Bio-Psycho-Social Overview of the Mexican elderly in the post-confinement stage by COVID-19: Bioethical Aspects.

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Abstract:

In Mexico and the world, the COVID 19 pandemic took us by surprise; however, the socioeconomic and health conditions that exist in the Mexican population, make the treatment of older adults even more complex. In general terms, the Pandemic should be considered a Syndemic since it encompasses biological, social, and economic aspects that complicate the care of the elderly. The economic condition of the elderly is not favorable since sometimes they have to prioritize between health or eating, resulting in a poor state of health due to the lack of health care, in addition to this, the number of insured older adults is minimal. These conditions result in a complicated panorama since statistics show that the most at-risk population in Mexico is the elderly, due to their comorbidities.

Keywords:

Bioethics, Sindemyc, Older Adult

Resumen:

En México y el mundo nos tomó por sorpresa la pandemia por COVID 19, sin embargo, bajo las condiciones socioeconómicas y de salud que en la población mexicana existe, complejiza aún más el tratamiento hacia los adultos mayores. En términos generales la Pandemia debería de ser considerada un Sindemia ya que engloba tanto aspectos biológicos como sociales y económicos que complejizan la atención del adulto mayor. La condición económica de los adultos mayores no favorece ya que en ocasiones tienen que priorizar entre la salud o el comer, dando como consecuencia un estado de salud deficiente por la falta de atención de salud, aunado a esto el número de adultos mayores asegurados es mínimo. Estas condiciones dan como consecuencia un panorama complicad, ya que las estadísticas muestran cómo la población de mayor riesgo en México es el adulto mayor, debido a sus comorbilidades.

Palabras Clave:

Bioética, Sindemia, Adulto mayor

INTRODUCTION

Currently, it has been demonstrated how social and cultural conditions are factors that compromise the state of health of individuals, but this is not something that had not been addressed previously. The first references we can find regarding the relationship between a biological factor and inequality date back to 1790 when Dr. Johann Frank gave a lecture in Italy in which he exposed the link between unfavorable social conditions such as poverty and social inequality with the worsening of the health condition of individuals. The publications published between 1779 and 1819 are considered the first treatise on public hygiene (Murguía, 2021).

Centuries later, the anthropologist Merrill Singer (1994) found the same correlation that years before Frank had described, he conducted a study on the African American population of the United States with HIV, in this research he found that there are different factors associated with the transmission and spread of HIV in the slums of the United States finding that the worsening of health conditions does not necessarily have to do with the comorbidity of other diseases, for instance, tuberculosis, sexually transmitted infections, hepatitis, among many others.

Other factors do not have to do with biological pathogens, but with social factors such as social marginalization,

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political factors, unemployment, and poverty, which are determining factors for the spread of certain communicable diseases that compromise the quality of life of the sick. These factors described are fundamental to understanding why mortality in the African-American population is much higher than in the white American population, in his study he found that African-Americans living in marginalized places have a mortality rate almost three times higher than people living in favorable social conditions.

About the COVID-19 pandemic, Lancet Editor-in-Chief Richard Horton was one of the first to discuss the relationship between SARS-CoV-2 and social inequality, saying "Two categories of disease are interacting within specific populations. (SARS-CoV-2) and a variety of non-communicable diseases. These conditions are aggregating in social groups according to patterns of inequity deeply embedded in our societies.

The aggregation of these diseases in contexts of social economic and social disparity exacerbates the adverse effects of each disease. The most important consequence of conceiving of COVID-19 as a syndemic is to underscore its social origins" (Horton 2020, cited in Murguía, 2021).

In the 1990s, Merrill Singer (1994) proposed the term Syndemia, which consists of an interaction between several communicable and non-communicable diseases that coexist in a given time, place, and context, which means a biological disease and unfavorable socioeconomic, political, and marginalization conditions that in the same context cause mortality to increase and the health condition of the population to deteriorate.

In the case of Mexico, SARS-CoV-2 arrives when there are already active epidemics for example diabetes, hypertension, obesity, etc. (NISG, 2018), this is how COVID-19 comes to add to a large number of diseases that compromise the Mexicans' health.

The older adult population is not the exception, the World Health Organization (2020) declares that Older Adults are a vulnerable population to developing the serious disease COVID-19. There are different positions on the fragility and vulnerability of the older adult in the face of the pandemic since throughout history the older adult has been stigmatized with negative stereotypes such as a dependent person and old age as a synonym of disease.

Nevertheless, it is worth clarifying the difference between chronological age and biological age, while the first one

refers to the passing of the years, biological age has to do with the optimal conditions of the organism itself and with different factors that are governed by:

Healthy lifestyles, the individual's genetics, sleep, diet, etc. It is common at least in Mexico that biological and chronological age are not synchronized, in this sense, there may be older adults with much better health than younger adults so chronological age is not a risk factor, although the accumulated damage caused by poor lifestyles over time is (Gutiérrez-Robledo, 2020).

