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Prevalence and factors associated with caregiver abuse of elderly dependents: The hidden face of family violence

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Abstract *This cross-sectional study was carried out in Manguinhos, Rio de Janeiro, Brazil and aimed to identify the prevalence and factors associated with familial violence perpetrated by caregivers against elderly dependents. A sample of 135 pairs was evaluated using instruments to assess both caregivers (social support, alcoholism, burden, violence) and elders (depression, cognition, functional capacity). Statistical tests compared the percentages of reported violence according to the characteristics of caregiver and elders. A logistic regression model investigated the association between violence and caregiver/ elder characteristics. More than 30% of caregivers gave responses consistent with risk of elder abuse. Among them, high burden level and comorbid alcohol abuse increased the risk of violence by 11 and 3.8 times, respectively. Elderly men were 2.9 times more likely to be mistreated than elderly women, and depressed ones were 6.9 times more likely to report mistreatment than those without depression. Conclusion: We detected a high prevalence of caregiver violence against elderly dependents, with substantially greater risk among caregivers with high levels of burden, alcohol-related problems, and those caring for depressed elders. Family support strategies are needed to reduce domestic violence and protect elderly victims.*

Key words *Elder abuse, Violence against the elderly, Impaired elderly, Caregiver*

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Introduction

Violence against the elderly occurs at epidemic proportions all across the world, constitutes an important cause of morbidity and mortality, and has high individual and collective costs[1]. Global underreporting leads to imprecise statistics, however. Even in high income countries, it is estimated that for each reported case, there are several others that are not reported. In the United States, some 4% of older individuals suffer abuse annually, while in Brazil, methodological variability has resulted in very different reported rates depending on the population being studied, the research set, and whether measurements were obtained from communities or institutions[2,3]. Studies in Minas Gerais and Pernambuco have previously reported a 21% prevalence of domestic violence among elderly people living in urban areas[4,5].

The International Network for the Prevention of Elder Abuse (INPEA) defines violence against this age group as follows: "Elder Abuse is a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person". Acts of abuse can take various forms: physical, psychological, sexual, financial, or neglect. The last form, although common, is the most difficult to characterize[2]. Self-neglect is considered another type of abuse that older individuals may perpetrate against themselves. This occurs when an individual fails to take necessary care of his or her own health and safety[6].

Most cases of violence against the elderly occur in home environments and are perpetrated by a person with a close relationship with that person. In general, abuse is perpetrated in a subtle manner, and it is often difficult to distinguish between the interpersonal stress of everyday relationships and mistreatment. In the family context, physical and psychological violence may constitute a relationship pattern, but these may also result from the inability of the elderly individual to carry out self-care[7].

Perpetrator characteristics influence the risk of violence being directed against older individuals in their care. Psychiatric disorders, drug abuse, history of mistreatment, prior abandonment, and/or physical or sexual abuse in childhood are predisposing factors[2,8]. In the absence of household services and as a result of the need for cohabitation by the elderly, these factors contribute to an emotional burden that affects 69-84% of caregivers in Brazil[9-12]. However, among identified factors that increase the risk of elder abuse, disability has been found to be the most significant risk factor due to the increased demands such conditions impose on caregivers[13,14]. An association between caregiver burden and functional capacity in the elderly has already been reported among older adults and their caregivers in Brazil[15].

The detection of violence perpetrated by caregivers is difficult. The majority of health professionals have difficulty identifying and adequately addressing these cases, both through health services and by referral to the security or justice departments[14]. In addition, health services providers may believe that they are not capable of coping with family violence[16]. One part of the problem of elder abuse is the lack of professional training to guide recognition and effective intervention, but the other side of the issue is that older adults may feel too embarrassed to report episodes of violence or may have associated feeling of guilt, fear of the caregiver, or fear of being admitted to a nursing home. Time pressure among medical personnel, difficulty distinguishing the signs of elder abuse from other medical conditions, and lack of familiarity with screening tools and legislation further contribute to the problems faced by health and social service professionals[17,18].

To confront the problem of violence, public health policies have incorporated guidelines to establish measures such as mandatory reporting of abuse, interdisciplinary and intersectoral victim assistance, and professional training and the development of family health teams[19]. The gradual incorporation of these themes in policies supports the creation of an integrated network of care for the elderly. This network involves several different sectors and permits the establishment of teams whose actions can bring greater visibility to the problem and further enable the identification of specific strategies for each domain[14].

