

Original scientific article/Izvirni znanstveni članek

## The prevalence of violence directed at paramedic services personnel Prevalenca nasilja nad zaposlenimi v reševalnih službah

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**Key words:** nursing; paramedic; safety

**Ključne besede:** zdravstvena nega; reševalci; varnost

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### ABSTRACT

**Introduction:** Providers of health care are frequently subject to violence. The purpose of this research is to identify the type of violence suffered by first responders and the frequency of violence, since there is a lack of research in this area.

**Methods:** A non-experimental sampling research method was used for this research; the research instrument is a structured questionnaire. We invited 36 rescue stations in Slovenia to participate, and 29 responded to the request; 246 questionnaires (68.3 %) were returned out of a total of 360. Data were analysed by means of descriptive statistics, correlation, the Kolmogorov-Smirnov test, Pearson's  $\chi^2$  test, Mann-Whitney U test and linear regression with a significance of  $p < 0.05$ .

**Results:** Seventy-eight per cent of respondents reported they had been verbally abused by their patients in the reporting year, while 49.6 % respondents reported they had been physically abused and 26.8 % of all respondents suffered injuries inflicted by patients. In the reporting year, 24.4 % of respondents experienced sexual harassment. A correlation was established between facing and experiencing fear ( $p = 0.017$ ), between physical violence and feelings of vulnerability ( $p = 0.005$ ), and between experiencing physical violence by the patient and lack of knowledge of how to manage patients' aggression ( $p = 0.012$ ).

**Discussion and conclusion:** The research could serve as a basis for a comprehensive approach to aggression management for nursing care professionals in paramedic services.

### IZVLEČEK

**Uvod:** Nasilje nad zaposlenimi v zdravstveni negi je pogosto. Namen raziskave je ugotoviti vrsto in pogostost nasilja nad zaposlenimi v reševalnih službah, kjer je raziskanost pojavnosti redkejša.

**Metode:** Izvedena je bila neeksperimentalna vzorčna metoda raziskovanja. Inštrument raziskave je bil strukturiran vprašalnik. K raziskavi smo povabili 36 reševalnih postaj v Sloveniji, od katerih se jih je odzvalo 29 od skupno 360 poslanih je bilo vrnjenih 246 (68,3 %) vprašalnikov. Podatki so bili analizirani z opisno statistiko, korelacijo, testom Kolmogorov-Smirnov, Pearsonovim testom  $\chi^2$ , testom Mann-Whitney U in linearno regresijo s stopnjo značilnosti  $p < 0,05$ .

**Rezultati:** Verbalno nasilje s strani pacienta je v zadnjem letu doživelo 78,0 % vseh anketiranih. 49,6 % jih je v zadnjem letu doživelo fizično nasilje. Poškodovanih s strani pacienta jih je bilo v svoji karieri 26,8 %. Spolno nadlegovanje je s strani pacienta v zadnjem letu doživelo 24,4 % anketiranih. Ugotovili smo povezanost med soočanjem in doživljanjem strahu ( $p = 0,017$ ), med fizičnim nasiljem in doživljanjem ogroženosti ( $p = 0,005$ ) ter med doživljanjem fizičnega nasilja s strani pacienta in pomanjkanjem znanja za obvladovanje agresivnega pacienta ( $p = 0,012$ ).

**Diskusija in zaključek:** Rezultati raziskave so izhodišče za iskanje rešitev ugotovljenih problematik različnih vrst nasilja nad zaposlenimi v zdravstveni negi reševalnih služb.

## Introduction

Healthcare professionals encounter many medical risks when providing services to individuals and the community (Ozturk & Babacan, 2014). Clements and colleagues (2005) found that hospital personnel, particularly nurses, most often encounter patient violence. Between 35 % and 80 % of hospital staff had been physically assaulted at least once while on duty, and nurses were the most exposed to violence (Clements, et al., 2005). In a Swedish study (Soares, 2000), the author found that the majority of participants (85 %) reported that they had been exposed to violence, with 57 % being victimised in the reporting year. According to a Swiss study (Hahn, et al., 2010) 72 % of nurses had been verbally abused by patients or visitors, and 42 % had suffered physical abuse in the reporting year. An extensive study in 2013 (Gabrovec, et al., 2014) showed that 92.6 % of psychiatric nurses reported experiencing verbal abuse, as many as 84.2 % physical violence and 40.9 % reported verbal abuse by patients' relatives, while 63.5 % had been injured. Zeller and colleagues (2009) also found a high incidence of violence towards nursing employees in nursing homes. Likewise, Franz and colleagues (2010) found that 83.9 % of healthcare workers had been exposed to physical violence. In the United States of America, violence against employees is most frequent among nursing assistants providing long-term care (Gates, et al., 2005).

Although the reported incidence is high, the common non-reporting of incidents means that the frequency is actually higher (Gates, et al., 2011). Similarly, Stokowski (2010) argues that up to 70 % of incidents and abuse of nurses are not reported. The work place affects the organisational culture, ensuring safety by setting up systematic education models, taking preventive steps to ensure safety and procedures in the event of an outbreak of violence and its aftermath (Gabrovec & Lobnikar, 2015).

There are fewer studies on violence toward paramedics some of which are mentioned here. Boyle and colleagues (2007) report that 87.5 % of paramedics were exposed to at least one form of workplace violence. Verbal abuse was most common (82 %), followed by intimidation (55 %), physical abuse (38 %), sexual abuse (17 %) and sexual assault (4 %). A Canadian study (Bigham, et al., 2014) found that in a 12-month period, 75 % of paramedics experienced at least one form of violence. The most common form of violence reported was verbal assault (67 %), followed by intimidation (41 %), physical assault (26 %), sexual harassment (14 %), and sexual assault (3 %). A high incidence of verbal assault, particularly through intimidation (66 %), was also established by Petzäll and colleagues (2011).

### *Aim and objectives*

The study sought to establish the type and prevalence of violence directed at nursing staff and paramedics.

The goal of the study was to develop guidelines for resolving violent incidents directed at healthcare personnel employed in paramedical services.

We formed the following research hypotheses:

H1: There is a correlation between nursing professionals working in emergency services experience of fear and actual verbal abuse during an examination of an aggressive patient.

H2: There is a correlation between nursing professionals working in emergency services feeling of being threatened and actual physical abuse during the examination of an aggressive patient.

