

## FAMILY AND SOCIAL VULNERABILITY: A STUDY WITH OCTOGENARIANS

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Pavarini SCI, Barha EJ, Mendiondo MSZ, Filizola CLA, Petrilli JF Filho, Santos AA. Family and social vulnerability: a study with octogenarians. Rev Latino-am Enfermagem 2009 maio-junho; 17(3):374-9.

*In order to guide the development of dementia-related public policies for the elderly, it is important to identify factors that vary together with the social vulnerability of this population. This study aimed to identify the relationship between the São Paulo Social Vulnerability Index (IPVS) and various indicators of family support for elderly people over 80 years of age, who presented cognitive alterations (N=49). All ethical guidelines were followed. Data were collected at the homes of the elderly people. A large majority of the respondents lived with family members (88%). In half of the cases, the respondents lived with one (41%) or two (9%) other elderly persons. On average, there was one more non-elderly person living in the high vulnerability family context (M = 3.6, sd = 1.70) than in contexts of very low vulnerability (M = 2.4, sd = 1.07), F(2,43) = 3.364, p < 0.05. However, the functionality of the support provided by these family members needs to be verified, in each of these contexts.*

**DESCRIPTORS:** aged, 80 and over; dementia; family health; social support; social vulnerability

## LA FAMILIA Y LA VULNERABILIDAD SOCIAL: UN ESTUDIO CON OCTOGENARIOS

*Para elaborar políticas públicas para el cuidado de anciano con demencia, es importante verificar factores que varían con la vulnerabilidad social de esa población. El objetivo de este estudio fue identificar la relación entre una medida de vulnerabilidad social (IPVS) y algunos indicadores de apoyo familiar para ancianos, con más de 80 años, con alteraciones cognitivas (N=49). Todas las recomendaciones éticas fueron observadas. Los datos fueron recolectados en los domicilios de los ancianos. La gran mayoría de los entrevistados vivía con la familia (88%). En la mitad de las familias los ancianos vivían con uno (41%) o dos ancianos (9%). En promedio había una persona más, que no era anciana, viviendo en el contexto familiar de alta vulnerabilidad (M=3,6, DE=1,70) que en el contexto de muy baja vulnerabilidad (M=2,4, DE=1,07), F (2, 43)=3,364, p<0,05. Sin embargo, es necesario verificar la funcionalidad del apoyo familiar en esos contextos.*

**DESCRIPTORES:** anciano de 80 o más años; demencia; salud de la familia; apoyo social; vulnerabilidad social

## FAMÍLIA E VULNERABILIDADE SOCIAL: UM ESTUDO COM OCTOGENÁRIOS

*Para direcionar políticas públicas para cuidado ao idoso com demência, é importante verificar fatores que variam com a vulnerabilidade social dessa população. O objetivo foi identificar a relação entre uma medida de vulnerabilidade social (IPVS) e alguns indicadores de apoio familiar para idosos acima de 80 anos, com alterações cognitivas (N=49). Todos os cuidados éticos foram observados. Os dados foram coletados nos domicílios dos idosos. A grande maioria dos entrevistados morava com a família (88%). Em metade das famílias os idosos moravam com mais um (41%) ou dois idosos (9%). Em média havia uma pessoa a mais, não idosa, morando no contexto familiar de alta vulnerabilidade (M=3,6, dp=1,70) do que no contexto de muito baixa vulnerabilidade (M=2,4, dp=1,07), F (2, 43)=3,364, p<0,05. Porém, há necessidade de verificar a funcionalidade do apoio familiar nesses contextos.*

**DESCRITORES:** idoso de 80 anos ou mais; demência; saúde da família; apoio social; vulnerabilidade social

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## INTRODUCTION

Research on care delivered to the oldest old (elderly people over 80) is a new focus of attention in population aging research. Demographic studies document rapid increases in the size of the elderly population. It is estimated that, in 2050, there will be two billion elderly people in the world and, in the same year, projections indicate there will be more than five million elderly men and almost nine million elderly women in Brazil, aged 80 years or older<sup>(1)</sup>.

Reductions in mortality among the oldest old have resulted in increases in the number of more fragile elderly people<sup>(2)</sup>. The National Elderly Health-Care Policy, based on a more generic concept of fragility, considers frail elderly people as: those who are bedridden, those who have been recently hospitalized for any reason, those with health problems known to cause functional incapacity, and those who live in situations of domestic violence and are over 75 years of age<sup>(3)</sup>. Fragility is considered to be a syndrome. Although there is not yet a consensual definition of fragility, studies indicate that it can interfere in the functionality of the aged, causing higher dependence. Fragility is more prevalent among the older old<sup>(4)</sup>. It is estimated that between 10 to 25% of non-institutionalized elderly people (over 65 years of age), are considered frail. This percentage rises to 46% among those over 85 years of age<sup>(5)</sup>.

