTRERAS, Ma. Guadalupe, TELLO-GARCIA, Ma. Ascención and LEIJA-MENDOZA, Alejandra, with secondment at the Universidad Autónoma de Coahuila, as the next article we present, *Imperfections professional labor market. A case of graduates of the Nutrition. The imperfections of the professional labor market. A case of graduates of the Bachelor's Degree in Nutrition*, by GONZÁLEZ-PÉREZ, Cándido, with affiliation at the Universidad Politécnica de Altamira, as the following article we present, *Longevas analysis of the five companies in Mexico to 2017*, by SERRANO-TORRES, Ma. Guadalupe, QUEZADA-FLORES, Ma. De la Luz, MARQUEZ-DE ANDA, Camilo and MARTÍNEZ-BECERRA, Abel, as last article we present, *Sustainability actions undertaken by higher education institutions in the Sierra Norte of Puebla, Mexico*, by VELÁZQUEZ, José Rubén , CASTRO, Julia Aidé and CARMONA, Juan Carlos, with secondment at the Universidad Tecnológica de Xicotepec de Juárez.
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Sociodemographic characteristics and self-management of chronic diseases in older adults

Características sociodemográficas y autocontrol de las enfermedades crónicas en adultos mayores

GAMEZ-GAONA, Guillermo†, PEÑARRIETA-DE CÓRDOVA, Isabel, PONCE-CONTRERAS, Ma. Guadalupe*, TELLO-GARCIA, Ma. Ascención and LEIJA-MENDOZA. Alejandra

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Abstract

The present is a study was performed by descriptive methodology. Having as objective the analysis and description of the Sociodemographic and self-management caracteristicas in chronic diseases in older adults in Its different dimensions (knowledge of the disease, adherence to treatment, physical impact management, Mental and social disease) performed in 71 people in the old age stage diagnosed chronic disease or chronic With symptom. The results in the prevalence of hypertension, an average age of the participants of 69.04 years (SD = 6.72) Between ages 60 and oscillating 85 years. The investigation was Carried out in the health centers of the jurisdiction 8 of the Ministry of Health. Among the results, it was found That a greater percentage of users are women, Which confirms the gender perspective in the planning of care.

Self-Management, chronic diseases and older adult

Resumen

El presente es un estudio se realizó mediante metodología descriptiva, teniendo como objetivo el análisis y descripción de las características sociodemográficas y autocontrol de las enfermedades crónicas en adultos mayores en sus diferentes dimensiones (conocimiento de la enfermedad, adherencia al tratamiento, manejo del impacto físico, mental y social por la enfermedad) realizado en 71 personas en etapa de vejez diagnosticadas con enfermedad crónica o síntoma crónico. Los resultados en el predominio de la hipertensión, la edad promedio de los participantes de 69.04 años (DE=6.72) edades oscilantes entre 60 y 85 años. La investigación se llevó a cabo en los centros de salud de la jurisdicción 8 de secretaría de salud. Dentro de los resultados se encontró que un mayor porcentaje de usuarios se constituye de mujeres, lo que confirma considerar la perspectiva de género en la planeación de la atención. Se identifica en gran parte una percepción negativa por parte del paciente en el tratamiento de su patología, mostrando un disminuido apego a su autocuidado, se sugiere dentro de los actos benéficos a la población el implementar la difusión con programas básicos y/o de fácil entendimiento hacia el paciente en donde al nivel de sus capacidades motoras, psicológicas, emocionales y motrices pueda el mismo brindarse los cuidados o en su efecto mejorarlos si es que ya los lleve a cabo.

Automanejo, enfermedades crónicas y adulto mayor


* Correspondence to Author (email: mariaponce@uadec.edu.mx)
† Researcher contributing first author.
Introduction

Due to the large impact of chronic diseases in the health and care expenses of it, a growing interest in self-management programs or self-management in order to alter their knowledge, attitudes and practices against both drug treatment and non-pharmacological perceived purposes of preventing complications. (WHO, 2015) Recently the issue of chronic non-communicable diseases, including those considered to cardiovascular disease, diabetes, overweight and obesity, cancer, chronic lung disease and has achieved worldwide notoriety. Until recently, chronic non-communicable diseases were observed in developing countries used to call them "diseases of rich countries", however, We now know that 80% of all global deaths from these causes occur in middle and low income. Adherence to treatment only reaches 20%, which leads to negative health statistics to the area and cause harmful consequences for the family, society and the government. Chronic noncommunicable diseases (NCDs) are thus one of the biggest challenges facing the health system. They are by several factors: the large number of cases affected; its growing contribution to overall mortality; shaping the most common cause of premature failure, and the complexity and high cost of treatment. Tereshchenko, L. & Baute, G. (2015) which leads to negative health statistics to the area and cause harmful consequences for the family, society and the government. Chronic noncommunicable diseases (NCDs) are thus one of the biggest challenges facing the health system.

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Tereshchenko, L. & Baute, G. (2015) its growing contribution to overall mortality; shaping the most common cause of premature failure, and the complexity and high cost of treatment. Tereshchenko, L. & Baute, G. (2015) its growing contribution to overall mortality; shaping the most common cause of premature failure, and the complexity and high cost of treatment. Tereshchenko, L. & Baute, G. (2015) The health situation in Central America no longer has an epidemiological profile dominated by infectious diseases and nutritional deficiencies, but now are most important chronic noncommunicable diseases (NCDs) as major causes of morbidity. For example, the data for around 2002 show that, among Central American women aged 20 to 59, the leading cause of death uterine cancer, and diabetes, stroke and ischemic heart disease. In the same period, the inhabitants of both sexes aged 60 and older, ischemic heart disease and stroke were the first and second leading cause of death, respectively, while congestive heart disease and diabetes were among the top five causes . OPS. (2010)

According to the National Institute of Public Health, (2015) since 2000, diabetes mellitus in Mexico is the leading cause of death among women and the second among men, by the year 2010, this disease caused about 83 000 deaths in the country. A central aspect of the field of disease self-management is the identification and development of common strategies centered on the patient to cope with these challenges. Grady and Gough (2015) Regardless of chronic disease in question, has been shown to acquire a generic set of skills is good for people to effectively manage disease and improve their health.

The diagnosis of a chronic disease can produce states of anxiety in the elderly, so it is important counseling nurse to teach the patient the care they should take to avoid complications and create you aware of the importance of being perseverant before a chronic condition. Here the importance of the participation of professional nursing in community health, towards primary prevention to avoid reaching complications; emphasis on teaching, educating, motivating levels of responsibility according to their needs and functional abilities in each of the elderly.
Health services are a privileged space to meet the needs of the elderly, such as integrated family stay, participate actively in their environment and make decisions for the good of their health through self-care. Mendez, V- Becerril, V- Morales, M- Pérez, V (2010). Health services are a privileged space to meet the needs of the elderly, such as integrated family stay, participate actively in their environment and make decisions for the good of their health through self-care. Mendez, V- Becerril, V- Morales, M- Pérez, V (2010). Health services are a privileged space to meet the needs of the elderly, such as integrated family stay, participate actively in their environment and make decisions for the good of their health through self-care. Mendez, V- Becerril, V- Morales, M- Pérez, V (2010).

**Overall objective**

Identify, analyze and describe the sociodemographic characteristics and self-management of chronic diseases, elderly health centers jurisdiction 8 Ministry of Health, this to make way for future interventions that may be susceptible support groups.

**Justification**

This study aims to analyze the description and intervention of the definition of the terms "self-management" and "demographics partner" to improve levels of self-management in the elderly and gain understanding of the shortcomings in the implementation of interventions nursing within a social context. Chronic diseases once established, may accompany the individual for a long time, his health worsened and finish lead to death; nonadherence to drug therapy or therapeutic failure is a prevalent and significant problem in clinical practice, especially in the treatment of chronic diseases. It is estimated that, in general, 20-50% of patients do not take their medications as are prescritas1, although the default rate can vary greatly depending on the pathology.

In the context of chronic diseases, WHO considers the lack of adherence a priority public health issue because of its negative consequences: therapeutic failures, higher rates of hospitalization and increased healthcare costs.

Thus, in a study of diabetes and heart disease, patients with poor adherence rates were significantly higher mortality compliant patients (12.1% vs 6.7%), and in another study in patients with diabetes, hypertension, hypercholesterolemia and heart failure, found that hospitalization rates were significantly higher for all these diseases in patients with low adhesion (13% vs 30% for diabetics; 19% vs 28% in hypertension). But nevertheless, the behavior of people can play the most important roles in that evolution could even lengthen their lives, those who are properly adhere to treatment regimens and living each of the diseases requires.

The results of this research will allow underlie the further development of other appropriate interventions that affect the sociodemographic characteristics and patient self-care regarding their health, improving quality of life through self-management of chronic diseases It represents a good opportunity for nursing science. those who are properly adhere to treatment regimens and living each of the diseases requires. The results of this research will allow underlie the further development of other appropriate interventions that affect the sociodemographic characteristics and patient self-care regarding their health, improving quality of life through self-management of chronic diseases It represents a good opportunity for nursing science. those who are properly adhere to treatment regimens and living each of the diseases requires. The results of this research will allow underlie the further development of other appropriate interventions that affect the sociodemographic characteristics and patient self-care regarding their health, improving quality of life through self-management of chronic diseases It represents a good opportunity for nursing science.

**Framework**

Self-management in the field of medicine and health care refers to interventions, training and skills which patients with chronic, illness or disability can effectively care for themselves and can learn how. Bonal, R & Cascaret, X (2009)
The approach served to highlight areas where patients require more education and information, the sample consisted of 391 women (71%) and 161 men (29%), with an average age of 57 years, from 19 to 87 years. Distribution according to the diagnosis found 150 (27%) had hypertension, 100 (18%) had diabetes and hypertension, 203 (37%) had diabetes and 99 (18%) had cancer. To ensure cultural appropriateness, the pilot results suggested changing some terms to make them easily understood by the population studied, without changing the context of the original question in English. The results of reliability for Cronbach were 0.8 and, according to different dimensions, 0.7, 0.8 and 0.7 respectively, indicating a good reliability of the instrument (the closer to 1, the greater the reliability). The scale is therefore a highly reliable test of 12 items.

Tereshchenko, Baute and Zamosky (2016) conducted a descriptive, cross-sectional, prospective study of patients with DM2 adults belonging to the Institutions of Collective Medical Assistance city of Carmel in the period elapsed between March 1, 2013 at 31 March 2014. the instruments used were two surveys. One was composed of structured self completed closed questions Morisky Green (translated) to assess adherence to treatment and another questionnaire conducted by the authors to evaluate the objectives set by them to assess the diabetes disease itself. The surveys were conducted anonymously.

