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Original Article

Neglect in Nursing Homes: Prevalence and Risk Factors

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A B S T R A C T

Introduction: Neglect refers to the failure to meet the needs and well-being of elderly individuals. This can include inadequate care by responsible caregivers or a lack of essential necessities such as food, water, shelter, personal hygiene, medication, comfort, and safety. Despite the prevalence of neglect, no studies have specifically investigated its occurrence and related factors among elderly residents in nursing homes in Iran. In this study, we aimed to address this gap by examining neglect among older adults covered by state welfare centers in Ardabil city (Iran) in 2020.

Methods: We conducted a cross-sectional analytical study involving 130 older people in Ardabil, located in northwestern Iran. Our data collection tool consisted of a two-part questionnaire: one section focused on demographic information and the Elder Neglect Checklist. Participants were selected through a census from older adults residing in nursing homes. Data analysis was performed using SPSS software (version 22).

Results: Among the 130 participants, 56 (43.08%) were male, and 74 (56.92%) were female. The overall prevalence of neglect was 39.2%. Dental problems were the most common type of neglect (36.2%), followed by neglect related to providing a healthy environment (24.6%). Additionally, our findings revealed significant associations between neglect and marital status ($p = 0.001$), previous occupation ($p = 0.002$), and a history of illness ($p = 0.046$).

Conclusion: The study highlights a concerning rate of neglect among elderly individuals, posing serious risks to their health and security. To address this issue, health and welfare officials, along with nursing homes, should implement necessary measures to improve the well-being of older adults and align with international standards.

Keywords: Neglect, Aged, Elder Abuse

Introduction

The increasing population of older adults represents a significant economic, social, and health challenge in the current century (1). Globally, the growing number of older individuals poses challenges for both healthcare providers and families, as well as the broader society in which they reside (2).

Biological aging is intricately linked to psychological and social processes (3). Loneliness and social isolation among older adults have profound negative effects on their mental and physical well-being (4). While compassionate and supportive care within the living environment can enhance quality of life for older adults,

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family support and maintenance also bring potential challenges (5). Families may lack readiness to assume the responsibility of caring for older adults, especially given social conditions such as urbanization, modernization, and shifts in traditional values. These factors, along with intergenerational conflicts, can hinder families from fulfilling their roles and duties toward older family members, potentially exposing them to mistreatment (6, 7).

Elder abuse, a serious concern, encompasses various forms of mistreatment by individuals in positions of trust, power, or caregiving responsibility (8). These forms include physical abuse, sexual abuse, financial exploitation, psychological mistreatment, neglect, invasion of rights, denial of privacy, and exclusion from decision-making (9).

Neglect specifically refers to the failure to meet the basic needs and belongings of elderly individuals. This may result from the caregiver's inability to provide essentials such as food, water, shelter, personal hygiene, medication, comfort, and security (10). Signs and symptoms of neglect include dehydration, malnutrition, untreated bedsores, poor personal hygiene, unaddressed health issues, hazardous living conditions, and emotional neglect (e.g., lack of affection, empathy, and responsiveness). Emotional neglect can also manifest through infrequent visits or phone calls from family members, leaving older adults feeling abandoned (11-13).

Recent studies shed light on neglect prevalence. Hazrati et al., (2020) found that 39.8% of older adult participants experienced at least one type of neglect, with motion limitations (25%) and dental problems (23.8%) being the most common (14). Acharya et al., (2021) reported a neglect prevalence of 23.1% (15). Botngård et al., (2020) revealed that 57.8% of Norwegian nursing home employees witnessed or committed neglect cases, including oral and dental care neglect (35.4%) and delays in care (29.3%) (16).

Given the undeniable influence of culture on misbehavior and neglect, researchers conducted a study in Ardabil city to determine neglect prevalence among older adults and explore related factors. Understanding these dynamics is crucial for promoting older adults' health and enhancing their quality of life.

Methods

Study design and participants

This cross-sectional study investigated neglect prevalence among older adults residing in nursing homes in Ardabil city, northwestern Iran, during 2020. The sample included all individuals aged 55 years and older living in these nursing homes.

Measures

Data were collected using a two-part instrument:

Demographic Questionnaire: This questionnaire assessed participant characteristics, including age, gender, education level, marital status, employment history, income source, insurance status, presence of chronic health conditions, and use of mobility aids.

The Elder Neglect Checklist: This validated tool developed by Heravi-Karimooi et al., measures neglect in two dimensions:

Neglect in providing health and care needs (items 1-8): Examples include evaluating clothing appropriateness and dental health.

Providing a healthy environment (items 9-11): Examples include assessing the existence of environmental hazards and proper facilities at home.

The checklist uses a yes/no format, with higher scores indicating a greater likelihood of neglect. The instrument demonstrates good internal consistency (Cronbach's alpha = 0.9 – 0.975) and test-retest reliability (0.99) (17).

