Psychiatria Danubina, 2019; Vol. 31, Suppl. 3, pp 345-353 *Conference paper*

CONTRASTING VANTAGE POINTS BETWEEN CAREGIVERS AND RESIDENTS ON THE PERCEPTION OF ELDER ABUSE AND NEGLECT DURING LONG-TERM CARE

Marijana Neuberg[1], Tomislav Meštrović[2], Rosana Ribić[1], Marin Šubarić[1], Irena Canjuga[1] & Goran Kozina[1]

[1]University Centre Varaždin, University North, Varaždin, Croatia
[2]Polyclinic "Dr. Zora Profozić", Zagreb, Croatia

SUMMARY

Background: *Elder abuse and neglect can be defined as refusing or failing to fulfil a caregiver's obligation to meet the needs of elderly individuals in order to punish or hurt them. We aimed to explore perceptions of elder mistreatment of both caregivers and residents during long-term care, and highlight significant differences in the overall mistreatment perception regarding socio-demographic variables, as well as the type of care facility.*

Subjects and methods: *The study involved 171 caregivers and 245 elderly individuals in stationary facilities. Two structured questionnaires were used - one for caregivers and the other for institutionalized elderly residents, whose initial validation concerning question and factor selection has been based upon exploratory factor analysis and discriminant validity. Parametric and nonparametric tests were employed in the statistical analysis, and statistical significance was set at $p<0.05$ (two-sided).*

Results: *We found significant differences in the perception of elder abuse and neglect between caregivers and elderly residents. More specifically, caregivers tend to recognize unnecessary or inappropriate medical/care procedures as indicators of elder mistreatment, while the elderly residents emphasize the removal of their personal belongings and inappropriate physical contact. According to the care facility, residents reported abuse/neglect more frequently in extended care units (21.4%), compared to the county-owned nursing home (11.4%) and private nursing home (12.1%) ($p=0.001$). Similarly, caregivers reported abuse/neglect more frequently in extended care units (75.4%), in comparison to county-owned nursing home (24.6%) and private nursing home (0%) ($p=0.039$). Shift work was also a significant predictor, as the morning nursing staff perceived abuse/neglect more frequently ($p=0.011$).*

Conclusions: *This study has shown that residents and caregivers have contrasting vantage points in relation to elder abuse/neglect perception, which underlines the need for evidence-based standardization of procedures to prevent any type of elder mistreatment.*

Key words: *elder abuse and neglect - elder mistreatment - nursing home - long-term care - nursing*

* * * * *

INTRODUCTION

Abuse is defined as a pattern of behaviour whereby an abuser seeks to gain power and control over the victim, and take advantage of the imbalance of power between them for personal gain; this is valid for elder abuse as well (Berg et al. 2001). Acts of psychological, sexual, physical, financial, and other forms of abuse carried out by the abuser, affect the personal integrity of the victim and limit his/her human potential, and are designed to make the victim subordinate, and gain, increase or maintain power over them (Samec 2010). Intentionally ignoring or treating someone in an unfriendly way, without any verbal or non-verbal communication by the caregiver, is also considered neglect (Viitasara 2001).

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 results in unnecessary suffering, injury or pain, the loss or violation of human rights, and a decreased quality of life for the older person (Krug et al. 2002). It rarely occurs as a single event, and various forms of elder abuse in an institutional setting may occur at the same time or over a longer period of time (Neuberg et al. 2018).

Abuse in the healthcare setting occurs in virtually all countries of the world, and it is perpetrated by medical staff, volunteers, visitors, and other employees. Abuse manifests itself as deficient nursing care, inadequate nutrition and disregard for dietary habits, infantilization of residents, restricted visits, rigid schedule of institutional care, and in particular, inappropriate behaviour of healthcare staff towards physically weaker residents, and restricting their access to information (Word Health Organization 2005).

Nursing is considered as a profession that copes with high amounts of stress, pain, and suffering on a daily basis. Nursing interventions are often demanding, inconvenient, degrading, and sometimes outright scary (Neuberg et al. 2017). If the caregiver is not able to cope with the permanent stress in their working environment, conflicts with their elderly residents are inevitable (American Psychological Association 2015). Elder neglect and abuse in institutional settings are more frequently committed by medical technicians and inadequately educated/trained healthcare workers, while registered nurses in Ireland recognize neglect and abuse more often than healthcare assistants (Drennan et al. 2012). The situation is comparable to that in Croatia (Neuberg et al. 2018).

