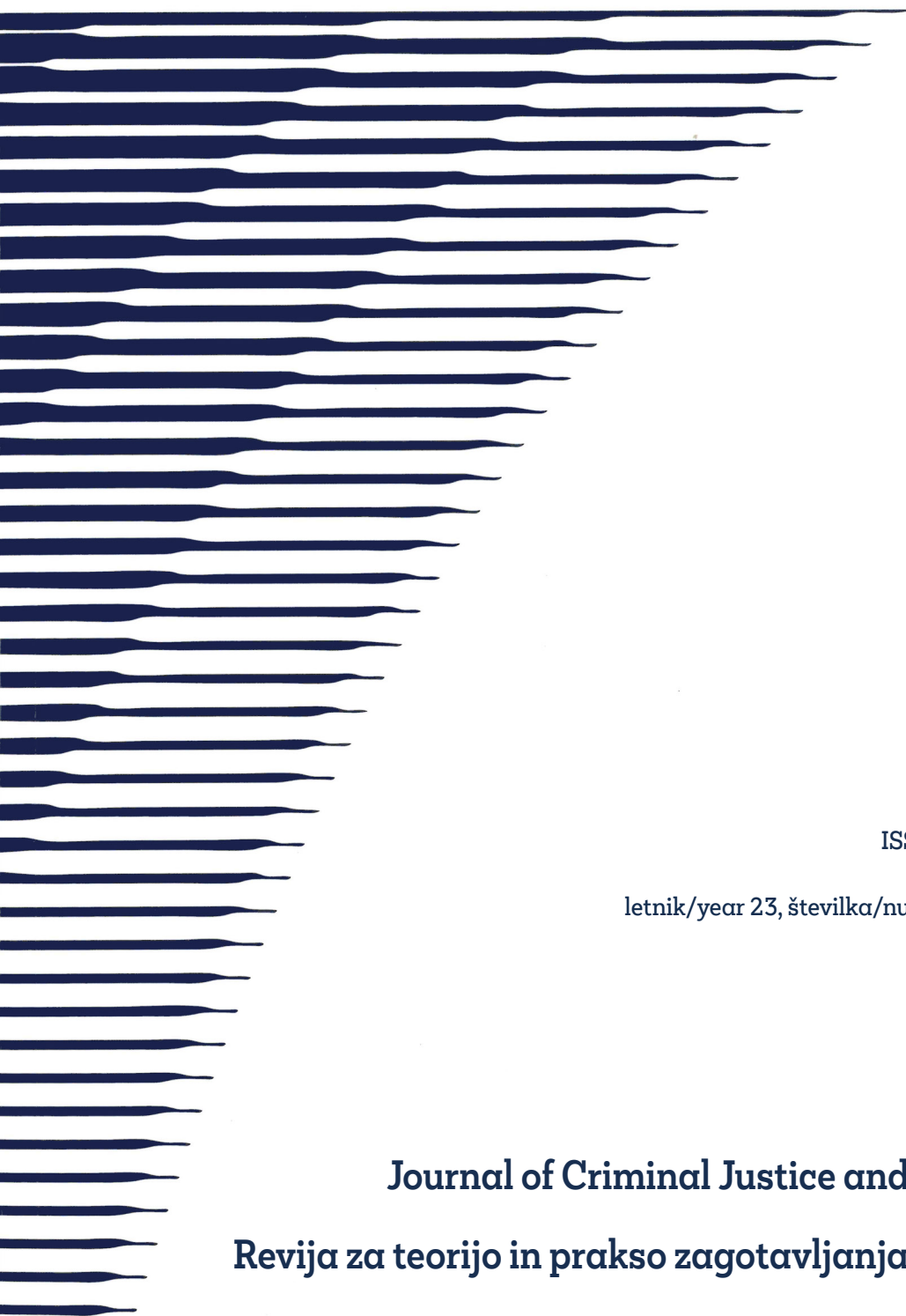


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Naslov uredništva / Editorial Address: Fakulteta za varnostne vede, Kotnikova ulica 8, 1000 Ljubljana, Slovenija

Tel.: +386 (0)1 300 83 00, Fax: +386 (0)1 230 26 87, Internet: <https://www.fvv.um.si/r/v/>

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Editorial

Dear readers.

We have included five articles in this issue of the Journal of Criminal Justice and Security, which can be divided into three content sets. The first set consists of articles related to implementing police activities in the local environment in Hungary and Slovenia. The second content set consists of articles created with the help of a systematic review of the literature in the field of emergent violence in primary and secondary schools and among the elderly in institutional care and at their homes. The last article is dedicated to analysing the danger of terrorist attacks with the help of drones.

László Christián and **József Bacsárdi** in their paper present lesser-known ways of carrying out police activities in rural areas of Hungary. Municipalities in Hungary have played a significant role in maintaining rural security for centuries through the operation of field guards, formerly field police, as a local governmental law enforcement body. Laying down the legal framework for the operation of field guards in the 19th century and this framework which has hardly changed in the socialist period, still defines the security tasks of local governments to the outer areas of the municipalities. The authors examined the legal framework and practical tasks of field guards. **Bojan Tičar** analyses the safety powers of municipal wardens from the perspective of the applicable Slovenian law. The paper is a comprehensive review of municipal wardens' measures to ensure safety at the local level. The author conducted a review based on grammatical and dogmatic interpretation of applicable legal regulations and selected decisions of the Constitutional Court of the Republic of Slovenia and an analytical method (*de lege lata*) of the review of the Slovenian legislation in the field in question.

Teja Primc, **Teja Lobnikar**, **Blažka Tratnik** and **Miha Dvojmoč** present a comprehensive literature review on peer violence in primary and secondary schools. The systematic literature review was performed in the Web of Science and Scopus databases, using the PRISMA method. The main finding is that the issue of bullying and cyberbullying is extensive and complex, yet there is still no single definition of the analysed phenomenon. Traditional bullying in primary schools reaches up to 76%, while the prevalence of cyberbullying varies below 10%. There is more cyberbullying in secondary schools (67%), while traditional bullying is as high as 97%. Male students are more often perpetrators, while female students are more often victims. Risk factors for exposure to violence include belonging to an ethnic minority and the lower economic class. Well-developed emotional intelligence is highlighted as a protective factor. In the next paper, **Teja Primc**, **Branko Lobnikar** and **Kaja Prislan** investigate the current state of research on elder abuse both in the institutional and domestic environment. The paper aims to shed light on areas requiring additional research and present the directions for further research. Also in this paper a systematic literature review was conducted using the PRISMA method in the Web of Science and Scopus databases. The

authors emphasised that elder abuse is an under-researched topic. The lack of research is particularly apparent in the incidence and nature of the problem in the home environment. Rates of psychological abuse, neglect and physical abuse are high in nursing homes and among older visitors to ambulatory care facilities and emergency departments, while self-neglect, neglect and psychological abuse are prevalent in the home environment. The studies show that women between the ages of 70 and 75, who are socially isolated and require daily care, are more exposed to abuse, and the perpetrators of the abuse are most often family members.

In a recent paper in this issue of the journal **Ice Ilijevski, Zlate Dimovski** and **Kire Babanoski** discuss the weaponisation of drones for terrorist purposes. The threat of using drones, which are evolving rapidly and becoming more efficient and powerful, is more and more attractive to use by terrorist organisations. Drones or unmanned aerial vehicles (UAVs) are remotely controlled aircraft that can be equipped with various technical equipment, including equipment of deadly weapons for attacking targets. Because of their precision, efficiency, and economy, terrorist organisations in the last decade have been using drones to carry out terrorist attacks all over the world. The threat coming from the air is complex and sophisticated and has forced the states to undertake countermeasures and develop defensive tactics against drone strikes. The authors highlighted the threat of drones attacking critical infrastructure. So, developing protective and preventive mechanisms is more than necessary to prevent future attacks with drones.

