

## Risk of violence and quality of life among the elderly in the community: cross-sectional study\*

Risco para violência e qualidade de vida entre idosos da comunidade: estudo transversal

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### ABSTRACT

**Objective:** to analyze the relationship between the risk of violence and the quality of life of elderly community members. **Methods:** a cross-sectional study, developed with 159 elderly people registered in family health teams. The following instruments were used: Hwalek-Sengstock Elder Abuse Screening Test; World Health Organization Instrument to Evaluate Quality of Life. **Results:** the risk of violence was higher among the elderly with low quality of life through association tests (62.5%;  $p=0.380$ ) and correlation ( $r=-0.244$ ). There was a statistically significant difference ( $p=0.013$ ) between quality of life of groups with and without risk for violence, and the analysis of logistic regression confirms that high quality of life is a protective factor for the exposure of the elderly to situations of abuse (Odds Ratio = 0.96;  $p=0.01$ ). **Conclusion:** there was an inverse relationship between quality of life and risk of violence.

**Descriptors:** Elder Abuse; Violence; Aged; Quality of Life.

### RESUMO

**Objetivo:** analisar a relação entre o risco para violência e a qualidade de vida de idosos comunitários. **Métodos:** estudo transversal, desenvolvido com 159 idosos cadastrados em equipes de saúde da família. Utilizaram-se instrumentos a seguir: *Hwalek-Sengstock Elder Abuse Screening Test*; *World Health Organization Instrument to Evaluate Quality of Life*. **Resultados:** o risco para violência foi maior entre os idosos com baixa qualidade de vida mediante testes de associação (62,5%;  $p=0,380$ ) e correlação ( $r=-0,244$ ). Houve diferença estatisticamente significativa ( $p=0,013$ ) entre qualidade de vida de grupos com e sem risco para violência, e a análise da regressão logística confirma que a alta qualidade de vida se configura como um fator protetivo à exposição do idoso a situações de abuso (Odds Ratio = 0,96;  $p=0,01$ ). **Conclusão:** observou-se relação inversamente proporcional entre a qualidade de vida e o risco para violência.

**Descritores:** Maus-Tratos ao Idoso; Violência; Idoso; Qualidade de Vida.

## Introduction

The number of elderly people in the world has increased and this growth is expected to be continuous. The process of increasing longevity is the result, among other factors<sup>(8)</sup>, of the advance of medical technology, improvement in sanitary conditions, wider access to health services and better socioeconomic conditions<sup>(1)</sup>.

During the aging process, changes in morphological, biochemical, functional and psychological areas can make the individual more vulnerable, increasing the need for care<sup>(2)</sup>. This increases the risk of violence, since the degree of vulnerability is directly proportional to dependence. Other aspects that can contribute to the incidence of violence are related to the lack of education of caregivers and the stressful family life<sup>(3)</sup>.

The act of violence, single or repeated, can be practiced beyond the physical sphere, that is, psychologically or even by omission of care, so as to cause damage to the elderly<sup>(4)</sup> and can be classified as physical, psychological, financial, sexual abuse, as well as omission and abdication<sup>(5)</sup>. They can also be categorized with emphasis on the environment, which are institutional, domestic or symbolic violence. Whatever the category, it is indisputable that violence harms the dignity of the elderly<sup>(6)</sup>, with multiple impacts on health, as well as on the quality of life.

Violence against the elderly has mainly happened in the domestic environment by relatives who neglect care. A study conducted in the metropolitan region of Brasília showed that 76.0% of the elderly have already suffered some kind of violence, of which 26.0% suffer or have suffered from negligence, and only 24.0% show good quality of life<sup>(7)</sup>. This data is reinforced by a research that demonstrates neglect as one of the most common reasons for hospitalization among the elderly<sup>(5)</sup>.

The risk of violence and/or acts of violence have a negative impact on the self-perception of the elderly about the quality of life, being directly related to mental and behavioral disorders such as depres-

sion, anxiety, insomnia, among others<sup>(7)</sup>. Quality of life can be defined as an individual concept, based on the principles of personal satisfaction and collective well-being, which is related to the objectives, expectations, standards and concerns in the environment in which one lives<sup>(8)</sup>.

The risk of violence represents a serious problem in terms of public health, whose health problems can impair the quality of life of the elderly, consequently resulting in physical, psychological, moral and spiritual harm<sup>(6)</sup>. However, there is a notorious shortage of scientific material that relates the quality of life of elderly people to the risk of violence<sup>(7)</sup>.

