

# PATIENT SAFETY CULTURE IN SLOVENIAN OUT-OF-HOURS PRIMARY CARE CLINICS

## KULTURA VARNOSTI V SLOVENSKIH DEŽURNIH AMBULANTAH NA PRIMARNI RAVNI

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### ABSTRACT

#### Keywords:

safety culture,  
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care, Slovenia

**Introduction.** Patient safety culture is a concept which describes how leader and staff interaction, attitudes, routines and practices protect patients from adverse events in healthcare. We aimed to investigate patient safety culture in Slovenian out-of-hours health care (OOHC) clinics, and determine the possible factors that might be associated with it.

**Methods.** This was a cross-sectional study, which took place in Slovenian OOHC, as part of the international study entitled Patient Safety Culture in European Out-of-Hours Services (SAFE-EUR-OOH). All the OOHC clinics in Slovenia (N=60) were invited to participate, and 37 agreed to do so; 438 employees from these clinics were invited to participate. We used the Slovenian version of the Safety Attitudes Questionnaire - an ambulatory version (SAQAV) to measure the climate of safety.

**Results.** Out of 438 invited participants, 250 answered the questionnaire (57.1% response rate). The mean overall score  $\pm$  standard deviation of the SAQ was  $56.6 \pm 16.0$  points, of Perceptions of Management  $53.6 \pm 19.6$  points, of Job Satisfaction  $48.5 \pm 18.3$  points, of Safety Climate  $59.1 \pm 22.1$  points, of Teamwork Climate  $72.7 \pm 16.6$ , and of Communication  $51.5 \pm 23.4$  points. Employees working in the Ravne na Koroškem region, employees with variable work shifts, and those with full-time jobs scored significantly higher on the SAQ-AV.

**Conclusion.** The safety culture in Slovenian OOHC clinics needs improvement. The variations in the safety culture factor scores in Slovenian OOHC clinics point to the need to eliminate variations and improve working conditions in Slovenian OOHC clinics.

### IZVLEČEK

#### Ključne besede:

kultura varnosti,  
dežurna služba,  
primarna zdravstvena  
raven, Slovenija

**Uvod.** Kultura varnosti je koncept, ki opisuje, kako odnosi med vodstvom in osebjem, njihova stališča, postopki in praksa varujejo bolnike pred škodljivimi dogodki zaradi napake v zdravstvu. Z raziskavo smo želeli raziskati kulturo varnosti v slovenskih dežurnih ambulantah na primarni ravni zdravstvenega varstva in določiti dejavnike, ki so povezani z njo.

**Metode.** To je bila prečna opazovalna raziskava, ki je potekala v slovenskih dežurnih ambulantah na primarni zdravstveni ravni in je bila del mednarodne raziskave z naslovom Patient Safety Culture in European Out-of-Hours services (SAFE-EUR OOH). K sodelovanju smo povabili vse dežurne ambulante v Sloveniji (N=60), 37 jih je sodelovanje potrdilo. V teh ambulantah je bilo k sodelovanju povabljenih 438 zaposlenih. Uporabili smo slovensko različico lestvice Safety Attitudes Questionnaire - ambulatory version (SAQ - AV), s katero smo merili raven kulture varnosti.

**Rezultati.** Od 438 povabljenih je vprašalnike izpolnilo 250 zaposlenih (57,1%). Povprečna vrednost lestvice SAQ - AV je bila  $56,6 \pm 16,0$  točke. Povprečna vrednost faktorja doživetje vodstva je bila  $53,6 \pm 19,6$  točke, faktorja zadovoljstvo z delom  $48,5 \pm 18,3$  točke, faktorja ozračje varnosti  $59,1 \pm 22,1$ , faktorja ozračje timskega dela  $72,7 \pm 16,6$  in faktorja sporazumevanje  $51,5 \pm 23,4$  točke. Zaposleni v regiji Ravne na Koroškem, zaposleni z izmenskim delom in zaposleni s polnim delovnim časom so imeli statistično višji seštevek točk na lestvici SAQ - AV.

**Zaključek.** Kultura varnosti v slovenskih dežurnih ambulantah potrebuje izboljšave. Različni seštevki točk na lestvici SAQ - AV v različnih regijah Slovenije in v različnih dežurnih ambulantah kažejo na potrebo po zmanjšanju razlik in izboljšanju delovnih pogojev.