To obtain a good insight into the prevalence of neglect and abuse of older persons, it is necessary to consider their perceptions of this phenomenon. Elderly persons who are extremely frail, ill, and unable to protect themselves, depressed and demented individuals, as well as older people with other chronic illnesses are particularly vulnerable to neglect and abuse (Drennan et al. 2012). Furthermore, older persons in institutional settings are more vulnerable due to their dependency on professionals for care, and the care environment (Neuberg et al. 2018).

Older adults perceive elder mistreatment as any violation of human, legal, and medical rights; any deprivation of choices, decisions, status, finances, and respect; and any form of neglect, including social exclusion, isolation, and abandonment (Word Health Organization 2005). Abuse in institutional settings is associated with the lack of social support, family support, and financial resources. The most common victims of abuse are care-dependent residents; residents who rarely receive visits; and dissatisfied residents (Ajduković et al. 2008).

Compared with research on other forms of interpersonal violence, elder abuse research, especially in institutions, is still in its infancy (Yon et al. 2019). However, research suggests that this phenomenon occurs in virtually all countries that have a considerable number of nursing homes and extended care facilities, and evidence suggests that it is a pervasive and growing problem (Pillemer et al. 2016, World Report on Violence and Health 2002). The World Health Organization (WHO) highlighted this problem in its Global strategy and action plan on ageing and health (World Health Organization 2016). However, a high-quality evidence-based approach to this issue requires a widely expanded research base.

The aims of this study were to establish the caregivers' and older persons' (residents') perceptions of abuse and neglect in nursing homes and extended care facilities, as well as to highlight significant differences in the overall perception of abuse and neglect considering socio-demographic characteristics of both groups, as well as the type of institution.

SUBJECTS AND METHODS

Subjects

A survey was conducted of 245 older persons residing in care institutions in Varaždin and Međimurje counties and in the General Hospital Varaždin, specifically in extended care units in Novi Marof and Klenovnik. The survey included 171 caregivers; nurses and technicians holding secondary school leaving certificate, undergraduate degree, bachelor degree, or master's degree, who work with older people. The demographic profile of the participants in this study is presented in Table 1.

The instrument

The quantitative data were collected using two structured questionnaires – one for caregivers and nurses, and the other one for older persons residing in institutions. The items used in the questionnaire on abuse and neglect were taken from reports on abuse and neglect of elderly persons in Ireland by Drennan et al. (2012). All of the questions used in the preliminary research were tested for discriminant validity, and factor selection has been based upon exploratory factor analysis. The questions that did not increase or significantly reduce the overall Crombach's alpha coefficient were excluded from further analysis. For each domain, the Crombach's alpha factor was calculated and only the domains where Crombach's alpha values were greater than 0.7 were used in the further interpretation.

Table 1. Demographic characteristics of the study sample

		N	%
Older persons (N=245)			
Gender	Male	72	29.40%
	Female	173	70.60%
Age group	≤75	51	20.80%
	75-84	109	44.50%
	≥85	85	34.70%
Highest level of education	Primary education	158	64.50%
	Secondary education	73	29.80%
	2-year post-secondary or university education	14	5.70%
Healthcare staff (N=171)			
Gender	Male	23	13.50%
	Female	148	86.50%
Age group	≤30	46	26.90%
	31-40	35	20.47%
	41-50	44	25.73%
	≥51	46	26.90%
Highest level of education	Secondary school leaving certificate	129	75.40%
	Undergraduate degree	39	22.80%
	Bachelor degree/ Master's degree	3	1.80%

Differences between the residents' and healthcare providers' perceptions of neglect and abuse have been estimated using 24 items (selected as described above), as can be seen in the results of this study. The health status of the respondents was determined based on questions inquiring whether they suffered from musculoskeletal system diseases, cardio-vascular diseases, respiratory diseases, mental disorders, neurological disorders, sensory disorders, digestive system diseases, urinary tract diseases, skin diseases, malignant tumours, pathological obesity and/or diabetes. The aim was to determine whether there are differences between the perceived abuse and neglect depending on a particular health status.