We hope the readers will find the articles worth reading and a good source of fresh ideas for future research and hopefully new papers.

Prof. Branko Lobnikar, PhD
Editor of English Issues

Uvodnik

Spoštovani bralci in bralke.

V to številko revije *Varstvoslovje* smo vključili pet člankov, ki jih lahko razdelimo v tri vsebinske sklope. V prvi sklop lahko uvrstimo prispevka o izvajanju policijske dejavnosti v lokalnem okolju na Madžarskem in v Sloveniji. Drugi vsebinski sklop tvorita sistematična pregleda literature s področja razumevanja nasilja v dveh ranljivih skupinah prebivalstva: v osnovnih in srednjih šolah ter med starejšimi v institucionalnem varstvu in na domu. Zadnji članek je posvečen analizi nevarnosti terorističnih napadov s pomočjo dronov.

László Christián in **József Bacsárdi** v svojem prispevku predstavljata manj znane načine izvajanja policijskih dejavnosti na podeželju Madžarske. Občine na Madžarskem so že stoletja imele pomembno vlogo pri ohranjanju varnosti na podeželju. Za izvajanje teh nalog so ustanovile podeželske straže, v preteklosti imenovane tudi podeželska policija. Določitev pravnega okvira za delovanje podeželskega redarstva sega v 19. stoletje in ta okvir, ki se v socialističnem obdobju madžarske države skoraj ni spremenil, še vedno opredeljuje varnostne naloge lokalnih oblasti. V prispevku tako spoznamo pravne okvirje in praktične naloge podeželskega redarstva na Madžarskem. **Bojan Tičar** v svojem prispevku analizira varnostna pooblastila občinskih redarjev z vidika veljavne slovenske zakonodaje. Prispevek je izčrpen pregled pooblastil in nalog občinskih redarjev za zagotavljanje varnosti na lokalni ravni. Avtor je opravil temeljito analizo delovanja in pooblastil občinskih redarjev v Sloveniji, ki temelji na jezikovni in dogmatski razlagi veljavnih pravnih predpisov in izbranih odločb Ustavnega sodišča Republike Slovenije ter analitični metodi (*de lege lata*) presoje slovenske zakonodaje na obravnavanem področju.

Teja Primc, **Teja Lobnikar**, **Blažka Tratnik** in **Miha Dvojmoč** s pomočjo sistematičnega pregleda literature v bazah podatkov Web of Science in Scopus po metodi PRISMA razpravljajo o vrstniškem nasilju v osnovnih in srednjih šolah. Njihova glavna ugotovitev je, da je problematika nasilja in spletnega ustrahovanja obsežna in kompleksna, kljub temu pa še vedno ni enotne opredelitve analiziranega pojava. Nasilje in ustrahovanje v prostorih osnovnih šol dosega do 76 %, medtem, ko se pojavnost spletnega ustrahovanja giblje pod 10 %. Povzročitelji so pogosteje dečki, deklice pa so večkrat v vlogi žrtve. Dejavnika tveganja za izpostavljenost nasilju sta pripadnost etnični manjšini in nižjemu ekonomskemu statusu. Kot varovalni dejavnik je izpostavljena dobro razvita čustvena inteligenca. V srednjih šolah je v primerjavi z osnovnimi šolami spletnega ustrahovanja več (67 %), medtem ko tradicionalno ustrahovanje in različne oblike nasilja dosegajo kar neverjetnih 97 %. Dijaki so pogosteje povzročitelji, dijakinje pa žrtve nasilja. Bolj izpostavljeni nasilju so dijaki s slabo samopodobo, pripadniki etničnih manjšin in dijaki z nižjim ekonomskim statusom. Dejavniki tveganja za povzročitev nasilja so predhodna zgodovina nasilja, zloraba substanc, slaba družba in slabo družinsko okolje. **Teja Primc**, **Branko Lobnikar** in **Kaja Prislan** v prispevku raziskujejo trenutno stanje raziskav zlorabe starejših tako v institucionalnem kot v domačem okolju. Namen njihovega prispevka je ugotoviti stanje raziskanosti nasilja nad

starejšimi v institucionalnem in domačem okolju in predstaviti ključne ugotovitve obstoječih študij. Tudi v tem prispevku so avtorji uporabili sistematični pregled literature z uporabo metode PRISMA. Ugotovili so, da je nasilje nad starejšimi premalo raziskano področje, še posebej primanjkuje raziskav o pojavnosti in naravi problematike v domačem okolju. Obstoječe študije se vsebinsko osredotočajo na posamezne oblike nasilja, povzročitelje in dejavnike tveganja. V domovih za starejše in med starejšimi obiskovalci ambulant ter urgentnih oddelkov je visoka pojavnost psihičnega nasilja, zanemarjanja in fizičnega nasilja, medtem ko v domačem okolju prevladuje samozanemarjanje, zanemarjanje in psihično nasilje. Nasilju so pogosteje izpostavljene ženske, stare med 70 in 75 let, ki so socialno izolirane in potrebujejo vsakodnevno oskrbo. Povzročitelji nasilja so najpogosteje družinski člani.

Zlate Dimovski, Ice Ilijevski in Kire Babanoski v zadnjem prispevku v tej številki revije *Varstvoslovje* razpravljajo o uporabi dronov za teroristične namene. Grožnja uporabe brezpilotnih letal in dronov, ki se hitro tehnično razvijajo, je vse bolj privlačna tudi za teroriste. Zaradi svoje natančnosti, učinkovitosti in ekonomičnosti je v zadnjem desetletju uporaba dronov v terorističnih napadih vedno bolj pogosta. Avtorji so posebej izpostavili grožnjo napada na kritično infrastrukturo s pomočjo dronov in opozarjajo na nujnost razvoja zaščitnih in preventivnih mehanizmov.

V uredništvu upamo, da bodo bralci našli članke, vredne branja, in da bodo le-ti dober vir svežih idej za prihodnje raziskave in upajmo tudi nove prispevke.

Prof. Branko Lobnikar

urednik angleških številk revije *Varstvoslovje*

Field Guards in Hungary: Historical Background, Present Overview and Future Perspectives

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year 23
no. 3
pp. 229–249

László Christián, József Bacsárdi

Purpose:

The purpose of the paper is to illustrate the history, basic rules, activities and the present role of the second most important local governmental law enforcement organisation in Hungary, the field guard services. The paper also aims to place the Hungarian field guard services in an international context, comparing it with the French field guard services.

Design/Methods/Approach:

The findings of an interview survey and a questionnaire survey on the Hungarian field guard services are presented in the paper with the results of secondary research on the history of the field guard services, their current legislative framework and the activities of the field guard services in France.

Findings:

Municipalities in Hungary have played a significant role in the maintenance of rural security for centuries through the operation of field guards, formerly field police, as a local governmental law enforcement body. The legal framework for the activities of field guards was laid down in the 19th century, was hardly changed in the communist period, and still defines the security tasks of local governments in relation to the outer areas of municipalities.

Based on the research, the image of a service-providing local governmental law enforcement organization emerged, whose role is of crucial importance due to the unique funding system among the local governmental law enforcement organizations.

Originality/Value:

Field guards, although unavoidable actors in rural law enforcement, have not been the subject of research before, and therefore the authors of the paper examined the legal framework and practical tasks of field guards.

