# The Knowledge of Teachers as a Key Factor in Providing First Aid in Primary Schools

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#### **Abstract**

Background: In addition to home, school is the second most important living environment in a child's life. Injuries that most often occur in school and on the school playground are the primary cause for the death of children. In case of sudden health problems in schools, teachers are usually the first to be at a child's side. We were interested in how well teachers in primary schools are familiar with first aid measures in selected health cases.

Methods: Collecting of data in the framework of the descriptive method of research was conducted with an anonymous survey questionnaire using the online program 1ka. One hundred and ninety-two teachers filled in the survey questionnaire in its entirety.

Results: Teachers have a lack of theoretical knowledge of first aid in life-threatening situations. In four of the nine questions on the selected first aid measures, the teachers who teach at the upper level of primary school showed statistically significantly poorer knowledge compared to the teachers who teach at the lower level of primary school.

Conclusions: Teachers at the lower level who teach in the early stage of the education system displayed better theoretical knowledge of first aid. This may be the result of a difference in their educational role during the schooling of an individual pupil. While a lower-level teacher who is associating with the particular pupil all day long is involved in the general education of the pupil, the teacher at a higher-level teaches a specific subject and only has contact with a certain pupil a few hours a week. Theoretical knowledge is only a basic prerequisite for performing first aid, practical skills are required as well. It is essential that teachers in primary school renew and upgrade their knowledge of first aid, as doctrinal guidance changes and first aid knowledge is also forgotten. If teachers are responsible for the practical performance of first aid measures on an injured or suddenly ill child, the school principals are responsible for ensuring the conditions for the implementation of these measures, including the provision of training for their employees.

**Keywords:** injuries, illness, first aid, trauma, children, education, teacher.

Article received: 10.01.2019.

Article accepted: 10.02.2019.

**DOI:** 10.24141/1/5/1/2

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## 1. Introduction

After the time spent at home, school represents the second most crucial environment in a child's life. Children are lively, they run, compete with each other, but their coordination is not yet thoroughly developed, and they are also less cautious when they are playing, so an accident can occur rather quickly<sup>1</sup>. However, movement and playing are essential for the comprehensive development of a child. Parents therefore reasonably expect the school to provide adequate safety for their child<sup>2</sup>. When sudden health problems in a child occur at school, teachers are the ones who are usually first at a child's side and must help him or her3. This is why it is essential for the teachers who are with the child to be adequately trained to perform first aid, which is also morally and legally binding. This shows that teachers need to be trained about the correct performance of first aid, as appropriate and timely first aid in case of accidents reduces the consequences of an injury or even saves lives.

Children up to the age of 14 represent about 25% of the world's population; in this age period, injuries are the leading cause of death, and a fifth of them occurs in school environment<sup>4</sup> (Huang et al., 2014). In the United States of America, injuries are also the leading cause of child deaths, 40% of which occur on school playgrounds and in schools<sup>5</sup>. In China, injuries are the cause of death in half of the children aged between five and nine years. It was determined that primarily injuries related to sports activity occur in the school environment, which more frequently require hospital care in comparison to injuries in the home environment<sup>6</sup>. In Slovenia, the most commonly injured are adolescents aged 13 years, more often boys than girls; almost 6% of more serious injuries requiring medical assistance occur in school or on the school playground during regular classes<sup>7</sup>. The risk of child accidents is, therefore, the greatest in the school environment. The prevalence of chronic diseases, such as asthma, diabetes and allergies, is also increasing among children, but less serious acute complications of chronic disease states are observed among children and adolescents compared to other age groups8.

Slabe and Fink<sup>9</sup> analysed the knowledge of the first aid measures of kindergarten teachers and their assistants in Slovenian kindergartens. The authors determined that kindergarten teachers and their assistants self-assess their knowledge to be quite good, but their actual knowledge of the basics of first aid turned out to be quite the opposite – rather poor. We did not discover more comprehensive research studies determining the knowledge of first aid among teachers in schools in Slovenia, or even in Europe. That is why we focused on determining the knowledge of basic first aid measures among teachers in primary schools.

This research aimed to answer the following questions:

- ► What is the theoretical knowledge of the selected first aid measures among primary school teachers?
- ▶ Are there differences in the knowledge of the selected first aid measures between the teachers who teach at the lower level and those who teach only at the upper level?
- ► What is the opinion of teachers regarding the renewal of first aid knowledge?

