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COVID-19 y adultos mayores: entre el aislamiento por cuarentena y la vulnerabilidad económica

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Abstract

This study aimed to identify job offers that consider people over 60 years of age to work in a context where the coronavirus outbreak (COVID-19) modified the social and economic behavior of society, cataloging elderly adults as a sector with high risk of illness and were socially and economically isolated. The study carried out during 2020 indicates that, of 750 vacancies offered in Ciudad del Carmen, Campeche, Mexico, only 17 considered the possibility of conducting a job interview with people with a maximum age of 60 years. The low probability of being hired and confined due to the pandemic creates economic vulnerability of older adults who depend on government support or family members to survive.

Keywords: quality of life, income, 60-year-old population, work

Resumen

Este estudio tuvo como objetivo identificar las ofertas de trabajo que consideran a personas mayores de 60 años para ingresar al proceso productivo en un contexto donde el brote de coronavirus (COVID-19) modificó el comportamiento social y económico de la sociedad, catalogando a los adultos mayores como un sector con alto riesgo de enfermar y fueron aislados social y económicamente. El estudio realizado en Ciudad del Carmen, Campeche, México, durante el año 2020 señala que, de 750 plazas ofertadas, solo 17 consideraban la posibilidad de realizar una entrevista a personas con una edad máxima de 60 años. Por lo tanto, personas con mayor edad, no tienen posibilidades de generar ingresos debido a la nula probabilidad de ser

aceptado en un trabajo, aunado al confinamiento debido a la pandemia, los adultos mayores se enfrentan a una vulnerabilidad económica, que los obliga a depender de apoyos gubernamentales o de familiares para sobrevivir.

Palabras clave: calidad de vida, ingresos, población sexagenaria, trabajo.

Introduction

State of the problem

In December 2019, the Wuhan Municipal Health Commission, China, notified the existence of a new coronavirus that caused cases of pneumonia in this province; on January 4th, 2020, the World Health Organization (WHO) reported the occurrence of people with pneumonia. By January 14th, the existence of one case outside China was confirmed by the end of the month; afterward, 7,818 cases were confirmed and registered in China and 18 other countries (WHO, 2020). By May 23rd, 2021, 166 million 346 thousand 635 cases, and 3 million 449 thousand 117 deaths were confirmed in more than 180 countries (WHO, 2021), with the United States of America, India, and Brazil, being the most affected. Mexico, until that date, had registered 2 million 392 thousand confirmed cases and 221 thousand 256 deaths, the information updated at <https://covid19.who.int/>. This behavior of the disease in the world indicates its possible spread until the vaccination can be applied to the majority of the population and the level of contagion among the population decreases.

According to Palacios *et al.* (2020, p. 3), the virus can spread rapidly, and a single infected person can infect 2 to 4 individuals; however, the most vulnerable people are those with pre-existing conditions such as asthma, diabetes, and heart disease, reporting a mortality rate > 8 percent in people older than 70 years.

The doubling of cases among the population varies between countries; Mexico, for instance, doubles the total number of cases in just two days, affecting people who are 44 years old on average (Huenchuan, 2020). The spread of the disease can be avoided by maintaining social isolation, either by staying at home or in a hospital unit for people with health complications (Secretaría de Salud, 2020).

COVID-19 and its rapid transmission among the population set Mexican and international authorities alert to the possible saturation and collapse of hospital systems. Therefore, schools and work centers were closed where the agglomeration of people is very high; in this way, exponential contagion registered rates were avoided.

The quarantine implemented in March 2020 highlighted the need for policies that ensure the population to have labor rights, an adequate income, and a secure source of income that allows people to follow the appropriate confinement measures.

Castillo *et al.* (2020, p.30) point out that, in Mexico, not all the population can carry out social distancing since more than 52 million people live in conditions of poverty and have to resort to jobs in the informal sector to be able to subsist in time of contingency.