Keywords: local governmental law enforcement, municipal police, field guard service, Hungary, France

UDC: 351.742

Podeželsko redarstvo: zgodovinski razvoj, pregled stanja in pogled v prihodnost

Namen:

Namen prispevka je predstaviti zgodovino, temeljna pravila, dejavnosti in aktualno vlogo drugega najpomembnejšega organa pregona na lokalni ravni – podeželskega redarstva. Namen prispevka je tudi umestiti madžarske podeželske redarje v mednarodni kontekst in jih primerjati s sorodnimi francoskimi službami.

Metode:

V prispevku so predstavljene ugotovitve ankete in intervjujev o madžarskih podeželskih redarjih, skupaj z rezultati pregleda literature o zgodovini podeželskega redarstva, o aktualnem zakonodajnem okviru in dejavnosti podeželskega redarstva v Franciji.

Ugotovitve:

Občine na Madžarskem imajo že stoletja pomembno vlogo pri ohranjanju varnosti podeželja preko delovanja redarjev, nekdanje podeželske policije, kot organa pregona na lokalni ravni. Pravni okvir za delovanje podeželskih redarjev je bil postavljen v 19. stoletju, v času komunizma je bil skoraj nespremenjen in še vedno opredeljuje varnostne naloge lokalnih oblasti. Ugotovitve raziskave prikazujejo podeželsko redarstvo kot lokalni organ kazenskega pregona, katerega vloga je ključnega pomena, tudi na račun edinstvenega sistema financiranja.

Omejitve/uporabnost raziskave:

Kljub svoji ključni vlogi v sistemu zagotavljanja varnosti v ruralnih okoljih podeželski redarji doslej niso bili predmet raziskav, zato so avtorji prispevka pomembno prispevali k bazi znanja, predvsem o pravnem okviru delovanja in praktičnih nalogah podeželskih redarjev.

Ključne besede: organi pregona na lokalni ravni, občinska policija, podeželsko redarstvo, Madžarska, Francija

UDK: 351.742

1 INTRODUCTION

In Hungary, local governments have wide range of autonomy and a number of many different functions and competences. Act CXXXIX of 2011 on Local Governments of Hungary (»Magyarország helyi önkormányzatairól szóló 2011. évi CXXXIX. törvény«, 2011) in Hungary differentiates the functions of local governments, which exercise different functions and powers based on the size of the municipality and its legal status, creating the opportunity for each municipality to play an effective role in ensuring local public safety.

The municipalities' competence of ensuring local public safety was also included in the previous Act LXV of 1990 on Local Governmental Act (»A helyi önkormányzatokról«, 1990), but became particularly pronounced with the

adoption of the abovementioned Act CXXXIX of 2011 on Local Governments of Hungary (»Magyarország helyi önkormányzatairól szóló 2011. évi CXXXIX. törvény«, 2011). This created the possibility for a municipality to establish a local governmental law enforcement organisation by defining these as a legal institution (Christián, 2020), contrary to the previous negative judicial practice (Baczárdi, 2018).

It seems that the role of local governments as contributors to local public safety and security has increased markedly in recent years, as they have gained a much stronger legal basis for carrying out their public safety and law enforcement responsibilities, although it should be noted that Act CXXXIX of 2011 on Local Governments of Hungary (»Magyarország helyi önkormányzatairól szóló 2011. évi CXXXIX. törvény«, 2011) quite rightly speaks only of the role of the municipalities as contributors to this, as the police remain the main actor in local public security in Hungary (Christián, 2020). In addition to the police and local government, other organisations (civil guard, private security providers) are also involved in public safety, and thus it can be seen as a cooperative product (Finszter, 2009). If we consider (local) public safety in this way, the question arises to what extent each actor can participate in shaping it, and how much freedom to operate they have. The role of municipalities in this respect has been little studied for a long time, just as the role of local governmental law enforcement in local public safety is an area that needs further research.

In our paper, we thus aim to shed light on the functioning and role of the least researched local governmental law enforcement organisation – the field guard service.

2 THE SYSTEM OF LOCAL GOVERNMENTAL LAW ENFORCEMENT IN HUNGARY

Before looking at this issue in more detail, it is necessary to define what is meant by local governmental law enforcement in official terminology. However, since this is not defined in Hungarian law, the definition has been left to the police and law enforcement researchers.

A review of the definitions of local governmental law enforcement in the dictionary of police science shows that it is defined as (Boda, 2019):

1. local government activity that expresses the tasks, obligations, action possibilities and framework of its contribution to local public safety.
2. a local government established and maintained organisation, a local governmental law enforcement agency with a legally defined competence of coercion more limited than that of the police.

Local governmental law enforcement is therefore both a law enforcement activity of the municipality and a local governmental law enforcement organisation. The two definitions are obviously interrelated, since the maintenance and operation of a local governmental law enforcement organisation can necessarily be defined as a municipal law enforcement activity.

The question arises as to what exactly is meant by a local governmental law enforcement organisation? According to the Hungarian view of law enforcement,

a local governmental law enforcement organisation is an organisation established and financed by the municipality, which contributes to the local maintenance of public security, with a legally established power of coercion (Boda, 2019). The definition does not include this, but a municipal police force cannot be established to achieve this because according to the Fundamental Law of Hungary (»Magyarország Alaptörvénye«, 2011) the competence to manage the police is reserved for the Hungarian government.

Therefore, unlike in many European countries (Bacsárdi, 2020), in Hungary only a local governmental law enforcement organisation with limited competence can be established. Moreover, such organisations are not compulsory, except in Budapest and its districts (»Magyarország helyi önkormányzatairól szóló 2011. évi CXXXIX. törvény«, 2011). A local government may thus decide how it wishes to carry out its local law enforcement activities, with or without a formal organisation, and it can also decide how much financial support it provides for the provision of any local governmental law enforcement organisation's services.

The organisation of local governmental law enforcement in Hungary is therefore not uniform, because municipalities may establish several different types of agencies:

1. public area inspectorate,
2. field guard service,
3. local governmental nature protection guard service,
4. fishing guard,
5. authorised forestry staff in charge of law enforcement.

In practice, however, municipalities only set up two types of agencies: public area inspectorates and field guard services. The other types are not used because of the services provided by law enforcement officers employed by other organisations, both public and private. Moreover, the employment of a public area inspector and field guard is usually more than sufficient for a municipality to carry out law enforcement activities over almost its entire administrative territory, as the former is authorised to act in the inner areas of municipalities, while the latter is authorised to act in the outlying areas (Bacsárdi, 2020).

It is important to note that local governmental law enforcement organisations are established following a decision by municipalities, and that these discretion in deciding the organisational structure of the such agencies. According to Act CXX of 2012 on the Activities of Certain Law Enforcement Officials and Amending Certain Laws to Ensure Action Against Truancy (»Az egyes rendészeti feladatokat ellátó személyek tevékenységéről, valamint egyes törvényeknek az iskolakerülés elleni fellépést biztosító módosításáról«, 2012) local governments can decide among the following possibilities for the structure of a local governmental law enforcement organisation:

1. internal department of the local governmental office,
2. separate budgetary organisation,
3. an internal department of a budgetary organisation,
4. form of local governmental association.

Municipalities also have the possibility to employ a local governmental law enforcement officer on their own, without any organisational form (»Az

egyes rendészeti feladatokat ellátó személyek tevékenységéről, valamint egyes törvényeknek az iskolakerülés elleni fellépést biztosító módosításáról» (2012), as is the case with the field guard in many small municipalities.

In order to ensure that local governmental law enforcement agencies are able to carry out all of their duties, it is necessary for municipalities to conclude a cooperation agreement with the police on the exercise of professional supervision and the actual forms and methods of cooperation (»Az egyes rendészeti feladatokat ellátó személyek tevékenységéről, valamint egyes törvényeknek az iskolakerülés elleni fellépést biztosító módosításáról«, 2012). Local governmental law enforcement officers will thus become full partners of the police and carry out their activities in joint cooperation with them.