Even though human life expectancy has increased considerably, which is undoubtedly an achievement in the biological field by mitigating to a great extent the mortality rate due to infectious diseases. There have not been the same results in the social field where progress has been slower, proof of this is the endless negative stigmas towards the elderly, especially the association of the elderly with a disability, the complicated and foolish character of the elderly, being seen as unproductive and decadent, among others.

Nonetheless, objective data show that the elderly, despite the physical, psychological, and social characteristics of their stage of life, are far from occupying these places of disability and decadence, as will be presented below.

The economic status of the elderly in Mexico

Based on data from the Mexican Institute of Social Security (MSI), at the end of 2020, approximately 4.39 million people were retired and by the end of 2021, this figure will rise to 4.59 million. Of the approximately 15.4 million older adults living in Mexico, 41.4% are economically active either formally or informally, of these older adults who are included in the economically active population, 49.1% work informally, which increases the labor risk for this population because they do not have the minimum benefits that by law correspond to any worker, including some without social security (MSI, cited in Statista, 2021).

On one hand, the income received by pensioners is relevant because the majority of retired adults receive the minimum amount of $ 5,255.44 per month and only 5% of the total number of pensioners receive more than 10 minimum wages as a pension. Nonetheless, income and productivity at this stage of life are not reduced only to pensions, since an older adult generates income from unpaid activities such as caring for grandchildren, housework, and

receiving children with their family in their parents' home without earning an income (Juárez, 2020).

On the other hand, as pointed out by the Secretary of Social Development, the conditions of the vulnerability of the elderly are related to the barely fair or insufficient economic income to survive, since sometimes they do not even allow them to cover the payment of services, without taking into consideration the expenses of unexpected situations such as getting sick.

The data provided show the low coverage of the pension system in Mexico, which is associated with much more alarming data, as there are significant differences between men and women, since about 30% of older adult men have a pension, in contrast, only 11.8% of women are pensioned (NWI, 2022).

Even when different strategies have been proposed to mitigate poverty by the federal and state governments, these have not been entirely adequate, as we can identify through the data. Between 2008 and 2014 poverty in older adults presented a fluctuation from 45% to 46% at the national level, by 2016 a decrease of 4.8 percentage points was observed. In the following two years, the poverty situation remained at 41% same as in 2016 (NCESDP, 2020).

Aspects related to the biological field and the relevance of social issues related to the place of the elderly have been addressed, but not everything has to do with policies for the care of the elderly, nor with their economic conditions. Moreover, other factors such as the lack of a culture of prevention and misinformation must also be taken into account. Despite the existence of preventive strategies, these are either unknown or not taken into consideration, which is the case of vaccination campaigns that in the context of COVID-19 take on particular relevance.

According to INEGI data (2020), preventive actions performed by older adults are distributed as follows: In first place with 63% in men and 73% in women, they perform the hypertension test, with 62% in men and 75% in women the diabetes test, with 57% in men and 68% in women they measure cholesterol, 46% in men and 57% in women they apply the influenza vaccine 16% men 19% in women they apply the pneumonia vaccine and 13 and 14% respectively, the tuberculosis vaccine.

In Mexico different vaccination campaigns are carried out annually, within the vaccines that are intended for older adults are considered the following: TD vaccine which protects against tetanus and diphtheria and has to be

boosted every 10 years, seasonal influenza which prevents respiratory infections caused by the Influenza virus and Pneumococcal (polyvalent) that prevents pneumococcal infection and is applied to people over 60 years of age with any risk factor and finally the universal vaccination of COVID 19 (Government of Mexico, 2022).

Now about the specific vaccination for SARV-COV-2, factors linked to beliefs and infodemia "information associated with fear, speculation, and rumors, amplified and rapidly transmitted by modern information technologies" have been found (Rothkopf, 2003). (Rothkopf, 2003). Which is related to the application of the vaccine and as a consequence to the risk or prevention of SARV-COV-2 disease.

Health Condition of the Elderly in Mexico

The state of health of Mexicans is not one of the most adequate worldwide, and this is reflected in the main causes of death, which are connected to chronic degenerative diseases. In conformity with NISG (2020) data, the 3 types of diseases that account for 32% of deaths are type 2 diabetes mellitus, ischemic heart disease, and cerebrovascular diseases.

For diseases in people aged 60 years and older, according to NISG (2020), the most common diseases in the Mexican population are hypertension with a prevalence of 52.4% in women and 38.7% in men, followed by diabetes with 27.3% in women and 21.8% in men, in third place, pulmonary diseases in men and 7.2% in women.