This fact aggravates the situation of infections by coronavirus since the population that works in the informal sector is the one that does not have health services. The behavior of vulnerable groups and population dynamics in Mexico provides a vision of the changes that must be made to public policies to benefit the sectors most likely to die in this contingency.

Among the vulnerable groups are older adults who do not have suitable retirement systems and must continue working until their death because they never worked in the formal system that allows access to an adequate social retirement system. The problem is that the older population is susceptible to COVID-19 infection as developing criteria for severity associated with cardiovascular diseases, slow and insufficient immune response, therefore increased morbidity and mortality (Bonanad *et al.*, 2020).

Background

The World Health Organization (WHO) considers aging as the complex process associated with the accumulation of cellular and molecular damages that diminish the capacity of an individual causing death (WHO, 2015); the national institute for the elderly people, Instituto Nacional de las Personas Adultas Mayores (INAPAM), indicates that aging is a process typical of a human being. This term refers to the increase in the elderly within the population structure and represents individuals over 60 years of age (INAPAM, 2020). In general, society has defined

aging as a stage of people even though there is no single characteristic that determines age; Society determines it by considering temporal, social, and spatial parameters (Aranibar, 2001). It is understood, according to the Ministerio de Inclusión Económica y Social (Ministry of Economic and Social Inclusion) (MIES), that aging is a multidimensional process that affects the person who reaches old age, close relatives, and the community where the person develops (MIES, 2013).

Aging takes part of a person considered older when he, or she, shows characteristics such as chronological age (number of years), social age (considering the capacities and attitudes or behaviors associated with people of a certain age), and physiological aging, associated with functional capacity (Aranibar, 2001). Gutiérrez & Kershenovich (2015, p. 13) add that: "although aging is not equivalent to disease, it is often accompanied by conditions such as hypertension, diabetes and metabolic syndrome, which affect the quality of life"; they also add that at this stage, the elements of the body increase the fragility of the person.

The essence of aging highlights the dependence in which the person can fall because they lose the ability to work and thus a considerable lack of income (Ham & Ramírez, 2015). According to the Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography) (INEGI), by 2015, there were 38 older adults for every 100 children and young people (INEGI, 2020a). The information confirmed by the Consejo Nacional de Población (CONAPO) is that, in percentages, older adults comprise 9.3 percent of the population (CONAPO, 2020), this proportion grows every year, leading the country to think about a policy that allows monitoring that the entire population has a quality life.

Public Policies and Social Security

The formulation, establishment, and improvement of public policies focused on social security to provide all sectors with the right to health, education, safety, food, and housing, is the product of the changes that have arisen in the country. A very noticeable modification is the change in the population pyramid in Mexico, with an increase in life expectancy and a significant number of adults in a few decades. Another element associated with the population is health problems, the

product of a poor diet both in children, youth, and adults, as the marked sedentary lifestyle in the population. Some necessary changes have been the new food labeling, the implementation of nutrition subjects in schools, and the national declaration of health as a right for the entire population.

A public policy is defined by Velásquez (2009, p. 156) as an integrating process of decisions, actions, inactions, agreements, and instruments, advanced by public authorities with the eventual participation of individuals, and aimed at solving or preventing a defined situation as problematic. Public policy becomes part of a specific environment from which it is nurtured and intends to modify or maintain.

Older adults in Mexico and COVID-19

The disease caused by SARS-COV-2 causes an upper respiratory infection, which progresses to severe pneumonia, causing multi-organ failure in the individual; However, the symptoms can vary according to the population group, in many cases, it is fatal for elderly individuals and with diseases such as obesity, hypertension, heart disease (Pérez *et al.*, 2020).

Older adults present with a higher percentage of the frailty syndrome, which implies significant care, greater risk of presenting a disability, dependence, and death (Rivadeneira & Sánchez, 2016). Studies carried out by Ozamiz-Etxebarria *et al.* (2020, p. 4) show that “severe and extremely severe levels of stress, anxiety, and depression will increase as the time of confinement and isolation lengthens”. In general, the population over 60 years of age shows frailty in four categories: medical, functional, mental and sociodemographic (Alonso *et al.*, 2007).