However, recent research has shown that the practical operation of local governmental law enforcement organisations and the activities of law enforcement officers are difficult and problematic in a number of respects (Baczárdi & Christián, 2016). This is also true for the field guard services, and it is therefore particularly important to monitor and periodically explore these as a peripheral research area.

3 A BRIEF HISTORY OF FIELD GUARD SERVICES

In Hungary, as in other states in the Middle Ages, the maintenance of order outside towns was basically at the will of the local landowner or landlord (Sallai, 2018). The protection of crops was of paramount importance for the survival and well-being of the local community, and thus as early as the 16th and 17th centuries, orders from landlords and town statutes already described the organisation of boundary shepherds (*zsitár*) who looked after the crops, and among the peasants' duties were supporting a field judge and bailiff (Nagy, 1993).

During the reform era (1825–1848), the dominant economic sector in Hungary was naturally agriculture. The twin slogans of the era were freedom and property, which were inevitably linked to law enforcement in many regards. It was no coincidence that the reform era Hungarian parliament gave special attention to the countryside and agriculture, and in 1840 passed Act IX of 1840 on Field Police (»A mezei rendőrségről szóló 1840. évi IX. Törvénycikk«, 1840). This did not establish an institution, but provided for the punishment by law of minor offences committed in the open air in open country (László, 2008). It is interesting to note here that Act IX of 1840 on Field Police (»A mezei rendőrségről szóló 1840. évi IX. Törvénycikk«, 1840) was the first law in Hungary which mentioned a police force.

The concept of a field policeman was defined in the reform era as those who are the closest to maintaining good order in the field economy (Zsoldos, 1843). A field policeman could therefore not only be employed by the authorities, but was also paid by the municipality, as set out in the Act, which can be regarded as a forerunner of local governmental law enforcement legislation.

The consolidation that followed the Austro-Hungarian Compromise provided a good basis for the adoption of legislation that had a fundamental impact on the functioning of Hungary, such as Act XVIII of 1871 on the Rules of Municipalities (»A községek rendezéséről szóló 1871. évi XVIII. Törvénycikk«, 1871). In this we can read that the municipalities were responsible for managing the fire and

public police services, handling disputes among the poor, and arranging a regular council to manage the market, field, mountain, architectural and public police according to local needs.

The Hungarian parliament re-established the regulation of the field police in 1894, when it adopted Act XII of 1894 on Agriculture and Field Police («A mezőgazdaságról és mezőrendőrségről szóló 1894. évi XII. Törvénycikk», 1894), introducing the term *mezőőr* to uniformly designate the persons acting in the field police, a name has been preserved until today.

It is particularly noteworthy that the employment of field guards was made compulsory for the municipalities by this Act, so local governmental law enforcement in the outlying areas was clearly based on field guards carrying out the compulsory performance of their duties. It should also be pointed out that the remuneration of field guards was paid for by the landowners concerned, thus forming the basis for the current regulation on such guards. As before, there were also provisions for private field guards under the new legislation. Landowners with more than 100 cadastral acres of land were eligible to employ a field guard. According to the famous Hungarian jurist Zoltán Magyary (1942), these could be regarded as something between public and private employees.

The communist takeover of 1949 had a serious impact on the activities of field guards, who played a significant role in shaping the security of the countryside and protecting crops. During the communist regime there was no local governmental law enforcement, but the regulation of the field guards, although amended four times between 1950 and 1968, was essentially based on the dualist model, except for a brief two-year period. During the communist period, field guards (Bacsárdi, 2020):

1. were employed by a municipality or agricultural organisation,
2. the operation of the field guards employed by the municipality was covered by compulsory field guard contributions,
3. their main task was to take the measures provided for by law in the event of unlawful conduct in the areas they guarded,
4. the right to supervise the field guards was vested in the Ministry of Agriculture or its competent body and the Ministry of the Interior.

In the communist era the use of field guards by agricultural cooperatives and companies proved to be an important tool in the protection of agricultural land. On the one hand, the field guards provided protection against crop theft and, on the other hand, they protected the crops from animals.

The regulation of field guards did not change substantially for a long time after the fall of communism in 1989, and both farmers' organisations and municipalities were allowed to employ field guards. "A fegyveres biztonsági őrségről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény" was the first important law for field guard services under the new, democratic system, as it allowed only municipalities to employ field guards and established the rules for the financing of the field guard service, which is currently in effect and unique in Europe.

The next important milestone was the adoption of Act CXX of 2012 on the Activities of Certain Law Enforcement Officials and Amending Certain Laws

to Ensure Action Against Truancy (»Az egyes rendészeti feladatokat ellátó személyek tevékenységéről, valamint egyes törvényeknek az iskolakerülés elleni fellépést biztosító módosításáról«, 2012), although the earlier related amendment of Act LXIII of 1999 on Public Area Inspectorate (»A közterület-felügyeletről szóló LXIII«, 1999). törvény on the public area inspectorates was also significant. These acts strengthened the law enforcement agencies of municipalities and allowed public area inspectors, who previously performed law enforcement duties strictly within the inner areas of municipalities, to perform the duties of field guards, if they had the necessary qualifications, thus creating the legal basis for the unification of the municipalities' law enforcement activities.

4 CURRENT REGULATIONS ON FIELD GUARD SERVICES

Currently, the two main sources of legislation on field guard services are Act CLIX of 1997 on Armed Security Guard, Nature Protection and Field Guard Service (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997), and Act CXX of 2012 on the Activities of Certain Law Enforcement Officials and Amending Certain Laws to Ensure Action Against Truancy (»Az egyes rendészeti feladatokat ellátó személyek tevékenységéről, valamint egyes törvényeknek az iskolakerülés elleni fellépést biztosító módosításáról szóló 2012. évi CXX. törvény«, 2012). Act CLIX of 1997 on Armed Security Guard, Nature Protection and Field Guard Service (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997) lays down the main specific rules for the operation of the field guard services, while Act CXX of 2012 on the Activities of Certain Law Enforcement Officials and Amending Certain Laws to Ensure Action Against Truancy (»Az egyes rendészeti feladatokat ellátó személyek tevékenységéről, valamint egyes törvényeknek az iskolakerülés elleni fellépést biztosító módosításáról szóló 2012. évi CXX. törvény«, 2012) lays down the general rules applicable to persons performing law enforcement duties, including field guards.

According to Act CLIX of 1997 on Armed Security Guard, Nature Protection and Field Guard Service (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997), the local government may provide for the guarding of the agricultural land, which does not include forests and fishponds, belonging to its administrative territory by establishing a field guard service. Under the Act, the establishment of a field guard service is only an option for a municipality, as opposed to the 1894 legislation, and is not compulsory. If a municipality establishes a field guard service it is a result of numerous interrelated factors:

1. Is there a need to justify the establishment of a field guard service?
2. Is there a political (municipal) will to establish a field guard service?
3. Are there budgetary resources for the establishment and operation of a field guard service?
4. Is there a person who is capable of carrying out the tasks of a field guard?