H3: Employees who have experienced physical violence inflicted by patients largely believe that their skills are not sufficient to control an aggressive patient.

H4: There is a correlation between the following variables: verbal abuse, sexual harassment, physical violence and injury.

## Methods

A non-experimental sample research method was used. The study instrument was a structured questionnaire.

### *Description of the research instrument*

The questionnaire was prepared after reviewing the literature on previous studies, different situations faced by employees in the event of outbursts of aggression, and the quality and safety of patient treatment (Kobal, 2009; Hahn, et al., 2010; Gabrovec, et al., 2014; Gabrovec & Lobnikar, 2015).

The questionnaire consisted of 55 questions, divided into five sections: 1. work and violence at the workplace (23 questions) 2. organisation of work (11 questions), 3. influence of different factors on employee safety and patient treatment (11 questions), 4. education (6 questions) and 5. demographic data (4 questions). The management of safety was the dependent variable, while the independent variables included: appropriate means, clear view of the issue, awareness of work-related errors, attention to conditions promoting safety, the significance of safety in an employment organisation, response to outbursts of violence, supervision, motivation and initiative, appropriate number of employees, security protocols, reporting undesired events, team management and support, and measures to improve the situation. A descriptive Likert scale was used (1 – strongly disagree; 2 – disagree; 3 – partly agree; 4 – agree; 5 – strongly agree). The content proved relevant, with a moderate to very good level of internal consistency reliability (Cencič, 2009) with Cronbach Alpha: 1<sup>st</sup> section: min. 0.62; 2<sup>nd</sup> section: min 0.85; 3<sup>rd</sup> section: min. 0.64; 4<sup>th</sup> section: min. 0.68; 5<sup>th</sup> section: min. 0.63.

## Description of the sample

Thirty-six Slovenian rescue stations were invited to participate in the study, of which 29 responded. A total of 246 out of 360 questionnaires were returned (68.3 %). A simple randomised sample with random sampling was used. Questionnaires were randomly distributed among employees who were willing to participate in the study. Each person could respond only once.

29.2 % of all paramedics out of 1231 active employees working in medical transport (Register of healthcare providers, BPI - NIJZ 16, 18/6/2015) were pooled. The qualification (educational structure of employees working as paramedics) was as follows: a secondary-school education, (83.7 %), a two-year college degree education (0.4 %), a three-year higher professional education (15.6 %) and a MSc degree education (0.3 %). The gender structure of the population was 88 % male and 12 % female (BPI - NIJZ 16, 18/6/2015).

The sample included 166 men (67.5 %) and 80 (32.5 %) women. The mean age of respondents was 37.5,  $s = 8.64$  years. The oldest respondent was 58 years old, and the youngest 20. The mean value of work experience was 15.43,  $s = 9.80$  years. Demographic details are presented in Table 1.

Table 1: *Demographics included in the research*  
Tabela 1: *Demografski podatki vključenih v raziskavo*

<i>Gender and education level/</i>		<i>n</i>	<i>%</i>
<i>Spol in stopnja izobrazbe</i>			
Gender	Men	166	67.5
	Women	80	32.5
Education	Secondary	134	54.5
	College	12	4.9
	Higher professional	80	32.5
	MSc and higher	20	8.1

*Legend/ Legenda: n - number/ število; % - percentage/odstotek*

## Description of the research procedure and data analysis

The survey was conducted in April 2015. Participation was voluntary and the participants' anonymity was ensured. When necessary, the administration of the relevant institutions gave their consent to participation in the study. The poll was conducted in accordance with the Code of Ethics for Nurses and Nurse Assistants and the Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects. The data were analysed with descriptive statistics, correlation, the Kolmogorov-Smirnov test, Mann-Whitney U test and linear regression. The data were processed with the statistics program IBM SPSS v. 21.0 and IBM AMOS v. 21 with a  $p < 0.05$  level of significance.

## Results

The study found a high level of verbal abuse, frequent occurrence of physical violence and sexual harassment. The type, incidence and percentage of violence directed toward employees are presented in Table 2.

As many as 78 % of all respondents experienced verbal abuse by patients in the reporting period, while 49.6 % experienced physical abuse; 26.8 % of respondents were injured by a patient. Sexual harassment was experienced by 24.4 % of respondents. One in five respondents was subject to verbal abuse from superiors or colleagues in the reporting period. The emotions and states experienced by respondents during patients' aggressive episodes are presented in Table 3.

When confronted with patients' aggression, respondents experienced fear ( $\bar{x} = 3.43$ ), insecurity ( $\bar{x} = 3.33$ ) and powerlessness ( $\bar{x} = 3.05$ ) to the greatest extent, while lack of understanding from colleagues was the least common ( $\bar{x} = 2.42$ ).

The most important links between certain emotions and states include uncertainty and anxiety ( $r = 0.783$ ,  $p = 0.01$ ), lack of understanding from colleagues or superiors ( $r = 0.683$ ,  $p < 0.01$ ) powerlessness and insecurity ( $r = 0.612$ ,  $p = 0.01$ ). Lack of understanding from colleagues and feeling threatened correlated negatively with other variables ( $r = -0.387$ ,  $p = 0.01$ ).

Furthermore, we were interested in various measures taken by employers to ensure safety in the event of patient aggression and the impact of other factors. Respondents largely report that: "Sufficient staff is a prerequisite for 24-hour detection of changes and perception of threats" ( $\bar{x} = 4.11$ ); "Understanding among team members affects the quality of my work" ( $\bar{x} = 4.03$ ); "The personality traits of team members affect the quality of work" ( $\bar{x} = 3.97$ ); "Conflict among team members affects the safety and quality of work with patients" ( $\bar{x} = 3.95$ ). The following statements received poorer evaluations: "The employer arranged for the supervised management of aggression in the patient" ( $\bar{x} = 2.68$ ); "In the event of aggression or a security incident, we receive team treatment and support" ( $\bar{x} = 2.64$ ), while the lowest rating was for the statement: "We are rewarded and motivated enough to perform safe, high-quality work" ( $\bar{x} = 2.28$ ).

The participants' opinions of their knowledge of, and training in violence management are shown in Table 4.

On average, the respondents believe that they have adequate knowledge to manage aggressive patients ( $\bar{x} = 2.81$ ). They place the highest importance on multiple refresher workshops ( $\bar{x} = 4.09$ ), followed by written guidelines ( $\bar{x} = 3.91$ ) and practical workshops ( $\bar{x} = 3.82$ ).