Prevention of infections in older adults implies a reorganization of daily activities such as free movement restriction, avoiding social contact, the obligation to carry personal hygiene products, among others (Morgante & Valero, 2020). These changes generated in society notably affect vulnerable groups because their participation in economic and social activities is limited.

Objectives

The first objective of this study was to identify the main characteristics of the population over sixty years of age and their economic importance for the country.

The second objective was to identify local job offers published in Ciudad del Carmen, Campeche, which considers people over 60 years of age to enter the production process in a context where the outbreak of coronavirus (COVID-19) modified the social and economic behavior of the society, cataloging the elderly as a sector with a high risk of becoming ill who were socially and economically isolated. However, their income and quality of life effects were not considered.

Materials and Method

Participants

The study considers an exploration in the national system; therefore, data obtained by the National Survey on Health and Aging of Mexico (ENASEM) 2018 was used, which used a representative panel of the population over 50 years old, the sample considered 20 thousand 979 people who covered proportions of 2 percent, with a confidence of 90 percent and a maximum expected relative error of 15 percent (INEGI, 2019).

For the analysis focused on Ciudad del Carmen, 750 records of job offers obtained from internet pages were considered.

Technique and instruments

An exploratory, quantitative and descriptive study was carried out. The study takes up results from the National Survey on Health and Aging of Mexico of 2018; this information allows a national analysis. For analysis of the local information in Ciudad del Carmen, a search on the internet page of job offers, published weekly during the year 2020, was made. Such job offers were registered in a database that contained information on each of them, such as the position required by the company, minimum educational level, minimum age, and maximum age, salary offered by the company, characteristics that the potential worker must meet such as

command of the English language, tolerance for frustration, and work under pressure management.

Procedure

In the first phase of the research, the results obtained from the National Survey on Health and Aging of Mexico (ENASEM) 2018 were used, which were published by the National Institute of Statistics and Geography (INEGI, 2019). Such survey results provide information on the social and economic characteristics of the elderly population in general for Mexico.

In the second phase, a weekly record, from January to December 2020, of the job offers generated in Ciudad del Carmen, Campeche, was integrated; internet sites that yielded such job offers were also considered. To determine the minimum number of offers collected in the market, the formula for the infinite population, mainly applied when the total number of observation units that comprise it is unknown (Aguilar-Barojas, 2005), was considered. The formula to obtain the sample, considering a quantitative variable, is the following:

$$n = \frac{Z^2 S^2}{d^2}$$

Here, Z is the desired level of confidence and indicates the degree of confidence that the true value of the parameter obtained in the calculated sample can show. In this study, a 5 percent for error value was considered; therefore, the value for Z was that of 1.96.

S^2 is the estimated sample standard deviation. For this study, a pilot sample of 51 observations was obtained, in December 2019. The descriptive statistics information from the sample considers a standard deviation of 9 thousand 328 pesos. Society's principal income, in this case, the potential salary offered in the market, was considered the main variable.

And, d represents the level of tolerated error or the level of precision. For this study, the level of ± 5 percent of tolerated error was established. In this case, it has to do with the fact that, if it is wanted to consider the average wage of 15,203 pesos from the pilot sample, and, for the study, a $\pm 5\%$ precision factor is considered, then the value of 760 is taken since it represents the 5 percent of 15,203 pesos.

If you want to estimate the average wage that a person can earn in Ciudad del Carmen and a 95 percent reliable result is expected with a maximum error of 760 pesos, a sample of 578 observations should be obtained. For the study, 750 records of job offers were generated.