The municipality is obliged to decide by decree on the establishment of a field guard service, because its establishment must be accompanied by a decision on its

financing. The method of financing of the field guard service is unique in Hungary among the local governmental law enforcement organisations. As a general rule, the operation of local governmental law enforcement agencies is a voluntary task, and thus not financially supported by the state, and the operation of the public area inspectorate is not subsidised. However, municipalities are eligible for state aid when they set up a field guard service, and a special municipal contribution may be levied for its operation (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997). The amount of this municipal contribution, known as the field guard levy, must be fixed by decree when the field guard service is set up. The field guard levy is payable by the land user or, in the case of an unknown land user, by the landowner. Municipalities usually set the amount per hectare that the land user must pay to the municipality for the operation of the field guard service. Of course, municipalities have the possibility to exempt land users from paying the field guard levy. In this case, the municipalities will set the field guard levy at HUF 0 for the land users, and cover the operating costs of the field guard service from other municipal revenues.

The establishment and operation of the field guard service is also supported by the Hungarian state, so it is a great help for smaller municipalities with resource constraints. The municipality may claim 50% of the costs of setting up the newly created field guard service, up to a maximum of HUF 500,000 (around EUR 1,380) per field guard. The municipality may apply to the National Chamber of Agriculture for reimbursement of 50% of the costs incurred in maintaining and operating the service, both personnel and material costs, up to a maximum of HUF 90,000 per month per person, around EUR 250 (»A mezei őrszolgálat megalakításához, fenntartásához és működéséhez nyújtandó állami hozzájárulás igénybevételének rendjéről és feltételeiről«, 2009).

The operation of the field guard service must be registered with the National Chamber of Agriculture. At the same time a cooperation agreement must be concluded with the county police headquarters in which the municipality is located in order to monitor the persons performing law enforcement duties, supervise their activities and coordinate the performance of their duties (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997).

The municipality must determine the number of field guards in such a way that regular daily patrol activities can be carried out (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997). This rule gives local governments a wide margin of manoeuvre, because the control task can be fulfilled not only by a person being physically present, but also by technical and technological means. It is therefore possible to install and operate control cameras and even smart devices (e.g. drones) to help the field guards.¹ The recruitment of field guards is somewhat easier than that of

¹ With the policy support of the Hungarian Ministry of Innovation and Technology, 17 research and development laboratories were established in 2020. As a member of this network, the National Laboratory of Security Technologies Project was established at the National University of Public Service, which is developing a complex planning framework for security technology development in Hungary. One of the sub-projects of this is the »Safe Municipalities« sub-project. One of the goals of this sub-project is the creation of an Integrated Municipal Security Technology System, which also includes the development of drone competencies to support the tasks of field guard services.

public area inspectors, as they do not need to have a secondary education, but only need to attend a course organised by the National Chamber of Agriculture and a short, three-day law enforcement examination at a law enforcement technical school (»A mezőőrök és a hegyőrök szolgálati viszonyáról«, 1998).

The field guards must guard agricultural lands, and protect the crops and products, equipment, tools, livestock, agricultural buildings and agricultural land survey signs (»A fegyveres biztonsági őrségről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997). The National Chamber of Agriculture and the police are responsible for the professional supervision of the activities of the field guards, while the county government offices have the power of legal supervision (»A fegyveres biztonsági őrségről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997). Act LX of 2021 on Amending Certain Acts Concerning Agriculture (»Az egyes agrártárgyú törvények módosításáról szóló 2021. évi LX. törvény«, 2021) modified Act CLIX of 1997 on Armed Security Guard, Nature Protection and Field Guard Service (»A fegyveres biztonsági őrségről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997) and came into force on 5 June 2021, has great importance, because, unlike the public land inspectorates, it has settled the problem of the legal supervision of field guards – quite rightly, in our opinion – by voting in favour of this being done by the state, by the governmental administration. This new legislation was very important because from 1 January 2012 to 4 June 2021 there was no legal supervision of the field guard services (Baczárdi, 2020).

The duties of the field guards are also regulated by Act CLIX of 1997 on Armed Security Guard, Nature Protection and Field Guard Service (»A fegyveres biztonsági őrségről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997), which states that a field guard is entitled and obliged to use measures and coercive means against any vehicle in his area of operation which they have reason to believe is carrying unlawfully obtained goods from the area of operation, and against any person who does not have reason to believe that the goods in their vehicle or in the vehicle they are using have been obtained lawfully. In addition, the field guards shall have the right and duty to hand over to the owner any animal found illegally grazing or found without supervision (»A fegyveres biztonsági őrségről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997). The field guard is entitled to detain individuals, inspect clothing, luggage and vehicles, hold back a vehicle and take a person to the police if suspected of breaking broken the law. In 2017, 843 field guards filed 403 administrative reports, 15 criminal reports and 305 infringement reports. In 2017, the field guards imposed a total of HUF 5,885,000 (EUR 16,350) in on-the-spot fines to 93 people, short-time arrests were carried out six times, and 304 people were detained. A field guard is entitled to use physical coercion, chemical means, handcuffs, service dogs, police batons and shotguns in the performance of their duties. However, none of these coercive measures or instruments were used in 2017 by the field guards (Hungarian State Police, 2021).

A field guard is authorised to impose on-the-spot fines for the following offences: offences against property, unlawful use of metal detectors, endangerment by dogs, public order offences, breaches of prohibitions on hunting, fishing and

grazing, field offences, disobedience to a call to order and water pollution («A szabálysértésekről, a szabálysértési eljárásról és a szabálysértési nyilvántartási rendszerről», 2012).

There are no precise statements or official statistics on the exact number of municipal law enforcement organisations and field guard services in Hungary, we only have information on the number of persons performing municipal law enforcement tasks. According to this data, there are currently 773 field guards on duty in Hungary, which is less than half the number of public area inspectors. We know that in Budapest there are about 750 public area inspectors, so we can conclude that in rural areas there are only slightly fewer field guards than public area inspectors. The total number of field guards and public area inspectors is more than 25% of the total number (10,315) of law enforcement personnel in Hungary (Hungarian State Police, 2021).

5 OPERATION OF FIELD GUARDS AND THEIR ROLE IN COMMUNITY SECURITY

In Hungary, the central actor in local governmental law enforcement is undoubtedly the public area inspectorate, which is the typical local governmental law enforcement organisation of larger municipalities, but the activities of the field guards also form a striking part of municipal security, not in the interior but in the exterior territories of municipalities. Despite their undeniable importance, the operation of the field guard services has not been the subject of scientific study so far, and has been neglected by both the police science and the municipal profession. Recognising this, primary research on the field of police services was carried out in 2017-2018.

In the framework of the primary research, unstructured interviews were conducted with a total of 13 people, of whom one was the head of a field guard service association, two were field guards, five were town clerks, two were mayors and three were police leaders. The research covered the following topics:

1. financing of field guard services,
2. the staffing of the field guard services,
3. the activities of field guards,
4. the supervision of field guards,
5. cooperation of the field guard services with other bodies.

Prior to the research, the following hypotheses were formulated:

1. State support is essential for municipalities to operate field guard services and state support plays a catalytic role in the decision to establish a field guard service.
2. The competences and means available to the field guards are sufficient to carry out their tasks.
3. The system of supervision of the field guards needs to be reviewed.
4. In municipalities with less than 10,000 inhabitants, the activities of the field guards go beyond the tasks required of them by law.
5. The employment of field guards contributes to the improvement of public safety in the municipality.

6. Municipalities have problems recruiting field guards.
7. The level of training of field guards is low and this needs to be improved.
8. The field guard services can cooperate with other municipal law enforcement agencies, the police, the civil guards and private security providers without problems.

Due to space constraints, it is not possible to cover all the issues involved in this paper, so we will limit ourselves to the results with regard to these hypotheses.

1. State support is essential for municipalities to operate field guard services and state support plays a catalytic role in the decision to establish field guard service.