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## 1 INTRODUCTION

In the past two decades, quality in primary care has been extensively studied in Europe, including Slovenia (1-7). Several of these studies have dealt with patient safety issues, which is an important part of quality improvement (8-14). In Slovenia, patient safety features in primary health care have been investigated through the study on Quality and Costs of Primary Care in Europe (QUALICOPC), dealing with the organisation and accessibility of primary health care services (4, 15, 16).

Out-of-hours health care (OOHC) at the primary health care level is a crucial part of the availability and accessibility of the provision of healthcare (17, 18). Several studies have already been published on patient safety issues in OOHC and primary care emergency settings (8, 13, 18-21). Smits et al. reviewed patient records in OOHC clinics in the Netherlands, and determined that although patient safety incidents did occur in 2.4% of reviewed patients records in OOHC clinics, most did not harm the patients (8). A systematic review of the safety of telephone triage in OOHC clinics concluded that triage was safe in most cases. However, there was room for improvement in triage for patients who present with symptoms that indicate high risk (22). Patient safety culture in OOHC clinics as a concept, which describes how leader and staff interaction, attitudes, routines and practices protect patients from adverse events in healthcare, has been investigated in a few studies (13, 20, 21, 23). Bondevik et al. (13) found both demographic and professional differences in staff perception of patient safety in Norwegian OOHC clinics.

In Slovenia, primary OOHC clinics are located in primary health care centres. Medical care is provided mainly by family physicians with their teams, who also carry out emergency services. Slovenian OOHC clinics are open 24/7, enabling free access to patients on demand. In urgent cases, an emergency team with an ambulance is available. The team consists of a physician on call and two specialist nurses providing the emergency medical services (EMS). This is a major difference between Slovenian and most European OOHC clinics, as OOHC in the majority of the European countries is organised separately from the EMS (17).

To date, only one paper has dealt with patient safety culture in Slovenian OOHC clinics (24). We therefore decided to study this issue further to get some insight into this area. We aimed to investigate patient safety culture in Slovenian OOHC clinics, and determine the possible factors that might be associated with it.

## 2 METHODS

### 2.1 Type of Study and Settings

This was a cross-sectional study that took place in Slovenian OOHC clinics from 16 March to 1 May 2015. The study was part of an international study entitled Patient Safety Culture in European Out-of-Hours Services (SAFE-EUR-OOH), which was led by a coordinating research group from Norway. The study was a project by the European research network for out-of-hours primary health care (EurOOHnet) (25).

In Slovenia, there are 60 OOHC clinics and all were invited to participate; 37 of them agreed to do so. There are 10 health care regions in Slovenia, which correspond to geographical regions: Murska Sobota, Maribor, Ravne na Koroškem, Celje, Krško, Novo Mesto, Ljubljana, Kranj, Nova Gorica, and Koper. The participating OOHC clinics were grouped according to these regions: seven OOHC clinics from the Ljubljana region, five from the Kranj and Ravne na Koroškem regions, four from the Koper region, three from the Murska Sobota, Maribor, Celje, Krško, and Novo Mesto regions, and one from the Nova Gorica region.

### 2.2 Participants

In each OOHC clinic, the person in charge of data collection asked all the employees (physicians, nurse practitioners, nurse managers, trainees, practice nurses, radiology technicians, and office managers) to participate. Following this procedure, 438 people were invited to participate. The participation was voluntary and anonymous.

### 2.3 Data Collection

The key national researcher for Slovenia (ZKK) collected the e-mail addresses of all the invited employees of the 37 participating OOHC clinics in Slovenia. An e-questionnaire was sent by the coordinating research group in Norway to these employees on 16 March 2015. After two weeks, an automatic reminder was sent to those who had not responded. The e-questionnaires were sent using the computer programme, Qualtrics.