Peñarrieta, Flores-Barrios, Gomez-Gutierrez, Sprockets-Martinez-Gonzalez Resendiz and Quintero-Valley (2015) conducted a traverse correlation study used a sample of convenience. The study was conducted in the Sanitary District No. 2 of Tampico, Tamaulipas, Mexico. The sample consisted of 299 patients, the scale of self-management in chronic diseases, "Partners in Health Scale". For analysis the Kruskal-Wallis test was used, the correlation of Spearman and Kendall-Tau. As a result they found that survey respondents showed a poor self-care.
Amezgua, Rodriguez & Greene (2015), conducted at a single center, longitudinal, observational and analytic study in patients over 18 years with type 2 diabetes over six months diagnosis, with or without co-morbidities such as hypertension, hyperlipidemia and obesity, attending the outpatient department of internal medicine at a health center in Mexico City. Patients were excluded with less than six months with diagnosis diagnosis and comorbid influenced the treatment attachment, such as chronic obstructive pulmonary disease, hyper- or hypothyroidism, cerebrovascular disease, among others. Results in 22 diabetic patients and 33 controlled uncontrolled diabetic patients were found; controlled diabetics patients, 11 had good attachment, 4, regulate attachment and 7, poor adherence to treatment. Of the 33 patients with uncontrolled diabetes, 10 had good attachment 18, regulate attachment and 5, poor compliance to treatment; the economic factor was the main cause of poor adherence to treatment.

Bautista and Zambrano (2015) conducted a cross-sectional descriptive study quantitative. The population corresponds to 390 patients attending consultation or control, and the sample consisted of 287 patients from institutions of primary health care. This was selected by random probability sampling simple, performing a general list of patients attending consultation or control and then selecting randomly, according to the size of the sample set. The sample consisted of 287 patients with diabetes mellitus type 2. The age range was between 50 and 80+. The age groups most representative are 50-54 years (23.3%) and 70-74 years (23.0%). The average age in the group of patients was 65.9 years, with a variation coefficient of 10, 1 year. 42.5% of respondents found in less than or equal to 64 years old. With regard to sex, she represented 54.7% female, and 45.3% males. 59.9% of patients currently living with partner (married or cohabiting); while 40.1% has no partner today (single, divorced or widowed). 60% of patients had a stable bonding situation in favor for these individuals, by having a close family support regarding the treatment to be followed to maintain optimal health. The average schooling group of diabetic patients who participated in the study is 4.64 with a coefficient of variation of 3.3 years. The social and economic situation has been determinant in the educational development of persons:

Helen Lagos Méndez and Nestor Flores Rodriguez (2014), quantitative, correlational cross-sectional design, with a population of 100 patients of type 2 diabetes mellitus and hypertension; Apgar family and self-management in chronic diseases: 2 instruments were used. The population was 100 patients with type 2 diabetes mellitus and hypertension. Two instruments were used: apgar family and self-management of chronic disease, who showed a positive correlation between family functionality and self- (Spearman rho = 0.43); the addition, 54% of families of those assessed were moderately dysfunctional and 7% severely dysfunctional patients self-regulating was 56% and inadequate in 9%.

Pañarrieta- De Cordoba Maria Susana Camacho Vergel-, Lezama Sonia Vigo, Rivero-Alvarez Rosario, Taipe- Cancho Jorge Olivas and Borda Hilda (2013) conducted a study in populations that belonged to the jurisdiction of the Ministry health centers health, a sample for convenience was performed with the following inclusion criteria: age 18 and more than three months for the disease, the instrument was applied: "Self-Management in chronic conditions. Partners in Health Scale a total of 382 people. Results: self-is poor with an overall average of 66, for diabetes, hypertension and cancer. differences in the self was found in the size of grip and handling signs and symptoms. People with diabetes had better self-management in signs and symptoms compared to people with hypertension and cancer, while people with cancer showed better self in adherence compared to people with hypertension and diabetes. differences in the self was found by sex. Getting the self-management in people with chronic diseases is deficient in all its dimensions: knowledge, adherence, and management of signs and symptoms. It requires Further research with a gender perspective.

Troncoso, Delgado and Rubiliar (2013) conducted a qualitative study with phenomenologist approach, using a semi-structured interview to a total of 11 people who met the selection criteria, aiming to interpret the precepción of the factors that determine adherence the prescribed treatment of adults with type 2 diabetes who attend the Family Health Center La Floresta commune of Hualpén, Chile, during the months of March and April 2012.
Among the results the importance is stressed that users encode the consumption of drugs and delay realization of the diet, however, the latter is not actually made by these patients. Physical exercise is not interpreted as part of their therapy and concluded that users with DM2 treated in an outpatient made inadequate adherence to its non-pharmacological treatment due to various factors such as lack of adherence to therapeutic dieto indications or the failure of interpretation of physical exercise as part of their therapy.

Mathew R, et al., (2012) conducted a qualitative study with five focus groups (mixed) and nine individual interviews. 35 participants between men and women with type 2 diabetes, who were recruited into a diabetes education center in Toronto, Canada included. The results show an average age of participants was 57, that 51.4% of respondents were women. They conducted a thematic analysis of the material collected in interviews that identified five topics: 1) disclosure and its identification as a person living with diabetes; 2) self monitoring blood glucose; 3) diet in different contexts; 4) use of existing resources for diabetes and 5) social support. The study showed that women were to reveal their diabetes more easily and integrated into their daily lives, while men were more reluctant to tell family about your illness and friends and (self-care practices) cared less in environments social. Men focused on the practical aspects of self-monitoring of blood glucose experimenting with various devices in the management of diabetes to reduce dependence on drugs; while women focused on emotional components of self-monitoring of blood glucose. Women spoke of restricted foods from their diets perceived as prohibited, while many men said moderate consumption perceived as unhealthy foods except in social situations. Women used socially interactive resources (education classes and support groups), while men relied more on self-directed learning. Finally, men and women reported that they wanted medical support, both emotional and practice (attention) regarding aspects of self-management of the disease.

Shulman-Green, Jaser, Martin Alonzo, Gray, McCorkle, Redeker, Reynolds and Whitemore (2012) conducted a literature review to locate articles that used qualitative methods to describe the processes of self-management from the perspective of individuals living with a chronic disease. Although quantitative research could include a description of the processes of self-management, the intention was to detail the processes of self-management rather than examining correlations between processes and outcomes. Concluding that "self-management of chronic diseases will remain an important component of health care, identification of self-management processes can help guide future research and clinical practice efforts that support self-management".

Ryan and J. Sawin (2012) conducted a qualitative study with five focus groups (mixed) and nine individual interviews. 35 participants between men and women, with DM2, who were recruited into a diabetes education center in Toronto, Canada included. The average age of participants was 57 years and 51.4% of the respondents were women. They conducted a thematic analysis of the material collected in interviews that identified five topics: 1) disclosure and its identification as a person living with diabetes; 2) self monitoring blood glucose; 3) diet in different contexts; 4) use of existing resources for diabetes and 5) social support. The study showed that women were to reveal their diabetes more easily and integrated into their daily lives, while men were more reluctant to tell family about your illness and friends and (self-care practices) cared less in social settings. Men focused on the practical aspects of self-monitoring | glycemic experimenting with various devices in the management of diabetes to reduce dependence on drugs; while women focused on emotional components of self-monitoring of blood glucose. Women spoke of restricted foods from their diets perceived as prohibited, while many men said moderate consumption perceived as unhealthy foods except in social situations. Women used socially interactive resources (education classes and support groups), while men relied more on self-directed learning. Finally, men and women reported that they wanted medical support, both emotional and practice (attention) regarding aspects of self-management of the disease.
Esquivel, (2012) aimed to assess the level of knowledge and skills that people have with Diabetes Mellitus insulin-dependent (IDDM) and non-insulin dependent (NIDDM) and instruct them in individualized in terms of their self-management sessions at home. For this work 50 adults of a group of 323 patients enrolled were selected control Clinic diabetes, aged 30, with blood glucose elevated above 126 mg / d previously diagnosed with Diabetes Mellitus Insulin Dependent and Non-Insulin Dependent (IDDM and NIDDM). All workers and beneficiaries of Medical Services of the various departments of the Autonomous University of Nuevo Leon. It concluded that based on the results obtained in this study reached the following conclusions: As for the study objectives Individualized Education diabetes: 1.

The need for education is evident when detecting that a minimum percentage knows detect symptoms of high or low glucose and even less know handle it. 2. By observation during interviews some features caused by the aftermath of complications such as impaired vision detected, making it difficult to visualize glucose levels marking the meter; Some patients have added as arthritis disease, which hinders the ability to application of insulin; Some can not read or write. All these are disadvantages for learning, self-management and adherence to treatment. - The need for education is evident when detecting that a minimum percentage knows detect symptoms of high or low glucose and even less know handle it. 2. By observation during interviews some features caused by the aftermath of complications such as impaired vision detected, making it difficult to visualize glucose levels marking the meter; Some patients have added as arthritis disease, which hinders the ability to application of insulin; Some can not read or write. All these are disadvantages for learning, self-management and adherence to treatment. –

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Giacaman, Kompatzkir (2012) was conducted under a quantitative approach, descriptive and transversal. Test Morisky-Green-Levine, consisting of a test autocomunicado patients on adherence, and also identifies some influential factors used. The sample analyzed is clear of all inserts in the Health Program of Ancud Hospital, diabetic patients selected according to certain criteria for inclusion. The total sample corresponds to 90 patients. Regarding the results, a low percentage of adherence to therapeutic regimen (57%) was observed but expected according to the literature pointing 50% worldwide. As levels glycemic control observed results well above the normal level (less than 126 mg / dl according MINSAL), which shows a great work by professionals to bring these patients to appropriate levels. From the results obtained by this research, it is concluded that adherence to antidiabetic treatment is given by multiple causes, which involves a task that requires the interaction of the entire multidisciplinary professional environment and commitment 2 patient and their environment family to achieve a significant increase in adhesion and makes this a very complex task to solve.
Gigoux Jose Felipe Lopez, Patricia Moya Rivera and Jaime Silva Rojas (2012) conducted a descriptive cross-sectional study with prospective recruiting. The universe was of 962 patients with DM2 time more than three years cardiovascular health program a CESFAM income. The sample was not random, voluntary (patients who agreed to answer the test). It was considered as an inclusion criterion, patients who took the test answered all items and record the last metabolic control in clinical tab. Adherence to drug treatment was measured with the application of Morisky - Green, indirect method which aims to assess the patient’s attitude to compliance. Reported the self test considered noncompliant if a breach in any of the questions is observed. Metabolic control was assessed with the last record of the concentration of glycated hemoglobin A1c (HbA1c) in the clinical record. The sample consisted of 96 patients, divided into 26% male and 74% female, mean age of 61.8 years and standard deviation of 10.21 years.