The hypothesis was partially accepted, as the research showed that several municipalities, obviously the wealthier ones, could maintain field guards without state support. However, there was clear evidence that state support is a catalyst for the decision to set up field guards by municipal decision-making bodies, as otherwise more municipalities would either not have set up a field guard service, or would have set up one with fewer staff. Given that the public services provided by each municipality compete with those provided voluntarily, a public service such as the field guard service, for which the state provides meaningful support, is more likely to be provided on demand than one for which it does not.

2. The competences, coercive measures and coercive instruments available to the field guards are sufficient to carry out their tasks.

The hypothesis was considered to be accepted, as no data or information emerged that would indicate that the powers and means of the field guard services should be expanded. In addition, the current legal framework allows for the possibility of public area inspectors to perform the tasks of field guards, thus creating synergies between the two municipal law enforcement bodies. However, it should be noted here that field guards are not allowed to exercise powers of public area inspectors.

3. The system of supervision of the field guards needs to be reviewed.

The hypothesis needed further testing as its claim could not be determined. The field guard services operate under dual professional supervision (police, National Chamber of Agriculture), but this professional supervision does not seem to be very strong or substantial. Moreover, following the conclusion of this research the legal supervision of the field guard services by the governmental administrations was defined, so the practical functioning and content of this supervision should be further investigated in separate research.

4. In municipalities with less than 10,000 inhabitants, the activities of the field guards go beyond the tasks required of them by law.

The hypothesis was partially accepted. The field guards perform numerous tasks (e.g. social assistance in winter, driving, assisting in the organisation of municipal events) not in their law enforcement competence, but as service providers, which are not legally assigned to

them, and this is true not only for municipalities with less than 10,000 inhabitants, but for all municipalities we examined. We do not think this is a problem, and in fact it can reinforce the citizen-friendly image of the field guard service. The research revealed that the field guards perform the following tasks in their practical operations:

- a. patrol activity,
- b. preventing theft of crops and wood, illegal dumping of waste,
- c. monitoring of outdoor camera footage,
- d. liaising with farmers, helping to resolve disputes between farmers,
- e. rectifying anomalies in the boundary (e.g. notifying the municipality of the deterioration of external roads, signalling the need for maintenance of culverts, crossings),
- f. checking and maintenance of barriers on closed roads in the countryside,
- g. social assistance in winter,
- h. startling warnings,
- i. participation in the renovation of lanes and afforestation,
- j. driving tasks,
- k. assisting in the organisation of municipal events.

It is clear from the research that the picture that emerges is that the field guard service is a service provider and not a typical law enforcement organisation.

5. The employment of field guards contributes to the improvement of public safety in the municipality

The hypothesis is accepted. The activities of field guards make a major contribution to crime prevention in the outlying territories of the municipality, and thus to increasing public safety. The employment of field guards is of great help to both municipalities and the police in maintaining order in the outlying areas.

6. Municipalities have problems recruiting field guards

The hypothesis cannot be accepted. In contrast to the recruitment of public area inspectors, the recruitment of field guards is not a major problem. This is clearly due to the fact that the legislation imposes a much lower entry barrier for field guards, by not requiring a secondary level of education, which can only be easily obtained through a course of study. In addition, there are more options available to the municipality for the employment of a field guard, who can be employed as a civil servant, public servant or employee covered by the Labour Code. This provides municipalities with a sufficiently flexible framework for the employment of field guards.

7. The level of training of field guards is low and this needs to be improved

The hypothesis was partially accepted. The research did not reveal any problems with the training of field guards, but more and better quality training is still needed. Field guards are obliged by Act CLIX of 1997 on Armed Security Guard, Nature Protection and Field Guard Service (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei

őrszolgálatról szóló 1997. évi CLIX törvény», 1997) to participate in continuing training, but there is currently no information on the quality and content of this training.

8. The field guard services can cooperate with other municipal law enforcement agencies, the police, the civil guards and private security providers without problems

The hypothesis was considered to be accepted, as only minor problems (e.g. inefficient information flow, under-qualified civil guards) with regard to cooperation were reported by the interviewees, which did not fundamentally affect the good cooperation.

Summarising the results of the research, we can conclude that the field guard services are a service-oriented organisation with little authority. The role of the field guard services is significant in providing security in the open countryside, which is facilitated by specific funding arrangements. For the above reasons, there is no need to amend the current legislative framework, only to fine-tune it on some points.

6 THE ROLE OF FIELD GUARD SERVICES IN PUBLIC SAFETY

Within the framework of the National Laboratory for Security Technologies in the spring-summer of 2021, the first primary research of the “Safe Municipalities” sub-project focused to public safety and its components.

The primary research, carried out at the National University of Public Service, was a questionnaire survey using the quantitative survey method. Before starting the research, the following principles were established:

1. At least 100 municipalities (3.15% of the municipalities in Hungary) should be included in the survey.
2. A closed questionnaire (accessible only to invited municipalities), published on the Internet and using the IT system of the National University of Public Service, should be sent.
3. The questionnaire should be anonymous.
4. The questionnaire must be capable of producing quantifiable data for analysis, and should therefore consist of closed and/or scaled questions (with a maximum of a 4-point scale), but with the possibility of deviation where justified.
5. The completion time should not exceed 10 minutes (if the questionnaire is longer than this, there is a high risk of abandonment).

Finally a total of 121 municipalities were invited to participate in the survey, representing the 3,177 municipalities in Hungary after a municipality segmentation procedure, as presented in Table 1.

Table 1:
Municipality segments and participation in survey

Municipality segments	Percentage of total municipalities	Number of municipalities surveyed
More than 45,000 inhabitants	1.26%	8 (20%)
Between 25,000 and 45,000 inhabitants	0.82%	5 (20%)
Between 12,000 and 25,000 inhabitants	2.30%	15 (20%)
Between 2,000 and 12,000 inhabitants	21.91%	70 (10%)
Less than 2,000 inhabitants	73.72%	23 (1%)

In the end, 55 of the 121 municipalities completed the questionnaire in full, while 33 municipalities partially completed it, giving a total of 88 municipalities. The municipalities that completed the questionnaire could be divided as presented in Table 2.

Table 2:
Number and share of municipalities in completions of the survey

Municipality segments	Number of completions	Number of municipalities surveyed
More than 45 000 inhabitants	9	8 (20%)
Between 25,000 and 45,000 inhabitants	5	5 (20%)
Between 12,000 and 25,000 inhabitants	11	15 (20%)
Between 2,000 and 12,000 inhabitants	43	70 (10%)
Less than 2,000 inhabitants	7	23 (1%)
No answer	6	-

The table shows that there were more completions than municipalities contacted for those with populations above 45,000, and this may be due to duplicate completions on the one hand, or incorrect data being provided by one of the completers on the other.

Of the municipalities that completed the questionnaire, 21 were agricultural municipalities and 20 were municipalities in agglomerations. There were eight metropolitan municipalities and 12 industrial municipalities. A much smaller number of municipalities were located in tourist areas (4), in natural protected areas (5) or in residential areas (5).

Local governmental law enforcement organisations, such as the field guard services, were the focus of the section of the questionnaire on “Local security actors”. The questions in this focus on the extent to which an organisation is responsible for shaping local security. Five different response options were provided in the questionnaire, from which those responsible for local security

were to be scaled according to the extent of their responsibility. The response options provided were as follows:

1. police,
2. public area inspectorate,
3. field guard service,
4. civil guard,
5. other law enforcement officials.

According to the responding municipalities, the police are the main actor of local security (53 municipalities, 60%), i.e. municipalities rely on the state to provide local security. There were only four responding municipalities (5%) which considered that local security is primarily the responsibility of the municipality through the public area inspectors (three municipalities) or the field guards (one municipality). One municipality identified the neighbourhood police as the organisation primarily responsible for local security. It is noteworthy and thought-provoking that there were respondents who felt that the municipality, rather than the state, was the main actor of local public safety through the public area inspectorate and field guard service.