We used the Slovenian version of the SAQ-AV (24), which has been translated from English according to standard procedures (26). The SAQ-AV is a 62-item questionnaire where the respondents rate their agreement using a 5-point Likert scale: 1=disagree strongly, 2=disagree slightly, 3=neutral, 4=agree slightly, 5=agree strongly (27). "Not applicable" was included as a response category in all questions, and combined with missing values in the data analyses. The scores of negatively worded items were reversed, so that higher scores in the data set always indicated a more positive evaluation of the OOHC clinics' patient safety culture. Additionally, there were also some demographic questions (sex, age, function, work

experience, shifts, and type of employment). “Variable shifts” describes the different types of possible working hours: days, evenings, nights, and variable/rotating shifts. The Slovenian version of the SAQ-AV has five safety climate factors: Perceptions of Management, Job Satisfaction, Safety Climate, Teamwork Climate, and Communication (24). The total score of the SAQ-AV was calculated according to the Baker and Hershaw equation (28):

$$[(\sum \text{items } 1-62) * 100 / (5 * 62)] * 1.25 - 25.$$

Similarly, the scores of the individual factors were calculated as:

$$[(\sum \text{items}) * 100 / (5 * N \text{ of items})] * 1.25 - 25.$$

So, the minimum score was 0 and the maximum score was 100 for the overall SAQ-AV score, as well as for each of the factors.

## 2.4 Analysis

Statistical analysis was carried out using the SPSS 22.0 programme. We performed bivariate analysis using the independent t-test and one-way ANOVA, and multivariate analysis using linear regression. The variables that proved significant in the bivariate analyses were entered into the multivariate analysis. We set the limit of statistical significance at  $p < 0.05$ .

## 3 RESULTS

### 3.1 Demographic Characteristics

Out of 438 invited participants, 250 answered the questionnaire (57.1% response rate). There were 110 (44.0%) women in the sample (Table 1).

### 3.2 Attitudes to Patient Safety Culture

The mean overall score  $\pm$  standard deviation of the SAQ was  $56.6 \pm 16.0$  points; of Perceptions of Management  $53.6 \pm 19.6$  points; of Job Satisfaction  $48.5 \pm 18.3$  points; of Safety Climate  $59.1 \pm 22.1$  points; of Teamwork Climate  $72.7 \pm 16.6$ ; and of Communication  $51.5 \pm 23.4$  points.

The highest climate scores of patient safety culture were reported in the Nova Gorica region and the lowest in Koper. Perceptions of Management was scored highest in the Krško region, and Job Satisfaction, Safety Climate, Teamwork Climate, and Communication were scored highest in the Nova Gorica region. There were significant differences across regions in terms of the overall total SAQ-AV score, and of the climate factors Perceptions of Management, Job Satisfaction, and Communication (Table 2).

**Table 1.** Demographic characteristics of the Slovenian out-of-hours primary health care clinics' employees participating in the study (N=250).

Characteristic	N (%)
<b>Sex</b>	
Male	91 (36.4)
Female	110 (44.0)
Not given	49 (19.6)
<b>Age (years)</b>	
30 and lower	41 (16.4)
31-40	74 (29.6)
41-50	49 (19.6)
51-60	33 (13.2)
61 and higher	4 (1.6)
Not given	49 (19.6)
<b>Usual shift</b>	
Days	3 (1.2)
Evenings	2 (0.8)
Nights	4 (1.6)
Variable	192 (76.8)
Not given	49 (19.6)
<b>Type of employment</b>	
Full-time	191 (76.4)
Part-time	7 (2.8)
Contract	3 (1.2)
Not given	49 (19.6)
<b>Work experience (years)</b>	
5 or less	46 (18.4)
6-10	39 (15.6)
11-20	65 (26.0)
21-30	41 (16.4)
31-40	9 (3.6)
41 or more	1 (0.4)
Not given	40 (19.6)
<b>Function</b>	
Physicians	93 (37.2)
Nurse practitioners	43 (17.2)
Nurse managers	3 (1.2)
Trainees	15 (6.0)
Practice nurses	40 (16.0)
Radiology technicians	1 (0.4)
Office managers	7 (2.8)
Not given	48 (19.2)
<b>Region of Slovenia</b>	
Murska Sobota	7 (2.8)
Maribor	45 (18.0)
Ravne na Koroškem	34 (13.6)
Celje	15 (6.0)
Krško	15 (6.0)
Novo Mesto	21 (8.4)
Ljubljana	33 (13.2)
Kranj region	28 (11.2)
Nova Gorica region	2 (0.8)
Koper region	18 (7.2)
Not given	32 (12.8)

**Table 2.** The scores of SAQ-AV and its factors in the Slovenian out-of-hours primary health care clinics of different Slovenian regions.