Table 2: *Work and workplace related violence (n = 246)*

Tabela 2: *Delo in nasilje na delovnem mestu (n = 246)*

<i>Questions about violence/Vprašanja o nasilju</i>					<i>Answer/Odgovor</i>		<i>Percentage/Odstotek</i>	
<i>Frequency of violence/Pogostost nasilja</i>					<i>n</i>		<i>%</i>	
Have you been exposed to verbal abuse by patient in the last 12 months?					YES = 192		78.0	
If yes, how often?	1–2x	n = 56	3–5x	n = 48	6–9x	n = 22	10x>	n = 66
Have you been exposed to verbal abuse by colleagues or superiors in the last 12 months?					YES = 50		20.3	
If yes, how often?	1–2x	n = 26	3–5x	n = 14	6–9x	n = 4	10x>	n = 6
Have you been exposed to sexual harassment by patient in the last 12 months?					YES = 60		24.4	
If yes, how often?	1–2x	n = 54	3–5x	n = 4	6–9x	n = 2	10x>	n = 0
Have you been exposed to sexual harassment by colleagues or superiors in the last 12 months?					YES = 2		0.8	
If yes, how often?	1–2x	n = 2	3–5x	n = 0	6–9x	n = 0	10x>	n = 0
Have you been exposed to physical abuse by patient in the last 12 months?					YES = 122		49.6	
If yes, how often?	1–2x	n = 58	3–5x	n = 20	6–9x	n = 44	10x>	n = 0
Have you been exposed to physical abuse by colleagues or superiors in the last 12 months?					YES = 4		1.6	
If yes, how often?	1–2x	n = 0	3–5x	n = 4	6–9x	n = 0	10x>	n = 0
Have you ever been injured at work?					YES = 66		26.8	
If yes, how often?	1–2x	n = 62	3–5x	n = 4	6–9x	n = 0	10x>	n = 0

Legend/ *Legenda*: n – number/ število; % – percentage/odstotek

Table 3: *Respondents dealing with certain emotions and states*

Tabela 3: *Doživljanje nekaterih čustev in stanj anketiranih*

<i>Claim/Trditev</i>	<i>n</i>	<i>Min</i>	<i>Max</i>	$\bar{X}$	<i>s</i>
Fear	240	1	5	3.43	1.05
Insecurity	240	1	5	3.33	1.13
Powerlessness	242	1	5	3.05	1.13
Lack of knowledge	240	1	5	2.38	1.22
Anger	240	1	5	3.02	1.16
Despair	242	1	5	2.85	1.18
Threat	242	1	5	3.03	1.36
Lack of understanding from colleagues	240	1	5	2.42	1.15
Lack of understanding from superiors	240	1	5	2.89	1.41

Legend/ *Legenda*: n – number of answers/število odgovorov; Min – minimum/minimum; Max – maximum/maksimum;  $\bar{X}$  – average/povprečje; s – standard deviation/standardni odklon

### Verification of hypotheses

The hypotheses were tested to identify statistically significant differences in the means. First, the normal distribution of variables was verified using skewness and kurtosis coefficients and a Kolmogorov–Smirnov test. None of the variables of hypotheses H1, H2 and H3 were found to be normally distributed. A Mann–Whitney non-parametric test was therefore used to identify differences in the means.

A Pearson's  $\chi^2$  test showed a significance of  $p = 0.017$  for H1, meaning that there are statistically significant differences in the level of fear reported by respondents who had experienced verbal abuse by a patient in the workplace in the reporting year compared to those

who had not. Participants who experienced verbal abuse reported a higher level of fear. Based on the above, H1, i.e. that there is a correlation between the level of fear experienced and verbal abuse in the management of violent patients, was confirmed, as respondents who experienced verbal abuse reported a statistically significantly higher level of fear.

A Pearson's  $\chi^2$  test showed a significance of  $p = 0.005$  for H2, meaning that there are statistically significant differences in the level of fear reported by participants who experienced physical violence by a patient in the workplace in the reporting year compared to those who did not. Participants who experienced physical violence reported a higher level of fear. Based on the above, H2, i.e. that there is a correlation between the

Table 4: *Opinion on knowledge and training in violence management*Tabela 4: *Mnenje o znanju in izobraževanju na področju obvladovanja agresije*

Claim/Trditev	n	Min	Max	$\bar{X}$	s
I have adequate knowledge to manage aggressive patients.	244	1	5	2.81	0.86
The staff is provided with adequate training in the safe management of patients.	244	1	5	2.50	0.90
Theoretical workshops should be carried out to ensure the safe management of patients.	246	1	5	3.60	0.93
Practical workshops should be carried out to ensure the safe management of patients.	246	1	5	3.82	0.90
Written guidelines should be prepared to ensure the safe management of patients.	246	1	5	3.91	0.88
Training with multiple refresher workshops should be provided to ensure the safe management of patients.	246	1	5	4.09	0.98

Legend/Legenda: n – number of answers/število odgovorov; Min – minimum/minimum; Max – maximum/maksimum;  $\bar{X}$  – average/povprečje; s – standard deviation/standardni odklon

level of fear experienced and physical violence in the management of aggressive patients, was confirmed, as participants who experienced physical violence reported a statistically significantly higher level of fear.

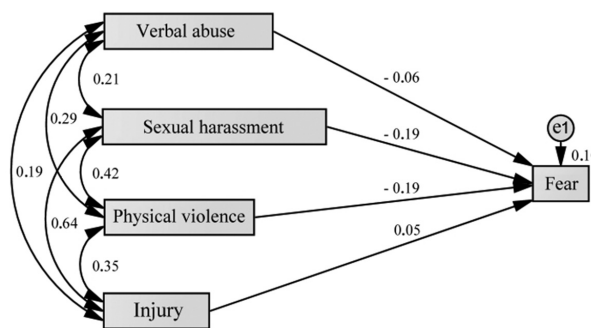
As regards H3, it was found that employees who did not experience physical violence by a patient in the reporting year rated the adequacy of their knowledge on the management of violent patients above average.

H3 was found to have a significance of 0.012 ( $p = 0.05$ ), meaning that there are statistically significant differences in the rated adequacy of knowledge on the management of violent patients between respondents who experienced physical violence by a patient in the workplace in the reporting year and those who had not. Participants who experienced physical violence reported a higher level of fear. Based on the above, H3, i.e. that individuals who have experienced physical violence by a patient are more likely to rate their level of knowledge on the management of aggressive patients inadequate, was confirmed, as respondents who did not face physical violence in the reporting year rated the adequacy of their knowledge on the management of violent patients above average.