# 2. Methodology

The research represents a cross-sectional study, in which we used the quantitative approach of scientific research work. Data collection was carried out by means of an anonymous survey questionnaire from February to April 2017. The professional basis for the formulation of the questionnaire was the International First Aid and Resuscitation Guidelines 201610. The questionnaire (online web survey) consisted of general demographic data of the respondents and two sets of closed-type questions (knowledge of the selected first aid measures and the opinion on first aid training). We tested the questionnaire on a sample of fifteen people and did not change it afterwards in terms of content. A request to participate in the research and a hyperlink to the online survey was sent by e-mail to randomly selected primary schools across Slovenia. We obtained the list of primary schools from the website of the Ministry of Education, Science and Sport of the Republic of Slovenia. Using a draw, we selected schools from twelve statistical regions in Slovenia, five schools from each region. Due to an inadequate response after the first e-mail, an additional multi-stage random sampling was performed twice. The subject of the research was primary school teachers across Slovenia, regardless of gender and age. The survey questionnaire was initially filled in by 279 teachers, and it was correctly completed by 192 teachers, representing the final sample of the population.

The obtained quantitative data were processed using Microsoft Excel 2007 and displayed as percentages of correct/incorrect answers. The statistical characteristics of the differences between the groups in the proportions of correct/incorrect answers were determined by means of the  $c^2$  test (Sigma Stat, Systat Software, San Jose, California, USA).

### 3. Results

# 3.1. Demographic data of the respondents

In total, the questionnaire was filled in its entirety by 192 respondents, four times as many women as men (Figure 1). Seven per cent of the respondents were younger than 30 years and 7% older than 60, while other age groups (from 30 to 40 years, from 40 to 50 and from 50 to 60 years) did not differ significantly in terms of the number of the respondents. Over half of the re-

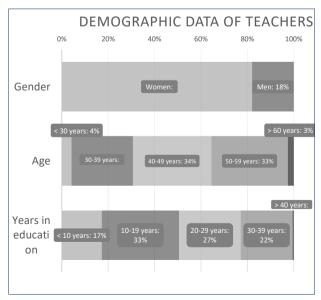


Figure 1. Demographic data of the surveyed teachers in primary schools across Slovenia (n= 192)

spondents have between 10 and 29 years of experience in the field of education. Roughly, a fifth of them have been employed in education for less than ten years, and just over 20% of the respondents have been teaching for more than 30 years (Figure 1). A quarter of the surveyed female and male teachers are employed in primary schools in the Upper Carniola Statistical Region of Gorenjska, while about a fifth in the Central Slovenia Statistical Region (Osrednjeslovenska regija). Among the other ten regions, seven regions were represented by 5–9% of all surveyed teachers, while three regions with less than 4%.

Since we were interested in the statistical differences between the teachers who teach at different levels, we divided the surveyed teachers according to the level at which they teach: A) only lower level (1st to 5th grade, children 6 to 11 years old), B) lower and upper levels (1st to 9th grade, children 6 to 15 years old) and C) only upper level (6th to 9th grade, children 11 to 15 years old). Just over a third of the surveyed teachers teach only at the lower level. In the other two groups, the shares of teachers were lower than one-third; however, the difference was not statistically significant (Figure 2).

# 3.2. Theoretical knowledge of teachers on the selected first aid measures

We were interested in what the first measure is when approaching a suddenly ill or injured person. Three quarters of the teachers identified that it is the concern for safety, which is the correct answer. There were no statistical differences regarding the proportion of correct answers to this question among the groups of respondents at different levels of teaching (p > 0.05). Other surveyed teachers stated the following as the possible answers in approximately the same percentages: 1) calling emergency medical help, 2) clearing airways or 3) positioning the suddenly ill or injured person into the correct position. Almost all respondents (98%) answered that they would call the number 112 if they needed urgent medical help, four respondents (2%) would call 113, which is the phone number of the police. Of all the surveyed teachers, 65% correctly answered the question about the purpose of AED (Automatic External Defibrillator). 14% believed that the abbreviation AED was a label for the register of defibrillators, while 21% of the surveyed teachers were not familiar with AED.