The overall proportion of patients who was adherent to drug treatment was 62.5%, being similar in both sexes and mean age 63.06 (ic: 95% 60.56-65.57). No statistically significant differences by gender and age, the desirable metabolic control was present in 28% of patients but was not related to the self-reported adherence (p = 0.052). Elor was 2.5 (CI 95% 0906-7374). The sample consisted of 96 patients, divided into 26% male and 74% female, mean age of 61.8 years and standard deviation of 10.21 years. The overall proportion of patients who was adherent to drug treatment was 62.5%, being similar in both sexes and mean age 63.06 (ic: 95% 60.56-65.57). No statistically significant differences by gender and age, the desirable metabolic control was present in 28% of patients but was not related to the self-reported adherence (p = 0.052). Elor was 2.5 (CI 95% 0906-7374). The sample consisted of 96 patients, divided into 26% male and 74% female, mean age of 61.8 years and standard deviation of 10.21 years. The overall proportion of patients who was adherent to drug treatment was 62.5%, being similar in both sexes and mean age 63.06 (ic: 95% 60.56-65.57). No statistically significant differences by gender and age, the desirable metabolic control was present in 28% of patients but was not related to the self-reported adherence (p = 0.052). Elor was 2.5 (CI 95% 0906-7374).

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In Synthesis: Related articles express similarity in the results, which is present greater participation by the female gender, this demonstrated by Maria Isabel Peñarrieta of córdova and mathew R, and Col, as to-linked self-management can be said to share affinity seen leaving Peñarrieta articles, Tereshchenko, Amezcuza, Troncoso Esquivel and the decreased Giacaman, null or non-existent self-management by the patients operated in such investigations. Taking into account the points of greatest notoriety in each of the related articles and reaching enable self-deeper among the population, the health sector would show improvement to the protection of health, prevention and control of diseases more importance or mostly frequent;

Concept definition: Self-Management:
Self-management refers to the ability of the person along with his family, community and health care team to manage symptoms, treatments, changes in lifestyle and psychosocial, cultural and spiritual consequences of chronic diseases (Richard and Shea, 2011). Self-management in the field of medicine and health care refers to interventions, training and skills which patients with chronic, illness or disability can effectively care for themselves and can learn how. you opt for the concept of self-management in this study by the fact of being a concept that includes, in addition to disease-related care, issues such as handling the implications, physical, social and emotional derived therefrom, negotiations with the health personnel attending, and identifying signs and symptoms of alarm. In other words, be regarded increased efficacy or patient. Bonal empowerment, R & Cascaret, X (2009) The success or failure of the self-management of patients with chronic disease diagnosed is determined by factors such as processing and disease (complexity of treatment, disease duration and quality in the provision of health care), intrapersonal factors (age, sex, self-esteem, depression and anxiety), factors inter personal (quality in the relationship between patients and facilitators service health) and environmental factors. Elasy and Albright (2001). People with chronic diseases not only have to deal with the symptoms of his illness, but also, they have to deal with the emotional impact it can have on your life. J. Franek, (2012)

METHODOLOGY

In this chapter the study design, population, sample, sample inclusion criteria, exclusion and elimination, ethical considerations, and measurement instruments, data collection plan and statistical analysis plan was addressed.

Design: To conduct this study proposed a descriptive design since in such variables of interest are detailed and analysis of sociodemographic characteristics shown and self-management in chronic diseases in the elderly intervention participants. Grove, Gray & Burns (2015).

Population, sample and sampling: A descriptive design was used to specify the behavior of self-management in its three dimensions (knowledge, adherence and management of physical, mental and social impact of the disease) and sociodemographic characteristics in older adults and people in pre-participants age of the intervention project “Taking control of your health” Headquarters Saltillo. The first data for undergraduate and graduate students who were trained previously made. Baseline measurement was 146 subjects, of which only 71 were taken, and these who were in aging stage, part of a quasi-experimental study, two groups: control and intervened. The measurement was in health centers belonging to the jurisdiction # 8 health secretary in Saltillo, making use of a convenience sample, since participants were older adults; same that made use of such health centers, who in turn are diagnosed with a chronic illness or chronic symptoms and who agreed to participate in the intervention. Self-management behavior was measured using a global approach Partners in Health Scale (PHS) which comprises a total of 12 items.

To measure the level of knowledge of the disease two items were used: adherence with 6 items and to measure the physical, mental and social impact of the disease four items of the original instrument (PHS), for the 3 spheres were used, the ratio of the score is directly proportional, so that the higher the score, greater mastery of self-management, who in turn they are diagnosed with a chronic illness or chronic symptoms and who agreed to participate in the intervention. Self-management behavior was measured using a global approach Partners in Health Scale (PHS) which comprises a total of 12 items.
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**Inclusion criteria:** elderly users of health centers jurisdiction 8 health secretary in Saltillo, diagnosed with a chronic illness or chronic symptoms and who agreed to participate in the nursing intervention "Taking control of your health" were included, who have been interviewed and assessed at baseline.

**Exclusion criteria:** They were grounds for exclusion of all project participants who do not partially or completely covered with the requirements; as were the elderly being, be diagnosed with a disease or chronic symptoms less than 3 months; incomplete filling of the instruments, unreliable or erroneous data of the items that made up the survey. Data collection site: Application of Partners in Health Scale instrument was conducted in health centers: The health center González September 27 SN-S, Huerta de Venancio, 25030 Saltillo, Coahuila. Health center Laureles Sunflower 247, Sunflower, 25080 Saltillo, Coahuila. Health center tree Francisco I. Madero 504, Centro, 25000 Saltillo, Coahuila. Urban Health Center Ramos Arizpe Jose Maria Morelos 801, Centro, 25900 Ramos Arizpe, Coahuila.

**Ethical considerations:** Basing this investigation in Article 17 section one, which is considered an investigation without risk studies using techniques and methods of retrospective documentary research and those in which no intervention or intentional modification is performed on physiological, psychological variables and social individuals participating in the study, among those considered: questionnaires, interviews, review of medical records and others on what is not identified or sensitive aspects of their behavior are addressed. This research became attached to the General Provisions of the Regulations of the General Health Act (1987) in Research for Health.

According to Title II, Chapter I, Article 13, in this investigation he prevailed the criterion of respect for human dignity and protection of the rights and welfare of participants. In order to comply with what prescribed in Article 21, Section I, IV, VI, explained in clear and complete justification and objectives of the research, the benefits could be obtained and guaranteed to receive a response to any question and clarification on any questions about procedures, risks, benefits and other related research participants affairs. Article 22: Informed consent must be in writing and shall meet the following requirements: It will be made by the principal investigator, indicating the information specified in Article 21 and according to the technical regulations issued by the Secretary.
It will be reviewed and, where appropriate, approved by the ethics committee of the institution of health care. Indicate the names and addresses of two witnesses and the relationship they have with the research subject. It must be signed by two witnesses and the research subject or his legal representative, if any. If the research subject not know how to sign, will print your fingerprint and sign their name another person designated by him, and will run in duplicate, one copy being held by research subject or his legal representative. Measurements and Instruments: Cedula of demographics: In the certificate of demographics data age, sex, marital status and medical service that has included the participant. Self-management behavior was measured using a global approach Partners In Health Scale (PHS) which comprises a total of 12 items.

To measure the level of knowledge of the disease two items were used; adherence with 6 items and to measure the physical, mental and social impact of the disease four items of the original instrument (PHS), for the 3 spheres were used, the ratio of the score is directly proportional, so that the higher the score, greater mastery of self-management. Within the dimensions of self-management are the following: 1. Conocimiento disease; know how absent or at what level of absenteeism, lack of health of the individual is. 2. Attachment or adherence; which it is the compliance and consistency to enhance the quality of life. 3. Manejo physical impact, social and emotional development of the disease, where all human beings tend to react similarly in such a situation, though not all with the same intensity or expressing the same emotion or feeling, the most common ways of reacting to the disease are fear, denial, anxiety or distress, depression or sadness, anger, hostility, irrational or superstitious thinking, guilt, remorse, some kind of envious of those who are healthy, helplessness, shelter, inferiority, shame or modesty to name a few and these same physical and social impact which the patient follows Copes disease. The instrument though not all with the same intensity or expressing the same emotion or feeling, the most common ways of reacting to the disease are fear, denial, anxiety or distress, depression or sadness, anger, hostility, irrational or superstitious thinking, guilt, remorse, some kind of envious of those who are healthy, helplessness, shelter, inferiority, shame or modesty to name a few and these same physical and social impact which the patient follows Copes disease. The instrument inferiority shame or modesty to name a few and these same physical and social impact which the patient follows Copes disease. The instrument inferiority shame or modesty to name a few and these same physical and social impact which the patient follows Copes disease. The instrument self-management in chronic conditions: The Spanish version was used in the instrument "parthners in healt scalemr361" which was validated by Peñarrieta, Reyes, Krederdt, Flores Resendiz and Chavez (2015) obtaining a reliability Cronbach alpha of 0.72. This instrument consists of 12 items derived from four dimensions: Global Index, knowledge, adherence and symptom management. The response options are structured on a scale of zero to eight where a lower score lower self-management.

Results

Descriptive statistics were performed using frequencies, percentages, measures of central tendency and (mean, median and standard deviation) dispersion sociodemographic study population as well as the self-management variables and sociodemographic and self-management of chronic disease in elderly characteristic features.

n = 71 Source: self-care instrument
Sociodemographic characteristics and self-management of chronic diseases in older adults.

Table 1 Descriptive analysis of socio-demographic data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Yes</th>
<th>%</th>
<th>Do not</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Mellitus II</td>
<td>26</td>
<td>36.6</td>
<td>Four.</td>
<td>Five</td>
</tr>
<tr>
<td>Hypertension</td>
<td>51</td>
<td>71.8</td>
<td>twenty</td>
<td>28.2</td>
</tr>
</tbody>
</table>

Table 2 Frequencies in chronic diseases $N = 71$

Source: self-management tool

<table>
<thead>
<tr>
<th>Variable</th>
<th>$n$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Female</td>
<td>63</td>
<td>88.7</td>
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<tr>
<td>Male</td>
<td>8</td>
<td>11.3</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
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<tr>
<td>Civil status Married/Free Union</td>
<td>35</td>
<td>49.3</td>
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<td>Widower</td>
<td>twenty-one</td>
<td>29.6</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>5.6</td>
</tr>
<tr>
<td>Single</td>
<td>eleven</td>
<td>15.5</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
</tr>
<tr>
<td>Serv. Médic None</td>
<td>one</td>
<td>1.4</td>
</tr>
<tr>
<td>Popular insurance</td>
<td>51</td>
<td>71.8</td>
</tr>
<tr>
<td>Social Security</td>
<td>18</td>
<td>25.4</td>
</tr>
<tr>
<td>Other</td>
<td>one</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3 Descriptive Statistics: Self-Management in chronic conditions