The use of standardized tools to investigate abuse can provide data that help with the systematic assessment of family functionality and support the elaboration of multidisciplinary strategies for approaching violence against disabled elderly populations.

The *Caregiver Abuse Screen* (CASE) is a screening tool aimed at caregivers. It contains questions about situations that relate to violence, without directly questioning them about violent acts[20]. This tool has previously gone through cross-cultural adaptation[21], and its construct validity has been evaluated, revealing good correla-

tion with other instruments that measure caregiver burden, depression, alcohol abuse, and violence against elder adults[22]. In clinical practice, CASE responses may serve as a first warning for increased risk of abuse[21,22].

This study aimed to estimate the prevalence of signs of violence against disabled older adults by caregivers and to identify factors associated with elder abuse in a poor region of Rio de Janeiro, Brazil.

Methods

This cross-sectional study was carried out in the Manguinhos region in Rio de Janeiro, Brazil, an area of extreme socio-environmental vulnerability where approximately 36,000 people lived in 2011. Most households have only one room, average household income is approximately US$157 per month, and almost 50% of residents report completing only elementary school[23]. In addition, initiatives to reduce violence in this area have been frustrated due to the activities of drug traffickers[24].

For this study, a convenience sample consisting of elderly individuals of both genders was identified using family health team registers. Households selected for potential inclusion were those which were more accessible and were located in areas where there was a lower risk of violence. A total of 866 residences were visited. Individuals with a disability in at least two activities of daily living and who had a caregiver were included. Elderly individuals with one or no reported disability and those who did not have a caregiver were excluded. We included 135 elderly–caregiver pairs. Study data were collected between January 2013–June 2014. A social worker performed questionnaire data collection for each elderly–caregiver pair. Questions were addressed to the elderly individual and to the caregiver. All survey instruments underwent cross-cultural adaptation. Tools used for the assessment of elderly subjects were the following: *Independence in Activities of Daily Living Scale (Katz Scale)* – This scale consists of six items of biologically hierarchical complexity that measure the performance self-care activities: feeding, sphincter control, transfer, personal hygiene, and ability to dress and bathe. The last item is the most complex. Disability is implied by the need for assistance while performing tasks. Inability to perform tasks in one domain scores one point, with degree of disability defined by the following score intervals: light, less than three; moderate, three or four; high, five or six points[25,26]; *Mini-Mental State Exam (MMSE)* – This instrument is used for cognitive function screening. Scores range from zero, indicating a high degree of cognitive impairment, to a maximum score of 30 points, which corresponds to optimal cognitive ability. Maximum predicted score cutoff ranges by level of education from previous studies of Brazilian populations were used: illiterate, 19/20; one to seven years of study, 23/24; eight or more years of study, 26/27[27-29]. *Cornell Scale for Depression in Dementia (CSDD)* – This instrument is given to the caregiver and aims to identify depressive symptoms in elderly subjects with cognitive decline. Total score on this scale is calculated as the sum of the items, with a maximum possible score of 28. Probable depression is defined as a score greater than 10 and depression is defined as a score greater than 18[30,31]. *Geriatric Depression Scale (GDS)* - This scale is used for screening for depression among elderly adults without cognitive decline. The abbreviated form was used for this study, which consists of 15 questions, each scored as zero or one. A score of 6 or higher is considered to be indicative of depression[32,33].

During interviews with the caregivers, the following instruments were used: *Zarit Burden Interview scale* – This scale evaluates the impact of dependent elder's mental and physical illnesses on the caregiver and is composed of 22 questions[34,35]. Each question has five possible answers, indicating the frequency of caregiver feelings of burden in different situations. For each question, the response score ranges from 0 (never) to 4 (almost always). In this study, we defined level of burden using three score categories: absent or light (less than 21); moderate (21-40) and severe (greater than 40). *CAGE questionnaire* – This survey is used for alcoholism screening. The questionnaire contains eight intermediate, nonscored questions and four specific questions. A problem with alcohol is suspected when interviewees respond affirmatively to two or more specific questions[36,37].

