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Depending on the income of older adults and the coronavirus: orphans or newly poor?

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Abstract *The objective of this study is to show the impact of the early death of the elderly, especially those who are financially responsible for families, on the income of other family members. It is considered to be premature, because death occurs at an age where life expectancy is positive and different from zero. The concern arises from the finding that 74.7% of the deaths recorded by Covid-19 until 8/13/2020 occurred in individuals aged 60 years or older, of which 56.4% were men. For example, at age 60 a male individual could still expect to live another 18.1 years, given the health conditions prevailing in 2018.*

Key words *Elderly, Income, Income dependente, Coronavirus*

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Doctor, don't let me die, I'm the provider for my two grandchildren
(83 year-old terminal oncology patient to her doctor in RJ in 2005).

Introduction

The objective of this paper is to show the impact on household income of elders dying prematurely, especially those financially responsible for families. The death is considered as premature since it occurs at an age in which life expectancy is positive and not equal to zero. This concern comes from the finding that 74.7% of Covid-19 deaths registered by August 13, 2020 were individuals 60 years of age and older, of which 56.4% were men. For example, according to estimates of the present author, at the age of 60 a male individual can expect to live an additional 18.1 years, given health conditions in 2018.

There is no doubt that the coronavirus pandemic is bringing devastating consequences There is no doubt that the epidemic is having devastating consequences in terms of loss of human lives and employment, affecting households in many ways. One of them is a decrease in the income of their members, either due to death or loss of a job at a time of difficult access to paid work. The expected tendency is an increase in the number of these deaths and of unemployment, the latter heavily impacting the families even after the pandemic.

Several papers have shown how important the income of older adults is to Brazilian families[1-7]. According to data from the Continuous National Household Survey (PNADC), in 2019, of the 72.6 million Brazilian households, 35.0% had at least one elder residing. These households contained 65.3 million people, an average of 2.6 people per household, of which 30.9 million were not elders. Amongst the total of these not elders, 16.9 million did not work. The elderly person contributed 70.6% of the income of these households with 62.5% of their income coming from pensions.

In summary, the family of elders is not an empty nest as the literature suggests, and them fulfil an important role as household providers. Therefore, the question is how are Brazilian families with older adults organizing themselves to deal with an ageing population, greater economic dependence of adult children, the shrinking role of the State and the recent pandemic? Are they "empty nests"? If not, what has led to a diversion from expected behaviour? What type of support (or lack of) can be expected from these families in times of coronavirus?

This paper is divided into five sections, the first being this introduction. The second gives a brief description of how these families with elders are constituted and the third characterizes these elders. The fourth section speculates on what might happen to these households if their wage-earners lose their jobs and/or their older adults die. The fifth presents the final considerations.

Households with elders

The family is seen as the most important source of informal support for its members. In many countries, it is the only alternative available. This can be seen not only in cohabitation, but also in transference of assets, services and financial resources. Family members help each other for the collective well-being, constituting a space of "cooperative conflict" where gender and intergenerational differences meet. Thus resulting in a diverse range of family arrangements.

The expected family arrangements for families with elders are a couple with no children or single-person families, that is, elders living alone. Marital status is an important determinant in these arrangements, as is the independence of children, expressed by their departure from home. Another determinant is physical, mental and financial autonomy, at least for family heads. When these factors are not present, cohabitation or an increase in family size may be a strategy used to the benefit of both the younger and older generations.

Literature from the 1980s shows that one of the strategies for confronting poverty in Latin America was the increase or reduction in family size[8]. In Brazil, the period in which children remain economically dependent on their parents has increased due to difficulties in entering the labour market, longer time spent in schooling and increased instability of affective relations[9]. An example of this phenomenon are the "neither-nor", first observed among the youth population, who are the people aged between 15 and 29 years who neither study nor work. Recently this phenomenon has also been observed among men aged between 50 and 59 who don't work, don't look for work and do not receive a pension, also referred to as "neither-nor"[10-12]. Amongst them, a small, but increasing proportion live with elderly parents, progressing from 5.3% to 9.1% between 1992 and 2012[10].

Ciência & Saúde Coletiva, 25(Supl.2):4169-4176, 2020

This situation shows how families are being increasingly requested to care for "vulnerable" segments and the elderly have assumed a very important role. Intergenerational support, by means of family arrangements, has become increasingly important as survival strategies, albeit in different ways. One of these strategies has been cohabitation, where variations in the income of parents and children play an important role. It is also common for the income of the elderly to play an important role in the income of the households where they live, even physically fragile and with the presence of children, grandchildren or other relatives. Even in the condition of dependents, they make an important contribution to the household budget, being 73.8% in 2013[7]. That is, on one hand they need assistance and on the other, provide it - a system of intergenerational transference intermediated by public policies.