$n = 71$ Source: self-management tool

<table>
<thead>
<tr>
<th>Variable</th>
<th>X (md)</th>
<th>OF min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general, what you know about your health status is</td>
<td>6.24</td>
<td>2.33</td>
<td>8.00</td>
</tr>
<tr>
<td>In general, what you know about your treatment,</td>
<td>6.41</td>
<td>2.31</td>
<td>8.00</td>
</tr>
<tr>
<td>Take the medicines and/or drugs and performed the care prescribed by your doctor or health worker.</td>
<td>7.21</td>
<td>1.58</td>
<td>8.00</td>
</tr>
<tr>
<td>He shares your doctor or health worker on issues you decide</td>
<td>5.14</td>
<td>3.14</td>
<td>8.00</td>
</tr>
<tr>
<td>He can ask the doctor or health worker considers some aspects that should change in your treatment or incorporate</td>
<td>3.90</td>
<td>3.39</td>
<td>8.00</td>
</tr>
<tr>
<td>Attending scheduled appointments your doctor or health worker</td>
<td>7.54</td>
<td>1.42</td>
<td>8.00</td>
</tr>
<tr>
<td>It keeps track of your symptoms and early warning signs</td>
<td>6.96</td>
<td>2.10</td>
<td>8.00</td>
</tr>
<tr>
<td>Take action at the first signs warning</td>
<td>7.63</td>
<td>1.69</td>
<td>8.00</td>
</tr>
<tr>
<td>You can manage the side effects of their health status in relation to daily physical activity</td>
<td>6.96</td>
<td>1.81</td>
<td>8.00</td>
</tr>
<tr>
<td>You can keep the emotional and spiritual balance with respect to their health.</td>
<td>7.21</td>
<td>1.29</td>
<td>4.00</td>
</tr>
<tr>
<td>You can interact with others every day, despite his health.</td>
<td>7.31</td>
<td>1.48</td>
<td>8.00</td>
</tr>
<tr>
<td>In general, it takes a healthy lifestyle: I manage to live a healthy life</td>
<td>7.42</td>
<td>1.22</td>
<td>2.00</td>
</tr>
</tbody>
</table>

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Discussion

The study population presented similarity compared with studies addressed, leaving uncovered a predominance of female gender, hypertension as the most common chronic disease and very noticeable lack of self-management, include age as a transcendent figure. It is noteworthy that self-management is especially valuable, since it represents itself a combination of the goals of the patient, the family, the community and the medical environment, all working together to improve the management of ongoing disease. So, if you consider self-management with all elements or fields that comprise (knowledge of the disease, attachment or adherence to treatment and management of physical, social and emotional impact of the disease) not only is an approach.

Conclusions

It is concluded that this study provides support to confirm that the sociodemographic characteristics and self-management should be included in future research and interventions that implements the nursing staff, in order to achieve a change of habits and lifestyles that help both the individual and his family.

Recommendations

Future considerations regarding the creation of a greater number of studies addressing the topic is suggested.

Titrate know where deeper function of each of the sociodemographic characteristics and the relationship with self-management. Improving communication skills, facilitate language so that is understandable to the participant (adapted individuals).

Assessing the ability of self-management (understanding of strengths and barriers). Incorporate self-management in primary care: encourage patients to share experiences on self-management; act as coordinator to provide background information on self-management at the local level.

References


Imperfections professional labor market. A case of graduates of the Nutrition. The imperfections of the professional labor market. A case of graduates of the Bachelor's Degree Nutrition

Imperfecciones profesionales del mercado laboral. Un caso de egresados de la Nutrición. Las imperfecciones del mercado laboral profesional. Un caso de egresados de la Licenciatura en Nutrición

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Abstract

In This paper I discuss three main topics of the education and of higher They are exemplified by the results of a qualitative follow-up study of graduates. The topics discussed are the imperfections of the professional labor market originated by the requirements imposed by globalization; That the various Objectives Higher Education Institutions in Their effort to follow cover the labor needs of companies; and the formation of the universities Themselves as an Important professional labor market. Finally, the work and school Characteristics of a group of graduates of the University Center of Los Altos, a dependency of the University of Guadalajara, the second in terms of population in Importance in the Mexican Republic served, are explained.

Labor market, University education, Technological advances, Market imperfections

Resumen

En este trabajo se debaten tres de los principales temas de la educación superior y se ejemplifica con los resultados de un estudio cualitativo de seguimiento de egresados. Los tópicos a discusión son las imperfecciones del mercado laboral profesional originadas por los requerimientos que imponen la globalización; los diversos objetivos que siguen las instituciones de educación superior en su afán de cubrir las necesidades laborales de las empresas; y la conformación de las propias universidades como importante mercado laboral profesional. Finalmente, se explican las características laborales y escolares de un grupo de egresados del Centro Universitario de Los Altos, dependencia de la Universidad de Guadalajara, la segunda en importancia en cuanto a población atendida en la república mexicana.

Mercado laboral, Formación universitaria, Avances tecnológicos, Imperfecciones del mercado

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Imperfection of the professional labor market

One of the main macroeconomic characteristics of the professional labor market imperfection. Do not fit the labor needs of professionals who have business with the formation of qualitative work certifying universities. One of the functions of the university is the training for work, but not the only, nor can it be; institutions of higher education are intermediary between the needs of the applicants and businesses, and society has needs not only training for work but also creation, culture, innovation in health (Márquez, 2017; 70).

The voracity of capitalism, which is known euphemistically as economic globalization, is expressed in the form of technological advances. An economic pattern that is expressed in daily life, productive development is that any insignificant it may seem, generates cultural changes may be creating different forms of work or simply changes daily work. In short, the expansion of capitalist production with its new commodities creates new consumers. In this field of material production is ahead of university education, education institutions grow at a slower pace than businesses. This difference creates a rhythm of labor market imperfections which is the main thesis of this paper (Aliaga, 2010; 325).

Globalization creates new knowledge by introducing technological advances (Linares, 2017; 38). Consider only the proliferation of smart phones to understand the cultural changes in everyday life that generated this invention; advances generate new knowledge and new knowledge technological advances, cultural changes are generated in all areas of everyday life and how those advances come from companies, universities always lag behind labor markets. It is true that some of the inventions are generated in universities, however, are always partial, the complete package is offered by the companies. Chips, connectivities and scientific knowledge of wave propagation can be studied on college campuses.

In short, globalization companies impose step, the company participates in it and higher education institutions are intermediary between each other, but that the pace of training of qualified personnel is always less than that required by the major needs consumption.

The objectives of universities to meet the needs of the labor market

One of the main objectives sought by institutions of higher education is to train for work and this desire, create high expectations of social mobility among students. Undoubtedly the boom of enrollment growth in Mexican universities in particular and Latin America in general have been the expectations of social mobility, willy-nilly, the university remains the institution par excellence that can provide the broad middle classes opportunities for promotion. It is not easy to climb the rungs of the labor market without having attended university, including private universities charge high tuitions have the function of maintaining social status to reproduce social mechanisms: there are schools for senior management positions, schools for junior officers and schools for professional technicians. The social origin of the students come from distinct strata among those entering the Tecnológico de Monterrey and an Agricultural Technology.

Globalization constantly changing macroeconomics countries and makes it through simple microeconomic changes represented in each of the technological advances. As new knowledge emerges it becomes a link that is incorporated into the world of production and transforms the human endeavor, starting in particular those parts transform the whole. The role of universities to participate in the reproduction of new knowledge, become out of date because most of this knowledge is generated in the business.²

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²It is highly recommended reading the work of Mungray (2001), on page 58 he explains with great forcefulness: "... The flaw arises because training through higher education is a slow process and traditionally separate the world of work, and their decision making incorporates information to be validated some years later. The large time lag between selection, education and professional delivery of labor market mismatches generated ratings and uncertainty regarding the usefulness of these investments."

Higher education itself forms a specific labor market

Institutions of higher education make up a professional segment expanding labor market (Galaz, et al, 2008) and have a specific feature: certified skilled labor; workers who acquire work skills in business do with practice and do not receive a degree. One of the objectives of the raison d'etre of higher education institutions is to train highly skilled workers in the shortest possible time; globalization demands and rewards, every day increases the proliferation of offering short careers.

Private institutions are more akin to the "needs of production" and the most consolidated government can alienate the needs of globalization when artists and intellectuals form of culture. In its obligation to certify knowledge, expand their influence to areas not prone knowledge to economic growth but the insatiability of globalization increasingly reaching corners of human endeavor and gobbles. For example technological innovations applied in health and those used in agricultural production with drones and satellite information. And a negative feature also seen in higher education institutions as certification of skilled labor, is that many institutions reproduce bad habits: teachers without updating their knowledge, they do not fulfill their course load or simulated. When conducting qualitative research work tracking graduates is common to see that students exposed to loud limitations they had in their formation by the bad influence of ill-prepared teachers did not transmit explicit knowledge of the curriculum.

Results of interviews to graduates of the Nutrition at the University Center of Los Altos

The results of a qualitative work that was applied to an entire generation of graduates in 2014. They interviewed all the students who exposed it was possible to have contact, 37 who completed their studies was possible to contact 20 and we consider them our universe of study. Not a representative sample was done because it was considered more important to get the information even when the total was only one generation.

The group is for young people ranging from 24 to 27 years old, the reserve army of qualified staff is young because he uses as long as possible. It is not easy to replace in the short term.

Graph 1
Source: Information obtained directly from graduates through interviews.

The University Center of Los Altos is one of eight regional available to the University of Guadalajara, and as such, meets the needs of the area of South Los Altos de Jalisco. Most graduates born in any of the municipalities in the region, exceptions are three that come from the Cienega and represent 15% (Ocotlan, La Barca and Atotonilco) because there has not opened the professional choice Nutrition; another student originates in the state of Aguascalientes, and the notable exception are the students who come from Guadalajara (30% of the total) and this is because in this college career have demanded much more space than it can deliver the University from Guadalajara. Because it is more difficult admission to the University Center for Health Sciences is the Metropolitan Center that offers in Guadalajara, a high proportion of applicants choose to apply for a space in Tepatitlán and sacrifice their mobility in order to increase their chances income in an average city away from the Capital. The labor market has a supply of qualified personnel in excess and in all regions. One of the major flaws is the oversupply of professionals.
And if optics production is said that there is excess professionals, from the viewpoint of applicants for university places space availability it is low. 20% of graduates of the School Nutrition had requested admission to another university option before (15% to 5% to Medicine and Dentistry). Not having been admitted, they chose Nutrition as their second choice. The labor market always neglects a large proportion of graduates, however it does not, applicants for spaces in universities is always on the rise because social mobility expectations are always high.

Another imperfection of the labor market is clearly seen when we know the reasons why income students requested the Nutrition. Adding the proportions who say they have chosen this university training professional and convincing manner, we see that 15% did so simply to be sharing time with friends, not to have been accepted into the college career of their choice as first option, or use it as a "springboard".
Based on the new requirements of the labor market, the vast majority opted or at least plans to attend graduate school because they are no longer sufficient knowledge gained in the race.

Graph 7
Source: Information obtained directly from graduates through interviews

Public universities represent an opportunity for the middle classes of upward mobility, the proportion of students-workers is high. If you have similar work being referred to students of private universities, the proportion of those working as well as studying would be less. For graduates of the University Center of Los Altos in the Nutrition, half said their studies with their work, with the support of brothers or a maintenance grant, the other half received financial support from their parents.

A similar case is observed with the grade of their parents, while a quarter of them (slightly higher father that the mother) had access to the university by the steady increase that has occurred since the seventies the twentieth century, the greatest proportion exists in having completed only primary (more mothers than fathers). The vast majority are below the top except for a 5% of parents who have completed graduate level. The labor market needs will be generating increases in the average grade.