The oldest old who have cognitive alterations (dementia) can be considered a high-risk group for fragility in old age, with a higher probability of reductions in their functional capacity. Dementia can be caused by many pathologies that alter cognitive functions such as memory, language/praxia, gnosis, abstraction, organization, planning and sequential capacities. Studies show that the prevalence of dementia is much higher in higher age groups, among those with lower educational levels, and tends to be more frequent among women<sup>(6)</sup>. Dementia is characterized by cognitive impairments that lead to the loss of functional capacity, increasing the demand for care<sup>(7)</sup>. In Brazil, the care of elderly people with cognitive impairments is mostly provided by their family members<sup>(8-9)</sup>.

Changes in family structures, associated with an increase in the size and dependency levels of the elderly population, have strongly affected Brazilian family life, in both emotional and financial aspects. Changes in mortality and fecundity patterns have led

to important modifications in family architecture, which can influence the way families look after their elderly members. On the one hand, decreasing fecundity has reduced the size of families, narrowing opportunities for intergenerational relations. On the other hand, longevity has increased the number of multigenerational families<sup>(2)</sup>.

Family structures among the elderly usually fall into one of four different categories: 1- those who live alone, 2- those who live with their partner, children or other relatives, 3- those who live with children or other relatives, but without their partner, and 4- those who live only with their partner<sup>(1)</sup>. Although multigenerational families are now in the majority, there is no guarantee that these families are prepared to assume the role of elderly caregiver. The main reasons that lead families to offer care to elderly relatives include financial, personal and social factors<sup>(10)</sup>. Situations of fragility and dependence create the need to adapt and reorganize families, leading to changes in family roles, which are redefined over time, based on the way each member interacts with the others. At the same time, readjustments in the family structure depend on the way in which changes in the elderly relative's needs occur and on the resources available to deal with these changes<sup>(11)</sup>.

Family support, therefore, varies according to the context of higher or lower social vulnerability. Vulnerability is a multidimensional construct that refers to a dynamic context in which someone is at risk for the development of health problems, resulting from inadequate economic, social, psychological, family, cognitive or physical resources<sup>(12)</sup>. In this study, the São Paulo Social Vulnerability Index (IPVS) was used to establish the degree of social vulnerability in which octogenarians with cognitive alterations were living. The IPVS was created considering the multideterministic nature of social vulnerability, and to support the definition of priorities and choice of strategies for public action, in order to reduce poverty. This index has been used to classify the social vulnerability level of people in each census tract of the state of São Paulo. The classification levels are defined based on the socioeconomic and demographic characteristics of the inhabitants of the state<sup>(13)</sup>. Six classification levels were established.

"Group 1 – no vulnerability: comprises the census tracts in which the residents have the highest socioeconomic conditions (very high SES), given that the heads of the household have very high income

and educational levels. Although the stage of life of the members of these families is not used to classify these groups, heads of the household tend to be older, and there are fewer young children and fewer inhabitants in the house, in comparison with norms for the entire state of São Paulo.

Group 2 – very low vulnerability: comprises the census tracts classified as second highest in the state, in terms of socioeconomic wellbeing (average or high). These areas have a higher concentration, on the average, of older families.

Group 3 – low vulnerability: formed by the census tracts classified as high or average levels of socioeconomic wellbeing. The demographic profile of this group is characterized by a predominance of families comprised of youths and adults.

Group 4 – average vulnerability: consists of the tracts that present average levels in terms of socioeconomic wellbeing. It ranks fourth in the scale in terms of income and education levels of the head of the household. In these sectors, young families are present, that is, families with young heads (less than 30 years old) and small children.

Group 5 – high vulnerability: comprises the census tracts with the worst conditions in terms of their socioeconomic wellbeing (low). It is one of the two groups in which the heads of the families have, on the average, the lowest income and educational levels. There is a high percentage of older families, with a low percentage of families with small children.

Group 6 – very high vulnerability: the second of the two poorest groups in terms of socioeconomic wellbeing (low), with a high concentration of young families. "The combination of young household heads with low income and educational levels, and the significant presence of small children leads to the deduction that this is the group most vulnerable to poverty"<sup>(13)</sup>.