The municipalities and the civil guard were considered to be secondly responsible for local security. According to about a third of the responding municipalities (30 municipalities, 34%), the public area inspectorate is secondarily responsible for local security, while the field guard service is only responsible in 3% (three municipalities). A significant proportion of municipalities, more than a fifth (20 municipalities, 23%), consider the civil guard to be the second most important actor in local security. This was more likely to be the case in municipalities where there is no local governmental law enforcement organisation, so that the municipality has no other option but relying on the civil guard to maintain local public safety and solving any law enforcement problems.

According to 15% (13) of municipalities, the field guard service is only one third responsible for local public security, while 24% (21) consider it to be one quarter responsible. According to 20 municipalities (23%), the field guard service has no responsibility at all for local security compared to other actors.

This is in line with the results of previous research, as it can be seen that municipalities do not see the field guard service as the main actor of local security, but rather as a service provider. Municipalities see the public area inspectorate as more important than the field guard service, in addition to the police and the civil guard, in providing local security. However, it should also be noted that the public safety problems in the inner parts of the municipalities tend to be of greater concern to residents, so the activities of the public area inspectors are much more important for the municipalities than those of field guards. In addition, field guards provide a public safety service to a minority of the population (mainly land users and landowners), but public area inspectors can be seen by all residents and businesses every day. In addition to the above, we know that the number of public area inspectors is much larger than the number of field guards, which indicates that a larger proportion of municipalities with local governmental law enforcement organisations are not aware of the role of field guards in public safety.

7 INTERNATIONAL OVERVIEW - FIELD GUARD SERVICES IN HUNGARY AND FRANCE

At this point it is worth making a brief international overview, because the legal institution of field guard services is not only known and in operation in Hungary, but also in France. A comparison of the two organisations is certainly instructive, as it allows us to assess how the field guard services can operate in a law enforcement system different from the one in Hungary. The comparison is especially interesting because we have no information on similar field guard services in other countries.

In France, Book V of the Code on Internal Security (»Code de la sécurité intérieure«, 2012) provides the possibility for municipalities to establish municipal police forces, unlike in Hungary. Within Book V there is a separate chapter on the institution of *gardes champêtres*, or field guards. As such, in the French system of municipal policing the field guard service is placed among the municipal police forces, so it is considered a special municipal police force (»Code de la sécurité intérieure«, 2012).

The role of the French field guards is to contribute law enforcement activities of the countryside, and the fact that the Code on Internal Security (»Code de la sécurité intérieure«, 2012) specifies the word 'contribution' to these tasks shows that the role of field guards in rural municipal law enforcement is only complementary. This is not surprising in the light of the fact that we know that the *Gendarmerie Nationale* is the central actor in French rural law enforcement (»Code de la sécurité intérieure«, 2012).

French field guards are responsible for protecting rural property and enforcing forestry rules. These include, for example, powers relating to theft of crops and wood, damage, traffic on forest roads, environmental protection (the protection of animals and fish, protection of living water). The French field guards are appointed, have the same competences and are classified at the same level (category C) as municipal police officers (»Code de la sécurité intérieure«, 2012).

An overview of their competences shows that the powers of French field guards are much broader than those of Hungarian field guards, because the latter are responsible for the protection of the agricultural land of the municipality, which does not include forests and fishponds. Comparing the powers of the French field guards with the field guards operating in Hungary, it is clear that the former effectively combine the powers which may be exercised in Hungary by several persons performing different law enforcement functions. The development of the legislation for Hungarian field guard services has made it possible for them to exercise more powers, although this requires that the field guard has additional qualifications (e.g. fish guard, forest guard) and that the outlying area to be guarded is of mixed classification (»A fegyveres biztonsági őrsegről, a természetvédelmi és a mezei őrszolgálatról szóló 1997. évi CLIX törvény«, 1997).

It should be noted that French legislation allows any municipality or association of municipalities to employ one or more field guards, but in three counties (Moselle, Haut-Rhin and Bas-Rhin), the employment of at least one field guard per municipality is compulsory, with the exception that several municipalities may jointly employ a single field guard (»Code de la sécurité

intérieure», 2012). The French legislation is deeply rooted in the fact that, as early as 1795, the employment of field guards was mandatory in France (Emsley, 1999), and this is in line with the Hungarian legislation of 1894, which also made the employment of field guards compulsory for municipalities («A mezőgazdaságról és mezőrendőrségről szóló 1894. évi XII. Törvénycikk», 1894).

It is also important to look at the development of the number of field guards in the two countries, together with the number of French municipal police officers and Hungarian public area inspectors, because official statistics are available, although only partially in Hungary (Ministère de l'Intérieur, 2021; Országos Rendőrfőkapitányság, 2021).

	France		Hungary	
	Field guards	Municipal police officers	Field guards	Municipal police officers
2016	928.5	21,636	no data	no data
2017	761	22,083	843	1,787
2018	726	22,780	no data	no data
2019	725	23,934	no data	no data
2020	701	24,221	795	1,914
2021	no data	no data	773	1,898

Table 3: Number of municipal police officers, public area inspectors and field guards in Hungary and in France (Ministère de l'Intérieur, 2021; Országos Rendőrfőkapitányság, 2021)

Looking at the evolution of the number of field guards, it is striking that the importance of field guard services is much greater in Hungary than in France, because proportionally more field guards are employed in the former. It is also striking that the number of municipal police officers is steadily increasing compared to the number of field officers in France. The same trend is observed in Hungary, where the number of field guards is slowly decreasing, while the number of public area inspectors is increasing, except for in 2021.

France population: 67,407,241 (2021)		Hungary population: 9,731,000 (2021)	
Field guards	Municipal police officers	Field guards	Public area inspectors
1 field guard for 96,158 inhabitants	1 police officer for 2,783 inhabitants	1 field guard for 112,588 inhabitants	1 public area inspector for 5,126 inhabitants

Table 4: Share of municipal police officers, public area inspectors and field guards in Hungary and in France (Institut National de la Statistique et des Études Économiques, 2021; Központi Statisztikai Hivatal, 2021)

This brief look at the systems in two countries provides us with some useful lessons.

In the absence of further research, we can only speculate on the reasons for the trend in the number of field guards in both France and Hungary. The focus of local government operations is on problems in the inner parts of the municipalities, so the development of the municipal police and public area inspectorate is a higher priority for local government than the protection of the outlying areas, which is

manifested in the significant reduction in the number of French field guards. In Hungary, the reason for the slight reduction in numbers, apart from the focus on the inner parts of the municipalities, is probably also due to the fact that public area inspectors can also perform field guard duties if they are qualified to do so. We thus suspect that the public area inspectors who are also field guards appear in the statistics as public area inspectors only.

The French field guards are police officers, while the Hungarian field guards are persons performing law enforcement duties. The difference between the two law enforcement organisations is therefore in the legal status and area of competence. The French field guards have broader competences and can operate in the whole of the municipality's outlying areas, as opposed to the Hungarian field guards, who have more limited powers and can only operate in certain areas of the municipality's outlying territories.

In France, it seems that the role of the field guards as police officers needs to be redefined and their place in the police system needs to be found alongside the municipal police forces, given the significant reduction in the number of such guards. In Hungary, on the other hand, the role of field guards in the local law enforcement system is clear and unambiguous, as they are providers of security services in the countryside. However, further extension of the outlying areas in which the field guard service can operate should be considered, thus increasing the usefulness and local embeddedness of this legal institution, similar to in the French legislation.