Graph 8
Source: Information obtained directly from graduates through interviews

The occupational profile of parents is low and coincides with the grade obtained. 20% of them can be considered high because they either work as teachers or practice their profession in a liberal, the rest are workers from different trades that are not salaried but mostly generate their own income as a welder, trailer driver, farmer, farmer or housewife.

Graph 9
Source: Information obtained directly from graduates through interviews.

Half of the graduates have work experience related to their university education. The remarkable thing about this situation is that a third of them got their jobs at the same time studying; reading with this is that classes in higher education are not defining and relationship with employment, is that they create the image of a false certification because it is assumed that students get the "license" to practice their profession to once culminated their studies.

Graph 10
Source: Information obtained directly from graduates through interviews.
This degree is the imperfection of the labor market because it is not used efficiently skilled labor that forms in universities and inconsistent that are defining the knowledge acquired in access to employment picture is generated.

Then, half of graduates have a job related to their training even with the defect described above. The other half, two-thirds have never been linked to their own training activities and the remaining third has always been unemployed. Employment characteristics of those who are related to their university studies are: working in quality inspection and supervision of standards of hygiene; in the feeding area hospitals; responsible for municipal government in the area of adult food; specific control programs in nutrition; as sellers of products alimenticos transnational corporations; in quality control in private companies; in private consultations and generally related to sick people; in teaching in private universities; in industrial kitchens. The means by which access to work are generally related to recommendations from family, friends or teachers; otherwise it has been that hire them in places where they presented their social service and the rest, a minority, are those who come directly to businesses or hospitals to ask for a job and are occasionally hired.

Difficulties explaining to have a job related to his career, it is because their training was "too poor" due to lack of experience, because "a lever" more knowledge is needed. They say they have found some possibilities that did not accept because they offered low wages and heavy working hours; some do not hide their disappointment at having studied the race because they say "there is a culture of people think that nutritionists are not needed".

The main errors that claim were most important in their education, have to do with teacher absenteeism in improvising other not hear the matter in the repeated lack of laboratory practice by shortages of materials. There is also talk of lack of specific laboratories and not only failing to carry out existing practices. A little training in the areas of language and specific computer programs; there were many voices uttered disappear subjects of Sociology and Food Science (especially the first). Some felt that their training as dietitians should give you a psychological slant. Even they claim that they were not trained as entrepreneurs but only for employees.

- Physiology
- Biochemistry
- Nutrients at different stages of life.
- Dietetics
- Morphology
- Dietary calculation
- Assessment of nutritional status
- Food's microbiology
- Physiotherapy
- Clinical nutrition
- Bioethics
- Nutrition in departe
- Nutrition and aesthetics
- Anatomy
- Epidemiology
- Clinical nutrition
- Nutrition in adults and the elderly

Conclusions

Labor supply of professionals is always greater than the number of workers they hire. Universities always form a greater number of graduates in the different races who can be accepted.
It's a great social paradox that the number of applicants to enter the higher level of education are far superior to those admitted, and then a very high proportion of those who obtain certification remain unemployed. In the case set out in these pages, 50% of graduates are either unemployed or enrolled in economic work unrelated to their training. Being as it is one of the main objectives of universities the workers qualify for higher labor spaces, It not covered because technological advances that generate cultural changes in all areas of society, professionals require less than those formed by institutions of higher education in Mexico. Increasing graduates since the early seventies has been defining in that there is always a huge gap between supply and demand for skilled workers.

Universities as trainers of professionals and unique to certify knowledge, have a feature that has been little studied: the have become a professional labor market itself. This special labor fragment faces a big challenge and that technological development is led by the top of the macroeconomic pyramid countries, ie the most advanced companies, creating cutting-edge knowledge, always go forward in scientific knowledge and university organizations always lag behind the economic segment. This is the reason why graduates of different races express disappointment at not having had updated knowledge and requirements of economic sectors teachers.

The particular case of follow-up study of graduates from the Nutrition at the University Center of Los Altos supports each of the thesis behind this work: the number of graduates is greater than the amount the economy can hire specialists; objectives form for work are not met fully by some shortcomings in training. And the labor market of professionals including trainers of graduates in Nutrition, does not have all the necessary steps to keep updated graduates tools because the knowledge generated in business are always ahead of the knowledge generated and reproduced in universities.

References


Longevas analysis of the five companies in Mexico to 2017

Análisis de longevas de las cinco empresas en México hasta 2017

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Abstract

The following research Arises from the constant need to keep updated the database on long-lived family businesses in Mexico by 2017. Which generate jobs for 100 million people, constitute 60% of the total number of companies in the world, in Latin America They Constitute almost 90% of all companies. HENCE, 11 of the 20 Most Important companies currently are in Mexico, are in the family category and Represent Between 70% and 90% of the total of Existing companies in Mexico (Millán cited in López, González and Vargas 2015). The objective is to analyze the five long-lived family businesses by 2017, the companies are; 1. House Veerkamp, 2. House Serra, 3. Casa Cuervo, 4. Grupo Salinas and 5. Coppel, in the methodological development to systematic review of the information was made, through the detection, and analysis of each Obtaining of the study companies, guided by the research question Why analyze the long-lived family businesses in Mexico? As results each company Were Determined That Has Its own strategies of permanence, it is Concluded That companies are the engine in the Mexico economy.

Long-lived family business

Resumen

La siguiente investigación surge de la constante necesidad de mantener actualizada la base de datos sobre las empresas familiares longevas de México al año 2017. Las cuales generan empleos para 100 millones de personas, constituyen el 60% sobre el total de empresas del planeta, en Latinoamérica constituyen casi el 90% de todas las compañías. De ahí que 11 de las 20 empresas más importantes de la actualidad en México, están en la categoría de familiares y representan entre un 70% y 90% del total de las empresas existentes en México (Millán citado en López, González y Vargas 2015, p.57). El objetivo es analizar a las cinco empresas familiares longevas al año 2017, las empresas son; 1. Casa Veerkamp, 2. Casa Serra, 3. Casa Cuervo, 4. Grupo Salinas y 5. Coppel, en el desarrollo metodológico se realizó una revisión sistemática de la información, a través de la detección, obtención y análisis de cada una de las empresas de estudio, guiada por la pregunta de investigación ¿Por qué analizar las empresas familiares longevas de México?, como resultados se determinó que cada empresa tiene sus propias estrategias de permanencia, se concluye que las empresas son el motor en la economía de México.

Empresas familiares longevas


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Article

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Introduction

The representation of family businesses is very important, as it says Lopez worldwide in 2008 family businesses generate jobs for 100 million people, constituting 60% of total companies in the world, 25% of the top 100 companies worldwide are familiar in Latin America they account for almost 90% of all companies. Hence, 11 of the top 20 companies currently in Mexico, are in the category of family and represent between 70% and 90% of total existing business units in Mexico, quoted in (Lopez, 2015)

As mentioned by Michel de Montaigne, "to govern a family is as difficult as rule a kingdom." It is a success for a company to move from the first to the second generation and then the third and not be easy to manage a company where the grandson has to deal with the cousins, in-laws and wives, husbands who joined the family. As mentioned in Austin Texas Sala "in the background, with businesses should happen much of what happens in the animal world; They must be first and foremost desire not only continuity but survival, trace for future generations." (Room, Family Secrets, 2009)

As Beryl Markham writes, "good is the enemy of the outstanding", we have great schools because we have good schools, we have a great government because we have a good government. Few people attain great lives to live because it is equally easy to settle for a good life (Collins, 2015).

As manifested Nieto (2007) in Latin America nine out of ten companies are familial and two out of three go bankrupt in the early years of his administration. While in Mexico, 87% are familial, and of these, eight out of 10 businesses close before two years. However, one out of three companies successfully manages to survive more than two years. Cited in (Lopez, 2015).

Despite the contribution that EF make to the economy of a country and its financial strength it is regrettable to see how many of them disappear over time.

There are few EF surviving the passage of second and third generation (Gallo, Klein, Montemerlo, Tomaselli and Cappuyns, 2009), this in part to the many problems they face throughout their evolution, as the succession of principal is due directorship, paying sucesorales taxes, family pitfalls, conflicts presented by the relationship of family, business and patrimonial system, among others (Demsetz, 1983, Landsberg, 1999: Schulze, Lubatkin, Dino and Buchholtz, 2001; Shleifer and Summers, 1988). Quoted in (Gómez-Betancourt, 2012).

For our theme of longevity and permanence we have to consider mentioned by Austin room "at the bottom, with businesses should happen much of what happens in the animal world; They must be first and foremost desire not only continuity but survival, trace for future generations." (Hall, 2009)

Now it is true that in Mexico statistics remain are discouraging where two of three companies will disappear in its second year of operation and only one reached the second segeneración, our research is focused on those who survive for a long time and know their strategies practice to continue functioning and multiplying more and more.

"To better understand the above we refer to the model of balance between business and family, imagine a boat consists of three parts: bow, stern and cabin, where the captain is. The boat floats to the extent that water does not enter, for this purpose must move in harmony with the waves, if you lean over the odds toward the bow or haca stern respectively, the boat would sink, so it is necessary to maintain a position as stable as possible.

Likewise if you think that the boat is the family business, the bow represents the family and stern enterprise in the cockpit enctrans who can make relevant decisions within the organization: the owners and directors of the company that usually family plans, they are represented by the ship's captain, who is able to steer you toward the direction you want, provided you have the assistance and support crew. "(Rius, 2015) p.4
As a statement of the problem we have to "manage a family business, it is difficult, when employees are familiar, who put above all the feelings and ties that unite them, in some cases authorizing the withdrawal with or without justification, in other cases actions before failure or breach of goals which stops the growth and slows the survival of the company and the longevity of it "are taken.

Methodological development in a systematic review of the information was carried through the detection, collection and find the relevant literature, guided by the research question Why analyze longevas five companies in Mexico to 2017? The research approach is qualitative documentary, with descriptive scope and based on grounded theory design. This research aims to analyze the long-lived family businesses in Mexico analyzing the five most long-lived.

Theoretical framework

In the present investigation to analyze the five companies in Mexico longevas depart for the concept of family businesses.

"The easy definition of the concept maintains that family businesses are companies created and managed by one family. So far the definition is correct. However in practice it materializes in different ways, and should include the aspect of succession in the professional context family business is defined as "one whose heritage and government is exercised by members of one or more families and its strategic objective covers the continuity of the company at the hands of the next family generation." (EB School, 2017)

Meanwhile for Hoshino (2004), is a group of companies owned and controlled by families or descendants. In turn De la Garza says that the family business is where family and business systems are intertwined and in which the participation of its members in leadership, decision-making and capital is fully established, and there is a desire continuity within the family and Belaustegui-Goitia (2007) the company is mostly owned or controlled by a family in which two or more members of this are somehow related to the business. Quoted by (Sanding, 2004)

However, for this article we will understand longevas family business, which pass and still work with the original name over many years and are managed by two or more family members, are classified as long-lived in ranquin by the number years of stay in the market.