In the case of a child who lies motionless and does not respond to calls (unconsciousness), about 70% of the teachers who teach at the lower level and almost 80%

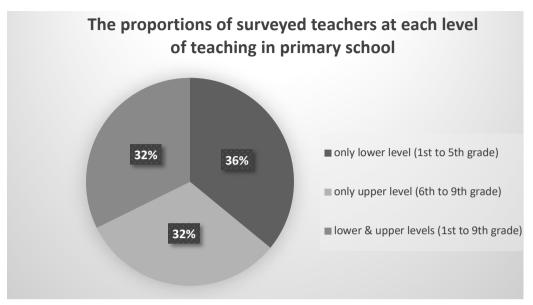


Figure 2. The proportion of surveyed teachers (n =192) who teach at individual levels in a primary school

of those who teach at the lower and upper levels would first check the vital signs (correct answer), which are statistically significantly (p < 0.05) better proportions of correct answers compared to the group of teachers who teach only at the upper level (Figure 3). Among the incorrect answers to the question (Which is the first measure if a child is unresponsive?), the decision to place the child in the lateral position prevailed. A good third of the teachers of the upper level would first place

an unresponsive child in a stable lateral position. In the other two groups, the surveyed teachers chose the lateral position less frequently (14 of the 69 teachers who teach only at the lower level and 10 out of 62 teachers who teach at both levels), but it was still the prevailing answer among the incorrect ones. A small number of the respondents (11 out of all 192 teachers) decided for the other two incorrect answers (starting artificial respiration or chest compressions).

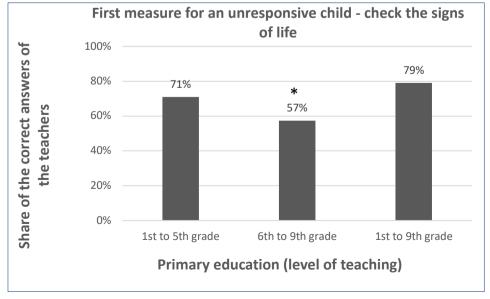


Figure 3. The proportion of teachers who would first check the vital signs in case of an unresponsive child (lower level n = 69, upper level n = 61, lower and upper levels n = 62).

\* Statistically significantly different from the other two groups, p < 0.05.

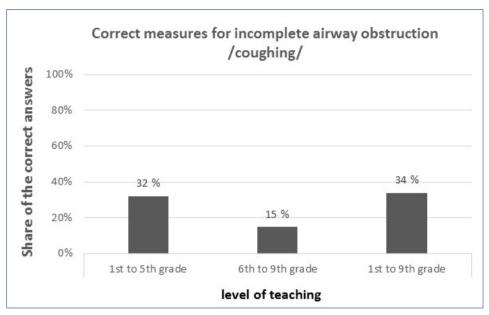


Figure 4. The proportion of teachers who would encourage coughing in case of partial airway obstruction (lower level n= 69, upper level n= 61, lower and upper levels n= 62).

\* Statistically significantly different from the other two groups, p < 0.05.

In the case of a child who choked at lunch, but is coughing heavily and can talk, about one third of the teachers in the groups who teach at the lower level and at the lower and upper levels, recognised that this is a partial airway obstruction (Figure 4).

In such a case, the correct action is to encourage coughing. In the group of teachers who teach at the upper level, the proportion of correct answers was halved in comparison to the other two groups, which is statistically significantly lower (p < 0.05). The majority of all the teachers (114 out of 192 respondents) believed that the correct measure with regards to the child who started choking while eating but can still talk and cough is five strokes on the back between the shoulder blades, which is an incorrect measure in the case of partial airway obstruction. The proportion of the teachers at the upper level who chose this incorrect action was about 35% higher than in the other two groups of teachers, but the difference was not statistically significantly different (Figure 5).

When asked about the relationship between chest compressions and rescue breaths when resuscitating a child, a little less than a quarter of the surveyed teachers from the lower level and those who teach at the lower and upper levels selected the correct answer of 30 chest compressions and 2 rescue breaths (Figure 6). The proportion of the respondents from the upper level who correctly answered this question was 43% lower

than in the other two groups; however, the difference was not statistically significantly different (p > 0.05).