	Murska Sobota	Maribor	Ravne na Koroškem	Celje	Krsko	Novo Mesto	Ljubljana	Kranj	Nova Gorica	Koper	P
	Mean (SD)										
Perceptions of Management	60.7 (27.5)	48.0 (22.1)	60.5 (13.5)	53.9 (16.4)	62.8 (11.0)	49.6 (20.7)	50.3 (18.9)	60.8 (12.5)	62.5 (11.8)	41.9 (25.6)	0.005
Job Satisfaction	50.6 (16.6)	45.0 (20.9)	57.7 (10.2)	41.7 (20.7)	51.7 (19.4)	41.5 (20.2)	51.4 (14.6)	50.5 (14.7)	66.7 (5.9)	43.5 (24.2)	0.018
Safety Climate	54.5 (24.1)	63.1 (22.7)	67.4 (14.6)	55.8 (16.1)	56.7 (31.2)	51.8 (22.7)	59.6 (21.3)	60.3 (19.6)	71.9 (4.4)	55.5 (24.7)	0.309
Teamwork Climate	76.2 (12.2)	65.4 (19.4)	77.8 (13.6)	67.2 (13.5)	75.6 (15.5)	73.0 (14.6)	74.2 (16.7)	77.7 (12.4)	79.2 (5.9)	69.9 (22.3)	0.055
Communication	47.6 (26.6)	48.2 (26.3)	59.3 (17.9)	41.1 (22.3)	52.8 (10.8)	49.2 (23.7)	60.1 (22.5)	51.0 (23.5)	87.5 (17.7)	44.9 (25.4)	0.033
Overall SAQ-AV score	57.9 (16.6)	53.6 (18.7)	64.5 (9.4)	51.9 (15.1)	57.5 (16.8)	52.7 (16.0)	58.5 (15.4)	60.1 (12.3)	73.5 (0.3)	51.2 (21.3)	0.035

Bivariate analyses for the overall total SAQ-AV score revealed that physicians ( $t=1.992$ ,  $p<0.048$ ), practice nurses ( $t=1.882$ ,  $p=0.049$ ), those working in variable shifts ( $t=4.842$ ,  $p<0.001$ ), those working full-time ( $t=5.581$ ,  $p<0.001$ ), and those working in the Ravne na Koroškem region ( $t=4.571$ ,  $p<0.001$ ) had significantly higher scores when compared to the other categories.

For the factor Perceptions of Management, bivariate analyses showed that those working in variable shifts ( $t=2.139$ ,  $p=0.046$ ), full-time ( $t=2.930$ ,  $p=0.004$ ), in the Ravne na Koroškem region ( $t=2.918$ ,  $p=0.005$ ), in the Krško region ( $t=2.827$ ,  $p=0.012$ ), and in the Kranj region ( $t=2.835$ ,  $p=0.007$ ) had significantly higher scores when compared to the other categories.

For the factor Job Satisfaction, bivariate analyses revealed that those working in variable shifts ( $t=4.022$ ,  $p=0.001$ ), full-time ( $t=4.550$ ,  $p<0.001$ ), and in the Ravne na Koroškem region ( $t=4.816$ ,  $p<0.001$ ) had significantly higher scores when compared to the other categories.

Bivariate analyses for the factor Safety Climate showed that practice nurses ( $t=3.821$ ,  $p<0.001$ ), and those working in variable shifts ( $t=4.506$ ,  $p<0.001$ ), full-time ( $t=5.514$ ,  $p<0.001$ ), and in the Ravne na Koroškem region ( $t=3.230$ ,  $p=0.002$ ) had significantly higher scores when compared to the other categories.

For the factor Teamwork Climate, bivariate analyses revealed that physicians ( $t=3.106$ ,  $p=0.002$ ), those working in variable shifts ( $t=2.489$ ,  $p<0.001$ ) or full-time ( $t=4.052$ ,  $p<0.001$ ), and participants working in the Maribor region ( $t=-2.735$ ,  $p=0.009$ ) had significantly lower scores when compared to the other categories.

Bivariate analyses for the factor Communication showed that physicians ( $t=2.075$ ,  $p=0.039$ ), those working in morning shifts ( $t=4.238$ ,  $p<0.001$ ), those not working in afternoon shifts ( $t=-6.064$ ,  $p<0.001$ ), those working in variable shifts ( $t=3.243$ ,  $p=0.005$ ), those working full-time ( $t=3.328$ ,  $p=0.003$ ), and those working in the Ravne na Koroškem region ( $t=2.122$ ,  $p=0.035$ ), in the Ljubljana region ( $t=2.146$ ,  $p=0.033$ ), and in the Nova Gorica region ( $t=2.208$ ,  $p=0.026$ ) had significantly higher scores when compared to the other categories. Participants working in afternoon shifts had significantly lower scores when compared to those working in morning, afternoon, or variable shifts.

