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RESEARCH

The relationship between depression and risk of violence in portuguese community-dwelling older people

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Abstract

Background: Mental disorders are highly prevalent in older people, bein pression a predominant disorder. Evidence points to a possible relationship between depression and viol against older people. Nonetheless, the role of the depressive symptomology severity in the risk of violence a st older people remains unclear. Thus, this study's main objective was to analyze the relationship between ge c depressive symptomatology and the risk of violence against older people.

Methods: This exploratory study involved 502 community-d ng older persons aged 65 to 96 years (73.3

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samples. A recent study performed with Portuguese older people found that 15.3% of the participants were severely depressed. In addition, 55.9% had an on-growing severity of depression [7].

In older people, depressive symptomatology is usually related to loss of pairs and relationships, loss of family and occupational roles, low economic resources, physical health deterioration, weak social support networks and loneliness [8–11]. Disability, decreased functional capacity and quality of life [8] are examples of the negative consequences of this health condition. Moreover, depressive symptomatology in older people emerges at a stage of life in which higher difficulties related to chronic diseases (comorbidity and multimorbidity) arise, directly impacting the loss of autonomy and isolation [8].

Violence against older people is a multidimensional public health problem that may be described as "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" [12]. It may occur both in community and institutional settings, perpetrated by family members, informal and formal caregivers, or acquaintances, manifested in psychological, physical, sexual, and financial violence and neglect [13]. According to a recent systematic review and meta-analysis, approximately one-sixth of community setting older people suffered from violence in the last year. Most of them reported being victims of psychological violence (11.6%) [14]. Evidenced risk factors for violence against older people include victims' sociodemographic (ethnicity and lower education), health-related (multimorbidity, depression, alcohol abuse, and incontinence), physical (functional impairments and frailty), and psychological characteristics (cognitive impairment, loneliness, and aggressive behavior) [15, 16]. However, many older people who were victims of violence refuse to report the event, hindering the true extent and the major causes for this issue and precluding adequate community interventions [17].

Although some studies have highlighted a possible relationship between depression and violence against older people [18, 19], the role of the depressive symptomology severity in the risk of violence against older people remains unclear. We have hypothesized that studying the relationship between the depressive symptomology severity and the risk factors for violence against older people would be an important contribution to this matter. Identifying a possible relationship and understanding how different individual or social factors interact in older people victims of violence is central. Not only for the early determination of the risk for depression and violence but also for the success of the professional's daily efforts to prevent depression and violence. Thus, the present study aims to analyze the relationship between the severity of depressive symptomatology and the risk of violence against older people.

Methods

Participants

The present study was conducted with community-dwelling older people (autonomous and independent) from the region of Alentejo (Portugal) within the framework of the ESACA project (Ageing Safety in Alentejo - Understanding for action). The participants who volunteered to participate in this study were recruited from senior universities, parishes, city halls, and senior associations through pamphlets distribution. The sample size was estimated through an online software as 384 (OpenEpi), keeping the confidence interval (CI) at 95% and the significance level at 5%. At the end of data collection, the eligible older adults were 517. Inclusion criteria were age $\geq$ 65 years old, living independently at home and the absence of severe cognitive impairments that may affect the understanding of the questionnaires ($\leq$ 24 points on the Mini-Mental State Examination questionnaire) [20]. Fifteen potential participants were excluded: ten were aged less than 65 years, three showed a cognitive decline, and one had suffered recent health conditions resulting in a temporary loss of physical fitness or dependence. The sample for this study consisted of 502 participants aged 65 to 96 years (73.3 $\pm$ 6.5).

Data collection

Data collection occurred between April and July 2017 at the Nursing School Laboratory of Gerontology-Psychomotor Science of the University of Évora. The col-

“0”, respectively. The 27 items aim to identify the risk of violence based on questions about the support network and social isolation, family context, cognitive and emotional difficulties and financial issues; these issues correspond to the four dimensions of violence included in the World Health Organization definition [22] (physical, psychological, sexual and financial violence), not including neglect. The total score was obtained by summing each item’s values. Higher scores indicate a greater risk of violence for the older person. The preliminary results of this scale were considered adequate in terms of reliability. This scale revealed a Cronbach’s alpha coefficient of 0.916, proving its internal consistency. Moreover, the cut-off point that provides the maximum sensitivity and specificity for predicting the risk of violence against older people was 4.5 [21].