The correlation between the variables of H4, i.e. the correlation between different types of violence, was analysed by means of a model. As shown in Figure 1, statistically significant correlations were found between sexual harassment and injury ( $r = 0.640$ ,  $p = 0.01$ ), sexual harassment and physical violence ( $r = 0.420$ ,  $p = 0.01$ ), physical violence and injury ( $r = 0.350$ ,  $p = 0.01$ ), and verbal abuse and physical violence ( $r = 0.290$ ,  $p = 0.01$ ).

H4 was confirmed, as correlations were found between verbal abuse, sexual harassment, physical violence and injury variables.

The verbal abuse, physical violence and injury variables were found to explain the 10 % variance in the fear variable. The sexual harassment and physical violence variables are the best predictors (Figure 1).

Figure 1: *Correlation between different types of violence*Slika 1: *Povezanost med različnimi vrstami nasilja*

## Discussion

The purpose and goal of the study were achieved. We found that paramedics are subject to a high level of threat, with verbal abuse from patients being the most prevalent, followed by physical violence and sexual harassment. The prevalence of vertical and horizontal abuse in the professional group is worrisome. When faced with aggressive patients, respondents most often experience fear, insecurity and powerlessness, while lack of understanding from colleagues is the least prevalent.

We established a statistical correlation between sexual harassment and injury, sexual harassment and physical violence, physical violence and injury, and verbal abuse and physical violence. The results of the study are in alignment with previous research (Gabrovec, et al., 2014). We found that types of violence are not isolated, but correlated.

The most important correlation between emotions and states include insecurity and fear, lack of understanding from colleagues and lack of understanding from superiors, and powerlessness and insecurity. The variables of lack of understanding from colleagues and feeling threatened

correlate negatively, which means that respondents who felt that they were understood by colleagues felt less threatened in the work place.

Violence against nursing professionals has not been well documented, with most studies focusing on one area of work and using different research methods. Comparable studies report different threat incidence figures for nursing professionals. In a period of one year, 35–80 % healthcare employees experienced physical violence (Clements, et al., 2005), 42 % (Hahn, et al., 2010) or 83 % (Franz, et al., 2010). The results of our survey are comparable to studies abroad. In 2013, an extensive study on violence toward psychiatric nurses was performed with the same methodology (Gabrovec, et al., 2014) and found that the incidence of verbal and physical abuse toward psychiatric nurses was higher than among paramedics by 20–40 percentage points. While the highest incidence is among psychiatric nurses, percentages are also high in other areas. We found a high incidence of horizontal and lateral violence towards paramedics.

Research results can provide a starting point for developing a comprehensive approach to managing aggression toward paramedical staff, as proposed and implemented in psychiatric nursing, where the preliminary results of applying a comprehensive model have been very successful (Gabrovec & Lobnikar, 2014).

We have confirmed all the hypotheses. We found that employees who faced verbal violence were more fearful, that there is a correlation between feeling threatened and physical violence during the treatment of an aggressive patient; and that respondents who have experienced physical violence from patients largely believe that they have insufficient skills to control them.

We recognise that the selected sampling technique limits the study, as it affects the degree to which the sample is representative; the percentage of women in the study is higher than the percentage of women working in paramedical services, which might indicate that women were more willing to cooperate in the study, or the credibility of questionnaires is unreliable. The questionnaire enquired about education levels, while the register of healthcare providers lists education levels for actual positions, which prevented a comparison between the education structure of respondents and the register. Approval to conduct the survey was required only in a few institutions, not all.

## Conclusion

The article presents the results of a study on the prevalence of types and frequency of violence against employees in paramedical services. Epidemiological, empirical and research data are presented. The purpose of the study was achieved. The study shows that employees in paramedical services need to develop a

comprehensive approach to managing aggression. In order to determine the range of problems, it would be useful to conduct a survey with the same methodology on other aspects of healthcare.

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## Slovenian translation/Prevod v slovenščino

### Uvod

Zdravstveni delavci se soočajo s številnimi zdravstvenimi tveganji med opravljanjem zdravstvene dejavnosti posameznikov ali skupnosti (Ozturk & Babacan, 2014). Clements in sodelavci (2005) ugotavljajo, da se zdravstveni delavci (še posebej zaposleni v zdravstveni negi) najpogosteje soočajo z nasiljem pacientov. Od 35 do 80 % zdravstvenih delavcev se je vsaj enkrat soočilo s fizičnim nasiljem na delovnem mestu, od tega je bila skupina zaposlenih v zdravstveni negi najbolj izpostavljena (Clements, et al., 2005). V švedski raziskavi (Soares, 2000) avtor ugotavlja, da je bila večina sodelujočih v raziskavi (85 %) v svoji karieri izpostavljena nasilju, od tega 57 % v zadnjem letu. Izsledki švicarske raziskave (Hahn, et al., 2010) kažejo, da je 72 % medicinskih sester doživelo verbalno nasilje s strani pacientov in obiskovalcev, 42 % jih je doživelo fizično nasilje v zadnjem letu. V obsežni raziskavi v letu 2013 (Gabrovec, et al., 2014) je bilo ugotovljeno, da je v zdravstveni negi na področju psihiatrije v zadnjem letu 92,6 % sodelujočih v raziskavi doživelo verbalno nasilje, kar 84,2 % fizično nasilje in 40,9 % verbalno nasilje s strani svojcev. V svoji delovni karieri jih je bilo 63,5 % poškodovanih. Zeller in sodelavci (2009) ugotavljajo tudi pogostost nasilja nad zaposlenimi v zdravstveni negi v domovih starejših občanov. Enako tudi Franz in sodelavci (2010) ugotavljajo, da je bilo kar 83,9 % zaposlenih v zdravstveni negi izpostavljenih fizičnemu nasilju. Najvišjo stopnjo nasilja nad zaposlenimi v Združenih državah Amerike ugotavljajo pri zdravstvenih asistentih, ki so zaposleni na področju dolgotrajne oskrbe (Gates, et al., 2005).