Variables significantly associated with higher SAQ-AV scores in the multivariate analysis were employees working in the Ravne na Koroškem region, those with variable shifts, and those with full-time jobs. Higher scores in the factor Job Satisfaction were significantly associated with variable shifts, a full-time job, and working in the Ravne na Koroškem region. Employees working in variable shifts and having a full-time job scored significantly higher on both the Safety Climate and Teamwork Climate factors. On the contrary, those working in the Maribor region scored significantly lower on these factors. Employees working in variable shifts, having a full-time job, and working in the Ravne na Koroškem, Ljubljana and Nova Gorica regions scored significantly higher in the factor Communication (Table 3).

**Table 3.** Multivariate analysis for the scores of SAQ-AV and its five factors in the Slovenian out-of-hours primary health care clinics.

Dependent variable	Independent variables	B	95% CI	T	P
<b>Overall SAQ-AV score<sup>1</sup></b>	Ravne na Koroskem region	7.46	2.24-12.67	2.82	0.005
	Physicians	2.98	1.14-7.11	1.43	0.155
	Practice nurses	1.54	3.90-6.99	0.56	0.577
	Variable shifts	13.70	6.27-21.14	3.63	<0.001
	Full-time job	14.30	7.14-21.57	3.93	<0.001
<b>Perceptions of Management<sup>2</sup></b>	Afternoon shift	14.68	14.28-43.65	1.00	0.319
	Variable shifts	10.85	-0.53-22.23	1.88	0.062
	Full-time job	5.73	-4.78-16.24	1.07	0.284
	Maribor region	-4.60	-11.72-2.51	-1.27	0.204
	Ravne na Koroškem region	6.62	-1.12-14.36	1.68	0.093
	Krsko region	9.19	-2.15-20.55	1.59	0.112
	Kranj region	6.93	-1.47-15.34	1.63	0.105
	Koper region	-9.14	-18.72-0.43	-1.88	0.061
<b>Job Satisfaction<sup>3</sup></b>	Variable shifts	21.84	13.48-30.20	5.15	<0.001
	Full-time job	19.17	10.98-27.36	4.61	<0.001
	Ravne na Koroskem region	9.71	4.11-15.32	3.42	0.001
<b>Safety Climate<sup>4</sup></b>	Variable shifts	14.72	4.37-25.07	2.80	0.006
	Full-time job	19.93	9.67-30.19	3.83	<0.001
	Ravne na Koroskem region	5.48	-1.98-12.94	1.45	0.149
	Practice nurses	7.07	0.04-14.10	1.98	0.049
<b>Teamwork Climate<sup>5</sup></b>	Variable shifts	8.26	0.02-16.50	1.98	0.049
	Full-time job	14.67	6.75-22.60	3.65	<0.001
	Practice nurses	-3.19	-9.08-2.70	-1.07	0.287
	Physicians	2.27	-2.50-7.06	0.94	0.349
	Maribor region	-8.25	-13.62-2.87	-3.03	0.003
<b>Communication<sup>6</sup></b>	Variable shifts	19.15	3.65-34.65	2.44	0.016
	Full-time job	12.89	0.06-25.73	1.98	0.049
	Physicians	5.03	-1.02-11.09	1.64	0.103
	Morning shift	23.71	-9.95-57.38	1.39	0.166
	Afternoon shift	-0.82	-35.41-33.77	-0.05	0.963
	Ravne na Koroskem region	10.70	2.24-19.15	2.49	0.013
	Ljubljana Region	9.39	0.70-18.08	2.13	0.034
	Nova Gorica region	34.03	3.86-64.20	2.22	0.027

<sup>1</sup> F=19.445, df=5, p<0.001, adjusted R<sup>2</sup>=0.30<sup>4</sup> F=18.266, df=4, p<0.001, adjusted R<sup>2</sup>=0.24<sup>2</sup> F=3.981, df=8, p<0.001, adjusted R<sup>2</sup>=0.10<sup>5</sup> F=11.419, df=5, p<0.001, adjusted R<sup>2</sup>=0.19<sup>3</sup> F=36.790, df=3, p<0.001, adjusted R<sup>2</sup>=0.33<sup>6</sup> F=6.286, df=8, p<0.001, adjusted R<sup>2</sup>=0.16