Medical Outcomes Study (MOS) Social Support Scale – This scale has 19 questions covering the five dimensions of social support (affective, emotional, material, information, and positive social interaction). The score for each question is defined according to the frequency of support perceived by the individual in each of the dimensions and can vary from zero (never) to four (always)[38,39]. In this study, unsatisfactory social support (USS) was considered to exist when more

than 50% of items in any dimension had responses equal to zero, one (rarely), or two (sometimes). *Caregiver Abuse Screen (CASE)* – This is a screening tool used for assessing a caregiver's risk of violence against an elderly dependent. The tool contains eight items. Response categories are presented in dichotomized form, and each response is scored as zero or one (related to violence). In the original study reporting the use of this instrument, increased risk was identified as a score of four or more points. Given the high correlations previously reported between the CASE and other instruments used in the study environment for evaluating constructs related to caregiver violence[22], the Brazilian version of this survey was assumed to capture risk of violence in a manner similar to the original. In the absence of local studies validating other cutoffs, we chose to follow the original study cutoffs, defining an increased risk of violence to be present when at least 50% of the questions were scored as one, equivalent to a score of four or more.

For the statistical analysis, means and standard deviations were calculated for the ages of the elderly participants and their caregivers and for the frequency of violence according to the characteristics of the elderly adults and caregivers. Statistical tests were used to compare percentages of violence according to the characteristics of the caregiver and elderly subjects. A logistic regression model was used to investigate associations between violence and the characteristics of the elder subjects and caregivers. To specify the model, we chose to use stepwise automatic methods of variable selection. Using a p-value cutoff of 0.20, all variables associated with violence were included in the automatic selection algorithm. The resulting final model included the following independent variables: 1) measures related to the elderly: sex and depression and 2) measures related to the caregiver: sex, burden, alcoholism, and social support. After model adjustment, the Hoslem test was used to evaluate whether the model was correctly specified.

This study was approved by the Research Ethics Committee of the National School of Public Health/Oswaldo Cruz Foundation. All subjects provided their informed consent for participation.

Results

135 caregiver–elderly pairs participated in the study. Loss of information accounted for 2% of the total. The elderly group was made up predominantly of widowed women with less than four years of education. Almost half of the elderly group suffered from depression, and the vast majority had cognitive dysfunction, with a moderate to high level of dependence (Table 1).

The caregiver group was predominantly made up of middle-aged women, with 70% cohabiting with the elderly person they provided care for and almost 60% reporting moderate to severe burden. Approximately one-third of these individuals reported USS, mainly in the affective domain, and gave responses indicating increased risk of domestic violence in relation to the elderly. In addition, strikingly high rates of alcohol problems were identified (Table 2).

Affirmative responses given during the CASE provide an overview of the difficulties experienced by caregivers dealing with dependent elderly. Half of caregivers reported finding themselves unable to provide adequate care for the elderly dependent, 43% showed signs of care-related exhaustion, and more than 30% reported signs of physical and psychological abuse and neglect (Table 3).

The analysis of relationships between violence and other caregiver indicators revealed a significant association between USS and burden ($p < 0.05$). In relation to the elderly, there were statistically significant associations observed between depression, male gender, and occurrence of violence (data not shown).

In the adjusted model, the characteristics of elderly subjects that were found to influence the occurrence of violence were gender and depression. Men were almost three times more likely to experience violence than women, and depressed elderly subjects were found to be almost seven times more likely to suffer from violence compared with non-depressed participants. With respect to caregivers, the factors found to be associated with abuse behaviors were alcoholism and burden. Elderly participants whose caregivers reported moderate or severe burden were found to have increased risks of suffering violence of 2.9 and 11 times, respectively, compared with those whose caregivers reported mild burden. Elderly subjects whose caregivers reported problems with alcohol had a 3.8 times greater chance of suffering violence than those whose caregivers did not report this problem. Residue analysis revealed satisfactory adjustment of the model. The specified model was not rejected using the Hoslem test (p-value = 0.45) (Table 4).

Table 1. General characteristics of the elderly participants of the study, Manguinhos (Rio de Janeiro), 2013-2014.