Statistical data processing

Before presenting the data in tables, the Kolmogorov-Smirnov normality test was performed (depending on the results obtained). Adequate parametric and/or nonparametric statistical analyses and data visualization methods were applied. Quantitative data are presented as ranges, arithmetic means and standard deviations, i.e. medians and interquartile ranges in cases of nonparametric distribution. Categorical data are presented as absolute frequencies and respective shares. Differences in categorical variables were analysed using the Chi-square test. Relevant correlation coefficients were calculated to establish the relationship between individual scores obtained from questionnaires on stress abuse and neglect. The data were analysed using Statistica 12.0 (StatSoft, v. 13.0, Dell Software, Austin, TX, USA). P-values less than 0.05 (two-tailed) were considered statistically significant.

Ethical approach

A written approval for this research was obtained from the Ethics Committee of the institutions (no. 02/1-91/77-2016) involved in the study in Varaždin. The study was performed in compliance with the Declaration of Helsinki in 1995 (as revised in Edinburgh 2000), good clinical practice and relevant regulations. All participants gave their informed consent to participate in this study and patient anonymity has been preserved.

RESULTS

The study did not find any differences in the overall perception of abuse considering socio-demographic profile of residents, as measured by the chi-square test and presented in Table 2. Of the total number of respondents, 101 (72.1%) female and 39 (27.9%) male respondents observed abuse. Considering the age variable, neglect and abuse were most frequently observed by the respondents aged 75-84 (43.6%). Considering the respondents' level of education, the percentage of those who observed neglect and abuse is highest among

Table 2. Differences in the overall perception of abuse considering the socio-demographic characteristics of residents: chi-square test

Profile of residents		Observed abuse and neglect				p-value
		No		Yes		
		N	%	N	%	
Gender	Male	33	31.4%	39	27.9%	0.544
	Female	72	68.6%	101	72.1%	
Age group	<75	15	14.3%	36	25.7%	0.070
	75-84	48	45.7%	61	43.6%	
	≥85	42	40.0%	43	30.7%	
Highest level of education	Primary education	64	61.0%	94	67.1%	0.569
	Secondary education	35	33.3%	38	27.1%	
	2-year post-sec. or university education	6	5.7%	8	5.7%	
Family visits	No family	7	6.7%	3	2.1%	0.206
	Once a year	5	4.8%	9	6.4%	
	Several times a year	16	15.2%	21	15.0%	
	Once a month	24	22.9%	46	32.9%	
	Once a week	38	36.2%	49	35.0%	
	Several times a week	15	14.3%	12	8.6%	
Mobility level	Immobile	18	17.1%	30	21.4%	0.229
	Low mobility level	7	6.7%	16	11.4%	
	Moderate mobility level	48	45.7%	65	46.4%	
	Independent/Fully mobile	32	30.5%	29	20.7%	
Type of home	Public	61	58.1%	93	66.4%	0.001
	Private	32	30.5%	17	12.1%	
	Extended care unit	12	11.4%	30	21.4%	
Diagnosed	No	6	5.7%	11	7.9%	0.514
	Yes	99	94.3%	129	92.1%	

residents with primary education (67.1%). Older persons who had family visits once a week most frequently observed abuse and neglect (35.0%). Violence was most commonly observed by older persons with moderate level of mobility (46.4%). Considering the health status of the respondents, as many as 92.1% of residents diagnosed with a disease reported they had observed abuse. Significant differences in the perception of abuse and neglect by residents, as measured by the chi-square test, were associated with the type of residence: the perception of mistreatment was significantly more frequent among recipients of care in extended care units (21.4% compared to 11.4%; p=0.001). Given the fact that only one significant difference was found, it was not possible to create a multivariate regression model (the predicted input of predictor variables was intended only for the variables that were univariately significant).