In this phase, a selection of job offers focused on people over 60 years of age is considered, in addition to a theoretical approach on the possible effects that the Coronavirus contingency has on older adults in social and economic aspects, throughout the observation of the activities in which people intervene. In addition, it is confronted with articles and news that can be found in the digital media where the effect of the lack of income in the older adult population in Mexico is considered.

Results and discussions

According to ENASEM 2018, about 15 million people live with age equal to or greater than 60 years, of which 4.7 million carry out remunerative economic activity, and 4.2 million contribute indirectly to the families' economy by carrying out activities at home. This information can be observed in table 1, age does not limit the population on their desire to continue maintaining an income since about 219 thousand people looking for work during this investigation. Data show the population's need to stay active and obtain a wage that allows them to live with quality.

Table 1.

Characteristics of the population over 60 years of age by economic activity in Mexico.

	Population older than 60 years	Population that works	Looked for a job	Do housework	Retired / retired, disabled or not working	Does not respond
Women	8,176,205	1,361,240	70,174	4,081,397	2,640,850	22,544
Men	6,937,119	3,361,665	148,850	174,739	3,238,948	12,917

Total	15,113,315	4,722,905	219,024	4,256,136	5,879,798	35,452
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Source: ENASEM, INEGI, 2018.

National information highlights that 35 percent of the population over 60 has a pension or are retired, therefore do not need to work. However, the majority of the people of this age group need to remain active in the productive sector out of necessity or by desire; The problem is that salaries are low, and only on some occasions do they consider high remuneration for people who have at least a bachelor's degree.

When analyzing the job market in Ciudad de Carmen, Campeche, from January to December 2020, 750 work offers advertisements were registered for the city. From these, 17 work offers consider the possibility of hiring personnel with a maximum age of 60 years old, and only one contemplates a limit of 75 years. The factor that must be acknowledged is that a 60-year-old person may be likely to get into the work market. However, companies also consider people aged 20 and over, and generally, the jobs are occupied by young people with greater physical strength and dynamism for their performance at work. Another necessary element is the level of studies because companies request collaborators with minimum studies of high school (12 years of education) or university (16 years of education), which complicates access to work; after all, older adults do not have that level of studies.

The National Institute for Women (INMUJERES) pointed out that, according to 2010 statistics, 28.7 percent of women and 19.9 percent of men over 60 years of age could not read; these illiteracy percentages increase to 53.2 percent for women and 37.1 percent for men in the rural sector (INMUJERES, 2015). The lack of academic instruction in older adults makes it difficult for them to join economic activities; the case of women is worrying because 83.2 percent of women over 65 years of age present an educational gap, that is, they do not have completed Basic education (INEGI, 2017).

Table 2 highlights the requirements that a person must meet concerning the years of study to be called to a job interview and probably be hired by a company.

Table 2.

Characteristics of jobs offered for individuals up to 60 years of age in Ciudad del Carmen, Campeche 2020.

Area	Number of job offers	School years required	Minimum wage offer	Minimum required age	Maximum required age	Sex
Administrative	1	16	\$20,000	27	60	masculino
	1	16	\$15,000	27	60	femenino
Accounting	1	16	\$10,000	35	75	Indistinto
	1	16	\$16,000	28	60	femenino
Engineering	1	18	\$60,000	40	60	masculino
	1	16	\$30,000	50	60	masculino
	1	16	\$20,000	45	60	masculino
	2	18	\$8,300	28	60	masculino
Logistics	1	16	\$30,000	27	60	Indistinto
Services	1	16	\$10,000	20	60	Indistinto
Health	1	16	\$10,000	35	60	Indistinto
	1	16	\$22,000	30	60	Indistinto
	1	16	\$20,000	35	60	Indistinto
	1	16	\$15,000	29	60	femenino
	1	12	\$12,000	20	60	Indistinto
	1	16	\$9,000	30	60	Indistinto
	1	12	\$7,000	27	60	Indistinto

Source: author's own elaboration.

