The prevalence of elder abuse in the Porto Alegre metropolitan area

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Abstract: Abuse of the elderly is a form of violence to come to the public's attention. Dental professionals are in an ideal position to identify physical abuse. The aim of this study was to assess the prevalence of elderly abuse and analyze the database of injury reports that can be identified by dental teams. A documentary analysis study developed by the Elderly Protection Police Station of Porto Alegre, Rio Grande do Sul, was carried out. The information used came from 2,304 complaints filed at the aforementioned institution between the years of 2004 and 2006. The records of abuse are categorized as injury, neglect, mistreatment, theft, financial abuse, threat, disturbing the peace, atypical fact, and others. The injuries that could be identified by the dental team were classified according to the injury's location in the area of the head, face, mouth and neck. Descriptive analysis was performed, and chi-square tests were used to evaluate the distributions of the types of elder abuse in relation to sex and age. The most frequent of the different types of abuse was theft, with a prevalence of 17.8%, followed by disturbing the peace at 11.8%. Disturbing the peace, threat, and bodily injury were significantly associated with women. Elder abuse among women and men declines with age. The prevalence of head injury was 25% of the total injuries, most often in females, and in those aged < 70 years. Based on these results, it is necessary that the dental team observe the elderly person's appearance for suspicious physical signs.

Descriptors: Elder Abuse; Prevalence; Dentistry.

Introduction

The aging of the population is a global phenomenon, and the World Health Organization forecasts that in 2025 there will be approximately 1.2 billion persons aged 60 and over worldwide.[1] This process of increased longevity leads to repercussions in both society and health team, where elderly abuse problems deserve special attention due to their occurrence in both developed and developing countries, causing significant impact on elder people's quality of life.[2]

Reports of mistreatment of the elderly have been shown in recent literature,[3] but it is already recognized as a public health problem in several countries.[4] Therefore, the increase in life expectancy requires special attention to be paid to the violence that is experienced by many elders.[5] According to the World Health Organization,[6] abuse against elders can be categorized as:

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1. physical abuse; that is, an infliction of pain or injury, physical coercion, and/or physical or chemical restriction;
2. psychological or emotional abuse, which is the infliction of mental anguish;
3. material or financial abuse, which is characterized by improper or illegal exploitation and/or use of income resources;
4. sexual abuse, which entails non-consensual contact of any type with older people; and
5. neglect, which is the abuse characterized by refusal or failure, intentional or unintentional, to provide a care-taking obligation.

A systematic review of elder abuse or neglect identified a prevalence ranging from 3.2% to 27.5% in general population studies.[7] A cross-national study conducted in 11 European countries on people aged 65 and older who used social or healthcare services obtained an overall prevalence of 2.0% in Nordic countries, 9.6% in Germany, and 12.4% in Italy.[8] The U.S. study by Acierno *et al.* [9] found a 1-year prevalence of 11.4% for four types of abuse (physical, psychological, sexual, and neglect). There are few publications with elderly abuse data in Brazil.[10] Two population-based surveys, in Camaragibe (PE)[11] and Niterói (RJ),[12] showed a prevalence of 21% for various forms of violence in the former case and 10.1% for domestic physical abuse in the latter.

Many times, health providers are the only contact that the elderly have outside the family environment. For example, dental professionals can recognize abuse[13] because they are in a favorable position to identify signs of domestic violence during their examinations.[14] It has been estimated that 65% to 75% of abuse involves trauma to the head and neck area.[15] Facial injuries from physical abuse include fracture of the maxilla and mandible, burns, bruises, fractures and injuries to teeth, and/or scars on lips.[16] Because most domestic violence injuries occur in the head and neck area, it is critical that dental professionals be prepared to identify, interview, and assist victims.[14] It is important for Family Health Teams to identify cases of violence, to promote the prevention of this violence through health education with families, and to provide a safety net for the elderly.[17]

Thus, the aim of this study was to assess the prevalence of elderly abuse and analyze the database of injury reports that can be identified by dental teams.

Methodology

A documentary analysis study developed by the Elderly Protection Police Department of Porto Alegre, RS, was carried out. The Elderly Protection Police Department of Porto Alegre has existed since 1995 and answers to all cases of abuse against persons aged 60 years or more in the Porto Alegre metropolitan area. In 2007, the Porto Alegre metropolitan area consisted of 31 cities, with a total area of 9,800,194 km², and a population of 3,959,810 inhabitants, of which 472,000 were aged 60 years or older.[18,19]

The information used came from 2,304 complaints filed at the aforementioned institution between the years of 2004 and 2006. The police records contain the following data:

- sex, age, name, and address of both the victim and of the perpetrator;
- date and time of the occurrence; and
- a description of the historical facts of the occurrence.