Table 3 shows differences in the overall perception of abuse with respect to socio-demographic characteristics of caregivers, as measured by the chi-square test. Of the total number of caregivers, serious mistreatment was observed by 52 (91.2%) female and 5 (8.8%) male respondents. Considering the age of the respondents, serious mistreatment was most commonly observed by the respondents under 31 years of age (29.8%). Considering the respondents' work experience, serious abuse/neglect was observed by 36.8% of respondents who have less than ten years of work experience. Of the total

Table 3. Differences in the overall perception of abuse considering socio-demographic characteristics of caregivers: chi-square test

		Serious abuse/neglect				p-value
		No		Yes		
		N	%	N	%	
Gender	Male	18	15.8%	5	8.8%	0.205
	Female	96	84.2%	52	91.2%	
Age group	≤30	29	25.4%	17	29.8%	0.617
	30-40	21	18.4%	14	24.6%	
	40-50	31	27.2%	13	22.8%	
	≥51	33	28.9%	13	22.8%	
Work experience	≤10	35	30.7%	21	36.8%	0.658
	11-20 years	22	19.3%	11	19.3%	
	21-30 years	30	26.3%	16	28.1%	
	≥31 years	27	23.7%	9	15.8%	
Living with a partner	No	37	32.5%	16	28.1%	0.559
	Yes	77	67.5%	41	71.9%	
Highest level of education	Secondary school leaving certificate	90	78.9%	39	68.4%	0.301
	Undergraduate degree	22	19.3%	17	29.8%	
	Bachelor degree/Master's degree	2	1.8%	1	1.8%	
Children	No	36	31.6%	16	28.1%	0.638
	Yes	78	68.4%	41	71.9%	
Workload	Optimal ratio of care recipients to nurses	15	13.2%	4	7.0%	0.172
	Occasionally, the number of care recipients is too high	27	23.7%	9	15.8%	
	The number of care recipients is constantly high	72	63.2%	44	77.2%	
Work schedule	Morning shift	19	16.7%	21	36.8%	0.011
	Morning and afternoon shift	16	14.0%	8	14.0%	
	Rotational shift work; night shift included	79	69.3%	28	49.1%	
Type of area	Urban	31	27.2%	12	21.1%	0.383
	Rural	83	72.8%	45	78.9%	
Type of facility	Public	24	21.1%	14	24.6%	0.039
	Private	12	10.5%	0	0.0%	
	Extended care unit	78	68.4%	43	75.4%	
Number of residents	<20	1	0.9%	3	5.3%	0.192
	21-50	18	15.8%	8	14.0%	
	51-100	10	8.8%	2	3.5%	
	>100	85	74.6%	44	77.2%	
Assigned to work with the elderly without volunteering for it	No	94	82.5%	50	87.7%	0.374
	Yes	20	17.5%	7	12.3%	

Table 4. Differences between the residents' and caregivers' (healthcare staff) perceptions of neglect and abuse: chi-square test

	Healthcare staff		Older persons		Chi-square value	Df	p-value
	N	%	N	%			
Not changing a resident each time they were wet or soiled after an episode of incontinence	50	29.2%	61	24.9%	0.970	1	0.325
Ignoring a resident when they call	67	39.2%	91	37.1%	0.178	1	0.673
Not bringing a resident a bedpan or not taking them to the toilet when they ask	44	25.7%	23	9.4%	19.908	1	<0.001
Administering laxatives once a week only	43	25.1%	19	7.8%	24.017	1	<0.001
Overmedicating a resident to keep them sedated/quiet.	47	27.5%	4	1.6%	62.576	1	<0.001
Refusing to help a resident with their hygiene needs	34	19.9%	24	9.8%	8.540	1	0.003
Placing a urinary catheter frequently and unnecessarily	39	22.8%	2	0.8%	54.817	1	<0.001
Refusing to help a resident with their feeding needs	26	15.2%	20	8.2%	5.077	1	0.024
Force-feeding a resident	71	41.5%	61	24.9%	12.846	1	<0.001
Putting a feeding tube in the resident's mouth unnecessarily and forcefully	18	10.5%	2	0.8%	20.748	1	<0.001
Neglecting to turn or move a resident to prevent pressure sores	65	38.0%	75	30.6%	2.470	1	0.116
Restraining a resident beyond what was needed at the time	30	17.5%	37	15.1%	0.444	1	0.505
Pushing, grabbing or pinching a resident	20	11.7%	42	17.1%	2.356	1	0.125
Throwing something at a resident	10	5.8%	3	1.2%	7.111	1	0.008
Slapping or hitting a resident	10	5.8%	2	0.8%	9.101	1	0.003
Kicking or hitting a resident	5	2.9%	1	0.4%	4.484	1	0.034
Hitting or trying to hit a resident with an object	3	1.80%	1	0.40%	1.917	1	0.166
Isolating a resident beyond what was needed to control them	22	12.90%	30	12.20%	0.035	1	0.851
Insulting or swearing at a resident	73	42.70%	78	31.80%	5.130	1	0.024
Shouting at a resident in anger	94	55.00%	115	46.90%	2.599	1	0.107
Denying a resident food or privileges as part of a punishment	18	10.50%	19	7.80%	0.954	1	0.329
Taking jewellery, money, clothing or something else from a resident or resident's room	13	7.60%	40	16.30%	6.895	1	0.009
Touching a resident in a sexually inappropriate way	4	2.30%	30	12.20%	13.167	1	<0.001
Encouraging a resident to participate in an inappropriate conversation	22	12.90%	32	13.10%	0.001	1	0.971