Concerning the spot of performing chest compressions while resuscitating a child, 37% of all the surveyed teachers knew that the centre of the chest was the correct spot for chest compressions (Figure 7). Almost half of all the surveyed teachers decided that the best spot for chest compressions in a child is the centre of the breastbone and 10% of all respondents decided that the right place for chest compressions is between the breast nipples, which are wrong answers. We did not find statistically significant differences (p > 0.05) in the proportion of correct/incorrect answers to this question between the groups of teachers who teach at different levels (Figure 7).

In the case of severe bleeding from a wound on the forearm, 57% of all the surveyed teachers would first apply direct pressure to the bleeding wound with a clean cloth or sterile gauze, which is correct (Figure 8). A quarter of all respondents would immediately apply a compression bandage to the bleeding wound as the first measure, while 18% of all surveyed teachers would immediately apply an arterial (Esmarch) bandage to the bleeding limb. We did not determine statistically significant differences (p > 0.05) in the proportion of correct/incorrect answers to this question between the groups of teachers teaching at different levels (Figure 8).

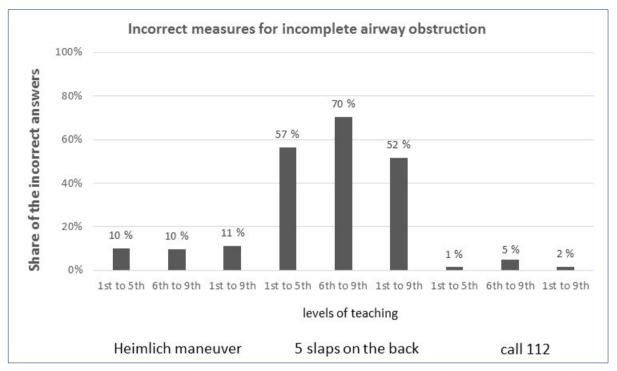


Figure 5. The proportion of incorrect answers to the question of which measure is first performed in case of partial airway obstruction (lower level n= 69, upper level n= 61, lower and upper levels n= 62)

The groups of teachers teaching at different levels did not statistically significantly differ in the proportion of correct answers to the question about treating the wrist fracture (Figure 9). Concerning the question of how to treat a hand showing signs of fracture in the wrist area, 91% of all surveyed teachers would treat a broken limb properly by immobilising it with a triangular sling (bandage). Twelve of the 192 teachers (6% of all respondents) chose 'Because we do not want to harm him or her, we seek professional help' as the correct answer.

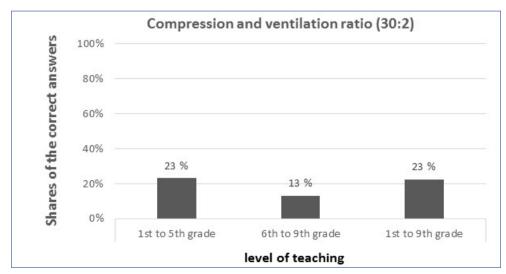


Figure 6. The proportion of teachers who have chosen the correct ratio of chest compressions and rescue breaths (30 compressions and 2 breaths) when resuscitating a child (lower level n = 69, upper level n = 61, lower and upper levels n = 62)

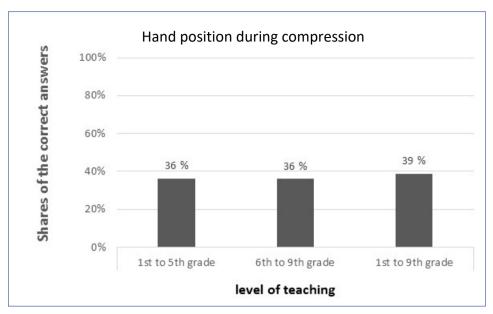


Figure 7. The proportion of teachers who selected the centre of the chest as a spot to perform chest compressions, which is correct

(lower level n = 69, upper level n = 61, lower and upper levels n = 62)

# 3.3. Motivation for first aid training

A little less than half (46%) of the participants in the survey took part in their most recent first aid training less than five years ago. With about a quarter of the teachers (24%), between five and ten years had passed since the most recent training, while with 30% of all the respond-

ents, more than ten years had passed since the most recent training. We did not find statistically significant differences (p > 0.05) between the groups in this regard.