Table 3 Association between depressive symptomatology and the risk of violence in older people

ARVINI Scale Items	Depressive symptomatology *n* = 141 (28.7%)	OR 95% CI	*P*-value
1 - Do you often feel alone? (Yes)	105 (75%)	8.413 (5.362–13.201)	0.001
2 - Is there someone who keeps you company on a daily basis? (No)	83 (58.9%)	3.530 (2.278–5.470)	0.001
3 - Is there someone who takes you shopping when you need to go? (No)	115 (81.6%)	2.510 (1.419–4.44)1	0.001
4 - Is there someone who takes you to the doctor when necessary? (No)	121 (85.8%)	2.060 (1.109–3.826)	0.020
5 - Do you meet with friends/colleagues weekly? (No)	114 (80.9%)	2.724 (1.540–1240)	0.001
6 - Do you meet with family members on a weekly basis? (No)	103 (73%)	2.156 (1.339–3.470)	0.001
8 - Has someone told you that you cause them a lot of/too much work? (Yes)	6 (4.3%)	3.054 (0.917–10.175)	0.047
10 - Do you feel that no one wants to be with you? (Yes)	11 (7.8%)	2.860 (1.186–6.895)	0.015
11 - Are you afraid of someone in your family? (Yes)	13 (9.2%)	3.848 (1.606–9.220)	0.001
13 - Has any member of your family shouted at you and called you names, making you feel ashamed? (Yes)	40 (28.6%)	2.847 (1.751–4.629)	0.001
14 - Has anyone in your family physically assaulted you (pushed you, hit you…)? (Yes)	14 (9.9%)	2.646 (1.227–5.705)	0.010
15 - Has anyone in your family told you that you are sick when you know you are not? (Yes)	11 (7.8%)	3.206 (1.299–7.916)	0.008
17 - Has someone in your family taken away things that belong to you without your consent? (Yes)	16 (11.3%)	2.492 (1.222–5.085)	0.010
22 - Do you feel that other people are unfair to you? (Yes)	45 (32.1%)	1.957 (1.257–3.047)	0.003
23 - Do you have di culty making decisions about your life? (Yes)	54 (38.3%)	3.307 (2.118–5.161)	0.001
24 - Do you often feel anxious/impatient? (Yes)	111 (79.3%)	7.461 (4.686–11.879)	0.001
25 - Do you often get irritated? (Yes)	90 (64.3%)	4.088 (2.703–6.183)	0.001
26 - Can you pay your bills with your income? (No)	130 (92.2%)	4.146 (1.573–10.925)	0.002

ARVINI Risk Assessment of Violence against the Noninstitutionalized Elderly Scale, *OR* Odds Ratio, *CI* Con dence Intervals

and the overall risk of developing depression [8–11, 28] and, in consequence, leave the older person more susceptible to being a victim of violence [29, 30].

Moreover, in the present study, older people with depressive symptomatology were up to eight times more likely to experience violence than those without symptomatology. ese results align with previous studies, which reported that depression is a risk factor for violence against community-dwelling older people [19, 25, 31]. Other studies reinforce that mental health problems contribute to developing or maintaining other risk factors for violence against older people, such as the provocative behavior typical in dementia patients, which is a known risk factor for psychological violence [32]. Mental health impairments may also create unrealistic expectations of older people's capabilities and limit the perpetrator's emotions, increasing the risk for violence episodes [33]. Similarly, older people with depressive symptomatology and higher levels of irritability and negativism may contribute to violence episodes, probably due to the high burden they cause on their partners [34]. On the other hand, violence causes physical and psychological harm, often resulting in a continued state of fear and heightened stress [22, 35], contributing to depressive symptoms growing in the older people victim of violence. Despite the contribution of our study, the analysis results do not allow us to say whether it is depression that is the origin of violence or if it is the violence that is the origin of depression. In sum, that is a consensus that violence is associated with an increased risk of depression, whereas depression is consistently associated with elder abuse [19].

Future insights may be added regarding depression and violence prevention. Health professionals and the social sector are pivotal in detecting depression and violence and providing training and education for older people and their partners or caregivers. In their care practices, health professionals and the social sector should routinely use tested tools that systematically detect depression and violence against older people - as was performed in the present study - and act promptly based on the outcomes. Additionally, particular attention should be paid to the family context when considering preventive strategies. Some studies suggested that social support may be a preventive strategy for the harm caused by violence against older people due to its significant association with quality of life and psychological well-being [36]. Favorable social support decreases the likelihood of violent episodes, acting as a bu er against stress, depression, and health problems [33]. Community active aging and well-being programs to fight social isolation and loneliness may be crucial to achieving these ends [37–39].

Some limitations shall be disclosed in this study. e proportion of male participants in the present study was widely lower than that of female participants, which limited gender comparisons. However, gender proportions in most studies are unbalanced with a higher representation in their sample, as was the case of our sample [40]. Another limitation of our study is that being an observational study does not allow establishing cause-e ect relationships. us, it is not clear if depressive symptomatology promotes violence against older people or if the occurrence of violence promotes the development of depressive symptomatology. Nonetheless, this issue may not be crucial, such as the present study findings align with the suggestion that preventive intervention programs shall be designed to achieve both.

Conclusions

e severity of depressive symptomatology was found to play an essential role in the risk of violence against community-dwelling older people. Generally, the higher the severity of depressive symptomatology, the higher the risk of violence. Furthermore, older persons with depressive symptomatology were at higher risk of violence. is knowledge supports the need for protective measures within mental health national or regional policies for preventing both depression and violence against commu

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