It is relevant to note that the healthy population has been decreasing, accordingly to data from the ENSALUD survey (2012) 54% of the population aged 50 and over did not report having any of the diseases previously indicated, however by 2018 only 47.9% of the population aged 50 and over did not suffer from any of these diseases; this implies that in 6 years, the healthy population decreased by 6.1%.

Notwithstanding, it is relevant the change concerning the causes of death that have been reported since the COVID-19 pandemic. Based on data from NISG (2020), in 2020 of the total number of deaths reported, 92.4% were due to diseases and health-related problems, while 7.6% were due to external causes, mainly accidents, homicides, and suicides. Meanwhile, the three leading causes of death at the national level are heart disease, COVID-19, and diabetes mellitus. It is noteworthy that COVID-19 is integrated into the leading causes of death.

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Current situation of the elderly in the COVID 19 pandemic Mexico is one of the countries that report the highest mortality due to the COVID-19 pandemic, a situation that shows a deficient state of health in the Mexican population. If it is true that old age alone is not a risk factor, it is important to mention that the presence of chronic degenerative diseases has been a relevant factor in the causes of death in Mexico, including the pandemic.

According to data obtained from the Federal Government's page on COVID-19, the age range with the highest number of deaths from this disease was 60 to 105 years of age with 63% of the total number of deaths and only 37% of deaths from COVID-19 occurred in the 0 to 59 age range, that is, more than 50% of deaths from this cause occurred in the elderly.

AGE RANGE OF DEATHS

63% 37%

0-59 years   60-105 years
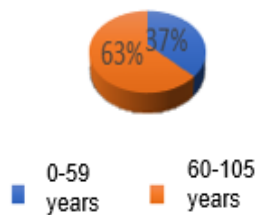
Source: The graph was prepared with data obtained from https://coronavirus.gob.mx/:

Another fact to highlight is the difference between men and women with deaths due to COVID-19, of the total number of deaths in the age range of 60 to 105 years, men occupy 59% and women 41% (CONACYT 2022).
While, as mentioned by Dr. Luis Miguel Gutiérrez Robledo, director of the National Institute of Geriatrics, chronological age is not a determinant for developing serious COVID-19 disease, it does favor and increases the risk of coadjuvant diseases, which in Mexico are greater than in other countries.

This is not a topic related only to health; economic aspects take relevance with diseases. Specifically, on how much it costs to get sick in Mexico according to data from insurance companies. The estimated cost for the treatment of the flu is $150 for medicines alone, without taking into account the medical consultation, a stomach infection costs around $300 to 500 pesos (Rios, 2021).

The diseases that generate the highest cost due to their chronic and degenerative nature are Type II Diabetes, with a monthly cost of approximately $ 1,000.00 only for medications and for a patient who has no complications, that is to say, who keeps his disease under control. And the approximate monthly cost of medication for hypertension is around $ 1,000.00 to $ 3,000.00. The expenses are not reduced to the pharmacological treatment but should be considered the food and care that the disease itself deserves (AXA. 2022).

From these data, it can be identified that care and access have large gaps depending on economic income, and in this sense, as previously mentioned, the income of an elderly person does not allow him/her to cover his/her daily expenses and those required depending on the type of disease and treatment needed.

If we add to this the expenses derived from the pandemic and for the care of the disease for SARV-COV-2, these oscillate between 15,000 pesos in ambulatory patients, while those who require hospital care could spend around $100,000.00, especially if they do not have a social security system. These circumstances do not guarantee access to health care or the possibility of care and increase the risk of complications of the disease and death of the elderly, as demonstrated by epidemiological data (AXA. 2022).

CONCLUSION

Having reviewed this panorama, it is possible to make some conclusions and reflections regarding older adults to the post-confinement derived from the COVID-19 pandemic. Even though they were a vulnerable population during the pandemic, the death of an older adult is not only related to the stage of life they are going through, nor to their biological conditions, since it has already been seen that even young people have deteriorated organic conditions; the approach made throughout this work is connected with social conditions and that precisely because of these, the risk increases.

Traditionally, old age has been associated with loneliness, depression, lack of productivity, and death. Nevertheless, it has been identified that there are conditioning factors that favor these types of situations that are not only related to the old age stage but are built and constituted by social and psychological circumstances, together with biological conditions, but which are also intertwined with the social

conditioning factors that the older adult has had throughout his or her life.

It is identified that not only the virus or the co-morbidities were the constraints for the elderly to develop a higher risk to get sick or die. Furthermore, the lack of formal labor opportunities carries a poor financial income, and as a result, causes the health condition worse or not improve.

That is why it is necessary to think about the pandemic of COVID 19 as a syndemic because seen in this way not only considers the biological factors but also includes elements such as inequality suffered and that today more than ever has been exposed.

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