It is worth mentioning that it is very important for this study to mention "the first works in the family business as the company that has specific characteristics by virtue of being familiar arises, dating from the 1960s and early years of the 1970 (Calder, 1961; Donnelly, 1964; Levinson, 1971; Geliner, 1974, Danco, 1975). In this first stage family business was defined as one that is family owned and is managed by it. For these early authors, relations between business and family generated internal inconsistencies that made the first potential conflict "mentioned in (Sanding, 2004).

Then it is important to mention that there are models and secrets of centenarians companies and thus mention Gallo and Amat (2003) in his book "Secrets of family businesses centenarians" propose a model with people-oriented, based on motivation organizations and commitment to promote success in the short term and longevity of the EF.

Below are family businesses centenarians, as clear examples of strategies, secrets and survival models, this to lead us to our long-lived companies. several examples of survival worldwide including Mexico of long-lived family firms Reference is made and mention (O'Hara, Mandel and Gunasti, 2002); These include Japanese companies Kongo Gumi, founded in 578 AD and reached 40 generations in the possession of the family, and Hoshi Ryokan, founded in 718 AD as a hotel that is in power generation is 46. In France Château de Goulaine company, founded in 1000 and for 30 generations has been dedicated to wine business. Italy is the Fonderia Pontificia Marinelli (1000 AD with 28 generations), Barone Ricasoli (dc 1141 with 25 generations), Barovier & Toso (1295 AD with 20 generations), among many others. The oldest company in Latin America is the famous producer of tequila "Jose Cuervo" founded in 1758, which was licensed production of tequila straight from the king of Spain. Quoted by (Zapata, 2012)
Theory for analysis of family firms in the study:

Then the model used to analyze long-lived family businesses studied and most widely used and representative by researchers in the field, presents the case study is the model used in this article where the five longevas companies are presented together Mexico.

Study of cases.

In 1935 the School of Chicago used the case study as a method of analyzing social phenomena of migration occurring in the United States, but it was the Harvard School which popularized; Christopher Columbus being the pioneer to deploy 130 thought Faculty & Management, 33. Universidad del Norte, 125-139, 2012 Mariana Marcelino Aranda, Francisco Alfredo Baldazo Molotla, Oscar Valdés Nieto of law in preparing their students to intervene in litigation (Peña, 2009 & Arzaluz, 2005). Robert Yin is the author most recognized in the conceptualization and implementation of this methodology as a research strategy that includes all methods with the logic of incorporating into the design of specific approaches to data collection and data analysis (Yin, 1994). Given this, Goode and Hatt (1976) explain that the method of case study is not only a technique for data, but also serves to organize them based on a selected unit by using various techniques such as questionnaire, personal stories and intensive interview. Peña (2009), the case study is an empirical research that applies to a contemporary phenomenon within its context. (Aranda, 2012).

Methodology to develop

Methodological development in a systematic review of the information was carried through the detection, collection and find the relevant literature, guided by the research question Why analyze the five longevas family businesses in Mexico? The research approach is qualitative documentary, with descriptive scope and theory-based case study design. This research aims to analyze the long-lived companies and their secrets and strategies remain on the market for many years.

Results

Casa Veerkamp: 109 years of promoting musical culture

The Historical Center of Mexico City store is the most complete in the country with 9,000 imported musical instruments. The founder is the German Federico Veerkamp, who acquired Mexican nationality. Today the company is in the hands of the third generation. The main success factor has been to build an excellent reputation thanks to the seriousness of doing business. (Forbes.com, 2018)

History laying the foundations:

More than 100 years ago, the Historic Center of Mexico City witnessed the moment when the brothers Federico and Alfredo Veerkamp, opened for the first time to the public a modest store of musical instruments with the name of "Casa Veerkamp", located in the streets of Mesones (as it was known).

In those years Mexico was experiencing a difficult situation both economically and socially, and to say about the political, so it was difficult to suppose that a turn linked to music could survive against such a difficult scenario.

However, the firm conviction of Federico and Alfredo Veerkamp in promoting a musical culture in Mexico, coupled with their great enthusiasm and youthful effort, led them to transcend in a very important way in musical history by accompanying thousands of musicians of any musical genre.

Today, the people who work in the companies that make up the Veerkamp Group have adopted the mission that was bequeathed to us by Federico and Alfredo Veerkamp.

The Group is made up of "Casa Veerkamp" (Pioneer - Import Matrix) "Veerkamp Mesones", which is the largest store located in the historic center of Mexico City and seven stores called "Palacio de la Música Veerkamp". All of them located in the most recognized shopping centers of the city, the foregoing in order to be closer to our customers and thus offer them a better service and attention. Veerkamp is a moving company.
Despite its more than 100 years of existence, is a company that is in a continuous movement seeking to meet the needs of the market, seeking to generate the necessary changes to satisfy their customers, innovating in their institutional and commercial practices to remain always current and with the best in the music market. It is a company 100% committed to music, musicians, culture, the music industry and Mexican society, which is why it has developed a range of alternatives that allow satisfying the needs, requirements and expectations of its markets, through more than 50 brands recognized worldwide. (Veerkamp, 2018).

Now let's see their current plans and strategies: Thanks to Shark, Casa Veerkamp achieved greater customer satisfaction with digital catalogs, streamlining the order process by up to 60%, which has allowed sales to increase up to 40%, Hernández García said... The project, he said, had an impact not only on the Sales area, but on the Distribution and Marketing channel.

Purchases of musical instruments are now directed on demand, resulting in less stock of obsolete stock in the stores. "This has increased the availability of products and contributed to the negotiation with suppliers." (News, 2018).

Casa Serra: more than 100 years of plastic arts

Francisco Serra started a tlapalería in 1906 in the Historical Center of Mexico City. He was also a sculptor and brought materials from Europe for his personal use. His artist friends began to order brushes, paints and other tools. He started importing five kilos of utensils and then one ton. The turn of the business changed to the sale of articles for plastic arts. Their children took the reins of the company and then sold the shares to three sister employees. The family company has endured by aligning the interests and visions of all. (Mexico.es, 2017)

It was in 1906 when the Spanish Francisco Serra Glavaguera, newly arrived in Mexico, founded in Regina that old tlapalería. Although he was a sculptor and gilder by trade, this business allowed him to support the family. At the same time, he was still doing his artistic work, for which he used materials that he imported from Europe.

While attending the tlapalería Serra did his artistic work. Then "people who painted, sculptors, artists who asked for material that he brought from France began to gather," says Carmen Guzmán, store manager. "Here first were Mr. Father and the son and I was the employee. It arrived, swept, dispatched, without knowledge of absolutely nothing. Leaving school, I arrived here, then I started to acquire knowledge. Afterwards it was done that a lot of people began to arrive. I think that all the painters known in Mexico and not known have passed through here: Roberto Montenegro, José Luis Cuevas, Rufino Tamayo, David Alfaro Siqueiros, Francisco Toledo, Pedro Friedeberg, that is, all the greats, Phil Kelly, the Russian Vlady ", Carmen lists.

"They had and sold what nobody, unfortunately, because there were no people who knew the countryside and did not sell the necessary tools to work. Then they went up there ".

"Later the Lord died (1960), his son was left in charge. He had a big vision of the business and materials were imported from France, Italy, Germany, the United States, and lately Japan, "he adds.

From yesterday and today

It was from 1979, when a new administration formed a joint-stock company composed of employees and relatives of Francisco Serra, that the store became the most specialized in its field in Mexico. In 1996, they opened a branch in the National Center for the Arts.

"They change substances, materials suppliers also discontinued previously considered traditions and today we know that could be toxic, that is precisely Serra House: a combination of all the tradition and not 100 years now, no: we maintain materials that have been used for 450 years "as the rabbit skin glue explains.

Nothing in Casa Serra is older than the working tools of the same Francisco Serra, who still retains the board of directors with the idea of maybe a small museum. (Andrade, 2012).
This place now conclude Diego Rivera came with his assistants, sometimes accompanied by Frida Kahlo. Her disciples, Arturo García Bustos and Rina Lazo, who called the Fridos. Also, David Alfaro Siqueiro, Saturnino Herran and Rufino Tamayo. Luis Nishizawa, Vlady, Rafael and Pedro Coronel brothers, Angelina Beloff, Pedro Friedeberg, Roberto Montenegro, Manuel Felguérez, Raúl Anguiano, José Luis Cuevas, Francisco Toledo.

No Mexican painter recognized not crossed the doors of Casa Serra, a local who was born in 1906 as a hardware store owned by a Catalan immigrant named Francisco Serra, who embarked on Barcelona bound for Mexico ever. (Sinembargo.mx, 2018)

**Casa Cuervo:** the producer of the world’s oldest tequila

Jose Antonio de Cuervo and his sons never imagined that hundreds of agaves grown in 1758 in Tequila, Jalisco, would be multiplied by millions. Jose Cuervo Especial is the world’s best selling tequila, reaching more than 100 countries. Juan Domingo Beckmann is the sixth generation leader of the distillery. The formula for success is the professionalization of the company. (Mexico.es, 2017).

The company is listed on Mexican Stock Exchange after 250 years of operation. And it remains the largest producer of tequila worldwide to a troubled water. (Milenio, 2017). The good reception that gave José investors, despite the hostile environment is not the happy end of a successful IPO. Better than that, is the takeoff point plan of Mexican tequila to play in the global beverage market leagues. Raven realized, for two years, that to have resources and grow in the majors, needs to be a public company. That would explain his departure to the bond market in 2015 and buying with that money, from the European to enter the market Bushmills whiskey. It was clear, too, that the next step was to go to the capital market, says an investment banker, who also asked not to be named.

Cuervo exposure in the market makes the company more transparent, the closer to institutional investors and puts on more even ground against its international competitors.

Going public gives a competitive advantage in its strategy of growth and internationalization plans, being part of the club of great tequila in the world, said Carlos Hermosillo, director of analysis at Actinver Casa de Bolsa. The management company can keep secret his new acquisition, but not many routes you can take towards globalization. (Hurtá, 2017).

Now let’s talk about the behavior of the bag, Jose Cuervo made a successful debut on the Mexican Stock Exchange (BMV) last February 9, 2017, leaving 34 pesos per share with a close upwards on its first day of 4.20 % and a lot of demand from investors. However, in the rest of the year he failed to perform well.

To end his actions had fallen nearly 14% since it went public until it touched lows in October, largely due to the increase in the price of agave and the exchange rate, which affected the costs of the company, match industry analysts. (Expansion, 2018).

**Grupo Salinas: 110 years of achieving an inclusive prosperity**

Benjamin Salinas opened a furniture factory (Salinas y Rocha) in Monterrey in 1906. Today his great-grandson, Ricardo Salinas, Grupo Salinas directs. Before doing so existed Elektra. Command, created TV Azteca, Banco Azteca, Total Play, Italika, Seguros Azteca, among others. The most important strategic factor to achieve longevity is to have a precise focus and diversify around the original business. (Mexico.es, 2017).