Navkljub visokemu odstotku je število verjetno še višje zaradi pogostega neporočanja incidentov (Gates, et al., 2011). Podobno meni tudi Stokowski (2010), ki pravi, da do 70 % incidentov in zlorab nad medicinskimi sestrami ostane neporočanih. Delovna organizacija lahko vpliva na vzpostavljanje organizacijske kulture zagotavljanja varnosti z vzpostavljanjem sistematičnih modelov izobraževanja, preventivnimi koraki zagotavljanja varnosti in postopki ob izbruhu nasilja ter po izbruhu nasilja (Gabrovec & Lobnikar, 2015).

Raziskav na področju nasilja nad zaposlenimi v reševalnih službah je manj. Navajamo nekatere: Boyle in sodelavci (2007) poročajo, da je bilo 87,5 % reševalcev izpostavljenih vsaj eni obliki nasilja. Najpogostejše je bilo verbalno nasilje (82 %), sledijo grožnje (55 %), fizično nasilje (38 %), spolno nadlegovanje (17 %) in spolni

napad (4 %). V Kanadski raziskavi (Bigham, et al., 2014) so ugotovili, da so reševalci v zadnjem letu v 75 % doživeli vsaj eno obliko nasilja. Najpogostejše je bilo verbalno nasilje (67 %), sledijo grožnje (41 %), fizično nasilje (26 %), spolno nadlegovanje (14 %) in spolni napad (3 %). Visoko stopnjo verbalnega nasilja, predvsem z grožnjami (66 %) ugotavlja tudi Petzäll in sodelavci (2011).

### Namen in cilj

Raziskava je bila namenjena ugotavljanju vrste in pogostosti nasilja, ki je usmerjeno proti zaposlenim v zdravstveni negi na področju reševalnih služb. Cilj raziskave je priprava izhodišč za reševanje problematik nasilja nad zaposlenimi v zdravstveni negi reševalnih služb.

Postavili smo naslednje raziskovalne hipoteze:

H1: Med doživljanjem strahu zaposlenih v zdravstveni negi reševalnih služb in verbalnim nasiljem ob obravnavi agresivnega pacienta obstaja povezava.

H2: Med doživljanjem ogroženosti zaposlenih v zdravstveni negi reševalnih služb in fizičnim nasiljem ob obravnavi agresivnega pacienta obstaja povezava.

H3: Zaposleni, ki so doživeli fizično nasilje s strani pacienta, v večji meri menijo, da njihovo znanje za obvladovanje agresivnega pacienta ni zadostno.

H4: Med spremenljivkami verbalno nasilje, spolno nadlegovanje, fizično nasilje in poškodba obstaja povezanost.

### Metode

Izvedena je bila neeksperimentalna vzorčna metoda raziskovanja. Inštrument raziskave je bil strukturiran vprašalnik.

### Opis instrumenta

Vprašalnik smo oblikovali na podlagi pregleda literature o predhodnih raziskavah, različnih stanj, s katerimi se soočajo zaposleni ob izbruhu agresije in kakovosti ter varnosti obravnave pacienta (Kobal, 2009; Hahn, et al., 2010; Gabrovec, et al., 2014; Gabrovec & Lobnikar, 2015).

Vprašalnik je vseboval 55 vprašanj, razdeljenih v pet sklopov: 1. delo in nasilje na delovnem mestu (23 vprašanj), 2. organizacija dela (11 vprašanj), 3. vpliv različnih dejavnikov na varnost zaposlenih in obravnavo pacienta (11 vprašanj), 4. področje izobraževanja (6 vprašanj) in 5. demografski podatki (4 vprašanja). Odvisna spremenljivka je bila upravljanje z varnostjo, neodvisne spremenljivke pa so bile: ustreznost sredstev, jasna predstava o problematiki, osveščenost o delovnih napakah, pozornost na pogoje, ki spodbujajo varnost, pomembnost varnosti v delovni organizaciji, reakcije na izbruh nasilja, supervizija, motivacija in samoiniciativnost, ustreznost števila zaposlenih, varnostni protokoli, poročanje o nezaželenih dogodkih, upravljanje s timom

in podpora ter ukrepi za izboljšanje stanja. Uporabili smo Likertovo deskriptivno lestvico (1 – sploh se ne strinjam; 2 – se ne strinjam; 3 – delno se strinjam; 4 – se strinjam; 5 – zelo se strinjam). Vsebina vprašalnika se je izkazala za veljavno in z zmerno do zelo dobro stopnjo zanesljivosti notranje konsistentnosti (Cencič, 2009) saj je Cronbach Alpha: 1. sklop: min. 0,62; 2. sklop: min. 0,85; 3. sklop: min. 0,64; 4. sklop: min. 0,68; 5. sklop: min. 0,63.

### Opis vzorca

K raziskavi smo povabili 36 reševalnih postaj v Sloveniji, od katerih se jih je odzvalo 29. Od skupno 360 poslanih je bilo vrnjenih 246 (68,3 %) vprašalnikov. Uporabili smo enostavni slučajnostni vzorec z naključnim vzorčenjem. Vprašalniki so bili razdeljeni naključno med zaposlene, ki so želeli sodelovati v raziskavi, vsakdo je lahko odgovarjal na en vprašalnik.

Od 1231 aktivnih zaposlenih v dejavnosti reševalnih prevozov (Register izvajalcev zdravstvene dejavnosti, BPI – NIJZ 16, 18. 6. 2015) smo v vzorec zajeli 29,2 % zaposlenih. Izobrazbena struktura zaposlenih v dejavnosti reševalnih prevozov je bila naslednja: srednja medicinska sestra/tehnik zdravstvene nege (83,7 %), višja medicinska sestra/višji zdravstveni tehnik (0,4 %), diplomirana medicinska sestra/diplomirani zdravstvenik (15,6 %) in magister zdravstvene nege/magistrica zdravstvene nege (0,3 %). Struktura populacije po spolu je bila 88 % moških in 12 % žensk (BPI – NIJZ 16, 18. 6. 2015).

V celotnem vzorcu je v raziskavi sodelovalo 166 (67,5 %) moških in 80 (32,5 %) žensk. Srednja starost anketiranih je bila 37,5,  $s = 8,64$  let. Najstarejši anketirani je bil star 58 let, najmlajši pa 20 let. Srednja vrednost delovnih izkušenj je bila 15,43,  $s = 9,80$  let. Podrobnosti o demografskih podatkih prikazujemo v Tabeli 1.