#### 4 DISCUSSION

This was the first study investigating patient safety culture in Slovenian OOHC clinics (24). It showed that the Teamwork Climate scores were the highest and Job Satisfaction scores were the lowest among the employees. The fact that Teamwork Climate scores were the highest correlates with the results of the Slovenian study on ethical dilemmas in family medicine, where teamwork also seemed to be functioning well (29, 30). Teamwork as part of safety culture also scored high in hospital settings in Slovenia (10). Teamwork is very important in primary care, as health care providers with different professional backgrounds are engaged in the management of patients (31). This is also true for the OOHC clinics. In this setting, close cooperation between different professions is required (17). In fact, teamwork climate has been recognised as a key patient safety issue in OOHC clinics (24, 27, 32), and quality of performance seems to be associated with teamwork quality (33, 34).

Slovenian workers in OOHC clinics are, however, often not satisfied with their jobs, and this also seems to be reflected in their perceptions of patient safety culture. This finding was expected, as there is a big shortage of both physicians and nurses in Slovenia, and many are overburdened (35-37). In Slovenia, OOHC and emergency services are usually performed by the same team. Physicians often work in OOHC part-time, and in addition to their official working hours. In some regions, they work at two different job posts at the same time - in their own practice and in OOHC (17, 36). This is especially true for rural settings in Slovenia. Since the organisational domain is important in terms of safety culture (38), the varying organisational models in Slovenian OOHC clinics might be partly responsible for the observed differences in the SAQ-AV factor scores across the Slovenian regions.

Several factors contributed to the variation in climate scores across groups of employees in Slovenian OOHC clinics. Employees working as physicians or nurses, working in variable shifts and working full-time, had the highest scores. Working in variable shifts could contribute to a higher perception of patient safety, because the employees that work variable shifts may feel more competent to manage patients in different circumstances. The finding that working full-time possibly contributes to higher perception of patient safety is interesting. Studies have focused more on the impact of longer working hours and overtime working on patient safety (39), and we could not find any study on the associations between patient safety and part/full-time working hours. We anticipate that employees working part-time are not so confident in their performance (40), and thus perceive patient safety lower.

The scores of some factors varied across different Slovenian regions. This was especially true for the factors Perceptions of Management and Communication. Communication about safety issues in teams is very important and affects patient safety (41). It is probably connected to Perceptions of Management, as here also communication plays an important role.

It seems that the factors revealed to be important for a culture of safety in our study explained a large degree of the variation of the safety culture in Slovenian OOHC clinics, but according to the variances, the multivariate models explained are not the only ones.

Safety culture in OOHC has also been studied in Norway (13), and safety culture in emergency departments has been studied in the USA (21). In Norway and in the USA, the factor Job Satisfaction scored highest (13, 21), while in our study, it scored lowest. In our study, physicians scored significantly higher than nurses in Communication and Teamwork Climate, and in Norway (13), nurses scored higher in Safety Climate and Job Satisfaction. In the study from the USA (21), there were no differences between full-time and part-time workers regarding safety climate scores, which is not in line with the results of our study. It seems that safety climate in OOHC differs across countries, and further studies are needed to gain a deeper insight into these differences and their causes. This study has some limitations. It aimed to include all OOHC clinics in Slovenia; however, only two-thirds of them were willing to participate. Similarly, only 250 respondents out of 438 invited employees filled in the questionnaire. Even though the proportion of participating clinics and the response rate of employees were moderately high, one still has to be careful about generalising the findings to the OOHC clinics of the entire country. On the other hand, the results of this study correlated with similar Slovenian studies, which gives us confidence in their reliability and validity.

#### 5 CONCLUSION

Safety culture in Slovenian OOHC clinics needs improvement. The variations in safety culture factor scores in Slovenian OOHC clinics point to the need to unify working conditions in all Slovenian OOHC clinics. When planning safety culture improvements, the factors that were shown to be important in this study should be considered. We suggest reducing workload, more full-time employment, and educating communication and management skills. Further studies are needed to detect other possible factors important in safety culture in OOHC clinics, and to reveal the possible causes of the current situation.

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## CONFLICTS OF INTEREST

The authors declare that no conflicts of interest exist.

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## ETHICAL APPROVAL

The study was approved by the National Ethics Committee of the Republic of Slovenia (No. 25/11/14).

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