Characteristics	Elderly*	Violence		p-value
		Yes	No	
Age – mean (SD)	80.5 (10.0)	77.3 (10.3)	82.1 (9.7)	0.01
Gender – n (%)				0.05
Female	95 (70.4)	27 (28.4)	68 (71.6)	
Male	40 (29.3)	19 (47.5)	21 (52.5)	
Marital status – n (%)				0.74
Single/divorced/separated	17 (12.7)	6 (35.3)	11 (64.7)	
Widow	74 (54.8)	23 (31.5)	50 (68.5)	
Married	44 (32.8)	17 (38.6)	27 (61.4)	
Schooling – n (%)				0.09
0	49 (36.6)	11 (22.4)	38 (77.6)	
1-4 years	56 (41.4)	23 (41.8)	32 (58.2)	
≥ 5 years	30 (22.4)	12 (40.0)	18 (60.0)	
Depression – n (%)	65 (48.1)	35 (53.8)	30 (46.2)	0.0001
Cognitive deficit – n (%)	119 (88.8)	41 (89.1)	78 (88.6)	0.99
Level of impairment – n (%)				0.39
Low	18 (13.3)	8 (47.1)	9 (52.9)	
Moderate	50 (37.0)	14 (28.6)	35 (71.4)	
High	67 (49.6)	22 (33.3)	44 (66.7)	

*Total of participants = 135.

Table 2. General characteristics of the caregivers participating in the study, Manguinhos (Rio de Janeiro), 2013-2014.

Characteristics	Caregivers*	Violence		P-value
		Yes	No	
Violence – n (%)	46 (34.1)			
Age – mean (SD)	55.0 (14.2)	55.0 (15.3)	54.9 (13.6)	0.97
Gender – n (%)				
Female	115 (85.2)	43 (37.4)	72 (62.6)	0.07
Male	20 (14.8)	3 (15.0)	17 (85.0)	
Marital status – n (%)				0.18
Single/divorced/separated	58 (43.0)	17 (29.3)	41 (70.7)	
Widow	12 (8.9)	7 (58.3)	5 (41.7)	
Married	65 (48.1)	22 (33.8)	43 (66.2)	
Cohabitation with the elderly	97 (71.9)	34 (35.1)	63 (64.9)	0.84
Problems with alcohol – n (%)	25 (18.5)	12 (48.0)	13 (52.0)	0.16
USS – n (%)				
Affective	20 (14.8)	12 (60.0)	8 (40.0)	0.01
Emotional	47 (34.8)	19 (40.4)	28 (59.6)	0.26
Social interaction	53 (39.3)	23 (43.4)	30 (56.6)	0.10
Information	51 (37.8)	22 (43.1)	29 (56.9)	0.09
Material	53 (39.3)	22 (41.5)	31 (58.5)	0.19
Total	40 (29.6)	19 (47.5)	21 (52.5)	0.05
Burden – n (%)				
Absent/ light	54 (40.0)	7 (13.0)	47 (87.0)	0.0001
Moderate	57 (42.2)	22 (38.6)	35 (61.4)	
Severe	24 (17.8)	17 (70.8)	7 (29.2)	

*Total of participants = 135; USS- unsatisfactory social support .

Table 3. Distribution of positive responses indicative of increased risk of violence in the Caregiver Abuse Screen (CASE).

CASE (N=135)	n (%)
1. Do you sometimes have trouble making (___) control his/her temper or aggression?	64 (47,4)
2. Do you often feel you are being forced to act out of character or do things you feel bad about?	55 (40,7)
3. Do you find it difficult to manage (___)'s behavior?	55 (40,7)
4. Do you sometimes feel that you are forced to be rough with (___)?	43 (31,8)
5. Do you sometimes feel you can't do what is really necessary or what should be done for (___)?	68 (50,3)
6. Do you often feel you have to reject or ignore (___)?	41 (30,3)
7. Do you often feel so tired and exhausted that you cannot meet (__)'s needs?	58 (42,9)
8. Do you often feel you have to yell at (___)?	49 (36,2)

Table 4. Association between the characteristics of the elderly and caregivers with violence against the elderly, Manguinhos (Rio de Janeiro), 2013-2014.

Characteristics	Violence	
	Odds Ratio	CI 95%
Elderly		
Gender (reference: female)	2.92	1.09 - 8.23
Depression	6.93	2.66 – 20.26
Caregiver		
Gender (reference:female)	0.19	0.03 – 0.82
Burden		
Light vs. moderate	2.94	1.02 – 9.22
Light vs. severe	11.10	2.93 – 48.18
Problems with alcohol	3.80	1.17 – 13.21
USS Total	2.13	0.79 - 5.86

USS = Unsatisfactory social support. § A logistic model was built. Variable response: violence against the elderly. Factors included in the model predictors: 1) related to the elderly: sex, depression; 2) related to the caregiver: sex, caregiver burden, problems with alcohol and social support to the caregiver.