Therefore, it is of utmost importance that studies on this subject are encouraged and the need for early detection of risk for violence is also emphasized, in order to improve the quality of life of the elderly. Given the above, this study aimed to analyze the relationship between the risk for violence and the quality of life of elderly community members.

## Methods

This research is characterized as analytical, of the transversal type, guided by the tool Strengthening the Reporting of Observational Studies in Epidemiology (STROBE). It was conducted in the coverage territory of a Basic Health Unit, located in the micro area III of Health District IV of the city of Recife-PE, Brazil from 2016 to 2017.

The population consisted of 1,209 elderly registered in the three teams of the unit, with sample calculation based on the formula of finite population for epidemiological studies, adopting sampling error of 8%. The sample of the present study was composed of 159 participants, so that the sampling occurred in a systematic way, that is, every 5 elderly of the list one was contemplated and, later, his participation in the research was requested.

The inclusion criteria was to be at least 60 years old and registered in the Basic Health Unit. Seventeen elderly people were excluded who presented, during

the visit, communication difficulties, hearing or speech impairment that made the collection impossible; those who were in a terminal state; and those with severe vision deficits. The identification and establishment of criteria were carried out by the researcher through observation and/or information from those responsible. For data collection, visits were scheduled weekly with the Community Health Agents, who accompanied the interviewers to collect data at the elderly's home.

Before the data collection was carried out, meetings were held with the health department of the municipality to obtain the consent of the research, as well as with the nurses and Community Health Agents of the unit, in order to elucidate and sensitize the team about the purpose of the study and the need for support from the unit.

Training was conducted with teachers and students interested in participating in data collection. During the training there was a presentation and explanation of the proper application of the instruments to be used. About 30 students participated in this training. Finally, the collectors were required to apply the instruments with some elderly person in the family, in order to clarify, in a next meeting, the doubts that arose.

The Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST)<sup>(9)</sup> and World Health Organization Quality of Life (WHOQOL-OLD)<sup>(10)</sup> instruments were used for data collection. In addition, the collection of socio-demographic data was carried out through a cutout of the Brazil Old Age Schedule (BOAS), a multidimensional instrument aimed at the elderly population, from which the following variables were selected: gender, age, literacy, marital status, wage income and performance of some type of work today<sup>(11)</sup>.

In order to analyze the risk of violence in the elderly, the H-S/EAST was used, being this an American instrument adapted in a cross-cultural way for Brazilian Portuguese<sup>(9)</sup>. Composed of 15 items, in which for each affirmative answer a point is assigned, except in items 1, 6, 12 and 14 which correspond to

negative answers. The factorial analysis of the instrument for the Brazilian version identified three dimensions, namely: potential abuse, direct abuse and potential characteristics of vulnerability. Although the last dimension presented low reliability, the internal consistency in the application of the instrument to the elderly population was considered acceptable in the cross-cultural adaptation<sup>(9)</sup>. For this reason, the evaluation of the total score of the instrument with a cut point of three or more was adopted as increased risk for violence, being then classified in two strata (with and without risk for violence).

The World Health Organization, in order to assess the quality of life of the elderly, developed the WHOQOL-OLD instrument. This is an instrument that covers the subjective perception of the elderly regarding autonomy, social participation, and sensory functioning, intimacy, death, and past, present and future activities. For this, it contemplates six domains: physical, psychological, level of independence, social relations, and environment and spirituality/religiosity/personal beliefs. The data of the present study were analyzed through the dichotomization of the variable according to the median, where 85 points or less represented low quality of life and above this score indicated high<sup>(10)</sup>.

The variable "risk for violence" was adopted as dependent on the study, while the independent ones were the data referring to the sociodemographic situation (gender, age, schooling, marital status, income and paid work) and the quality of life.

After obtaining the data, they were digitalized and analyzed through the Statistical Package for the Social Sciences version 21.0. The data were analyzed using descriptive statistics (absolute and relative frequency, mean, median, standard deviation, minimum and maximum) and inferential (Pearson's Chi-square, Spearman's correlation test, Mann Whitney's comparison test and multiple logistic regression). For all tests the significance level of 5% ( $p < 0.05$ ) was adopted. The non-parametric tests were used based on the result of Kolmogorov Smirnov's normality test, in

which the data showed a tendency to non-normality in their distribution.

