

Physical abuse of older people reported at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil

A violência física contra a pessoa idosa revelada em serviço médico-legal, Recife, Pernambuco, Brasil

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Abstract

This cross-sectional study aimed to determine the profile of physical abuse against older people who underwent forensic examination at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil. The cases, with data from 1,027 forensic reports, were described according to characteristics of the incident, victim, and aggressor. Most cases of violence were produced by mechanical energy, either with blunt objects or by empty-handed attack; the most common day of the week was Sunday, most frequently in the evening, and in the victim's home; typical cases involved mild injuries on more than one part of the victim's body. The majority of the victims were men, 60 to 69 years of age, brown (mixed-race), married or living with a partner, and retirees/pensioners. The majority of the aggressors were men, known to the victim, and attacking alone. The social transcendence of violence against older people clearly calls for investment in programs to deal with the problem in order to ensure better quality of life for the elderly.

Elder Abuse; Violence; Aged

Introduction

As part of Brazil's demographic transition, the country's population is following the worldwide trend and becoming increasingly older. Compared to the European countries, in Brazil the phenomenon has been more intense and rapid, coinciding with an urbanization process, often associated with industrialization, but without the corresponding improvements in quality of life for the majority of the population ^{1,2}.

Thus, populating aging, combined with the stress of modern living, aggravates individual and family problems and conflicts in collective life in both the public and private spheres. Such problems mount up and can be expressed in the form of violence ³. In this context, the elderly population becomes vulnerable due to physiological, psychological, and socioeconomic issues ⁴.

The World Health Organization (WHO) defines violence as the intentional use of physical force or power, whether real or threatened, against oneself or another person, group, or community, resulting or with the possibility of resulting in injury, death, psychological harm, developmental disability, or deprivation ⁵. According to the WHO ⁵ and the Brazilian National Policy for the Reduction of Morbidity and Mortality from Accidents and Violence ⁶, violence can be classified as: physical, psychological, sexual, or financial abuse, neglect, abandonment, or self-

neglect. Physical abuse of elders, the object of this study, relates to the use of physical force to compel older persons to act against their wishes, to hurt them, or to cause them pain, incapacity, or death^{6,7}. Elder abuse is a public health problem^{7,8}.

Elder abuse was described for the first time in 1975⁹, and the first publications on the issue came from the United States, Canada, and the United Kingdom and other European countries¹⁰. In Brazil, despite the issue's public health relevance, the phenomenon did not gain visibility until the 1990s^{5,7}, and studies on violence against older people are still rare^{8,11}.

Due to the incipient state of the research, the prevalence of violence against older people in Brazil is still unknown¹². Two population-based surveys, in Camaragibe (Pernambuco State)¹¹ and Niterói (Rio de Janeiro State)⁸, showed a prevalence of 21% for various forms of violence in the former case and 10.1% for domestic physical abuse in the latter.

Worldwide, the prevalence of elder abuse varies from 3% to 10%, and the incidence increased by 150% in ten years¹³. According to a recent systematic review, other authors showed prevalence rates ranging from 3.2% to 27.5%¹⁴. A nationwide incidence survey in the United States in 1996 showed that approximately 450,000 older people (≥ 60 years) had suffered domestic abuse¹⁵ (1% of the country's elderly population)¹⁴. In Boston (USA), the rate in persons over 65 years of age reached 3.2%, and physical abuse was the most frequent form (2%)¹⁶. In Amsterdam (Netherlands), prevalence in persons over 65 years of age was 5.6%, with physical abuse ranking third (1.2%)¹⁷. According to a study in Barcelona, Spain, 11.9% of older people (≥ 70 years) had suffered abuse, mostly psychological in nature, followed by physical abuse, neglect, and abandonment¹³. In Seoul, Korea, a population-based survey showed that 6.3% of older people (≥ 65 years) had suffered some type of violence, with physical abuse as the least frequent (1.9%)¹⁸. In a study focusing on physical and psychological abuse in older people (≥ 60 years) in Hong Kong, the prevalence reached 21.4%¹⁹.