Data analysis

Demographic data were obtained from nursing home records, while observational data were collected by researchers using the checklist. SPSS software version 22 (IBM Corp., Armonk, NY) was used for data analysis. Descriptive statistics (percentages and proportions) summarized the data. Pearson's correlation coefficient assessed relationships between quantitative variables and the neglect variable. An independent t-test examined the relationship between neglect and categorical variables, with a significance level set at $\alpha = 0.05$.

Ethical considerations

The study received approval from the Ethics Committee of Ardabil University of Medical Sciences, Ardabil, Iran (reference number IR.ARUMS.REC.1398.357). All participants provided written informed consent after receiving a comprehensive explanation of the study's objectives, procedures, potential benefits, and risks. Participants were assured of confidentiality, and their participation was voluntary.

Result

A total of 130 older adults residing in four nursing homes (two for men and two for women) in Ardabil city participated in the study. The majority of participants were women (56.9%). Their mean age was 71.34 years (SD = 11.38). Most participants were illiterate (80%), single (39.2%), and had history of chronic illness (68.5%).

Neglect was identified in 51 participants (39.2%), while 79 participants (60.8%) showed no signs of neglect. Statistical analysis (as reported in Table 1) revealed no significant association between neglect and age, gender, education level, insurance status, or mobility aids. However, significant associations were found with marital status ($p = 0.001$), previous employment ($p = 0.002$), and chronic illness history ($p = 0.046$). Post-hoc analysis (not shown in the table) indicated that widowed individuals experienced the highest level of neglect, followed by married individuals, unemployed individuals, and employed individuals. Additionally, participants with a history of chronic illness exhibited a higher prevalence of neglect.

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Two dimensions of neglect were assessed:

1. Providing a healthy environment: neglect in this dimension was observed in 32 participants (24.6%). Factors included insufficient lighting, uneven flooring, and excessive furniture density.

2. Health and care needs neglect: this type of neglect was identified in 51 participants (39.2%).

The most common type of neglect observed was dental problems (36.2%), followed by a lack of a healthy environment due to factors such as inadequate lighting and furniture arrangement (24.6%). (Table 2)

Table 1. The distribution of neglect among the participants by demographic and other variables (n = 130)

Demographic characteristics		Neglect				p-value
		Yes		No		
		N	%	N	%	
Gender	Male	24	47.1	32	40.5	0.46
	Female	27	52.9	47	59.5	
Education	Illiterate	43	84.3	61	77.2	
	Reading And Writing	6	11.8	13	16.5	0.62
	Above Diploma	2	3.9	4	5.1	
Marital Status	Married	4	7.8	30	38.0	
	Single	15	29.4	36	45.6	0.001
	Widow	23	45.1	3	3.8	
	Divorced	9	17.6	10	12.7	
Previous occupation	Unemployed	21	41.2	55	69.6	
	Free	17	33.3	12	15.2	0.002
	Home Jobs	7	13.7	1	1.3	
	Other	6	11.8	11	13.9	
Insurance status	Yes	41	80.4	53	67.1	0.098
	No	10	19.6	26	32/9	
Underlying and chronic disease	Yes	40	78.4	49	62	0.046
	No	10	19.6	30	38	
Ability to walk	Independent walking	20	39.2	46	58.2	
	Walking with the help of devices	24	47.1	22	27.8	0.066
	Inability To walk	7	13.7	11	13.9	
Mobility aids	Yes	30	58.8	35	44.3	0.106
	No	21	41.2	44	55.7	

Table 2. Frequency of neglect items among participants

Items	Yes (%)	No (%)
Lack of clean, healthy and seasonal clothing	12(9.2)	118(90.8)
The smell of urine or feces from the body or clothes of the older adult	12(9.2)	118(90.8)
Messy and dirty hair	10(7.7)	120(92.3)
Long and dirty nails	2(1.5)	128(98.5)
No teeth	47(36.2)	83(63.8)
Dirty mouth and teeth	13(10)	117(90)
Chronic and untreated wound	5(3.8)	125(96.2)
Limitation of joint movements (contracture)	12(9.2)	118(90.8)
Existence of environmental hazards such as insufficient lighting, roughness or Laxity of the floor, density of furniture	32(24.6)	98(75.4)
Lack of proper facilities at home such as heating and cooling	6(4.6)	124(95.4)
Dirty and unsanitary living environment	0(0)	130(100)

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Discussion

There are fewer studies on neglect in nursing homes compared to other forms of maltreatment. Research on this issue is still in its early stages (18, 19). This study found that at least one case of neglect was observed in 39.2% of the covered older adults. This finding is consistent with other studies on the Iranian population. For example, Hazrati et al., (2020) reported neglect rates of 39.8% (14), and Khalili et al., (2014) reported 35.6% (20). Moulai et al., (2017), in a meta-analysis, reported the overall prevalence of neglect in Iran as 25.1% (21). However, Brijoux (2021) and Pengcheng (2021) reported neglect rates of 27% and 6.74%, respectively (22, 23). These variations in findings are usually due to cultural differences, the tools used, industrialization, economic challenges, and inflation, which have reduced families' ability to support older adults. Psychological pressures have also led to neglect and misbehavior toward older adults.