The research was approved by the Research Ethics Committee of the Health Sciences Center of the Federal University of Pernambuco under protocol number: 1,413,599/2016, according to resolution 466/12 of the National Health Council.

## Results

In the sample of 159 individuals, it was observed that 24 (64.9%) elderly at risk for violence were male, 45 (61.5%) were older than 70, 66 (62.3%) were literate, 65 (61.9%) were single, 30 (65.2%) had income higher than a minimum wage and 79 (62.7%) did not work. It is worth mentioning that six elderly people did not want to answer about their labor activity, while three did not want to give an opinion about their quality of life (Table 1).

**Table 1** – Association of risk for violence and socio-demographic data. Recife, PE, Brazil, 2016–2017

Variables	Risk of violence		P-value*	Valid/missing sample
	With n (%)	Without n (%)		
Gender				
Male	24 (64.9)	13 (35.1)	0.524	159/0
Female	72 (59.0)	50 (41.0)		
Age (years)				
≤70	51 (59.3)	35 (40.7)	0.764	159/0
>70	45 (61.6)	28 (38.4)		
Literacy				
Yes	66 (62.3)	40 (37.7)	0.492	159/0
No	30 (56.6)	23 (43.4)		
Marital status				
Married or stable union	31 (57.4)	23 (42.6)	0.583	159/0
Single/widowed or separated	65 (61.9)	40 (38.1)		
Income (minimum wage)				
Up to 1	66 (58.4)	47 (41.6)	0.426	159/0
> 1	30 (65.2)	16 (34.8)		
Currently working				
Yes	13 (48.1)	14 (51.9)	0.161	153/6
No	79 (62.7)	47 (37.3)		
Quality of life				
High quality	15 (53.6)	13 (46.4)	0.380	156/3
Low quality	80 (62.5)	48 (37.5)		

\*Pearson Chi-square Test

When evaluating the risk for violence and quality of life among the elderly in the research, it was found that these elderly classified as at risk also presented low quality of life 80 (62.5%). No significant statistical association was observed between the variables (Table 1).

The correlation between the total WHOQOL-OLD score and H-S/EAST shows a negative and statistically significant correlation ( $r=0.244$ ;  $p<0.002$ ). This data allows us to say that the higher the quality of life, the lower is the risk for violence and vice-versa.

The Mann-Whitney comparison test was carried out which, when comparing quality of life according to risk for violence, identified that there was a statistically significant difference ( $p=0.013$ ) in the quality of life scores according to the groups of individuals with and without violence. The median was identified as 86.50 and the interquartile range 76.00 - 95.00.

The variable risk for violence was analyzed through logistic regression, with the total score of quality of life of the elderly interviewed, identifying that there is statistical significance ( $p=0.015$ ), with values of Odds Ratio of 0.968 and Beta -0.033. Thus, there was a reduction in the risk for violence among those elderly with higher quality of life.

## Discussion

The scarcity of studies in the literature with results on the relationship between the variables risk for violence and quality of life of elderly community members has limited the theoretical comparative deepening. Moreover, the study in a single Family Health Unit made it impossible to generalize the results. Moreover, the cross-sectional design makes the causality and longitudinal relationship impossible, although it provides indispensable support to understand phenomena and outcomes significantly relevant to public health.

In this sense, the findings of the literature do not corroborate the result of this study<sup>(6,12-13)</sup>, since

the elderly males presented a higher risk for violence. Financial difficulties allied to the conflict of generations are factors that increase the number of hospitalizations for aggression to the elderly of the male sex, therefore, superior to the female<sup>(5)</sup>. However, the predominance of risk for violence among elderly women is frequently evidenced<sup>(6,12-13)</sup>, justified mainly by the greater longevity on the part of the gender and, consequently, of prolonged exposure to the risk of violence<sup>(14)</sup>.

When analyzing the age group with the risk for violence, it was identified that the greatest risk is among older people. As age progresses, cognitive functions tend to suffer a deficit and, consequently, fragility increases. Thus, characteristics of advancing age such as greater fragility, dependence and vulnerability leave the elderly increasingly exposed to possible aggressors. These aspects, associated with social inequality, prejudice and disrespect may make the practice of violent acts against the elderly opportune, having as possible consequences disability, dependence and, then, compromising the quality of life<sup>(12)</sup>.