Considering the magnitude and transcendence of elder abuse, as well as the lack of studies on this issue in Brazil, it is necessary to construct new objects of research that can help reveal the problem in a comprehensive, detailed, rigorous, and relevant way. One way of demonstrating the profile of elder abuse (in order to back measures to combat it) is to analyze medical examiners' reports on injuries issued by the Institute of Forensic Medicine. Possibly because these examiners' reports are used in court, the data they contain

tend to be more reliable and complete than that obtained from patients' medical charts, which often fail to even mention physical abuse as the source of the injury.

The current study thus describes the profile of physical abuse according to the characteristics of the event, victim, and aggressor, among older people submitted to forensic examination of injuries from 2004 to 2007 at the Institute of Forensic Medicine (*Instituto Médico-Legal* – IML) in Recife, Pernambuco State, Brazil.

Methods

This descriptive, cross-sectional study consisted of an analysis of forensic examination reports of injuries in older people (60 years and older) from January 2004 to December 2007 at the IML in Recife. Exclusion criteria were: cases whose reports mentioned referrals that occurred outside the study's reference period (although the examination itself occurred during the period); accidents (defined according to the reported history); incarcerated individuals; or individuals in whom no bodily injury was detected. The resulting study population consisted of a total of 1,027 cases of physical abuse in victims 60 years of age and older.

Importantly, in addition to the forensic examination reports, the results of complementary tests were consulted in order to classify the degree of bodily injury, since many cases required this information for their completion.

The data were collected at the IML in Recife from June to October 2008, using a form with 16 mixed questions, validated by a pilot study. Data entry, processing, and analysis used SPSS version 13.0 (SPSS Inc., Chicago, USA).

The study was approved by the Research Ethics Committee of the Center for Health Sciences, Federal University in Pernambuco (UFPE), case no. 402/07, having complied with the ethical principles contained in *Ruling no. 196/96* of the Brazilian National Health Council.

Results

During the study period, 1,027 cases of physical abuse against older people were recorded, or an average of 21.4 cases per month. In nearly all of the cases, the violence was produced by mechanical energy, with the exception of nine cases produced predominantly by physical energy (100% of which caused by heat). In the other two types of energy (chemical and mixed), the harm was caused by a caustic substance and cruel and

vicious treatment (involving captivity and starvation), respectively. As for the cases caused by mechanical energy, 89.5% involved blunt trauma (empty-handed attacks, as with fists and feet, were the most common, followed by improvised weapons, or common objects, comprising 84.1% of the total). Sunday was the day of the week when older people suffered the most abuse, followed by Saturday. Most cases occurred in the afternoon or evening and in the victim's home (Table 1).

As for the consequences of the physical abuse, 40.4% of the cases involved more than one part of the body, followed by injuries on the upper limbs and face. The most frequent injuries were considered "mild", while only 1.9% were classified as "very serious" (Table 2).

As for the victims' characteristics, the majority were males, with a ratio of 1.4 men for every woman. The most common age bracket was 60 to 69 years. The proportion of cases in this age bracket was 12.3 times that of the 80-and-older

Table 1

Distribution of cases of physical abuse reported at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil, according to variables related to the circumstances of the violence, 2004-2007.

Variables	n	%
Type of energy		
Mechanical	1,018	99.1
Physical *	7	0.7
Chemical **	1	0.1
Mixed ***	1	0.1
Total #	1,027	100.0
Type of mechanical instrument		
Blunt	907	89.5
Sharp-blunt	31	3.1
Pointed-blunt	25	2.5
Sharp	18	1.8
More than one type of instrument	18	1.8
Sharp-pointed	13	1.2
Pointed	1	0.1
Total	1,013	100.0
Type of weapon in mechanical energy		
Empty-handed assault (e.g., fists and/or feet)	199	51.8
Improvised weapons (common objects)	124	32.3
Weapons proper	44	11.5
More than one type of weapon	17	4.4
Total	384	100.0
Day of the week		
Monday	132	13.9
Tuesday	125	13.1
Wednesday	125	13.1
Thursday	122	12.8
Friday	123	12.9
Saturday	144	15.1
Sunday	182	19.1
Total	953	100.0
Time of day		
Morning	131	25.8
Afternoon	162	32.0
Evening	182	35.9
After midnight (early morning hours)	32	6.3
Total	507	100.0