Tabela 1: Demografski podatki vključenih v raziskavo  
Table 1: Demographics included in the research

Spol in stopnja izobrazbe/ Gender and education level		n	%
Spol	Moški	166	67,5
	Ženske	80	32,5
Stopnja izobrazbe	Srednja	134	54,5
	Višja	12	4,9
	Visoka	80	32,5
	Univerzitetna in več	20	8,1

Legenda/Legend: n – število/number; % – odstotek/percentage

### Opis poteka raziskave in obdelave podatkov

Anketiranje je potekalo aprila 2015. Sodelovanje je bilo prostovoljno, z zagotavljanjem anonimnosti sodelovanja. V delovnih enotah, kjer je bilo potrebno, je soglasje za izvedbo raziskave izdala uprava posameznih institucij. Anketiranje je potekalo

skladno s Kodeksom etike v zdravstveni negi in oskrbi Slovenije ter Helsinško deklaracijo: *Ethical Principles for Medical Research Involving Human Subjects* («Etična načela za medicinske raziskave, ki vključujejo ljudi»). Podatki so bili analizirani z opisno statistiko, korelacijo, testom Kolmogorov-Smirnov, testom Mann-Whitney U in linearno regresijo. Podatki so bili obdelani s statističnim programom IBM SPSS v. 21,0 in IBM AMOS v. 21 s stopnjo značilnosti  $p < 0,05$ .

## Rezultati

V raziskavi smo ugotovili visoko stopnjo verbalnega nasilja, pogosto je fizično in spolno nasilje. Vrste, pogostost in odstotek nasilja, ki je bilo usmerjeno proti zaposlenim, prikazujemo v Tabeli 2.

Verbalno nasilje s strani pacienta je v zadnjem letu doživelo 78,0 % vseh anketiranih. 49,6 % jih je v zadnjem letu doživelo fizično nasilje. Poškodovanih s strani pacienta je bilo 26,8 % anketiranih. Spolno nadlegovanje je s strani pacienta v zadnjem letu doživelo 24,4 % anketiranih. Vsak 5 anketirani je v zadnjem letu doživel tudi verbalno nasilje s strani nadrejenih ali sodelavcev. Doživljanje nekaterih čustev in stanj anketiranih ob agresiji pacienta prikazujemo v Tabeli 3.

Anketirani se ob agresiji pacienta v največji meri soočajo s strahom ( $\bar{x} = 3,43$ ), negotovostjo ( $\bar{x} = 3,33$ ) in nemočjo ( $\bar{x} = 3,05$ ), najmanj pa z nerazumevanjem sodelavcev ( $\bar{x} = 2,42$ ).

Med najpomembnejšimi povezavami nekaterih čustev in stanj lahko izpostavimo negotovost in strah ( $r = 0,783$ ,  $p = 0,01$ ), nerazumevanje sodelavcev in nerazumevanje nadrejenih ( $r = 0,683$ ,  $p < 0,01$ ) ter nemoč in negotovost

( $r = 0,612$ ,  $p = 0,01$ ). Negativno vrednost korelacije sta med drugimi imeli spremenljivki nerazumevanje sodelavcev in ogroženost ( $r = -0,387$ ,  $p = 0,01$ ).

Nadalje so nas zanimali različni ukrepi delovne organizacije za zagotavljanje varnosti ob izbruhu agresije pacienta in vpliv nekaterih drugih dejavnikov. Anketirani se v največji meri strinjajo z naslednjimi trditvami: »Zadostno število zaposlenih je pogoj za 24-urno detekcijo sprememb in zaznavanje nevarnosti« ( $\bar{x} = 4,11$ ), »Razumevanje med člani v timu vpliva na mojo kakovost dela« ( $\bar{x} = 4,03$ ), »Osebnostne značilnosti članov tima vplivajo na kakovost dela« ( $\bar{x} = 3,97$ ), »Konflikti med člani tima vplivajo na varnost in kakovost dela s pacientom« ( $\bar{x} = 3,95$ ). Slabše so ocenili naslednji trditvi: »Delovna organizacija poskrbi za supervizijo obvladovanja agresije pri pacientu« ( $\bar{x} = 2,68$ ), »Po izbruhu agresije ali varnostnega incidenta smo deležni timske obravnave in podpore« ( $\bar{x} = 2,64$ ). Najnižje pa so ocenili trditve »Za kakovostno in varno delo smo dovolj motivirani in nagrajeni« ( $\bar{x} = 2,28$ ).

Stališča anketiranih do njihovega znanja in izobraževanja obvladovanja agresije prikazujemo v Tabeli 4.

Anketirani v srednji meri menijo, da je njihovo znanje obvladovanja agresije pri pacientu zadostno ( $\bar{x} = 2,81$ ), največji poudarek dajejo večkratnim obnovitvenim delavnicam ( $\bar{x} = 4,09$ ), pisnim smernicam ukrepanja ( $\bar{x} = 3,91$ ) in praktičnim delavnicam ( $\bar{x} = 3,82$ ).

## Preverjanje hipotez

Pri preverjanju hipotez smo uporabili teste za ugotavljanje statistično pomembnih razlik v aritmetični sredini. Na začetku smo opravili preverjanje normalne

Tabela 2: Delo in nasilje na delovnem mestu ( $n = 246$ )

Table 2: Work and workplace related violence ( $n = 246$ )

Vprašanja o nasilju/Questions about violence					Odgovor/Answer		Odstotek/Percentage	
Pogostost nasilja/Frequency of violence					<i>n</i>	%		
Ste bili v zadnjem letu izpostavljeni verbalnemu nasilju s strani pacienta?					DA = 192	78,0 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 56	3–5x	<i>n</i> = 48	6–9x	<i>n</i> = 22	10 x>	<i>n</i> = 66
Ste bili v zadnjem letu izpostavljeni verbalnemu nasilju s strani sodelavcev ali nadrejenih?					DA = 50	20,3 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 26	3–5x	<i>n</i> = 14	6–9x	<i>n</i> = 4	10 x>	<i>n</i> = 6
Ste bili v zadnjem letu izpostavljeni spolnemu nadlegovanju s strani pacienta?					DA = 60	24,4 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 54	3–5x	<i>n</i> = 4	6–9x	<i>n</i> = 2	10 x>	<i>n</i> = 0
Ste bili v zadnjem letu izpostavljeni spolnemu nadlegovanju s strani sodelavcev ali nadrejenih?					DA = 2	0,8 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 2	3–5x	<i>n</i> = 0	6–9x	<i>n</i> = 0	10 x>	<i>n</i> = 0
Ste bili v zadnjem letu izpostavljeni fizičnemu nasilju s strani pacienta?					DA = 122	49,6 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 58	3–5x	<i>n</i> = 20	6–9x	<i>n</i> = 44	10 x>	<i>n</i> = 0
Ste bili v zadnjem letu izpostavljeni fizičnemu nasilju s strani sodelavcev ali nadrejenih?					DA = 4	1,6 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 0	3–5x	<i>n</i> = 4	6–9x	<i>n</i> = 0	10 x>	<i>n</i> = 0
Ste bili kdaj poškodovani na delovnem mestu?					DA = 66	26,8 %		
Če da, kako pogosto?	1–2x	<i>n</i> = 62	3–5x	<i>n</i> = 4	6–9x	<i>n</i> = 0	10 x>	<i>n</i> = 0