Using this premise as a starting point, the objective of this section is to understand how Brazilian families are organizing themselves to face the aging population and the greater economic dependence of their members. Table 1 shows the total of households and their populations, classified in three categories of households:

1- total number of households with elders

2- number of households in which the income of the elder is responsible for more than 50% of the total and

3- number of households in which the income of the elder is the only source of income.

Table 1 also shows the number of people living in these households, divided into three age groups: elders, people between 15 and 59 years and younger aged than 15. Of the 72.6 million Brazilian households, elders live in 35.0% of them, a proportion which has been increasing over time due to an ageing population and changes in family arrangements. For example, this proportion was 18.9% in 1987[13].

These households were home to 65.3 million people, of which 30.9 million were not elderly, and 5.3 million were under 15 years of age. This means 19.2% and 12.8% of Brazilian adults and children, respectively. That is, households with elderly people are not composed only of elders. There, 37.7% of the total income of Brazilian families was found, a higher proportion than that of the population residing there, pointing to that the income of households with elderly residents is higher than the income of those without. Almost half of this income (46.8%) came from Social Security and another, significant, part was from paid work (45.2%).

As already mentioned, elders contributed with 70.6% of the income of these households and 62.5% of this income came from pensions, that is, from Social Security (Table 2). However, paid work counted for 28.5% of this income, since one third of the male elders and 15.0% of the females who lived in these households worked. Considering 20 to 59 as working age, 66.4% of the men and 53.3% of the women residents were in paid jobs. From the total of people occupied in the household, older adults responded for 35.7% and were responsible for generating 44.4% of the labour income of these households. Table 3 shows the proportion of men and women, adults and elders, who were occupied in the three types of households considered.

Taking into consideration the elevated dependence on the income of elders, in 60.7% of the households with them, or in 18.6% of all Brazilian households, their income was responsible for more than 50% of household income. There lived 32.2 million people, of whom 9.9 million were between 15 and 59 years of age and 2.2 million were children younger than 15. Among the not elders, around five million did not work, while 5.6 million elders did. Table 3 confirms that, both absolutely and relatively speaking, many more elders were occupied in these households compared to the not ones. About 60% of the labour force was composed of the former, both men and women, and their work accounted for 77.4% of the labour income of these households. As can be seen in Table 2, the income of elders was responsible for 90.1% of the income of these families, mostly coming from Social Security, 59.7%; in second place, from paid labour, 31.3%.

The last category of households considered was those in which the income of the elder was the only source of income. In this category, there were 13.5 million households, which represented 18.6% of the total Brazilian households, where 19.5 million elderly people lived, and roughly five million non-elderly, including 910 thousand being children under 15 years.In these households, about 30% of elderly men and 15% of women worked. Among the not elder adults, 5.7% worked but did not receive some income. Also in this category, the principal source of income was Social Security, responsible for 64.6% of the total, followed by paid labour, which contributed with 25.2%.

Table 1. Number of households and residents according to some household categories. Brazil, 2019.

	Number (Per 1000)	Residentes (per 1000)			
		Total	Elders	15-59 years	<15 years
Total	72,631.5	20,9496.5	34,361.4	133,682.6	41,452.5
With elderly	25,396.5	65,283,2	34,361.5	25,612.7	5,309.9
In which the income of the elderly is >50% of the total	15,417.4	32,152.1	20,070.1	9,864.1	2,217.8
In which the income of the edlderly is the only source	13,508.5	24,450.4	19,512.4	4,027.7	910.3

Source: IBGE/PNAD Contínua.

Table 2. Income composition of the elderly according to the type of household. Brazil, 2019.

Households	% elderly income household income	Average household per capita income (R)	% elderly income came from Social Security	% elderly income came from labour
With elderly	70.6	1,491.2	62.5	28.5
In which the income of the elderly is >50% of the total	90.1	1,772,2	59.0	31.3
In which the income of the edlderly is the only source	100.0	1,666.8	64.6	25.2

Source: IBGE/PNAD Contínua.

Table 3. Composition of the labour force of households with elders. Brazil, 2019.

	Households		
	With elderly	In which the income of the elderly is >50% of the total	In which the income of the edlderly is the only source
Males			
Elders			
% in relation to the population	32.7	40.5	28.3
% in relation to occupied persons	22.5	37.5	56.7
Pop 20-59			
% in relation to the population	66.4	49.2	3.9
% in relation to occupied persons	31.9	18.4	3.1
Females			
Elders			
% in relation to the population	15.0	18.3	14.6
% in relation to occupied persons	13.2	21.4	37.0
Pop 20-59			
% in relation to the population	53.3	39.1	2.3
% in relation to occupied persons	29.6	20.4	2.6

Source: IBGE/PNAD Contínua.