(continues)

Table 1 (continued)

Variables	n	%
Place		
Victim's home	303	57.7
Public byways	121	23.0
Area around home	47	9.0
Other	26	4.9
Workplace	14	2.7
Home of relatives, friends, acquaintances	14	2.7
Total	525	100.0

* Physical means: heat (hot liquid – 5 cases; cigarette – 1 case; and hot pan – 1 case);

** Chemical means: caustic substance;

*** Mixed means: cruel and vicious treatment (confinement and starvation);

The total varies for each variable due to the exclusion of cases for which information was lacking or imprecise.

Table 2

Distribution of cases of physical abuse against older people, reported at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil, according to variables related to the consequences, 2004-2007.

Variables	n	%
Part of body injured		
More than one part of the body	414	40.4
Upper limb(s)	281	27.4
Face	141	13.7
Lower limb(s)/pelvic girdle	70	6.8
Skull/Neck	62	6.0
Chest/Abdomen	59	5.7
Total	1,027	100.0
Degree of injury		
Mild	959	93.4
Serious	48	4.7
Very serious	20	1.9
Total	1,027	100.0

group. Approximately 86% of the victims were brown (mixed race) or black, and most were married or living with a partner. Retirees or pensioners, together with “homemakers”, comprised 62.6% of the cases (Table 3).

As for the aggressors, most were men (2.4 men for every woman) and acting alone when they perpetrated the physical abuse. In 54.3% of the cases, the perpetrators were unrelated to the victim (but 73.3% of unrelated perpetrators were known to their victims). When the perpetrator and victim were related, 31.7% of the cases involved lineal blood relatives, and 83.7% of these were children of the victims. Another 31.3% of

perpetrators were spouses or boyfriends/girlfriends, followed by lineal in-laws (23%, of which 76.2% were son-in-laws or daughter-in-laws), and 19% were stepchildren of the older person (Table 4).

Discussion

The predominance of cases produced by mechanical energy²⁰ may have been due to the wide variety of existing mechanical instruments. Physical energy was the second most common form, and in all these cases heat was the means used in the violence. Importantly, when this modality is used in physical abuse, the aggressor clearly intends to leave marks (in this case burn marks) on the victim's body, in addition to inflicting pain²¹.

As for the mechanical instruments (the means by which mechanical energy produces the damage), blunt trauma was the most common, consistent with França²⁰, who reports this type of trauma as producing the majority of injuries found in forensic examinations. The frequency of blunt trauma is probably due to the fact the most of the objects used fit into this category, including empty-handed attacks, as with fists and feet²¹. In a survey of data from a special service for filing complaints of abuse²², the most common category was “hands and feet” (52.3%) or empty-handed attacks, comprising the majority of data on the means used to inflict trauma.

The high proportion of empty-handed attacks, followed by improvised weapons, demonstrates the frailty of older persons, given that the assault was produced without any kind of actual object in the case of fists or feet or using ordinary objects rather than weapons “per se” (like firearms, knives, clubs, daggers, etc.)²¹.

Table 3

Distribution of cases of physical abuse against older people, reported at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil, according to variables related to the victim, 2004-2007.