number of respondents who reported that they had observed mistreatment, 71.9% live with their partner, 68.4% have secondary education, while 77.2% find that the number of residents to take care of is constantly too high. Differences in the overall perception of abuse in relation to socio-demographic profile of caregivers, as measured by the chi-square test, were found to be significant in the variable 'type of work schedule'. More specifically, neglect and abuse were observed significantly less frequently by morning shift nurses (36.8%; p=0.011). Furthermore, differences in the overall perception of abuse are significant depending on the type of institution. In other words, no acts of mistreatment were observed by caregivers in private nursing homes, in comparison to 75.4% in extended care units and 24.6% in state-owned nursing homes (p=0.039).

Table 4 shows differences between the residents' and caregivers' perceptions of neglect and abuse in relation to items used in the questionnaire. In a nutshell, caregivers/nurses observed neglectful and abusive behaviours in the form of unnecessary or inappropriate

health care, while residents highlighted appropriation of personal belongings and inappropriate physical contact.

Considering the type of facility and the reported forms of abuse, all forms of neglect and abuse were observed significantly less frequently in private nursing homes. Statistically significant differences ($p<0.05$) were found in items *"ignoring a resident when they call", "neglecting to turn or move a resident to prevent pressure sores", "restraining a resident beyond what was needed at the time", "pushing, grabbing or pinching a resident", "isolating a resident beyond what was needed to control them", "insulting or swearing at a resident", "shouting at a resident in anger", "taking jewellery, money, clothing or something else from a resident or resident's room "touching a resident in a sexually inappropriate way",* and *"encouraging a resident to participate in an inappropriate conversation"*.

As for the frequency of abuse and/or neglect over the previous 12 months with regard to the health status factor/variable, as measured by the chi-square test, it was found that abuse and neglect of older persons with musculoskeletal system diseases is significantly more frequent ($p=0.037$). An unexpected finding was that elderly people with skin diseases observed neglect less frequently ($p=0.020$).

DISCUSSION

This is the first systematic approach to investigate the issue of elder mistreatment in institutional settings in Croatia. The results of this study (based on the comparison of the vantage points of both caregivers and residents on abuse/neglect) show that this phenomenon is widespread and multidimensional. Given that medical and sociological literature provides mainly anecdotal evidence, we find that this research makes a significant contribution to the discourse on this subject – not only from the scientific point of view, but also that of public health and regulatory framework.

Significant differences in the overall perception of abuse considered in relation to socio-demographic variables were found to be associated with the type of facility. More specifically, the perception of neglect and abuse in the extended care units and in the county-owned nursing home was much more pervasive than in the private nursing home. This can be explained by a more open attitude in private nursing homes, higher level of staff awareness, and more frequent visits by family and friends. The data obtained confirm that there is a relationship between family support to an elderly person in the institution and mistreatment of residents by institutional caregivers.

In contrast, the results of research conducted by Friedman et al. (2019) suggest that patients receiving care in for-profit institutions show more clinical signs of neglect than patients living in not-for-profit institutions or in the community. These results are associated with the elderly care development strategy in the United States where, over the past ten years, the number of government and not-for-profit nursing homes has declined across the country, while the number of for-profit nursing homes has grown substantially.