The labor market shows low wages for the population that is in both extremes, for young people between 18 and 23 years old, the income to which they can aspire can be 3 thousand and up to 11 thousand Mexican pesos, considering that they can have a bachelor's degree completed. At the other extreme are older adults, with incomes close to seven thousand pesos if they only have twelve years of education, as for high school studies, and with the possibility of increasing to more than 30 thousand pesos if they have specializations.

When analyzing the work possibilities that exist for the elderly and facing the changes shown in the contingency period before COVID-19, it highlights the loss of quality of life of the population in general and especially for the group study.

According to information from the Secretaría del Trabajo y Previsión Social (Ministry of Labor and Social Welfare) (STPS), in December 2019, 133 thousand active workers were registered in the state of Campeche; by July 2020, only 124 thousand jobs were counted (STPS, 2020). They lost more than 9 thousand jobs in just six months. The loss of employment affected the entire population; however, people older than 60 years were the most affected by being separated from their jobs, as a response to the requirements of the health sector and the Federal Government that indicated that older adults should be removed from companies and institutions receiving their salary; however, the companies gradually replaced these collaborators.

Pandemic and mandatory declaration of quarantine for those in their sixties limited the fluctuation of this group and reduced their possibilities to participate in economic and social activities. The gradual exit from the productive sector was considered a forced dismissal for some people.

Dismissal is an issue that concerns all individuals and is that, at an older age, reintegration into the labor market becomes complicated since companies limit the access to work and prefer young personnel to perform the job. Observed data in the research shows that job offers limit people's incursion into the job market when they turn 35 years old. The other two crucial points are when you turn 40 and 45; after that age, the possibility of entering the labor market is restricted, and age is shown as a disadvantage for a person who tries to join the production process.

This research was conducted in 2020 while the coronavirus pandemic was beginning. The development of the quarantine allowed us to know the little participation of the elderly in job offers. At the beginning of the pandemic, people aged up to 60 years were considered within the job offers; after May, the participation of this age group in the labor market was no longer required, the information obtained allowed to identify that the maximum age decreased to 50 years old. Table 3 shows the unwillingness of companies to consider older adults for company jobs.

Table 3.

Table 3 shows the unwillingness of companies to consider older adults for company jobs.

2020	jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec
Job offer	5	4	2	1	0	0	0	1	2	2	0	1

Source: author's own elaboration.

The contingency that began in March 2020 modified the economic and social behavior of the population of Mexico, families lost income for three reasons: 1) temporary layoffs 2) decrease in wages as a solution to avoid dismissal and 3) decrease in income in own businesses due to the low demand for goods in the market.

These changes had an impact on the older than 60 years group, which, when being classified as a risk group, were separated from their productive activities. The problem present in Mexico is that a high proportion of workers could not stop working because they do not have social security. According to the National Survey of Occupation and Employment, until September 2020, 28 million people were working in the informal economy system (INEGI, 2020b). The lack of social security is reflected in the fact that 41.4 percent of the population over 60 years of age is considered an economically active population (INEGI, 2019); they need to remain within the productive system since they have no other source of income.

Reality has shown that older adults have been excluded from formal economic activity. Most job offers do not contemplate sexagenarians or older people, a fact that has driven this age group to join informal economic activities or, as support in household activities, as to not being a burden for family members. Isolation of people over 60 years of age implied two aspects:

1. Social distancing. The first action was to promote that people did not visit their relatives over 60 years of age. The objective was to safeguard people with health problems to avoid suffering a complication. However, it also had a negative effect; according to Brusco *et al.* (2020), confinement and lack of social contact are related to depression, which is the most frequent problem among the diseases that affect people's mental health.