Variables	n	%
Gender		
Male	608	59.2
Female	419	40.8
Total *	1,027	100.0
Age bracket (years)		
60-69	735	71.6
70-79	232	22.6
≥ 80	60	5.8
Total	1,027	100.0
Race/Color		
Brown (mixed race)	850	83.5
White	140	13.8
Black	28	2.7
Total	1,018	100.0
Marital status/conjugal situation		
Married or living with partner	444	44.2
Single	256	25.4
Widow(er)	214	21.3
Divorced/Separated	92	9.1
Total	1,006	100.0
Occupation		
Retiree/Pensioner	435	46.7
Homemaker	148	15.9
Blue collar (industrial) worker	90	9.7
Services, sales, market worker	62	6.6
Liberal professional (arts and sciences)	59	6.3
Public administrator	35	3.7
Armed forces, law enforcement, firefighter	25	2.7
White color worker (administrative services)	24	2.6
Farming, forestry, fishing	23	2.5
Maintenance and repair	17	1.8
High school level technician	14	1.5
Total	932	100.0

* The total varies for each variable due to the exclusion of cases for which information was lacking or imprecise.

As for the day of week on which the abuse occurred, the high frequency on Sundays and Saturdays is partially explained by the fact that these are the days on which many potential aggressors consume more alcohol, a situation identified in the literature^{9,11,23} as a risk factor for violence. In addition, there tends to be more family contact on weekends, favoring the occurrence of domestic clashes.

The high occurrence of abuse in the evening can be partially explained by the fact that many older people suffer from insomnia², potentially irritating others living under the same roof with

them, which represents the housing situation for 85% of older people in Brazil according to Araújo & Alves²⁴.

As for the place where the violence occurred, most attacks occurred in the victim's own home, that is, clear cases of domestic violence²⁵. Other studies^{11,26,27,28} corroborate the predominance of the domestic setting in physical abuse against older people, with proportions ranging from 59%²⁶ to 87%²⁷.

Inter-generational living, shared living spaces, loss of the older person's social status, reduced autonomy and increased dependency, less soli-

Table 4

Distribution of cases of physical abuse against older people, reported at the Institute of Forensic Medicine in Recife, Pernambuco State, Brazil, according to variables related to the aggressor(s), 2004-2007.

Variables	n	%
Gender		
Male	414	69.5
Female	170	28.5
Male and female *	12	2.0
Total **	596	100.0
Number		
One	542	88.4
More than one	71	11.6
Total	613	100.0
Relationship to the victim		
Known, but unrelated	231	39.8
Unknown	84	14.5
Lineal blood relative ***	80	13.8
Spouse/Boyfriend/girlfriend	79	13.6
Lineal in-law #	58	10.0
Former spouse or boyfriend/girlfriend	16	2.8
Collateral blood relative ##	15	2.6
More than one relationship	13	2.2
Collateral in-law	4	0.7
Total	580	100.0

* Male and female: more than one aggressor, of different genders;

** The total varies for each variable due to the exclusion of cases for which information was lacking or imprecise;

*** 67 sons/daughters and 13 grandsons/granddaughters;

45 sons-in-law/daughters-in-law, 11 stepchildren, 1 father-in-law, and 1 stepfather;

9 nephews/nieces, 5 brothers/sisters, and 1 sister + niece.

ilarity, respect, and tolerance for others, overburdening of the caregiver, and lack of financial resources are some potential explanatory factors in the occurrence of domestic violence^{3,29}. However, this study's design does not allow establishing cause-and-effect relations, thus emphasizing the need for further research.

As for the body part affected by physical abuse, although the most frequent category was "more than one part", the sum of the categories covering only one body part each was greater (59.6%), and upper limbs were the part most frequently involved, suggesting attempted self-defense by the older person²¹.

The injuries were predominantly mild, involving limited repercussions for the person's body, easy treatment, and quick recovery²⁰. Although in the study based on forensic reports²⁷ the criteria used to classify the consequences of abuse were different, the findings appear to show that most cases were mild, either dispensing with treatment (57.5%) or treated at the primary care level (31%).

In terms of gender, our findings were similar to those of Pillemer & Finkelhor¹⁶, in which 52% of the victims were men. This slightly higher frequency in men may be explained (as reported by Souza³⁰) by the socialization process in males, by which they can become both perpetrators and targets of abuse.