Who are these elders?

This section intends to understand who the Brazilian elders are, according to the type of household in which they reside. Table 4 presents some of their characteristics according to this typology which refer to 2019. In the total of households with elders, a predominance of women can

Ciência & Saúde Coletiva, 25(Supl.2):4169-4176, 2020

Table 4. Characteristics of the elders according to the type of their household. Brazil, 2019.

Characteristics	With Elders		In which the income of the elderly is > 50% of the total		In which the income of the elderly is the only source	
	Males	Females	Males	Females	Males	Females
Proportion of Total Residents	45.7	54.3	44.5	55.5	44.4	55.6
Proportion in the Total of Elderly	43.9	56.1	44.2	55.8	43.7	56.3
Mean Age of Elder	69.7	70.3	69.3	70.2	70.7	70.5
Mean number of schooling years for the elder	7.0	6.8	7.9	7.5	6.7	6.9
Position of the elderly person at household by sex (%)						
Head	74.4	55.1	78.4	64.8	78.0	58.4
Partner	18.2	30.5	17.6	27.7	18.2	35.4
Parents ,Step parents, other relatives	7.3	14.4	3.9	7.5	3.9	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: IBGE/PNAD Contínua.

be seen, both in the set of residents and that of elders, 54.3% and 56.1% respectively. That is, women were more overrepresented among elders than among not elders. The mean age of the older women was 70.3 and they had a life expectancy of 13.1 years according to estimates of the present author. The average age of the older men was 69.6 with a life expectancy of 12.5 years. Both elders, male and female had low levels of schooling, around seven years of schooling. Approximately 93% of older men were heads of or spouses of the heads in these households. This means they were in their own residences, which suggests their empowerment. The comparative proportion of women was lower, 86.6%. Consequently, more women lived in the households of relatives, 14.4%. Living in a relative's house may be a sign of lesser empowerment, which is more expressive in women. This is one of the factors which may explain why they suffer more violence. Even living with relatives, elders contributed to household income, roughly nine percent of this.

Table 4 presents the characteristics of the elders who reside in households in which more than 50% of the income depends on them. There is also a predominance of women both among the set of residents as well as among the elders, and the mean age of these was very similar to that of older adults living in different types of households. Average schooling was slightly higher for both elders, male and female. A higher proportion of these older adults, both men and women, were in their own residence, which means a lower proportion living with relatives. This may be the result of greater economic and functional independence.

Finally, the last group considered is that which counts exclusively on the income of the older adult. Women also predominated there and the mean age of the elderly men was slightly higher than that of the residents of the other household types. However, that of the women was around 70, similar to the other female elders. Average schooling did not differ much from that of the other households. An even higher proportion of these older adults were in their own house, that is, more empowered. Although much lower than seen in other types of households, the proportion of old women living with relatives was almost double that of men.

In summary, this data shows clearly the importance of the older adult's income to the income of one third of Brazilian families, which demystifies the traditional view of the older adult as economically dependent. What is seen here is elders taking on an important role as provider, for which not only Social Security plays a significant role, but also income from labour. Taking into consideration the current context of the pandemic, where mortality and unemployment among elders have increased, the question addressed what can happen to the income of these families.

The situation of these families in the context of the pandemic

The crisis triggered by the Covid-19 pandemic and the consequent adoption of social isolation measures in Brazil significantly affected the labour market. The Continuous National Household Survey (PNADC) showed that rates of unemployment went from 11.8% to 12.8% between February and May, 2020. This rate did not go up more because the percentage of unemployed 14 years of age or older fluctuated down; from 7.3% to 7.1% between February and May. The percentage of the working-age population who left the labour force (6.5%) is slightly higher than those who stopped working but they kept looking for work (6.3%)[14].

The comparison of the economically active population of the first quarter of 2019 to the equivalent for 2020 shows a significant reduction in the economically active population of women and elders. In total, around 230 thousand elders stopped working or looking for work, 71.3% being women. Women and older adults were also the ones who lost more jobs. Roughly 160 thousand jobs were lost, 88.4% female. Despite referring to the first quarter of 2020[15], the beginning of the pandemic, the Continuous National Household Survey already shows an important impact on unemployment participation rates for the Brazilian population. This fall is believed to have affected all Brazilian workers to some degree.