Par conclude we mention the strategies used by the Salinas group to remain a leader in electronics. Determinants of success of Grupo Elektra are its extensive, sophisticated and modern distribution network, technology and support sound management practices and aggressive marketing campaigns. Grupo Elektra is the leading financial services and specialty retailer leader in Latin America and is the largest provider of non-bank loans short term in the United States.(Elektra.com.mx, 2017).
Salinas Large Group generates economic value, Social and Environmental in 2017, outstanding performance of the Group companies in each of the economic sectors involved in the social sphere, with the support of the community was raised to $ 63 million which more than 400 homes for those affected by earthquakes, Azteca hope helped to make better human beings through 88 comprising more than 17,000 underprivileged children, playful orchestras, the initiative toy distribution world’s largest constructed , generated more than 16 million needy children smiles. (EFE, 2018)

**Coppel: it has successfully managed the challenge of succession**

In 1941, Don Luis Enrique Coppel and his son established a small store in Sinaloa that sold radios and watches. Then they decided to sell furniture on credit. Over time, they introduced new business lines such as clothing and shoes. Today they have more than 1,000 branches. Henry's eldest son was the president and CEO, who at 60 years passed over his younger brother Augustine. They have made the succession is "a process, not an event”. (Mexico.es, 2017)

Coppel Luis Rivas, Enrique Coppel Tamayo and Enrique Coppel Luken and Agustin represent three generations of part of a much larger business family, whose origins date back to the nineteenth century Poland, where Isaac Kopel Kolchevski (1836-1920) was born the son of Leon Kopel and Kolehezki Hanna, both of Jewish origin. The founder of this dynasty, Isaac emigrated to America at age 18. He first traveled to Hamburg, where he sailed to London in 1854.

Three successful successions, the Coppel Rivas, the Coppel Coppel Luken and Tamayo. Enrique Coppel Tamayo was born in Culiacan, in 1922, son of Luis Rivas and Inés Tamayo Coppel. He spent early childhood in his hometown moving to Mazatlan at 17, which set up shop gift in 1940.

In recent years, Grupo Coppel SA de CV has diversified and already operates in other than selling clothes and household goods areas. He opened an Afore, operates the BanCoppel bank and acquired Hipotecaria Credito y Casa. Coppel America is the latest expansion strategy of the company, representing a growth plan structured in major Latin American countries, particularly Brazil and Argentina. (Ibarra, 2010).

The results should be by section of the article.

**Acknowledgement**

We thank the Technological University of Leon, UTL for their support for the economic faculty administrative continue writing, making increasingly harvest for our honorable institution.

**Conclusions**

Business analysis each has their own strategies and have lived, financial succession and transformation of its activities, the five companies analyzed each and every one of the strategies are valid and successful for the company in particular and growing different economic situations and he has been according to their abilities and needs.

Thus the company Veerkam is distinguished by the products offered and unique in the market, Casa Serra offers all kinds of materials and tools for the visual arts, Casa Cuervo's longest producer of tequila get permission to operate by the viceroy, Grupo Salinas with over 100 years selling furniture has a very important significance for the products and services offered today and finally the company Coppel having different spins starting from their arrival in Mexico from Poland and now having a department store with a bank today.

Each of the companies in the study have had a very important role in the economy of our country and continue to function as long-lived family businesses in Mexico.

Clearly explain the results and possibilities for improvement.

**References**


Sustainability actions undertaken by higher education institutions in the Sierra Norte of Puebla, Mexico

Acciones de sostenibilidad emprendidas por instituciones de educación superior en la Sierra Norte de Puebla, México

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Abstract

Undertaken actions sustainability by Higher Education Institutions in the Sierra North of Puebla, Mexico. Taking the perspective of sustainable development as a framework, we intend to know the actions that have been undertaken to date by the Institutions of Higher Education in the Sierra North of Puebla. In order to strengthen the Initiatives that contribute to the different levels of government, the productive sector, the economy that drives, and society in general to contribute to the sustainable conservation of the environment. For this purpose, a quantitative empirical study was conducted through a field research instrument to identify different topics: such as rules or rules that favor beneficial policies around sustainability, ways of local addressing problems, initiatives to promote sustainability, application concrete sustainable practices and benefits that have been generated inside and outside the Institutions of Higher Education in the Sierra North of Puebla.

Sustainability, Education, Development, Globalization

Resumen

Acciones de Sustentabilidad emprendidas por Instituciones de Educación Superior en la Sierra Norte de Puebla, México. Teniendo como marco la perspectiva el desarrollo sustentable se pretende conocer las acciones que han sido emprendidas a la fecha por las Instituciones de Educación Superior en la Sierra Norte de Puebla. Con la finalidad de fortalecer las iniciativas que coadyuven a los distintos órdenes de gobierno, al sector productivo que impulsa la economía, y a la sociedad en general para así contribuir a la conservación sustentable del medio ambiente. Para tal efecto se realizó un estudio empírico cuantitativo mediante un instrumento de investigación de campo para identificar distintas temáticas como las normas o reglas que favorezcan políticas benéficas entorno a la sustentabilidad, las formas de atender problemáticas locales, iniciativas para el fomento de la sustentabilidad, aplicación concreta de prácticas sustentables y los beneficios que se han generado al interior y al exterior de las IES en la Sierra Norte de Puebla.

Sustentabilidad, Educación, Desarrollo, Globalización

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† Researcher contributing first author.

Introduction

Some economic activities have generated negative effects on the environment and these have been produced by processes obsolete several companies manufacturing, which has caused these companies to invest resources to prevent environmental accidents and use cleaner technology; Yet the social demands of the locality are not enough to make the necessary synergy that achieves a change of pattern of different behavior than is currently perceived violates environmental and social to generate poverty, to meet specific economic interests environment is generated.

They arise voices that shape the sustainability idea and is defined in the Brundtland Report (1987) "make development sustainable, durable, ie ensure that present needs are satisfied without compromising the ability of future generations to meet Own".

The importance of achieving a balance between social, economic and environmental factors is evident, so that the study an approach to sustainability is realized and as contextualized concept development today.

Knowledge are transformed into freedom of thought and are transmitted at universities that allow cognitive development of individuals, so also sustainability education is integrated and similarly the actions undertaken in the institutions analyzed Higher education in Mexico.

HEIs to become promoters of cultural property to help improve the reality of our country and the progress of society, also make commitments to perform functions that promote action around sustainability, and the main objective efforts will be analyzed to they have been made in the Sierra Norte of Puebla.

Approach to Sustainability

Vertiginous changes interconnected world through new technologies that indicate patterns of progress within the current globalization context has been characterized by a steady increase of inputs and raw materials to meet market demand regardless of the deterioration of natural resources for obtaining, by developed nations that claim to settle debts that have acquired developing countries which has led to an environmental imbalance that result is reflected in the breakdown of potential development in some countries has increased poverty and natural resources have been degraded, becoming increasingly notorious for the capitalist mode of production, according to the statement made by Keynes (1965) "The main drawbacks of the economic society in which we live are its failure to ensure full employment and its arbitrary and inequitable distribution of wealth and income”.

Given the obvious drawbacks of capitalism he begins to create awareness of its importance in the environmental issues currently facing, about Diamond (2006) sets out the most serious environmental problems that both societies past and present highlighting met:

a) accelerated destruction of natural habitats.
b) Sources of food from the sea are not managed properly.
c) An important part of wild species, has disappeared.
d) Erosion by water and wind sweeping floors farmland.
e) The main sources of energy in the world, especially in industrial societies, are fossil fuels.
f) Most of the freshwater rivers and lakes in the world is already being used for irrigation, domestic and industrial uses.
g) The chemical industry and many other discharged into air, soil, oceans, lakes and rivers toxic chemicals many products.
h) Human activity produces gases escaping into the atmosphere, ozone deterioration.
i) The world population is increasing. Which in turn demands more food, space, water, energy and other resources.

j) What matters is not only the number of people but their impact on the environment.

Moreover, the awareness of individuals about the impact associated with the development in the natural environment to obtain resources begin to notice since the 70's with studies by Meadows, DH; Meadows, DL; Randers, J; Behrens, W. in 1972 (Zapiain, 2002) that determined the following: "If industrialization, pollution, food production and resource depletion maintain the present growth trends in world population, this planet will reach the limits its growth over the next hundred years. The most likely outcome would be a sudden and uncontrollable decline in both population and industrial capacity."

Another action that reinforces the importance of the environment as one of the factors allowing development was addressed at the United Nations Conference on the Human Environment in Stockholm 1972 as the Program United Nations Environment Program (UNEP) presented, strengthening implicitly to the principles of sustainable development, also establishing on June 5 as world environment day.

Similarly in the early 80's much emphasis was placed on environmental education to raise awareness about the environment as it is closely linked to development and to improve the economic position, actions and practices that deplete natural resources are made that developed countries have committed resources and developing countries should overexploit to fulfill their financial obligations to those; situation described in Brundtland (1987, p. 23) "report is in the hands of humanity to make development sustainable, durable, ie ensure that present needs are satisfied without compromising the ability of future generations to meet their own."

Thus, the concept of sustainable development begins to take shape and is ratified at the United Nations Conference on Environment and Development (UNCED) held in 1992 in Rio de Janeiro, Brazil (Earth Summit).

In Table 1 it can be noticed in a historical line the various documents and agreements that contextualize the development of the concept of sustainability, and education and human development strategies at international level.

### Table 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>Universal Declaration of Human Rights.</td>
</tr>
<tr>
<td>1987</td>
<td>Brundtland report Our Common Future.</td>
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<tr>
<td>1989</td>
<td>Children's rights convention.</td>
</tr>
<tr>
<td>1990</td>
<td>Jomtien World Declaration on Education for All.</td>
</tr>
<tr>
<td>2000</td>
<td>Dakar Framework for Action Fulfill common commitments.</td>
</tr>
<tr>
<td>2002</td>
<td>World Summit on Sustainable Development in Johannesburg.</td>
</tr>
<tr>
<td>2003</td>
<td>United Nations Decade of Literacy. Ministerial Round Table on Quality Education.</td>
</tr>
<tr>
<td>2009</td>
<td>Convention within the framework of the United Nations on Climate Change (UNFCCC).</td>
</tr>
<tr>
<td>2015</td>
<td>the Man and the Biosphere Program (MAB)</td>
</tr>
</tbody>
</table>

### Integration of Sustainability to Education

Sustainable development from the covenant of strategies to make education, environmental education (IEO, 1999), and the Declaration of the Millennium Development Goals (UNDP, 2000), to evaluate them when they become the targets Sustainable Development (ODS), and in which a group of goals synthesized in 17 global targets, where quality education framed in the fourth objective aims are set: Ensure an inclusive, equitable and quality education and promotion opportunities learning throughout life for all. (UNDP, 2015); these actions become references observe that countries seek to strengthen environmental education to improve the quality of life without compromising that of future generations.
So that Education for Sustainable Development is a call to different movements such as environmental education, global education, economic education, development education, multicultural education, education for conservation, outdoor education, education and other global change. Education for sustainability is considerably broad and covers many aspects of these different approaches mentioned that are already established and have widespread acceptance. (Leal Filho et al., 1995).