The number of nurses in county-owned nursing homes and extended care units is low; residents are often seen as people who ended up there because they had no other choice, or who came there to die, rather than partners in care. Unless nurses' attitudes change, elder mistreatment will occur more frequently in the county-owned homes and in extended care units, as our research suggests. Obviously, instilling fear of sanctions is not a steadfast approach to preventing abuse; however, the system would benefit from standardization of procedures in cases of abuse and neglect. Education, training, and motivation of caregivers to work in partnership with care recipients towards developing standardised care procedures are all crucial factors in improving satisfaction and minimising conflicts.

One of the interesting findings of this research is that morning shift nurses and healthcare staff perceived elder mistreatment much more frequently. The extant literature does not provide data on the relationship between shift work in nursing care and the occurrence of abuse. Thus, future research should focus on this new insight. It is assumed that this happens because the number of nurses working the morning shift is larger, they see each other work, and hence notice abuse more often. Conversely, nurses working the afternoon, and in particular the night shift, often care for several residents by themselves and are for this reason unable to witness abuse by other caregivers.

When residents' health status is considered, the perception of elder abuse and/or neglect is more common among elderly residents with musculoskeletal system diseases. Moreover, older people with skin diseases observed neglect significantly less frequently. To our knowledge, such findings have hitherto not been described in the medical literature; nonetheless, the explanation may be that elderly people affected by skin diseases have been stigmatized for a longer part of their life, they feel rejected and unaccepted due to their appearance, and have thus become insensitive over the course of time (Neuberg et al. 2018). In addition, mistreatment was most commonly observed by women aged 74-85 (72.1%), which coincides with the findings of research conducted by Ho et al. (2017), where subgroup analyses showed that women were more likely to be abused. Ho et al. (2017) also found that emotional abuse is the most common form of abuse, which was the most common form of elder abuse in our study as well.

The following data suggest that there is a relationship between family support and the incidence of neglect and abuse in institutional settings: of the total number of older people who observed mistreatment,

23.5% receive family visits several times a year, once a year, or even less frequently. In contrast, as many as 76.5% of the total number of respondents who observed abused in the institution get family visits once a month, once a week, or several times a week. This suggests that family support plays a significant role in recognizing and perceiving abuse in institutional settings. Shame and discomfort felt by older persons in submitting themselves to the care of healthcare workers can be seen as disproportionate, i.e. as unfair. Instead of being recognized as internally generated, this unfair experience is attributed to others in the eliciting situation, which further creates discomfort in older persons (Erlingsson 2007). Therefore, the importance of communication skills should be highlighted as they can help nurses solve the many obstacles they face during care provision.

Even though the survey was anonymous, the fear and shame felt by respondents in reporting what they had witnessed must be taken into consideration, which means that the data obtained in the research may be even more discouraging than they appear. Disregard for residents' financial independence is one of the leading causes of financial abuse in institutional settings. The interventions for preventing this type of abuse include the education and training of staff and the sanctioning of perpetrators. The condoning of elder neglect and abuse in institutions is associated with high workload of nurses, staff conflicts, and lack of communication among team members (Drennan et al. 2012). In Ireland, sexual abuse was witnessed by 0.7% of respondents, while 0.2% of respondents reported that they had talked or touched the resident in a sexually inappropriate way in the previous twelve months. Twenty two respondents (12.9%) reported that they had observed a member of staff encourage a resident to participate in an inappropriate conversation. Four respondents (2.4%) reported that they had observed another member of staff touch a resident in a sexually inappropriate way, which is a significant percentage that should be cause for concern for both nurses and institutions. The World Health Organization (2002) reports that the sexual abuse of older persons is widespread; however, the problem is not recognized by caregivers as such, and the elderly individuals do not talk about it openly due to the omnipresent feelings of shame and fear.

In addition to the type of institution, the type of area in which the institution is located (rural or urban) also plays a significant role in preventing the mistreatment of older persons. The older population in rural areas may have easier access to nursing homes, and residents in nursing homes in rural areas may have less functional impairment than in urban areas (Malmedal 2013). Nursing homes across Croatia have similar occupancy. However, an investigation into the activities of the institutions involved in this research has revealed that nursing homes located in Varaždin, Ivanec and Čakovec had a significantly larger number of visits by volunteers, various associations, children, as well as other activities. The smallest number of activities was recorded in extended care units where 90% of the residents were over 70 years old. They had been there between three months and several years and had not been offered any activities.