In this study, common forms of neglect observed in nursing homes included a lack of dental care and environmental hazards such as insufficient lighting, uneven or slippery floors, and crowded furniture. This aligns with Hazrati et al.'s findings, where the most common forms of neglect were movement limitations (25%) and dental problems (23.8%) (14). Botngård et al., (2020) also found that the most common types of neglect were neglect of oral care (35.4%), delays in care (29.3%), and prohibitions on using alarms (20.2%) (16). These results suggest that the most common type of neglect is related to oral and dental problems, potentially due to a lack of funds, equipment, education, or resistance from the older adults themselves. Toothlessness was a significant issue among the older adults in this study.

Tooth loss is a significant event in an older person's life, leading to functional disabilities such as difficulties with chewing, choosing food, speaking, and more. It also impacts psychosocial behaviors, affecting social activities and self-confidence. For older adults, maintaining remaining tissues, treating periodontal diseases, advanced prosthetic restorations, implant installations, treating lesions related to systemic diseases like diabetes, dealing with dry mouth, and rehabilitating the oral and dental complex are crucial concerns for health clinicians.

The study showed that neglect in the health environment dimension was 24.6%, and in the healthcare needs dimension, it was 39.2%. Khalili et al., found that the structural standards of nursing homes in Ardabil are weak compared to international standards (24). Neglect in the health environment of these centers may be due to non-standard structures, old buildings, high modification costs, and a lack of mandatory standards for nursing homes. Environmental hazards like insufficient lighting, uneven or slippery floors, crowded furniture, and inadequate cooling and heating facilities were observed, likely due to insufficient funding and financial support. Neglecting the care needs of older adults can be attributed to the extensive support required, often causing significant stress for caregivers. Studies have shown that caregiver stress and burnout are related to elder abuse and neglect.

The study found significant statistical relationships between neglect and factors such as gender, marital status, previous job, walking ability, and use of mobility aids in providing a health environment. Neglect in meeting health and care needs was significantly related to marital status, previous job, and underlying and chronic illnesses. By addressing and improving these conditions, elder neglect can be controlled and improved.

Nursing homes are complex social systems involving staff, managers, residents, and relatives. The etiology of neglect and misbehavior is linked to individual, social, and organizational factors. Nursing home residents often have complex care needs, co-morbidities, challenging behaviors, dependence, and need help with daily activities, all of which contribute to the high risk of neglect and misbehavior in these centers (25).

The study found a significant relationship between neglect and marital status, with higher neglect observed in older adults without a spouse, consistent with the studies by Pengcheng (23) and Owais (2021) (26). This may be due to the lack of family support and greater dependence. Financial and physical dependence on some older adults might result in inadequate support from nursing home staff, leading to neglect and abandonment.

The study also showed that neglect was higher among unemployed older adults, contrary to Hazrati et al.'s findings (14). This increased neglect may be due to their financial dependence on relatives, acquaintances, and support organizations.

Neglect was also related to having a disease, supported by findings from Sudan and Brijoux's study (22). Sudan reported 18.7% neglect in patients with mental problems and 33.3% in patients with physical problems (27). Complete dependence for an extended period is challenging for both the older adult and the caregiver, often associated with fear, terror, dishonor, shame, and condemnation. In individualistic cultures like American society, dependence is frowned upon, whereas traditional collectivist cultures in Iran and other Eastern countries reduce the negative perception of dependence. Chronic diseases worsen over time, increasing the dependence and vulnerability of older adults.

Adherence to moral values by caregivers can play a more decisive role than legal approaches in preventing neglect and misbehavior. Informing people and promoting respect for older adults, instead of the violence and disregard seen in industrial societies, can be more effective in preventing neglect.

Conclusion

The present study showed that neglect exists in both care needs and health environment dimensions in nursing homes overseen by welfare centers. Based on the results, it is recommended to implement

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educational and awareness programs in the community to reduce the prevalence of neglect. These programs should provide information about the causes and consequences of neglect, how to report it, and preventive measures. Additionally, proactive steps such as creating social networks for older adults, developing supportive and counseling services, and strengthening legal controls can help reduce the prevalence of elder abuse. Finally, improving access to accurate information and statistics on neglect is essential to increase awareness and transparency in reporting such cases.

Conflict of interest

There is no conflict of interest to declare.

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Authors' contributions

Conceived and designed the evaluation, and drafted the manuscript: Z.Kh
Participated in designing the evaluation, performed parts of the statistical analysis, and contributed to drafting the manuscript: Z. Kh and F.E B.
Re-evaluated the clinical data, revised the manuscript, and performed additional statistical analysis: Z.Kh.
Collected the clinical data, interpreted the findings, and revised the manuscript: M. J and B. M.
All authors reviewed and approved the final version of the manuscript.

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