On the other hand, according to Faleiros²², women are the greatest victims, due to the gender domination dynamic, expressed in power relations both inside and outside the family setting. According to this author, the culture of machismo often means that elderly women refrain from filing complaints because they do not even realize they are being abused.

According to several studies^{22,28,31}, the majority of older people suffering abuse were females, with proportions of 70.7%, 65%, and 84.9%, respectively. Thus, there may have been even more cases of abuse against elderly women in Recife, but which did not even reach the Institute of Forensic Medicine. It is important to point out that none of the previously mentioned studies was

limited to physical abuse, but Melo et al.¹¹ and other authors^{15,18} adopted the latter focus and observed that the majority of victims were still females: 80.9%, 71.4%, and 67.5%, respectively.

The high percentage of victims in the 60-69-year age bracket appears to belie the notion that the oldest-old individuals are more subject to violence. However, according to the 2000 Brazilian National Census (Instituto Brasileiro de Geografia and Estatística; <http://www.ibge.gov.br>), the majority of older people in the State of Pernambuco were in the 60-69-year (54.1%) and 70-79-year (31.8%) age brackets, which could help explain the study's results. In addition, according to Minayo & Souza⁷, 60-to-69-year-olds show less physical and mental dependency and thus greater autonomy to file complaints.

Although the study by Alves³¹ is not specific to physical abuse, it also showed the highest proportion of victims in the 60-to-70-year age bracket (36%), even though the other age brackets showed quite similar proportions (32% each). Meanwhile, a study based on complaints recorded by telephone²², which was also not limited to physical abuse, showed the largest proportion of victims in the 70-79-year bracket (42.3%), but a large proportion in the 80-and-older group as well (33.6%). Even in the specific case of physical abuse, in 43.7% of the cases occurring in the domestic setting the victim was 80 years or older, and only 15.3% were 60 to 70 years of age¹⁵. These findings support the hypothesis that the oldest victims fail to file complaints at the Institute of Forensic Medicine. On the other hand, the same study¹⁵, but drawing on a different source of information (sentinel), showed distinct results (69% of the victims of physical abuse were 60 to 69 years of age).

As for race, the majority of the victims were black or brown (mixed race), in agreement with Santos et al.⁴, who identified race as a preponderant factor in violence against the elderly. According to these authors, there is a social construction in the exercise of domination/exploitation of blacks, making them vulnerable to violence as the result of racial prejudice and discrimination, a legacy of Brazil's slaveholding past^{28,32}.

Importantly, race/color is often associated with living conditions, so that black and brown Brazilians as a group can be vulnerable to violence not only because of race/color per se, but also due their situation of poverty, thus aggravating the occurrence of violence²⁸.

As for marital status, our findings differ from those of Pillemer & Finkelhor¹⁶, who showed a higher proportion of older people without spouses or partners among the victims (note howev-

er that their study was not limited to physical abuse).

As for the aggressors, there were more men than women, consistent with Kleinschmidt⁹, who states that physical abuse appears to be associated with male perpetrators, and with a study in the United States¹⁵, in which the majority of all types of domestic violence involved male perpetrators. According to Silvestre et al.³³, women tend to display less aggressive behavior than men, and it is thus likely that the perpetration of physical abuse is related to the gender issue, in the sense that it is a collective cultural construction of the attributes of masculinity and femininity, transcending the biological and corresponding to society's gender expectations²⁵.

The various forms of socialization and construction of male identity contribute to the perpetration of violent acts. Examples include playing with weapons and not allowing the expression of one's emotions, especially when they may demonstrate weaknesses, in order not to jeopardize one's manhood³⁰.

As for the number of aggressors, most attacked their victims alone, corroborating findings from the United States¹⁵ and apparently revealing the physical, psychological, and socio-economic frailty of older people⁴.

In terms of the relationship between the older person and the aggressor, most involved non-family acquaintances or aggressors unknown to the victim. However, in many cases in which the aggressor's identity was not reported, a family member may have been involved, since intra-family violence is often veiled in secrecy and denial⁷.