Thus, the purpose of this study was to identify the relationship between a measure of social vulnerability (IPVS) and various indicators of family support for elderly people over 80 years of age, who presented cognitive alterations.

## METHOD

This study presents descriptive data, using quantitative research methods. All ethical principles

for research with human beings were observed. The project had the prior approval of the Research Ethics Committee (Evaluation No. 055/2006).

## Subjects

The participants of this study included 49 people over 80 years of age (M = 11 and F = 38), living in a city in the interior of the state of São Paulo, and who met the following eligibility criteria: registered in a public, family-health unit, over 80 years of age, and who obtained a Mini-Mental State Examination (MMSE) result below the cut-off point, according to the respondent's educational level.

## Procedures

Previously scheduled in-home visits were conducted in the residence of each of the 49 octogenarians. Data collection consisted of a structured interview with the respondents and their family members, using a Genogram to register the family structure.

In order to create the respondent's Genogram, the elderly person and other family members who were present at the time of the interview were invited to describe the family's structure and history. The information collected included: name and age of the family members, marital status, pathologies which family members had in the past or at the time of the interview, among others. Information about at least three generations was included, making notations in chronological order, that is, from the oldest to the youngest family member, registered from the left to the right on the diagram for each generation. Standardized symbols were used for important events such as dates of birth, deaths, marriages and divorces. Family members who lived in the same residence were encircled, on the diagram<sup>(14)</sup>. The data from the Genograms for each family, were then systematized and statistically analyzed.

The São Paulo Social Vulnerability Index (IPVS) was used to analyze the respondents' degree of vulnerability<sup>(13)</sup>. In this study, the IPVS values were obtained for the census tract of the Family Health Unit (FHU) where the elderly person was registered. First, the census tract for each FHU was determined using their street addresses. At this stage, the municipal IBGE (Brazilian Institute of

Geography and Statistics) unit assisted in providing the census tract codes for each address. Next, the IPVS map was consulted to obtain the IPVS value for each tract. FHU's for which IPVS values were not available were excluded.

## RESULTS

A large majority of the respondents lived with family members, but were without their spouse (71%); 12% lived with their spouse and other family

members; 12% lived alone and others (5%) lived only with their spouse. However, in most cases, the families were not very large. On average, the participants lived with 1.9 other people ( $sd = 1.34$ ). In half of the cases, subjects lived with either one (41%) or two (9%) other elderly persons.

### Context of social vulnerability

The composition of this sample (Table 1) included elderly people living in different contexts of social vulnerability.

Table 1 – Composition of the sample, by level of social vulnerability. São Carlos, SP, 2008

| Social vulnerability | Number of elderly people evaluated in each social context | Number of elderly people over 80 years of age, with MMSE below the cut-off point | Percentage (%) |
|----------------------|---|--|----------------|
| Very low             | 145   | 19   | 13,1           |
| Average              | 278   | 13   | 4,7            |
| High                 | 243   | 14   | 5,8            |
| Very high            | 103   | 3  | 2,9            |

Life expectancy is related to socioeconomic levels, because socioeconomic wellbeing is reflected in life conditions that affect individuals' health and their access to health services<sup>(15)</sup>. Thus, as expected, a very small percentage of the octogenarians lived in contexts of very high social vulnerability,  $\chi^2(3) = 11.0, p < 0.05$ .

### Contexts of social vulnerability and the social support network

The presence of a family support network (e.g.. when the elderly person lives with family members from younger generations) can be very important to assure the well being of octogenarians. Nevertheless, the presence of this kind of support can be influenced by the elderly person's context of social vulnerability. The data showed that the percentage of elderly people living in a multigenerational versus unigenerational family context was significantly related to their level of social vulnerability,  $\chi^2(3) = 10.18, p < 0.05$  (Table 2). In the context of high social vulnerability, there was a higher percentage of elderly people living in unigenerational than in multigenerational residences, while multigenerational family settings prevailed in other contexts of social vulnerability.

At first, this result does not seem to corroborate statistics showing that, among low-income people, the number of people living together is higher. However, the group of octogenarians living in a context of very high vulnerability was extremely small ( $n = 3$ ), distorting analyses that include this context. When those living in contexts of very high vulnerability were excluded from the analysis, the number of people in the elderly person's residence was significantly different, in different contexts of vulnerability  $F(2.43) = 3.364, p < 0.05$ . Elderly people who lived in contexts of high vulnerability resided with a significantly higher number of people ( $M = 3.6, sd = 1.70$ ) than those who lived in contexts of very low vulnerability ( $M = 2.4, sd = 1.07$ ). On average, octogenarians in contexts of high vulnerability lived with one more person than those who lived in contexts of very low vulnerability. It can be affirmed that this additional person, in most cases, was someone with the potential to provide support to the octogenarian, as the total number of people living in the residence varied according to the context of vulnerability, but not as a function of the number of people over 60 years old ( $p > 0.05$ ). However, living in the same place does not guarantee that the support needed can be offered.