The psychological reactions to the pandemic are at very high levels due to concern about contagion, fear of losing one's job, and the little economic capacity that could arise to assume the debts obtained before or during the pandemic. (Marquina 2020, p. 85)

2. Separation of economic activities. Most older adults do not have a formal job. In the city, people could be seen working as packers in the cash registers at shopping centers. They aim to receive the support of approximately two to five pesos from clients. This activity allows the elderly to obtain an income when they develop it. However, this implies that most people have to go all week long and try to cover long hours to earn a higher income that allows them to pay for food, clothing, and services in general. The company does not have any employment relationship with the elderly, implying that they do not have access to vacation periods, food vouchers, salaries, and other benefits. This activity allows having a momentary and predetermined income for the number of people served at the cashiers. When declaring forty in society, people stopped receiving this type of income.

Support for the elderly is necessary because low participation of people in economic activity, facing the COVID-19 contingency, was observed facing the COVID-19 contingency. According to a study generated by Montoya-Arce and Montes de Oca (2009), it showed that 36.8 percent of older adults worked because they did not receive a pension, their main characteristic as a group is the absence of stable or favorable income. Labor participation appears as a subsistence system in old age, especially in sectors that do not have a pension or family support (Nava & Ham, 2014).

Older adults and supports during the contingency

The loss of work during the contingency generated a shortage of income and stress for the head of the family, who must provide food during confinement. Furthermore, the loss of quality of life in families aggravates when grandparents live in the family nucleus, who, since they cannot generate an income, represent a social burden for the family. In the case of people who live alone, stress is present due to not having a secure source of income. According to INEGI and

the results obtained in the National Demographic Dynamics Survey (ENADID) applied in 2018, of the 124.9 million inhabitants, 12.3 percent are over 60 years old, meaning that more than 15 million older adults are living in the country. Of that total, 1.7 million live alone, and 21.7 percent are employed but do not receive benefits; only 15.7 percent receive a bonus, and 13.4 percent receive paid vacations (INEGI, 2019). This reality is observed in all the federal entities of Mexico.

The opportunity that people can have a labor and productive insertion must be generated so that it does not constitute a path of exclusion, where informality means a form of survival. Social protection must be a warranty of protection in times of instability and uncertainty for vulnerable people and sometimes become social assistance for excluded groups (Tokman, 2006).

INAPAM (2012) considers that one of the four fundamental axes in the policies focused on this sector is economic security because the proportion of people who do not have a sufficient or stable income continues increasing, which causes the low quality of life in people. This research highlights the limited possibility for a person to be independent of the State to generate their income and maintain a demand for goods and services to satisfy their needs without depending on the family or a State agency to have a decent life.

The limitation of people entering a formal labor market forced the State to seek support for people who do not have sufficient income to meet their needs. Some of them are:

1. Social Care for Older Adults in loneliness or health impairment. Mexico City program to provide medical care, free medicines, and food aid to people over 68 years of age during the time of the COVID-19.
2. Advancement of two bimonthly pensions for the elderly facing COVID-19. On March 18, 2020, the President of the Republic of Mexico announced that two bimonthly of economic support would be paid in advance to all older adults in Mexico as a measure to help people during the pandemic (Gobierno de Mexico, 2020).

3. Active aging. This is a program promoted by the Mexican Institute of Social Security (IMSS) to recognize the needs of older adults and be able to promote courses and activities focused on this group (IMSS, 2020).

The government of Mexico sought to safeguard the health of the elderly; however, the lack of programs that ensure 100 percent coverage of the needs of older adults highlights the economic vulnerability of this population group during the pandemic.

Conclusions

Formal labor markets have excluded older adults. However, their participation is reflected in informal activities or with little remuneration; that is why older adults can be seen as packers in self-service stores, assistants in parking lots in squares, street vendors, and other activities that are not recognized. That is the reason why the income they generate is less than that of a formal worker. During the declaration of a health contingency by Mexican government institutions in March 2020, older adults were isolated from the job market and social activities to safeguard their health; however, public social policies do not contemplate income allocation to vulnerable groups that require more attention and care. In this way, social and economic isolation in older adults is generated, causing a decrease in their quality of life; due to the lack of pensions or family or government support to cover all the goods and services required by this population.

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