<table>
<thead>
<tr>
<th>1973-1992</th>
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<tbody>
<tr>
<td>Under the influence of the results of the Stockholm Conference, UNESCO established the United Nations Program for Environment (UNEP). Its mission leadership and encourage partnership in caring for the environment by inspiring, informing and enabling nations and peoples ways of improving the quality of life without compromising that of future generations.</td>
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</table>

<table>
<thead>
<tr>
<th>1994-1998</th>
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<tbody>
<tr>
<td>The movement of Education for Sustainability (ES) started gaining momentum in the early nineties, shortly after the Rio Conference. The movement has driven the reach of more traditional approach to environmental education, thanks to the inclusion of various interest groups in society such as business, industry, government, communities, foundations and teaching.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2005-2014</th>
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</thead>
<tbody>
<tr>
<td>Given the serious situation of poverty, violence, inseguidad and depletion of natural resources, the United Nations proclaimed the Decade of Education for Sustainable Development (DESD). It aims to integrate the principles, values and practices of sustainable development into all aspects of education and learning, with the aim of promoting behavioral changes necessary to preserve the future.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2015-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Action Program (GAP) for its acronym in English for ESD, the program that follows up the Decade of ESD (2005-2014). Reorienting education and learning so that everyone can acquire knowledge, skills, values and attitudes that empower and enable them to contribute to a sustainable future.</td>
</tr>
</tbody>
</table>

**Table 2 Global environment commitments Sustainability in Education.**

*Source: self made.*

Table 2 shows the main global commitments that have been generated by the perception of changes in the natural environment and its effects on social and economic spheres are integrated. In order to generate changes in human behavior that allow the preservation of the environment and a sustainable future.

In this context is how the institutions of Education Superior (IES) assume global demands in training people and anticipating changes in regulations of Mexico and initiatives to institutionalize environmental perspective and sustainability in higher education (Nieto, 2007) and incorporated into the Mexican Consortium of University environmental programs for Sustainable Development (COMPLEXUS), which was aimed to promote and strengthen programs and strategies of institutional scope for incorporating environmental perspective and sustainability mission, political and academic programs through structural changes and strategic actions impact in the short, medium and long term (Súcar and Nieto 2004).

**Actions for Sustainability in Higher Education in Mexico**

As part of the National Development Plan 2013 - 2018, it is reflected on the importance of sustainable development and the effects of climate change and environmental degradation are perceived with greater intensity being generated loss of life and economic damage, equally recognized that country growth continues closely related to activities that generate depletion and environmental degradation, so must propitiate actions to reverse the new environmental conditions prevailing today, a new behavior pattern aligned sustainability.

Addressing global commitments representing various UNESCO programs to promote Education for Sustainable Development and the Decade of the United Nations Education for Sustainable Development, in 2002 the Mexican Consortium Program was created University for Sustainable Development (Complexus) under the auspices of the Center for Education and Training for Sustainable Development (CECADESU) of the Ministry of Environment and Natural Resources (SEMARNAT) and the Anuies environmental, (ANUIES). Originally this consortium was integrated by 15 higher education institutions that offer environmentally focused institutional programs.
From its inception until 2017, the consortium has promoted various activities in which institutions freely and without restrictions are integrated, it should be noted that recently (March 2017) held a national meeting of curriculum greening intended to reorient plans and curricula to mainstream sustainability, to strengthen academic activities that promote environmental stewardship and sustainability as well as adjust their programs to a process for creating high quality and promote the development of the four pillars of Education for all: learning to know, learning to do, learning to live together and learning to be (Delors et al, 1996).

The elements that are an inherent part of sustainability point to visualize the environmental, social and economic issues as part of a whole and not in isolation, just as local action to solve problems must be done with a global vision and can lead to consequences world, should also be considered that personal consumer choices impact on resource extraction and manufacturing processes from distant places. As part of this context is sought documentary evidence that higher education institutions in Mexico are formally adopting some of the guidelines included in the Source Book for Higher Education UNESCO, IES in the Sierra Norte de Puebla.

In this study, we are considering only the Higher Education Institutions (IES) of the Sierra Norte de Puebla as directly involved as a tool for human capital formation in the productive sphere, representing the ultimate learning for life productive in the social and economic sphere of graduates.

According to the Regional Development Program 2011-2017 Sierra Norte region. This region of the State of Puebla is composed of 35 municipalities and 1,532 localities, of which 1,503 representing 98.1% of rural localities with fewer than 2,500 inhabitants and concentrated to 411,746 inhabitants, ie 61.5% of the total in the region. The remaining 29 seats are over 2,500 urban inhabitants and together has 257,113 inhabitants, representing 38.5% of the total population. Huauchinango is a town in the region with more than 50,000 inhabitants.

Methodology

For its development a measuring instrument consisting of a direct questionnaire of 10 items forming indicators of knowledge and policies implemented to recognize the actions taken around sustainability in higher education institutions in the Sierra Norte of Puebla was applied, it should be noted some questions relate to the variable quality, which coincides with the methodology map competitiveness American Development Bank (IDB): planning, accounting and finance, management, quality, human resources, information technology and communication. statistical sampling was not applied under the universe it was limited to the Sierra Norte and applied to all IES, found in the aforementioned demarcation.

For the study 29 closed questionnaires of which 21 were appointed to public institutions and 8 dedicated to private institutions, a total of 29 higher education institutions in the region referred to above were applied.
Table 3 Universities in the municipalities of the Sierra Norte de Puebla that direct questionnaires were applied.
Source: self made.

The variables and indicators that were structured to collect field data are presented as follows:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indicators</th>
<th>Question number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1: Overview</td>
<td>IES name of the respondent; name and hierarchical level in the Institution of interviewee, date, e-mail and telephone.</td>
<td>Header</td>
</tr>
<tr>
<td>Part 2: Understanding Sustainability</td>
<td>Knowledge and meaning of the term sustainability</td>
<td>one</td>
</tr>
<tr>
<td>Part 3: Application of Sustainability</td>
<td>Implementation of sustainability in the institution represented; considered if it involves social responsibility of the institution in addressing local and regional issues; existence of standards or rules that allow the development of policies for the benefit of sustainability.</td>
<td>2,3,4</td>
</tr>
</tbody>
</table>

Table 4 Measuring instrument
Source: self made.

The results reflect the following: 100% of the surveyed universities know the meaning of the term sustainability, so universities in the Sierra Norte de Puebla take into account the importance it represents sustainability.

In implementing sustainability, 100% of the institutions surveyed if they can perform the implementation of sustainability. However only 67% of universities have rules or rules for the benefit of sustainability, 19% of them an intermediate result was obtained because they have not been fully implemented. And finally, 14% reflects an unfavorable outcome in some institutions because they have not implemented the standards or rules necessary for the benefit of sustainability. Similarly, 100% of the institutions surveyed believe that social responsibility involves addressing local and regional issues to better sustainable development in the region and thus promote a better culture among its inhabitants.

Regarding Shares for Sustainability, 81% of higher education institutions if they know the initiatives implemented by the institution to which they belong and likewise promote projects with their pupils and students that will contribute in a better way to development sustainability, however 19% of them said they do not know any initiative or activity in their respective institution. Similarly, 100% agree on the importance comprising the implement development projects to improve sustainability, both in the institution and the region they inhabit. About 24% of the institutions surveyed responded that one of the biggest benefits is to obtain environmental certification.
Similarly different sustainable actions developed since 29% of the institutions carried out the action of separation of hazardous waste, as well as the other 29% makes the separation of organic, inorganic and battery waste, while 28% implements the separation of PET, also 9% said they had other options such as reuse office paper, waste separation toner, the water is treated to irrigate the remaining 5% of the institutions carries out recycling Water.

In the last section Participation / Collaboration 71% of them answered that the degree of participation of students is between 51% to 75% of collaboration in the actions carried out within their institution, while 14% of them is on a scale from 26% to 50% of the contribution, on the other hand 10% said there is a high degree of participation an contribution, on the other hand 10% said there is 1% to 25%. Finally, 80% of the staff is working in the respective institutions from 51% to 75% staff participation engages in actions that are carried out to help sustainability,

According to the results obtained in this research the following table which highlights the strengths and weaknesses identified in the Institutions of Higher Education of the public and private sectors of the Sierra Norte de Puebla region is shown.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Total population</th>
<th>Urban population</th>
<th>Zona Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>006 Ahuacatlan</td>
<td>14,754</td>
<td>3,006</td>
<td></td>
</tr>
<tr>
<td>008 Ahuazotepec</td>
<td>10,457</td>
<td>1,268</td>
<td></td>
</tr>
<tr>
<td>014 Amixtilan</td>
<td>5,004</td>
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Table 6 Municipalities that make up the Sierra Norte with population Total, color those in which higher education is offered
Source: Based on data from the Regional Development Program 2011-2017 Sierra Norte region

Acknowledgments

Our appreciation for the timely support they have always given the C. Ing. Jesús Santos Picazo, Rector of our University, the Medical Meza Roberto Montiel, Head of Academic Affairs Secretariat and the Mtro. Marco Antonio Alvarado Fosado Administrative Director of the Economic Division. All broad range of fronts fully supporting research activities that allowed this investigation will be conducted.
Conclusions

both the institution and the region they inhabit; however only 86% of respondents there are rules or rules that favor the creation of policies in favor of this; Parallel almost 81% of higher education institutions if they know the initiatives that implement the institutions to which they belong and promote projects with their student bodies to contribute better to the development of sustainability. Regarding the benefits to be gained from sustainability actions 24% to achieve environmental certification, 24% chose achieve recognition by society 19% of these institutions preferred to raise awareness of current and future generations, 19 % Parallel almost 81% of higher education institutions if they know the initiatives that implement the institutions to which they belong and promote projects with their student bodies to contribute better to the development of sustainability.

Regarding the benefits to be gained from sustainability actions 24% to achieve environmental certification, 24% chose achieve recognition by society 19% of these institutions preferred to raise awareness of current and future generations, 19 % Parallel almost 81% of higher education institutions if they know the initiatives that implement the institutions to which they belong and promote projects with their student bodies to contribute better to the development of sustainability. Regarding the benefits to be gained from sustainability actions 24% to achieve environmental certification, 24% chose achieve recognition by society 19% of these institutions preferred to raise awareness of current and future generations, 19 % of them he chose to contribute to a reduction in environmental damage finally the remaining 14% chose achieve recognition by various authorities. It should be noted in this regard that the environmental certification process is very expensive and not all HEIs have the resources proportionally so chose other options, however they expressed their interest in achieving certification if it were less expensive.

Equally apply various sustainable actions such as: Water Recycling, Separation of PET, separation of hazardous waste, separation of organic waste, inorganic and batteries. In addition to these actions take 71% of higher education institutions, with the participation between 51 and 75% of students and 81% last IES with the participation of its staff between 51 and 75%.

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