Discussion

Despite the frequent occurrence of domestic violence directed against older adults that results in suffering, elevated health care costs, and fatalities, this problem has been inadequately studied. Highlighting the need for prioritized attention to the problem, elderly victims of abuse are three times more likely to die within three years of the traumatic event[8,40].

The true incidence and prevalence of domestic violence directed against older adults may never be known, due to factors including poor recognition and consequent underreporting of cases[2]. The use of different operational tools and definitions further contributes to difficulties in reporting the frequency of violence against elderly individuals[8]. In this study, the prevalence of caregiver responses indicating an increased risk of violence was greater than 30%, a rate similar to that found among relatives of demented elderly adults in the United Kingdom (UK)[13]. In the United States, one previous study estimated that 11% of the elderly population had suffered some type of violence in the previous year[41], but this rate has been reported to increase four times when elderly dependents suffer from dementia[42]. Mental disorders in dependent elders were also found to be associated with a 24% prevalence of abuse in a study conducted by Hughes et al.[40], which included data collected from more than 21,000 impaired individuals around the world. In Brazil, Fonseca et al. visited almost 8,000 Brazilian households and identified the occurrence of elder abuse in 33.5% of these residences[43], while a study by Bolsoni et al.[44] found the rate of violence to be 13%, based on a sample of 1705 older adults residing in Florianópolis. And among elderly adults living in Niterói, Rio de Janeiro, Apratto Júnior[45] found that 43% reported experiencing at least one episode of violence.

Among six studies classified as being of better quality in a systematic review of the Brazilian scientific literature on the prevalence of violence against the elderly between 2008 and 2013, the highest percentage of violence, 21%, was found by Duque et al. in a study conducted in Pernambuco that included interviews of 274 elderly subjects in their homes[4,46]. Recently, Paiva and Tavares[5] interviewed 729 elderly people in Uberaba and also found a prevalence of 21% of elder

abuse. It should be noted that, in contrast to our study, none of these previous investigations focused specifically on violence against vulnerable older adults. Therefore, it is plausible that the prevalence of abuse in the impaired elderly population identified in our study would be greater than rates found in these other Brazilian studies.

Among the characteristics of the elderly participants found to be associated with greater risk of caregiver violence, male sex and the presence of depression were found to increase the risk of violence by almost three and five times, respectively. The association between violence and male sex is a variable finding. A recent systematic review by Johannesen and Lo Giudice[47] on risk factors for violence against the elderly identified 49 good quality studies, and this review found no clear trends among associations between abuse and gender, age, or educational level of elderly subjects. On the other hand, depression has been reported to be unequivocally associated with abuse by caregivers[8]; it can be both a cause and a consequence of abuse. Lichtenberg et al.[48] previously identified depression as one factor associated with financial abuse in a study of 4,440 elderly people (Odds Ratio (OR) = 1.09; 95% Confidence Interval (CI) = 1.01–1.18). And Strasser et al.[49] likewise found that the chance of violence was six times higher in a study of 112 elderly people with depressive symptoms when compared to those without depression (OR = 6.07; 95% CI = 1.54-23.09). In China, where filial compassion is a cultural trait, the risk of violence was nonetheless 5.5 times higher among depressed elderly persons living in rural communities[50]. In Brazil, Apratto[45] has also reported evidence supporting associations between violence and depression and other conditions that contributing to vulnerability among the elderly.

This apparent association between depression and domestic violence has led Lachs and Pillemer[51] to suggest the use of formal instruments to investigate depression among all possible victims of abuse. Based on the findings in this study, we suggest the same approach in situations of disability. Depression screening offers promise as a strategy for preventing violence, as the identification of its presence can alert health team members of the increased risk of the dependent elderly person.

Among caregiver factors found to be related to risk of violence in this investigation, the presence of high levels of burden increased the chance of the occurrence of violence by 11 times. Johannesen and Lo Giudice[47] have found similar associations between violence against dependent elderly persons and caregiver burden in seven studies, but the increases in risk of violence reported in their studies were not even double the rates in the comparison groups. In Brazil, Queiroz et al.[15] have analyzed factors associated with domestic neglect in a sample of 40 caregivers and elderly persons assisted by a home care program, and they also found a correlation between general caregiver stress and reduced functional capacity of the elderly individuals.