Legenda/Legend: *n* – število/number; % – odstotek/percentage



porazdeljenosti spremenljivk (vrednost koeficientov asimetrije in sploščenosti ter test Kolmogorov-Smirnov). Za vse spremenljivke pri hipotezah H1, H2 in H3 smo ugotovili, da niso normalno porazdeljene. Tako smo v nadaljevanju uporabili neparametrični Mann-Whitnejev test za ugotavljanje razlik v aritmetičnih sredinah.

Pri testiranju H1 smo ugotovili, da vrednost signifikance pri Pearsonovem testu  $\chi^2$  znaša  $p = 0,017$ , kar pomeni, da statistično značilno velja, da obstajajo razlike v doživljanju strahu med anketiranimi, ki so se v zadnjem letu na delovnem mestu soočili z verbalnim nasiljem s strani pacienta, in tistimi, ki se niso. Pri anketiranih, ki so se soočili z verbalnim nasiljem, je doživljanje strahu višje. Na podlagi ugotovljenega smo potrdili H1, da med doživljanjem strahu in verbalnim nasiljem ob obravnavi agresivnega pacienta obstaja povezava.

Pri testiranju H2 smo ugotovili, da vrednost signifikance pri Pearsonovem testu  $\chi^2$  znaša  $p = 0,005$ , kar pomeni, da statistično značilno velja, da obstajajo razlike v doživljanju strahu, med anketiranimi, ki so se v zadnjem letu dni na delovnem mestu soočili s fizičnim nasiljem s strani pacienta, in tistimi, ki se niso. Pri anketiranih, ki so se soočili s fizičnim nasiljem, je doživljanje ogroženosti

višje. Na podlagi ugotovljenega smo potrdili H2, da med doživljanjem ogroženosti in fizičnim nasiljem ob obravnavi agresivnega pacienta obstaja povezava.

Iz raziskave preverjanja H3 izhaja, da so višjo povprečno oceno spremenljivke zadostnost znanja za obvladovanje agresivnega pacienta podali tisti zaposleni, ki v zadnjem letu dni na delovnem mestu niso bili soočeni s fizičnim nasiljem s strani pacienta. Pri preverjanju H3 znaša vrednost signifikance  $0,012$  ( $p < 0,05$ ), kar pomeni, da statistično značilno velja, da obstajajo razlike v oceni zadostnosti znanja za obvladovanje agresivnega pacienta med anketiranimi, ki so se v zadnjem letu dni na delovnem mestu soočili s fizičnim nasiljem s strani pacienta, in tistimi, ki se niso. Pri anketiranih, ki so se soočili s fizičnim nasiljem, je doživljanje ogroženosti višje. Na podlagi ugotovljenega smo potrdili H3, da anketirani, ki so doživeli fizično nasilje s strani pacienta, v večji meri menijo, da njihovo znanje za obvladovanje agresivnega pacienta ni zadostno.

Povezanost spremenljivk pri H4 smo preverjali z modelom med različnimi vrstami nasilja nad anketiranimi. Ugotovili smo pomembne statistične korelacije med spolnim nadlegovanjem in poškodbo ( $r = 0,640$ ,  $p = 0,01$ ), spolnim nadlegovanjem in fizičnim nasiljem ( $r = 0,420$ ,

Tabela 3: Doživljanje nekaterih čustev in stanj anketiranih

Table 3: Respondents dealing with certain emotions and states

Trditev/Claim	n	Min	Max	$\bar{X}$	s
Strah	240	1	5	3,43	1,05
Negotovost	240	1	5	3,33	1,13
Nemoč	242	1	5	3,05	1,13
Neznanje	240	1	5	2,38	1,22
Jeza	240	1	5	3,02	1,16
Obupanost	242	1	5	2,85	1,18
Ogroženost	242	1	5	3,03	1,36
Nerazumevanje sodelavcev	240	1	5	2,42	1,15
Nerazumevanje nadrejenih	240	1	5	2,89	1,41

Legenda/Legend: n – število odgovorov/number of answers; Min – minimum/minimum; Max – maksimum/maximum;  $\bar{X}$  – povprečje/average; s – standardni odklon/standard deviation

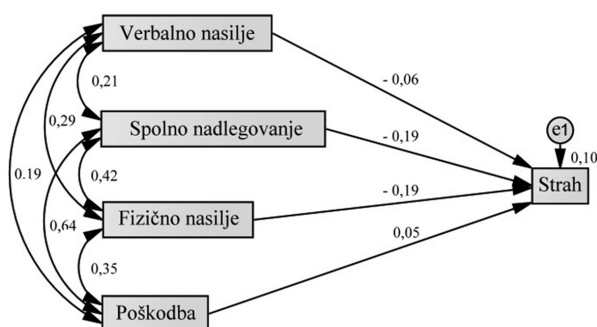
Tabela 4: Mnenje o znanju in izobraževanju na področju obvladovanja agresije

Table 4: Opinion on knowledge and training in violence management

Trditev/Claim	n	Min	Max	$\bar{X}$	s
Znanje, s katerim razpolagam, je zadostno za obvladovanje agresivnega pacienta.	244	1	5	2,81	0,86
Za varno oskrbo pacientov so osebu na voljo ustrezna usposabljanja.	244	1	5	2,50	0,90
Za varno oskrbo pacientov so potrebne teoretične delavnice.	246	1	5	3,60	0,93
Za varno oskrbo pacientov so potrebne praktične delavnice.	246	1	5	3,82	0,90
Za varno oskrbo pacientov so potrebne pisne smernice ukrepanja.	246	1	5	3,91	0,88
Za varno oskrbo pacientov je potrebno izobraževanje z večkratnimi obnovitvenimi delavnicami.	246	1	5	4,09	0,98

Legenda/Legend: n – število odgovorov/number of answers; Min – minimum/minimum; Max – maksimum/maximum;  $\bar{X}$  – povprečje/average; s – standardni odklon/standard deviation

$p = 0,01$ ), fizičnim nasiljem in poškodbami ( $r = 0,350$ ,  $p = 0,01$ ), verbalnim nasiljem in fizičnim nasiljem ( $r = 0,290$ ,  $p = 0,01$ ), kar lahko vidimo tudi na Sliki 1.