According to the Continuous National Household Survey[15], in the first quarter of 2020 approximately half of older adult men were self-employed, 49.8%, and 21.8% were traders, bricklayers, taxi drivers, app and truck drivers. The proportion of female elders who were self-employed was lower than for men but was still high at 38.6%. This can be explained by the weight of domestic service employment. Their main occupations were that of domestic workers, merchants, dressmakers, cleaning women and company cook.In times of isolation, these occupations, for both men and women, are the ones that have suffered the greatest impact both by destroying vacancies and by replacing older workers for younger ones since the former are less sensitive to pandemic risk and/or to their own fear of exposure. According to the Institute of Applied Economic Research (Ipea)[16], in May of 2020 this category received 40% less than usual.

The Continuous National Household Survey also indicated a reduction in the average income of workers over 40 years of age beginning in the second quarter of 2019[17]. This reduction was greater among those over 60. For example, comparing the third quarter of 2019 with that of 2018 one can see a fall of 6.6%[18].

PNAD Covid-19 data from May 2020[15] reveal a loss of 18% in the average earnings of labour actually received by the Brazilian population in relation to the average earnings usually received. This loss was greater among those over 60 years of age, 22%. Despite the vast majority of elders (73.6%) being pensioners, which ensures a lifelong monthly income, the loss of wages will have an important impact on household income, as will be seen in the following section.

This section intends to speculate on the situation of households dependent on older adults in the context of generalized job loss and higher mortality rates among older adults.

Loss of wages

Table 5 shows the results of an exercise that simulates the reduction and loss of income from labour as well as losing the income of the elders in the case of their death. The two first columns show, respectively, the average household income *per capita* in the scenario of income from labour being zero, and the proportion of household income which would then depend on Social Security. These simulations were undertaken for each of the three types of household analysed in this paper. Note that the household income *per capita* decreases in all three types of residences, but the reduction is greater where dependence on the income of elders is lower, that is, where there are more adults working. In this scenario, a decrease of almost 40% in this income is expected. Even in households that depend exclusively on the income of older adults, the loss is about 15.0%. What is seen in all households is that dependence on the income from Social Security becomes very high, which is dependence on the income of elders when income from labour is lost.

And if the elders die?

The fact that 74.7% of deaths due to Covid-19 are of people 60 years of age or older, 56.4% being men, calls attention. Among these, approximately 40% are between 70 and 79 years of age (data updated August 13, 2020). Using health conditions from 2018[16], an individual aged 70 could expect to live a further 12.8 years and work for two more (estimates of the present author).

Ciência & Saúde Coletiva, 25(Supl.2):4169-4176, 2020

Table 5. Some simulation about the income of households with elderly. Brazil, 2019.

	Excluding income from labour		Excluding income from the elderly		Observed values
	Average household per capita income ®	% elderly income came from Social Security	Average income per capita household ®	% elderly income came from Social Security	Average household per capita income ®
With elderly	918.7	85.5	183,9	85.4	1,491.2
In which the income of the elderly is >50% of the total	1,281.9	85.0	529.2	83.2	1,772.2
In which the income of the edlderly is the only source	1,416.8	64.6	0.0	0.0	1,666.7

Source: IBGE/PNAD Contínua 2019.

That is, mortality at this age can be considered premature.

If all elders die, roughly 31 million adult people would have their *per capita* monthly income reduced from R$1,491.20 to R$1,041.40, as long as there was no earnings loss from the not elders. In this case, income from labour becomes responsible for 85.4% of income for these households, at a moment of high unemployment and losses in income from labour.

As it can be seen, in 21.2% of Brazilian households, at least 50% of the income depends on the income of elders. The *per capita* monthly income of these households was R$1,772.20. If these elders died, the average *per capita* income would drop to R$ 529.20. That is, the impact would be huge, a reduction of almost 75% that would affect 12.1 million people, of which 2.2 million are younger than 15, and make them highly dependent on the income from labour of the not elders, 83.2%.

The other category consists of households that count exclusively on the income of older adults, which represent the 18.6% of Brazilian households. The death of these older adults would result in around five million people not older adults receiving no income since they did not receive an income from labour and/or another source.

Final comments

The simulations consider extreme situations, that is they reduce wages to zero and assume all elders will die. They point to a limiting situation, but a reduction in the income from labour for the entire Brazilian population has already been observed in the first months of this year. This is due to unemployment at all ages and wage cuts, as well as an increase in mortality, especially among older adults. These are two sides of the pandemic that affect household income and highlight the role of older Brazilian adults and the contribution of Social Security to their survival.

Attention is drawn to the fact that elders are twice victims of this pandemic: they are the ones who die the most and who are most affected by unemployment. However, their role in families is little recognized. It can be said that if an elderly person dies, a family goes into poverty.

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