Almost all the respondents would attend short, organised first aid courses if they had the opportunity (Figure 10). About half of all the teachers would take part in first

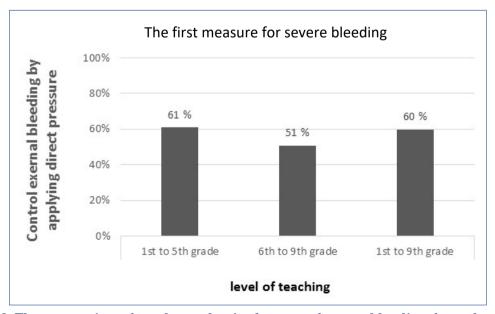


Figure 8. The proportion of teachers who, in the case of severe bleeding from the wound on the forearm, would first apply pressure on the wound (lower level n= 69, upper level n= 61, lower and upper levels n= 62)

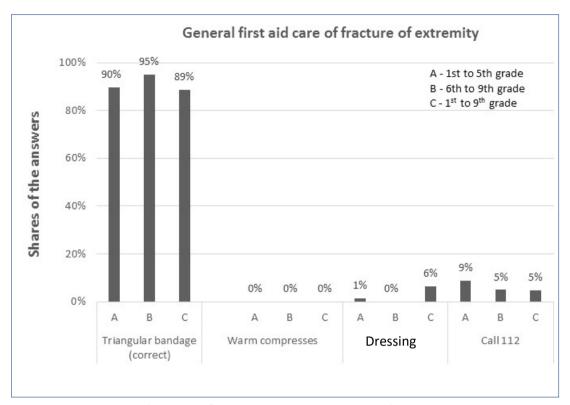


Figure 9. The proportion of teachers' answers to the question of how to treat a wrist that shows signs of fracture (lower level n = 69, upper level n = 61, lower and upper levels n = 62)

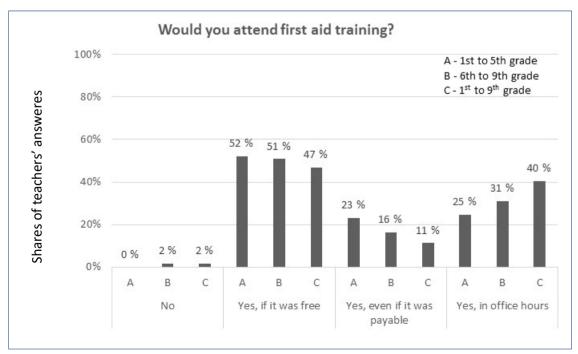


Figure 10. The proportion of teachers' answers to the question of whether they would attend first aid training and under what conditions
(lower level n = 69, upper level n = 61, lower and upper levels n = 62)

aid training every 3–5 years in their spare time, but only if they were free of charge. A quarter of all the teachers would attend training only if they were organised during working hours, while 17% of all the respondents would attend them at any time, even if the courses required payment. Individual groups of teachers (according to the level at which they teach) did not statistically significantly differ (p > 0.05) in their answers with regards to the participation in first aid courses.

### 4. Discussion

The research involved a higher number of women than men, which is expected, as 97% of teachers in Slovenia in the first two triads of primary school are women, while there are 79% of women at the upper level of primary school<sup>11</sup>. The research included the respondents from different age groups and with different lengths of work experience. One third of the respondents have been working in education between 10 and 19 years, while about half of them have been working for more than 20 years, which shows that the survey included experienced teachers.

# 4.1. Knowledge of first aid

The surveyed teachers are well aware of the emergency call number, as this number would be called in case of an emergency by 98 % of the respondents. This is not surprising, as other researchers also determined a good knowledge of this number among the general public in Slovenia<sup>12,13</sup>. All the surveyed teachers have also shown good knowledge of the basic treatment of a fracture and of the approach to an injured or suddenly ill person. More than 90 % of the surveyed teachers would immobilise a broken limb with a triangular bandana, which is correct. In her survey conducted among Slovenian motor vehicle drivers, Dolenc<sup>14</sup> also determined the highest percentage of correct answers in the treatment of a fracture. Three quarters of all the teachers knew that when approaching an injured or a suddenly ill person, they should first ensure safety, which shows that they are aware of the importance of a safe approach to the injured person in the initial stage of performing first aid and thus ensuring the general safety during the rescue for all present at the scene of the accident. In the case of an unresponsive child, more than half of all the teachers would first check for vital signs among the first direct measures in case of an injury, which is correct. Approximately a quarter of all the surveyed teachers would immediately place an unresponsive child into a stable lateral position. Checking for vital signs (especially breathing) in an unresponsive (unconscious) person is urgent, because on this basis we decide whether it will be necessary to perform resuscitation.