No significant differences were found in the frequency of observing elder mistreatment, considering the location of the institution, number of residents, and whether staff were assigned or volunteered to work with older persons, as was the case in other studies. According to Malmedal (2013), staff members working in nursing homes that have 30 residents or less are more likely to report committed acts of a physical character than staff working in nursing homes with more than 30 residents. Research conducted in Canada (Bravo et al. 1999) and Israel (Lowenstein 1999) indicates that in homes with fewer than 40 residents, up to 20% of the residents received inadequate care and experienced abuse. This could be explained by the fact that the institutions analysed were less open, and by the educational composition of the staff. Namely, nursing homes with a low number of residents have a large number of auxiliary staff and healthcare assistants, and a very small number of nurses.

In this context, one should mention the fact that over the last twenty years more and more people without any medical education, training, testing of empathy, or predilection for working with older people have been registering small residential care homes and foster homes for the elderly, which is a cause for concern. This research did not investigate such facilities; however, considering that the data collected through the survey of older people receiving care in nursing homes and extended care units suggest high incidence of mistreatment, it can only be assumed that the findings would be even more alarming in closed, isolated and private institutions such as foster homes for the elderly.

Madsen's study (2002) into everyday life of older people in old and new nursing homes in Norway concluded that the new and smaller nursing homes have a greater potential regarding social relations than the larger ones. In contrast, Allen et al. (2004), Jogerst et al. (2006) and Natan et al. (2010) found that the incidence of violence is greater in institutions with a large number of residents, which can be explained by highly demanding residents, the low number of staff, and the lack of necessary equipment.

When limitations of our study are concerned, the interpretation of the findings may be limited by the possibility of social desirability, as already mentioned. Recall bias may also be a problem, since the inaccurate or incomplete recollection of experiences/events from the past can potentially lead to differential misclassification. Another possible limitation is the sample size, but with the response rate as high as in our study and the general scarcity of nursing staff in nursing homes and extended care units, it can be considered appropriate.

CONCLUSIONS

This study has shown that residents and caregivers have contrasting vantage points in relation to elder abuse/neglect perception, which underlines the need for evidence-based standardization of procedures to prevent any type of elder mistreatment. Bearing in mind that the pace of population ageing around the world is increasing dramatically, the results of this study highlight the need for additional research aimed at identifying an optimal approach to abuse prevention, and helping victims of abuse and neglect in institutional settings, worldwide. Future research should focus on well-defined target populations, types of abuse, standardized instruments, as well as the relationship between healthcare workers and residents, which was a key part of our research. All of this will help develop various public health interventions with an overarching aim to address this growing global concern.

Acknowledgements: *None.*

Conflict of interest: *None to declare.*

Contribution of individual authors:

Marijana Neuberg outlined the methodological approach and was responsible for the study concept, paper composition, theoretical explanations, data interpretation and literature choice.

Tomislav Meštrović conducted the literature search, interpreted the obtained results, as well as critically drafted and revised the manuscript.

Rosana Ribić, Marin Šubarić & Irena Canjuga contributed to the data interpretation and manuscript write-up.

Goran Kozina participated in the study concept, and also contributed to the write-up and the final appearance of the paper. All authors gave their approval for the final version of the manuscript.