The abuse registered against the elderly is categorized by the type of occurrence (typical fact/atypical fact). A typical fact is defined as human action or omission, both conscious and voluntary; intentional or negligent conduct, directed to one purpose, typical or not, that produces or attempts to produce an expected result in criminal law as a crime. An atypical fact can never be a criminal offense, but it can be a tort or administrative offense.[20]

The records of abuse are categorized as injury, neglect, mistreatment, theft, financial abuse, threat, disturbing the peace, atypical fact, sexual abuse, and/or emotional abuse. The accused included children, neighbors, partners, grandchildren, and lineal in-laws, among others. The injuries that could be identified by the dental team were classified according to the injury's location in the area

Table1 - Characteristics of the elderly abuse in the Porto Alegre metropolitan area.

		n (%)
Sex	Female	1484 (64.4)
	Male	820 (35.6)
Age	< 70 years	1300 (56.4)
	≥ 70years	1004 (43.6)
Perpetrator	Children	126 (51.0)
	Neighbors	34 (13.4)
	Partners	32 (13.0)
	Others	56 (22.6)
Types of abuse	Theft	409 (17.8)
	Disturbing the peace	302 (11.8)
	Atypical fact	299 (11.7)
	Threat	245 (9.6)
	Mistreatment	208 (9.0)
	Bodily injury	206 (8.9)
	Financial abuse	134 (5.8)
	Head injury	69 (3.0)
	Neglect	51 (2.2)
	Others	381 (20.2)

of the head, face, mouth and neck. This study was carried out after authorization by the Elderly Protection Police Department. This study was carried out after the approval from the Committee of Ethics of the Federal University of Rio Grande do Sul (no. 02/07).

Data analysis

A descriptive analysis was performed using relative and absolute frequencies for sex, age, perpetrator, and types of abuse. The prevalence of elder abuse was calculated based on the elderly population, 472,000 inhabitants, of the Porto Alegre metropolitan area in 2007. Chi-square tests were used to evaluate the distributions of the types of elder abuse in relation to sex and age (< 70 and ≥ 70 years). The analysis of age groups was based on the mean age of the study (70.4 ± 7.3).

All the analyses were performed using SPSS 16.0 (SPSS Inc., Chicago, USA) software for statistical analysis.

Table 2 - Frequencies of types of abuse according to sex.

Types of abuse	Female		Male		*p*
	n	(%)	n	(%)	
Theft	277	18.7	132	16.1	0.12
Disturbing the peace	226	15.2	76	9.2	0.00*
Threat	128	8.6	117	14.2	0.00*
Mistreatment	129	8.7	77	9.4	0.57
Bodily injury	148	10.0	60	7.3	0.03*
Financial abuse	84	5.7	50	6.1	0.67
Head injury	49	3.3	20	2.4	0.25
Neglect	36	2.4	15	1.8	0.35

*$p < 0.05$.

Results

The majority of elderly abuse took place in females (64.4%) and in those aged < 70 years (56.4%). The perpetrators of the abuses were children (51%), neighbors (13.4%), and partners (13%). The most frequent of the different types of abuse was theft, with a prevalence of 17.8%, followed by disturbing the peace at 11.8%, atypical fact at 11.7%, threat at 9.6%, and mistreatment at 9.0% (Table 1). Additionally, of the total number of injuries (275), head injury had a frequency of 25%. In this study, head injuries occurred in the scalp, eyes, cheek, mouth, and teeth. In addition, the most frequent type of head injury was cut, followed by bruise, wound, and fracture. The prevalence of any type of elderly abuse identified in The Porto Alegre metropolitan area was 0.5% (n = 472,000).

The frequencies of types of abuse in this study in relation to sex are shown in Table 2. Disturbing the peace, threat, and bodily injury were significantly associated ($p < 0.05$) with women.

Significant differences were observed between types of elderly abuse in terms of age, shown in Table 3. Theft occurred 266 times (20.4%) in those aged < 70 years, and 143 times (14.2%) in those aged ≥ 70 years ($p = 0.00$). The proportion of mistreatment differed significantly from those aged < 70 years (93 cases, 7.1%) and those aged ≥ 70 years (113 cases, 11.2%) ($p = 0.00$). The number of head injuries was 51 (3.9%) for those aged < 70 years and 18 (1.8%) for those aged ≥ 70 years ($p = 0.00$).

Table 3 - Frequencies of types of abuse according to age.

Types of abuse	< 70 years		≥ 70years		p
	n	(%)	n	(%)	
Theft	266	20.4	143	14.2	0.00*
Disturbing the peace	182	14.0	120	11.9	0.15
Threat	137	10.5	108	10.7	0.86
Mistreatment	93	7.1	113	11.2	0.00*
Bodily injury	118	9.1	90	8.9	0.92
Financial abuse	65	5.0	69	6.8	0.06
Head injury	51	3.9	18	1.8	0.00*
Neglect	26	2.0	25	2.5	0.43

*$p < 0.05$.

Discussion

The results obtained in this study indicate a prevalence of elder abuse ranging from 2.2% to 17.8%. These rates are most likely an underestimate, as some people may be reluctant to report abuse. The type of abuse most frequently experienced was theft. The results showed that a large percentage of women had experienced different types of abuse. The findings revealed that the prevalence of elder abuse declines with age, with the exception of mistreatment and financial abuse. In addition, the prevalence of head injury was 25% of the total injuries. As a dental team can identify this type of elder abuse, oral health care professionals could therefore play a vital role in helping patients who are victims of elder abuse.