In contrast, as many as 35% of the surveyed teachers were not familiar with what the AED was intended for and a quarter of the respondents would immediately apply a compression bandage in the event of severe bleeding without temporarily stopping the bleeding beforehand. Only about half of the respondents would approach the injury with severe bleeding in such a way that the bleeding would first be stopped by direct pressure on the wound, which is correct. Serious bleeding is treated with a compression bandage, but for this procedure, we need the appropriate bandage material, which is usually not available at hand, which is why this is only a secondary measure.

Some other responses of the teachers also indicate their lack of knowledge of first aid in life-threatening situations. For example, only about 40% of all the surveyed teachers knew that the correct spot for performing chest compressions is in the middle of the chest. Participants also showed a lower level of knowledge of the measures in the event of partial airway obstruction. We have determined poorer knowledge especially of the teachers at the upper level of primary school, although nearly half of them had attended first aid training in the previous five years. Only 15% of the surveyed teachers at the upper level recognised the encouragement of coughing as the correct measure. This result of the teachers of the upper level was half as good as the result of the other two groups of teachers (those who teach at the lower level and those who teach at both the lower and the upper levels). A low percentage of correct answers was also observed in the ratio of chest compressions and rescue breaths (30:2), as only 13% of the teachers who teach only at the upper level were familiar with the correct ratio; the figure was 23% of all the other surveyed teachers. The teachers who teach at the lower level answered four of the total of nine questions related to the knowledge of first aid measures statistically significantly better. This result shows that primary school teachers who teach at the lower level have better first aid knowledge than the teachers who teach at the upper level. This may be the result of a difference in their educational role during the schooling of an individual pupil. The teachers at the lower level teach a younger and more vulnerable population, spend more time with these children and obviously, given the level of the children's development, have more parental attitudes towards children. They are involved all day long in the general all day long education of the a particular pupil. In contrast, the teachers at a higher level teach a specific subject and have contact with a certain pupil a few hours a week. This is also followed by the curriculum at the Faculty of Education in Ljubljana<sup>15</sup>, where it is evident that students at the lower level have a greater range of educational subjects than others in the courses connected with the upper level. In the research by the British Red Cross, the care for children under the age of five was also identified as the main incentive factor for first aid learning<sup>2</sup>. In the curriculum of the Faculty of Education, University of Ljubljana<sup>15</sup>, where future teachers are educated, there are no courses connected to first aid or health education. Jan<sup>16</sup> also emphasised this as one of the most critical findings in a study on the viewpoints of the students of primary school education on health education. The author found that the students who completed the study do not feel able to take action when a child is injured. Most of the surveyed students of primary school education agreed that teachers should be familiar with the basics of health education, complete a first aid course and often renew the knowledge related to the protection and preservation of health.

# 4.2. Renewal of first aid knowledge

We have determined that slightly less than half (46%) of the respondents had completed a first aid course five years ago or less and about a third (29%) more than a decade ago. Similar results were obtained by Slabe and Fink<sup>9</sup> among the kindergarten teachers and their assistants, with over half of them (52%) completing their most recent first aid training in the previous five years. In a survey conducted among Belgian teachers (4273 respondents), Mpotos and collegues<sup>17</sup> determined that almost all pre-trained teachers (75%) had completed their training over two years ago. Of these teachers, more than half (58%) attended the training in the framework of the Red Cross. In Slovenia, the Red Cross also organises this sort of additional first aid training for teachers and other employees in major work organisations. In addition, in Slovenia, all persons who wish to pass the test for motor vehicle drivers must pass the first aid test. This ensures that practically every adult person in Slovenia is acquainted at least once with the basic measures of performing first aid on the suddenly ill or injured person. In this light, our results need to be carefully compared with other countries of the European Union, where there are no such requirements regarding the first aid test before the driving test. In the Eurotest study on first aid in Europe performed in 2013, it was found that nearly one-third of the motorists interviewed said they had never attended a first aid course and some 22% had last attended a first aid course more than ten years ago. Only about one-third had attended a first aid course as a mandatory prerequisite for obtaining their driving license<sup>18</sup>. In Portugal, Italy, Spain and Belgium, the number of motorists who had never attended a first aid course was much higher than the European average. The number was also remarkably high in France and Finland. Notably, these are all countries with no statutory obligation to attend a first aid course<sup>19</sup>.