Data regarding schooling differs from literature findings<sup>(7,12,14)</sup> demonstrating that the prevalence of violence is higher among those with higher schooling. However, it is necessary to reflect that the population has adhered to government proposals on adult education, increasing the number of elderly people in school. This contributes, therefore, to increase the level of knowledge of the elderly about their own rights that, when not fulfilled, are observed and denounced their offenders and, consequently, the notification of cases related to situations of violence becomes higher<sup>(15)</sup>.

In the analysis of marital status, the findings of this study showed that the risk of violence is higher for the elderly who have no partner, which corroborates the findings in the literature. Loneliness can be considered a determinant of fragility and, consequently, increases the exposure of the elderly to the risk of violence<sup>(14)</sup>. As this exposure turns into violence, there will be consequences in mental health, pain and viola-

tion of human dignity, besides negatively impacting on the quality of life of the elderly<sup>(12)</sup>.

As for income, it is worth reflecting on the fact that in some environments, as in a low-income community, there is a tendency for younger people to depend on retirees. In view of this, there is the possibility of financial abuse and, therefore, there is a greater risk of violence among the elderly with an income higher than a minimum wage, converging with a research conducted in Pernambuco, Brazil<sup>(16)</sup>.

It should also be noted that the variable related to work reflects the level of activity of the elderly. The level of activity shows its importance in maintaining functional capacity which, in turn, is linked to the risk of violence<sup>(2,6)</sup>. The data from this research reinforce this statement, since the risk of violence is greater among the elderly without work, since the work activity can provide an active aging that, in turn, increases the possibility of a satisfactory quality of life<sup>(12)</sup>.

Regarding the relationship between the risk of violence and quality of life, it was noted that the highest risk of violence is among the elderly who have a lower quality of life, a fact similar to that pointed out in the literature<sup>(7)</sup>. This fact is justified by the low quality of life being directly associated with physical, psychological, moral and spiritual frailties, which makes the elderly more susceptible to the occurrence of violence.

These factors refer to a greater vulnerability to violence on the part of the elderly, who are more physically or psychologically dependent and therefore need greater care<sup>(3)</sup>. These changes symbolize for the potential aggressor a position of superiority before the elderly and impunity for aggressions. Some studies demonstrate in their results that elderly people who have lived some experience of violence in their lives, presented lower quality of life scores than the elderly who have not experienced<sup>(17-18)</sup>, thus corroborating the data presented in this study.

A study in Iran indicated that elderly victims of violence have a lower level of physical and mental he-

alth, which in turn is directly related to a low quality of life<sup>(19)</sup>. The results of other studies have also confirmed the role of violence against the elderly in reducing the physical and mental health and quality of life of the elderly<sup>(6,8)</sup>.

Quality of life is determined by the interaction of protective factors, such as good social support and high economic level; as well as distressing factors, such as verbal and physical violence. Moreover, when considering the negative impact of violence against the elderly, it is possible to infer that the elderly who reported violence in the last six months are more likely to have their quality of life diminished<sup>(20)</sup>.

Moreover, the correlation coefficient between risk for violence and quality of life obtained negative results, which indicates an inverse relationship in which, the lower the quality of life of the elderly, the greater the risk for violence, thus corroborating the results of another research<sup>(19)</sup>.

An important factor in reducing the risk of violence among the elderly is maintaining a good quality of life and establishing good relationships with friends and family, which is considered part of mental health care. Sometimes, the elderly suffer from forgetfulness and abandonment of family members, and are left without emotional and psychological support<sup>(2)</sup>. Therefore, this study highlights the importance of observing and identifying signs of risk for violence, especially in Basic Care, understanding the individual in an integral way. Furthermore, the maintenance of the well-being of the elderly becomes more viable, since violence has a direct effect on the quality of life.

## Conclusion

In this study, it was observed that there is an inversely proportional relationship between risk for violence and quality of life, since the participants with higher risk for violence were elderly people classified with low quality of life. The prevalence of elderly were male, without relationship, literate, with income of a salary and who did not exercise work activities.

## Colaborations

Raposo MF, Soares JS, Araújo-Monteiro GKN, Santos RC, Braga JEF, Souto RQ and Brandão BMLS contributed to the conception and design, analysis and interpretation of the data, writing of the article, relevant critical review of the intellectual content and final approval of the version to be published.

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