Slika 1: Povezanost med različnimi vrstami nasilja  
Figure 1: Correlation between different types of violence

H4 smo potrdili, saj smo ugotovili, da med spremenljivkami verbalno nasilje, spolno nadlegovanje, fizično nasilje in poškodba obstaja povezanost.

Ugotovimo, da s spremenljivkami verbalno nasilje, fizično nasilje in poškodba s strani pacienta lahko pojasnimo 10 % variance spremenljivke strah. Spremenljivki spolno nadlegovanje in fizično nasilje sta pomembnejša napovedovalca (Slika 1).

## Diskusija

Namen in cilj raziskave sta bila dosežena. Ugotovili smo visoko ogroženost zaposlenih v zdravstveni negi v reševalnih službah. Najpogostejše je verbalno nasilje s strani pacienta, sledi mu fizično nasilje, nato spolno nasilje. Zaskrbljujoč je tudi odstotek vertikalnega in horizontalnega nasilja v poklicni skupini. Pri svojem delu se anketirani ob agresiji pacienta v največji meri soočajo s strahom, negotovostjo in nemočjo, najmanj pa z nerazumevanjem sodelavcev.

Ugotovili smo pomembne statistične povezave med spolnim nadlegovanjem in poškodbo, spolnim nadlegovanjem in fizičnim nasiljem, fizičnim nasiljem in poškodbami ter verbalnim nasiljem in fizičnim nasiljem. Enako je bilo ugotovljeno že v raziskavi Gabrovec in sodelavci (2014). Ugotavljamo, da vrste nasilja niso zgolj posamične, ampak so med seboj povezane. Med najpomembnejšimi povezavami nekaterih čustev in stanj lahko izpostavimo negotovost in strah, nerazumevanje sodelavcev in nerazumevanje nadrejenih ter nemoč in negotovost. Negativno vrednost korelacije sta med drugimi imeli spremenljivki nerazumevanje sodelavcev in ogroženost, kar pomeni, da se anketirani, katerih stiske sodelavci razumejo, počutijo manj ogrožene na delovnem mestu.

Raziskave o nasilju nad zaposlenimi v zdravstveni negi niso pogoste in povečini pokrivajo določeno področje dela ter uporabljajo različne metodologije

raziskovanja. Ob primerljivih raziskavah lahko ugotovimo, da navajajo različne odstotke ogroženosti zaposlenih v zdravstveni negi. Fizično nasilje je v zadnjem letu doživelo 35–80 % (Clements, et al., 2005), 42 % (Hahn, et al., 2010) ali 83 % (Franz, et al., 2010) zaposlenih v zdravstveni negi. Rezultati naše raziskave so primerljivi s tujimi raziskavami. V letu 2013 je bila opravljena obsežna raziskava o nasilju nad zaposlenimi v psihiatrični zdravstveni negi z uporabo enake metodologije (Gabrovec, et al., 2014). Ugotovljeno je bilo, da je pogostost verbalnega in fizičnega nasilja v psihiatrični zdravstveni negi za 20–40 odstotnih točk večja kot v reševalnih službah. Največ nasilja tako najdemo v psihiatrični zdravstveni negi, a so odstotki na drugih področjih podobno visoki. V zdravstveni negi reševalnih služb smo zasledili tudi veliko horizontalnega in lateralnega nasilja znotraj poklicne skupine.

Rezultati raziskave so lahko izhodišče za oblikovanje celostnega pristopa k obvladovanju agresije nad zaposlenimi v zdravstveni negi reševalnih služb, kot je bilo to predlagano in izvedeno v psihiatrični zdravstveni negi, kjer preliminarni rezultati celostnega modela obvladovanja kažejo na visoko uspešnost (Gabrovec & Lobnikar, 2014).

Vse hipoteze smo potrdili. Ugotovili smo, da je pri zaposlenih, ki so se soočili z verbalnim nasiljem, doživljanje strahu večje; da med doživljanjem ogroženosti in fizičnim nasiljem ob obravnavi agresivnega pacienta obstaja povezava in da anketirani, ki so doživeli fizično nasilje s strani pacienta, v večji meri menijo, da njihovo znanje za obvladovanje agresivnega pacienta ni zadostno.

Omejitve raziskave vidimo v izbrani tehniki vzorčenja, saj lahko posamezna poklicna skupina dominira, kar vpliva na reprezentativnost vzorca. Ugotovili smo, da je v raziskavi sodeloval večji odstotek žensk kot v celotni populaciji zaposlenih na področju reševalnih služb, kar lahko pomeni, da so bile ženske bolj pripravljene sodelovati ali da je verodostojnost izpolnjenih vprašalnikov nezanesljiva. V vprašalniku smo anketirane povprašali o doseženi stopnji izobrazbe, v registru izvajalcev zdravstvene dejavnosti (BPI NIJZ 16) pa je navedena stopnja izobrazbe za dejansko delovno mesto, kjer so zaposleni, kar je onemogočilo primerjavo izobrazbene strukture med anketiranimi in registrom. Dovoljenje za opravljanje raziskave smo potrebovali le v nekaterih zavodih.

## Zaključek

Članek prikazuje rezultate opravljene raziskave prevalence vrst in pogostosti nasilja nad zaposlenimi v zdravstveni negi reševalnih služb. Predstavljeni so epidemiološki, empirični in raziskovalni podatki. Namen raziskave je bil dosežen. Raziskava pokaže, da zaposleni v zdravstveni negi reševalnih služb potrebujejo oblikovanje celostnega pristopa k obvladovanju agresije. Za ugotavljanje večje širine problematike bi bilo

koristno opraviti raziskave z enako metodologijo še na drugih področjih zdravstvene dejavnosti.

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