Nearly all the respondents would decide to renew their knowledge through short, organised first aid training sessions every three to five years, while only two out of 192 thought that there was no need for this. About half of the surveyed teachers in our research would take part in free training, even in their spare time, less than a quarter of them even if they had to pay up to €50, while others only if it was organised within working hours. Dolenc<sup>14</sup> came to similar conclusions about the renewal of first aid knowledge, as the vast majority of the surveyed motor vehicle drivers in Slovenia responded that they would attend a free course if it were offered to them. However, when in the second part of her research, 620 randomly selected persons from four different regions of Slovenia were actually invited in writing to a free refresher course, only 3% responded. Slabe<sup>13</sup> also draws attention to the ambivalent attitude of modern Slovenian society to various aspects of first aid, including training. These results are also in line with the conclusions by Potts and Lynch<sup>20</sup>, who determined in a survey among teachers on this topic that almost half (45%) of the respondents stated that they did not have time for a course, while a good third (34%) of the teachers did not find first aid training important. In addition to the financial burden, a special problem in additional training of adults is the organisation of training and the coordination with regular work obligations. Zinckernagel and colleagues<sup>21</sup> discovered that school management and teachers have a positive attitude to the idea of resuscitation training in schools, but their numerous responsibilities and a general lack of time raise the question of whether they will give priority to first aid or other contents teachers must also master. Conventional first aid courses may not be the best way of renewing knowledge anymore, because, in the time of modern information technology, a variety of knowledge can be acquired at home or, for example, in e-classrooms offered in Slovenia by the public institution Arnes Učilnice (Arnes Classrooms)<sup>22</sup>. This means that everyone could choose the time to upgrade his or her knowledge of first aid.

It should be emphasized that theoretical knowledge is only a basic prerequisite for performing first aid, practical skills are of key importance. In our survey, we were not testing practical first aid skills. It is quite possible that as far as practical knowledge is concerned, a poorer result would be obtained, since first aid is primarily the active implementation of individual measures (calling 112, resuscitation by performing chest compressions and artificial respiration, applying a compression bandage). According to Arding<sup>23</sup>, the knowledge that is not renewed and consolidated is quickly forgotten; this is particularly true for the practical skills of performing first aid. At present, at what intervals the renewal courses of first aid for lay people should be implemented has not been sufficiently explored. Some point out that the practical knowledge of resuscitation with the use of an external defibrillator should be renewed every three to six months<sup>24</sup>, while the guidelines of the International Federation of Red Cross and Red Crescent Societies<sup>25</sup> recommend that the knowledge of first aid is renewed every five years, which is also more pragmatic and easier to implement.

The importance of the adequate provision of first aid in primary schools in Slovenia was also emphasised by the National Institute of Public Health, which, during the course of our research, issued recommendations for action in primary schools in case of emergency situations and suddenly emerging disease signs<sup>26</sup>. The authors emphasise that teachers and other school personnel should undergo training for performing first aid and resuscitation. The authors aimed to establish minimum standards and to ensure that each student has equal opportunities of care in an emergency. Similar guidelines have been adopted in some other countries as well, such as in Great Britain<sup>27</sup>. They emphasise that the education of teachers is of great importance and schools must have appropriate procedures, which includes the knowledge of all employees about the trained teachers, contact numbers, appropriate equipment and facilities, etc.

Efforts to maximise the level of provision of first aid in primary schools – based on the examples of good practice in some countries – can also be seen in the introduction of the so-called school nurses<sup>28, 29, 30</sup>. However, these experiences also show that it is essential that other school personnel be trained in first aid as well, even if schools have nurses and doctors.