The substantially increased risk of elder abuse identified in our sample is perhaps the most important finding in this study. This risk demonstrates the perverse reality imposed on family members with limited financial resources who are faced with the challenge of caring for impaired relatives. According to the Brazilian Ministry of Health, caregivers should also receive appropriate attention, given the significant burden of caring for elderly adults, work which usually falls on only one family member[14]. Determining if family counseling is needed and periodic formal assessment of the caregiver burden are tasks for health professionals that enable the identification of risk factors for abuse. Improved identification of caregiver burden is needed in order to propose preventive interventions.

In this study, alcohol problems were also found to be associated with risk of abuse by caregivers, with reported alcohol abuse found to increase risk of violence by more than three times. This finding is not new. Reichenheim et al.[22] previously identified a correlation between CASE and CAGE results ($p < 0.01$) when interviewing 507 caregivers at three health services facilities in Rio de Janeiro. And Fonseca et al.[43] found that at the moment of abuse, 17% of perpetrators were intoxicated by alcohol, and among the victims, 7.7% were one of the aggressor's parents. Consistent with these other studies, Mascarenhas et al.[52] analyzed 3,593 reports of violence for 2010 in the Brazilian Information System of Notifiable Diseases and verified a higher occurrence of psychological violence by children with suspected alcohol use (Proportion Ratio = 1.60). These data demonstrate the need to closely examine potential abuse of alcohol by caregivers when considering the problem of violence against older adults. Active searching for cases of mistreatment and alcohol abuse by health team members could be one effective strategy for assisting families and preventing abuse[53].

In spite of the high frequency with which older victims of violence interact with the health sys-

tem, and particularly with physicians, the lack of capacity to deal with elder abuse cases was found to be apparent in a study investigating pre-hospital care among elderly victims of violence in five Brazilian capitals[8,54]. The introduction of screening tools during the delivery of routine of services, adapted to the cultural context, could contribute to filling this gap. Early identification of elder abuse is a unique opportunity to improve quality of care for this patient group.

One particular obstacle in dealing with elder violence is the poor integration between health services and services for the protection of elderly, and this is a not a problem exclusively in Brazil. Recently, O'Brien[55] cautioned that achieving coordination and communication between institutions is necessary before screening for elder abuse in the United States. Nevertheless, in Brazil, health team training to identify signs of elder abuse and to protect impaired elderly patients is mandatory in the units of the Unified Health System. This training includes courses both during undergraduate health professional education and also as part of continuing education[56].

This research study has some limitations. The cross-sectional study design does not permit us to make conclusions about the existence of causal relationships between the study variables and the occurrence of violence against dependent elderly persons. This would be feasible in a longitudinal study. In addition, the generalizability of our results is limited due to our convenience sampling method and the local nature of the data. Nonetheless, it is important to emphasize that the study population represents a reality that is easily observed in other regions of the country. Moreover, considering the cultural contextualization of violence, it is possible that cultural issues related to the subject environment of social vulnerability could increase the prevalence of violence. However, it should be noted that in this study, the selection bias created by specifically excluding areas with greater exposure to violence and less assistance by health services teams may have resulted in an underestimation of the actual prevalence of elder abuse in this region. These considerations underscore the need for further studies in different environments.

This study has a number of strengths, including the fact that it is a population-based study with a sample that permits investigation of associations between violence perpetrated by caregivers and variables related to both caregivers and dependent elderly subjects. In addition, our results are consistent with those of other studies, and evaluations were performed using instruments that have already undergone cross-cultural adaptation.

Conclusion

Caregiver violence directed against dependent elderly individuals continues to be poorly diagnosed and underreported. In this study, which was conducted in a poor and violent area of a large city, a high risk of caregiver violence was identified using a simple screening instrument. Increased risk for elder abuse was found to be associated with burden of care and alcohol problems among caregivers and with depression in dependent elders receiving care. Assessment of degree of difficulty performing self-care tasks and screening for the presence of depression in impaired elderly people, as well as querying level of burden and possible alcohol problems in caregivers, could facilitate improved identification of risk factors for elder abuse. Family support, enhanced identification of elder abuse and risk factors, and treatment of these problems offer promise for preventing and reducing the occurrence of this form of family violence.

Collaborations

It was designed and designed by VTS Lino, S Athie and IS Lima. The analysis and interpretation of the data was done by NCP Rodrigues. The review and approval of the final version was made by ER Souza.

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