In the context of intra-family violence, our results are consistent with those of the literature^{13,15,18,27,28}. In all the studies consulted, children of the older persons were the leading aggressors. Next came spouses/partners^{15,27,28} and sons-in-law and daughters-in-law^{13,18}. In only one study³⁴, spouses/partners outranked children as perpetrators (specifically in relation to violence of a physical nature). Paradoxically, children and spouses/partners are identified by Erbolato³⁵ as the main caregivers of older people.

Weakened family relations and a previous family history of violence favor the emergence of physical abuse^{9,23}. In addition, families that are unprepared to understand, administer, and tolerate their own conflicts tend to be violent²⁵. Thus, Pasinato et al.²⁶ state that the high magnitude of intra-family violence is consistent with the lack of public policies to help families care for their elders.

Study limitations

Importantly, the study sample only included older people that were examined at the Institute of Forensic Medicine in Recife and not all those potentially exposed to abuse, so that the prevalence of elder abuse in the population could not be calculated. It was only possible to analyze the cases that for some reason appeared for forensic examination, which doubtless represents only a small fraction of the true situation, given the veiled nature of violence against older people.

This study was based on secondary data, and was thus limited to the variables on the forensic reports, excluding some key information such as: victim's and aggressor's income and schooling, aggressor's age, victim's overall health status (including the degree of dependency), and whether victim and aggressor lived under the same roof. Thus, studies are needed with broader samples and which capture the violence regardless of whether it comes to the attention of the forensic examiner, police station, stop-violence hotline, or health service, in order to overcome the barrier of underreporting and thus reveal the real magnitude of elder abuse. As part of this process, it is essential to collect primary data in order to include the above-mentioned variables and other potentially important risk factors.

Final remarks

Although the study did not measure the entire magnitude of elder abuse, the fraction it revealed is sufficient to treat the phenomenon of violence against older people as a public health issue, due to its social transcendence, since it involves both physical and psychological consequences and especially the vulnerability of elders. Importantly, elder abuse can be prevented if the proper measures are taken.

Since the results showed that violence against older people occurred both outside the home and family context and especially within the domestic and family setting, it is essential to invest in public awareness-raising programs on the social role of older people and to promote solidarity and a culture of peace and respect for elders. It is also important to awaken families to the need to deal with the demands and peculiarities of aging, in order to foster better conditions for the adequate care of older people.

Meanwhile, it is necessary to encourage older people and society to file complaints against cases of abuse, to strengthen formal and informal networks to support and protect victims, and to punish the aggressors. Violence against older people is obviously a complex issue, and dealing with it is a task that requires sustained inter-sector efforts and investments.

Resumo

Conduziu-se um estudo transversal com o objetivo de determinar o perfil da violência física em idosos submetidos à perícia traumatológica, entre 2004 e 2007, no Instituto de Medicina Legal do Recife, Pernambuco, Brasil. Os casos, cujas informações procederam de 1.027 laudos, foram descritos segundo características do evento, da vítima e do agressor. Com maior frequência, a violência foi produzida por energia mecânica, instrumento contundente e arma natural; ocorreu num domingo, turno noturno e residência da vítima; acometeu mais de uma parte do corpo e a lesão foi le-

ve. Prevaleram como vítimas os homens, com idade entre 60 e 69 anos, pardos, casados/união consensual e aposentados/pensionistas. A maioria dos agressores era homem, conhecido da vítima e a agrediu desacompanhado. A transcendência social do problema torna imperativo o investimento em programas para seu enfrentamento, possibilitando uma melhor qualidade de vida para o idoso.

Maus-Tratos ao Idoso; Violência; Idoso

Contributors

M. B. Abath contributed to the conceptualization and elaboration of the research project, the data collection and analysis, and the writing and final revision of the manuscript. M. C. C. Leal collaborated in the research project's conceptualization, data analysis, and revision of the manuscript content. D. A. Melo Filho participated in the data analysis and revision of the manuscript content. A. P. O. Marques contributed to the final revision of the manuscript content.

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