### 5. Conclusion and recommendations

Teachers in primary schools have a lack of theoretical knowledge of first aid measures in life-threatening situations. Being familiar with these measures is of paramount importance, since in some cases it may even mean a difference between the life and death of a child. A higher level of knowledge was determined in the group of teachers who teach at the lower level of primary school. This can be connected with their more educational role in the school system, since they teach a younger population of children aged 6 to 11 years, with whom they spend more hours in the day in comparison with their colleagues at the upper level teaching professional courses. Good theoretical knowledge is a basic condition, while for the successful performance of first aid, practical skills are also required, the knowledge of which was not found in our research. Teachers want more first aid courses in the framework of their training, but this is a challenge from the perspective of time, finances and organisation. If teachers are responsible for the performance of direct first aid measures on an injured or suddenly ill child, the principals are responsible for ensuring the conditions for the implementation of these measures, including the provision of training for their employees.

Less than half of the teachers who participated in the research had their most recent first aid training in the last previous years, while thirty per cent of the respondents had it more than ten years ago. Any knowledge that is not used is forgotten, which is also true for the knowledge of first aid. Modern recommendations state that first aid knowledge should be renewed at least every five years. At such an interval, the European guidelines for resuscitation are also being updated. In addition to the general guidelines on the training of laypersons in first aid, it is also essential that each country adopt specific recommendations that take into account possible national specificities. Thus, in Slovenia, every adult individual who passes a driving test for motor vehicles meets with first aid in the framework of a mandatory first aid test. The guidelines should also take into account specific groups of lay people (kindergarten teachers, coaches in sports societies and clubs, support staff in sheltered housing complexes for the elderly, etc.). At the national level, guidelines for emergency response in primary schools in Slovenia were issued in 2018, which will need to be implemented in the following years. In countries without school nurses all the employees at a school, not only teachers, are responsible for providing first aid in primary schools.

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# ZNANJE UČITELJA KAO KLJUČNI ČIMBENIK PRUŽANJA PRVE POMOĆI U OSNOVNIM ŠKOLAMA

#### Sažetak

Uvod: Uz dom, škola je druga najvažnija djetetova životna okolina. Ozljede koje se najčešće događaju u školi i na školskom igralištu glavni su uzrok smrti u djece. U slučaju iznenadnih zdravstvenih problema u školi učitelji su obično prvi koji su uz dijete. Zanimalo nas je koliko su učitelji u osnovnim školama upoznati s mjerama pružanja prve pomoći u određenim zdravstvenim slučajevima.

Metode: Prikupljanje podataka deskriptivnom metodom provedeno je s pomoću anonimnog anketnog upitnika putem *online* programa 1ka. Upitnik su u cijelosti ispunila 192 nastavnika.

Rezultati: Učitelji nemaju teoretsko znanje prve pomoći u situacijama opasnima po život. U četiri od devet pitanja o odabranim mjerama pružanja prve pomoći učitelji u višim razredima osnovne škole pokazali su statistički značajno slabije znanje u odnosu na učitelje u nižim razredima osnovne škole.

Zaključci: Učitelji u nižim razredima osnovne škole koji predaju u ranom stadiju obrazovnog sustava pokazali su bolje teoretsko znanje prve pomoći. To može biti posljedica razlike u njihovoj obrazovnoj ulozi tijekom školovanja učenika. Dok učitelj u nižim razredima cijeli dan provede s učenikom i uključen je u opće obrazovanje učenika, učitelj u višim razredima predaje jedan određeni predmet i dolazi u kontakt s učenikom samo nekoliko sati tjedno. Teoretsko znanje samo je osnovni preduvjet za pružanje prve pomoći, za to su potrebne i praktične vještine. Bitno je da nastavnici u osnovnoj

školi obnove i usavrše svoje znanje prve pomoći, jer se smjernice mijenjanju i znanje se prve pomoći zaboravlja. Ako su nastavnici odgovorni za pružanje mjera prve pomoći ozlijeđenom ili iznenada oboljelom djetetu, ravnatelji su odgovorni za osiguravanje uvjeta za provedbu tih mjera, uključujući i osiguranje edukacije za svoje zaposlenike.

Ključne riječi: ozljede, bolest, prva pomoć, trauma, djeca, obrazovanje, učitelj