Table 2 – Family composition of the household, by context of social vulnerability. São Carlos, SP, 2008

| Social vulnerability | Unigenerational* (%) | Multigenerational** (%) | Number of people in the house |      | Number of elderly people in the house |      |
|----------------------|----------------------|-------------------------|-------------------------------|------|---------------------------------------|------|
|                      |                      |                         | M                             | dp   | M                                     | dp   |
| Very low             | 21,1                 | 78,9                    | 2,4                           | 1,07 | 1,8                                   | 0,63 |
| Medium               | 0                    | 100                     | 3,2                           | 1,07 | 1,3                                   | 0,63 |
| High                 | 7,1                  | 92,9                    | 3,6                           | 1,70 | 1,6                                   | 0,65 |
| Very high            | 66,6                 | 33,3                    | 2,3                           | 1,53 | 1,7                                   | 0,58 |
| Total                | 100                  | 100                     |                               |      |                                       |      |

\* the elderly person lived either alone or with their spouse.

\*\*the elderly person lived with other family members (with or without their spouse).

### Age and social vulnerability

The age of the participants (all over 80 years of age) was not significantly different in the various contexts of social vulnerability. Once again, it is observed that the group of elderly people in the context of very high vulnerability does not provide a reliable measure of the characteristics of this group, as it includes only three people.

## DISCUSSION

An understanding of the family context of elderly people living in different contexts of social vulnerability can contribute to the development of a program of care services for elderly people with dementia, within the public healthcare system, especially with respect to care services for elderly people offered by the Family Health Program. The National Health Care Policy for the Elderly, issued in 2006, determines that access to health care for elderly people starts with the Basic Health Care and Family Health Care programs<sup>(3,16)</sup>.

Recent studies show that researchers have not achieved a consensus with respect to the concept of social support. It is a complex term that should be judiciously used<sup>(17-18)</sup>. This study investigated only some of the indicators of family support for elderly people over 80 years of age, who also had cognitive alterations, and who lived in different contexts of social vulnerability.

Care to the aged in the family context involves a complex reality, marked by sociodemographic, cultural and psychological variables, by the history of the family relationships, by the nature of the elderly person's needs and the care required, to meet these needs, by the resources and supports being offered by formal or informal networks, and by the caregiver's

and other family members' subjective evaluations of care and of the life stages<sup>(19-20)</sup>.

Data revealed that there were significantly fewer octogenarians living in the context of very high social vulnerability (n = 3) than in other social vulnerability contexts. Apart from these three cases, the aged in the context of high vulnerability had a higher potential to receive family support than the elderly people living in the context of low vulnerability, as they had one additional person, under 60 years of age, living in their residence.

Longevity, fragility and multigenerationality are key issues in understanding the dynamics of Brazilian families that live in different contexts of social vulnerability, especially in contexts of greater poverty. Unfortunately, in Brazil, the increase of the elderly population occurs in an environment characterized by poverty and great social inequalities<sup>(21)</sup>.

## CONCLUSION

The longevity of the Brazilian population has increased the multigenerationality of family life. The oldest old constitute a risk group for fragility in old age. In this study, most of the elderly lived with family members (88%), but without their spouse (71%). Families were small and, on average, the elderly people lived with 1.9 other people (sd = 1.34). In nearly half the cases, the respondents lived with one other person over 60 years of age (41%).

There were fewer octogenarians living in contexts of high vulnerability than in contexts of average and very low vulnerability. There was one additional non-elderly person living with the respondents who lived in contexts of high vulnerability. This additional support can be extremely important for the longevity of the elderly person, as families in contexts of high vulnerability do not have financial resources to pay for third-party services.

Having one extra person, however, does not necessarily mean getting more appropriate care. Thus, in order to guide public policy development with respect to elderly people who have dementia, the functionality of the family support network still needs to be investigated, especially for long-lived elderly people who have cognitive alterations and who live in contexts of high social vulnerability.

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## ACKNOWLEDGMENTS

We acknowledge the financial support of the Research and Projects Financing Agency - FINEP, of the Ministry of Science and Technology and of the National Council for Scientific and Technological Development – CNPq.

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