References

1. *Ajduković M, Rusac S & Ogresta J: Izloženost starijih osoba nasilju. Rev Soc Polit 2008; 15:3-22*
2. *Allen PD, Kellett K & Gruman C: Elder abuse in Connecticut's nursing homes. J Elder Abuse Negl 2004; 15:19-42*
3. *American Psychological Association: Elder abuse & neglect: in search of solutions. Available at: http://www.apa.org/pi/aging/resources/guides/elder-abuse.pdf (Last accessed July 15 2019)*
4. *Berg A, Erlingsson Christen & Saveman BI: "Global response against elder abuse" – Report from Sweden 2001. Available at: http://www.who.int/ageing/projects/elder_abuse/alc_ea_swe.pdf (Last accessed July 15 2019)*
5. *Bravo G, Dubois MF, Charpentier M, De Wals P& Émond A: Quality of care in unlicensed homes for the aged in the Eastern Townships of Quebec. CMAJ 1999; 160:1441-5*
6. *Drennan J, Lafferty A, Treacy MP, Fealy G, Phelan A, Lyons I & Hall P: Older People in Residential Care Settings: Results of a National Survey of Staff-Resident Interactions and Conflicts. National Centre for the Protection of Older People (NCPOP); UCD School of Nursing, Midwifery and Heath Systems; Health Sciences Centre, University College Dublin, 2012. Available at: http://www.rte.ie/documents/news/elderlyreport.pdf (Last accessed July 15 2019)*
7. *Erlingsson C: Elder abuse explored through a prism of perceptions; Perspectives of potential witnesses. Doctoral thesis. Umeå: Umeå University, Department of Nursing, 2019*
8. *Friedman L, Avila S, Friedman D & Meltzer W: Association between Type of Residence and Clinical Signs of Neglect in Older Adults. Gerontology 2019; 65:30-9*
9. *Ho CS, Wong SY, Chiu MM & Ho RC: Global Prevalence of Elder Abuse: A Meta-analysis and Meta-regression. East Asian Arch Psychiatry 2017; 27:43-55*
10. *Jogerst GJ, Daly JM, Dawson J D, Peek-Asa C & Schmuch G: Iowa nursing home characteristics associated with reported abuse. J Am Med Dir Assoc 2006; 7:203-7*
11. *Krug EG, Mercy JA, Dahlberg LL, Zwi AB: The world report on violence and health. Lancet 2002; 360:1083-8*
12. *Lowenstein A: Elder Abuse in Residential Settings in Israel – Myth or Reality? J Elder Abuse Negl 1999; 10:133-51*
13. *Madsen C: Spiller det noen rolle?– om hverdagen på nye og gamle sykehjem. Stein Rokkan senter for flerfaglige samfunnsstudier, Universitetsforskning i Bergen, 2002*
14. *Malmedal W: Inadequate Care, Abuse and Neglect in Norwegian Nursing Homes. Doctoral Thesis. Trondheim: University of Science and Technology, Faculty of Social Sciences and Technology Management, Department of Social Work and Health Science, 2013*
15. *Natan MB, Lowenstein A & Eisikovits Z: Psycho-social factors affecting elders' maltreatment in long-term care facilities. Int Nurs Rev 2010; 57:113-20*
16. *Neuberg M, Kozina G, Meštrović T & Ribić R: The impact of socio-demographic characteristics and health status of older persons on the occurrence of elder abuse and neglect in institutional settings. In Celec R (ed): Challenges of Society, 254-93. Hamburg: Verlag Dr. Kovač, 2018 (ISBN number: 978-3-8300-9776-1)*
17. *Neuberg M, Železnik D, Meštrović T, Ribić R & Kozina G: Is the burnout syndrome associated with elder mistreatment in nursing homes: results of a cross-sectional study among nurses. Arh Hig Rada Toksikol 2017; 68:190-7*
18. *Pillemer K, Burnes D, Riffin C & Lachs MS: Elder abuse: global situation, risk factors, and prevention strategies. Gerontologist 2016; 56(Suppl 2):S194-205*
19. *Samec A: Nasilje nad starosniki. Master Thesis. Univerza v Ljubljani, Fakulteta za družbene vede, 2010*
20. *Viitasara E: Violence in caring: Risk factors, outcomes and support. Doctoral Thesis. Stockholm: National Institute for Working Life, 2001*

21. *Word Health Organization: Abuse of the Elderly. In World Health Organization: World report on violence and health. Geneva, 2002. Available at: http://www.who.int/violence_injury_prevention/violence/global_campaign/en/chap5.pdf (Last accessed July 15 2019)*
22. *World Health Organization. Multisectoral Action for a Life Course Approach to Healthy Ageing: Draft Global Strategy and Plan of Action on Ageing and Health – Report by the Secretariat. Geneva, 2016. Available at: https://apps.who.int/iris/bitstream/handle/10665/252671/A69_17-en.pdf?sequence=1&isAllowed=y (Last accessed July 15 2019)*
23. *Yon Y, Ramiro-Gonzalez M, Mikton CR, Huber M & Sethi D: The prevalence of elder abuse in institutional settings: a systematic review and meta-analysis. Eur J Public Health 2019; 29:58-67*

Correspondence:

Assistant Professor Marijana Neuberg, PhD
Head of Nursing Department, University Centre Varaždin, University North
Ul. 104. brigade 3, 42 000 Varaždin, Croatia
E-mail: marijana.neuberg@unin.hr