Elder abuse has devastating consequences for older persons, such as poor quality of life, psychological distress, multiple health problems, and increased mortality.[6] In this study, the prevalence of neglect (2.2%) and financial abuse (5.8%) was higher than that observed in other studies. Previous studies[21,22] identified the prevalence of neglect as ranging from 0.3% to 1.1%, and of financial abuse ranging from 0.7% to 1.3%. A combination of methodological factors and real differences caused by social, family, individual, and sociodemographic factors most likely caused these differences in prevalence. It is essential to consider cultural differences in judgments about possible elder abuse.[3]

Elder abuse often involves complex interactions between the abused individual and the perpetrator.[23] In this study, the perpetrators of the abuses were children of the victims (51%), neighbors (13.4%), and partners (13%). According to other studies children of the older persons were the leading aggressors,[21,24] with proportions of 83.7%, and 50%, respectively. It is important to note that the family core is the main factor responsible for the well-being of the elderly,[25] but they are also often responsible for their abuse. Possible contributing factors to abuse include the relocation of adult children back into the home, financial problems, patterns of intergenerational violence, and dependence of the caregiver on the elder for housing or financial resources.[3] The prevention of elder abuse will depend on how societies address the general welfare of older people and how they support the well-being of the wider family unit.[21]

Sexism and ageism together place older women as the most vulnerable to elder abuse.[6] For many women, abuse is not an isolated event, but rather, abuse happens repeatedly.[26] Our findings showed that disturbing the peace (15.2%), bodily injury (10%), and threat (8.6%) were significantly associated with older women. Disturbing the peace, also known as breach of the peace, is a criminal offense that occurs when a person engages in some form of disorderly conduct, such as shouting. These findings were similar to those of studies that found the prevalence of shouting, physical abuse, and threats to be 16.2%,[27] 4%, and 11.8%,[26] respectively.

In this study, elder abuse among women and men declines with age, a finding that is in accordance with another study.[22] Theft (20.4%) and head injury (3.9%) were primarily associated with those aged < 70 years. Mistreatment (11.2%) was mostly associated with those aged 70 and older. Elderly people have a reduced prevalence of being personally abused, yet they still have a high degree of mistreatment. Age alone does not define elder abuse. The social situation of older persons is very different from that of younger persons.[6]

Dentists are in an ideal position to identify and signal suspected abuse, as they perform a thorough examination of the head and neck region.[13] In this study, head injuries comprised 25% of the total injuries, most often in females, and in those aged < 70

years. Based on these results, it is necessary that the dental team observe the elderly person's appearance for suspicious physical signs. The team must also be aware of unlikely explanations from the family to determined injuries on the head, face, neck, and mouth areas. In physical abuses, the dental team can identify bruises and fracture of facial bones, welts, cuts, wounds, swollen lips, hand prints on the face, cigarette/rope burn marks, fractures of teeth, avulsed or loose teeth, and painful body movements unrelated to illness.[13] However, chronic diseases can mask or mimic elder abuse. Abuse should be considered if there is a peculiar pattern of injuries on the face.[3]

Reporting of elder abuse, however, is infrequent among dental professionals. Most dentists would acknowledge their legal obligation to report child abuse, but many would not consider reporting elder abuse to be an obligation as well.[13] This indicates a lack of awareness by these professionals about the adoption of protective measures for victims of aggression.[28] When dental professionals are well trained and feel confident to follow through with this process, more victims may be identified earlier and more lives may be saved.[14] In addition, dental practice protocols are needed to provide dental professionals with the needed skills to recognize, document, and report abuse, and to refer patients for needed help. Protocols are tools that focus on early recognition, assessment, intervention, and management of elder abuse.

The reporting of violence against the elderly in the Brazilian population can be facilitated by health care public policies that are the guidelines that orient elder care, not only regarding attendance but also regarding preventive actions. The Elder Statute and the National Policy to Elder Care are very slowly incorporating the elder violence theme and offering support to the Protection Network.[29] In addition, Primary Health Care has an important role in identifying, managing, and preventing the occurrence of elder abuse.[6]

This study was based on secondary data and was thus limited to the variables and categories of elder abuse recorded in the Police Department of Elderly Protection reports. The study did not have any information on the social services agencies' or health care professional's intervention as a result of the reported elder abuse. Recommendations for further studies on this topic include the establishment of guidelines to develop dental practice protocols for elder abuse.

Conclusion

The prevalence of elder abuse observed in this study and the potential individual and social costs of this abuse suggest that the prevention and early detection of such abuse must be included among the priorities in caring for the elderly. Based on this study, it is necessary that the dental team observe the elderly person's appearance for suspicious physical signs. Thus, it is clear that the education and qualification of the dental team is necessary to both prevent abuse and to interfere on behalf of the elderly in order to promote health.

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