8 CONCLUSION

In the Hungarian system of local governmental law enforcement, the field guard service is the other main branch besides the public area inspectorate. The regulatory roots of the field guard service in Hungary are deep, and research shows that it is necessary to maintain this legal institution, as it seems that it has found its place in the 21st century and is able to provide adequate responses to the law enforcement problems that arise in the outlying areas of municipalities. In addition, the Hungarian state supports the maintenance and survival of this legal institution through special financial regulations, thus helping the operation and functioning of the rural local governmental law enforcement organisations.

There are three different visions for the future of the field guard service:

1. abolition,
2. merging with public area inspectorates,
3. survival.

The abolition of field guard service does not seem to be a realistic vision for the future in Hungary, neither in the short nor medium term. The legal institution has shown its usefulness in past centuries and has proven its viability in the present in maintaining public security in the countryside and providing local governmental services. Moreover, the field guards are important partners of the police, because they have special knowledge relating to the outlying areas of the municipality that is very important to the police performing their law enforcement duties (e.g.

guards personally know the landowners and the people living in the areas they operate in).

A somewhat more likely vision is that the field guard services will be merged into the public area inspectorates, as the legal basis for this is already present in some form in the legal system (a public area inspector can perform field guard duties). Nevertheless, the merger of the two local governmental law enforcement organisations is unlikely, as the two agencies have fundamentally different profiles, and they are not rivals but complementary organisations. It would thus be unjustified for the central government to abolish the field guard service.

In the light of the above, the most likely vision for the future of the field guard services is for them to continue to exist and possibly expand, as their place in the legal system is clear and they are able to provide useful public services in the outlying areas of municipalities under the current regulatory framework. If the operation and usefulness of the field guard services become more widely apparent to municipal decision-makers than it is at present, and if they become aware of the available funding opportunities for such guards, we are confident that we will see an increase, or at least no fall, in the number of field guards in Hungary in the future.

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About the authors:

László Christián, Dr. Habil, Pol. Brig. General, Associate Professor, Vice Rector of University of Public Service, Director of National Laboratory of Security Technologies, Hungary. E-mail: Christian.Laszlo@uni-nke.hu

József Bacsárdi, Phd, Town Clerk of Municipality of Bábolna, Expert of Safe Municipalities Sub-project of National Laboratory of Security Technologies, Hungary. E-mail: Bacsardi.Jozsef@uni-nke.hu

Analysis of Legal Powers of Municipal Wardens They Possess to Ensure Safety at the Local Level

Bojan Tičar

Purpose:

This article is primarily intended for students and other professionals at the Faculty of Criminal Justice and Security of the University of Maribor to familiarise themselves with the Slovenian regulation in the field of criminal justice and security. The article presents safety powers of municipal wardens from the perspective of the applicable Slovenian law. Readers may learn how the Slovenian legal system works at the local level, what general legal acts provide a basis for municipal wardens' actions and what are legal rules for their application.

Methods:

The article is a scientific review based on grammatical and dogmatic interpretation of applicable legal regulations and selected decisions of the Constitutional Court of the Republic of Slovenia, and on an analytical method (*de lege lata*) of the review of the Slovenian legislation in the field in question. The legal methods used by the author also include a synthetic method of comparing the legislation from the underlying Municipal Warden Services Act (»Zakon o občinskem redarstvu« [ZORed], 2006) and its main amendments set out in the Act Amending the Municipal Warden Services Act (»Zakon o spremembah in dopolnitvah Zakona o občinskem redarstvu« [ZORed-A], 2017).

Findings:

The paper is a comprehensive review of measures that municipal wardens may use to ensure safety at the local level. The author lists the relevant scientific and professional literature and argues about polemic issues with other prominent Slovenian authors dealing with the field in question, i.e., legal powers of municipal wardens. He mainly refers to the works of authors, such as Meško, Žaberl, Dvojmoč, Lavtar, Kečanović, Gostič, Brezovnik, Grafenauer, and Flander.

Limitations/Implications:

Due to the limited length of the article the overview of the municipal wardens' powers covers essential legal concepts. The author's intention is to introduce to the Slovenian or foreign readers the complex notions from the Slovenian legal system, sometimes in a non-technical way since the readers will be both from the field of law and from the field of criminal justice and security.

Practical Implications:

The article has practical application for domestic and foreign experts wishing to gain knowledge of the Slovenian regulation relating to safety at the local level. Definitions are correct and up-to-date and contribute, therefore, to boosting the knowledge in this field. The article contains a further overview of terms to broaden the understanding of the legal categorical apparatus in local safety and security.

Originality/Value:

This is a review article and therefore its originality is limited since the author does not provide any new scientific information. Rather, he summarises, through a scientific legal analysis, what is already known. The original value of the article lies in the way the author puts the legal and repressive measures of municipal wardens in a readable and easy-to-understand context so that readers can remember them easily. The definitions of terms used in the article are useful and will be helpful to many readers in their future study or research.

Keywords: local safety and security, municipal and inter-municipal warden services, measures and powers of municipal wardens, right to security, Slovenian administrative law

UDC: 351.78

Analiza pooblastil občinskih redarjev, ki jih imajo za zagotavljanje varnosti na lokalni ravni**Namen prispevka:**

Prispevek je namenjen predvsem študentom in drugim strokovnjakom Fakultete za varnostne vede Univerze v Mariboru, da se seznanijo s slovensko pravno ureditvijo na področju kazenskega pravosodja in varstvoslovja. V prispevku so predstavljena varnostna pooblastila občinskih redarjev z vidika veljavnega slovenskega pravnega reda. Bralec se lahko seznaní, kako slovenski pravni red na lokalni ravni deluje, kateri splošni pravni akti so podlaga za ukrepanje občinskih redarjev in kakšna so pravna pravila uporabe le-teh.

Metode:

Prispevek je pregledne narave in temelji na gramatikalni in dogmatični razlagi veljavnih pravnih predpisov in izbranih odločb Ustavnega sodišča RS ter na analitični metodi (*de lege lata*) pregleda slovenske ureditve na naslovnem področju. Od pravnih metod avtor uporabi tudi sintetično metodo primerjave ureditve iz osnovnega zakona »ZORed« (2006) in prikazom glavnih sprememb v »ZORed-A« (2017).

Ugotovitve:

V prispevku so na pregledni način prikazani ukrepi, ki jih občinski redarji lahko uporabijo za zagotavljanje lokalne varnosti. Avtor sproti navaja pregled relevantne znanstvene in strokovne literature ter polemizira s stališči drugih vidnih slovenskih avtorjev, ki se z naslovnim področjem pravnih pooblastil občinskih

redarjev ukvarjajo. Pri tem navaja predvsem dela avtorjev, kot so Meško, Žaberl, Dvojmoč, Lavtar, Kečanović, Gostič, Brezovnik, Grafenauer in Flander.

Omejitve/uporabnost:

Pogled pravnih opredelitev pooblastil občinskih redarjev zaradi omejene dolžine prispevka zajema bistvo razdelanih pravnih institutov. Avtor skuša slovenskemu ali tujemu bralcu pravno zapletene pojme slovenskega pravnega sistema včasih približati tudi na poljudni način, saj bodo bralci tako s pravnega področja kot tudi s področja varstvoslovja.

Praktična uporabnost:

Prispevek je praktično uporaben za domače in tuje strokovnjake, ki se želijo seznaniti s slovenskim sistemom pravne ureditve lokalne varnosti. Opredelitve pojmov so korektne in sodobne, zato prispevajo k večanju znanja na tem področju. Prispevek prinaša dodatni pregled pojmov, ki širijo razumevanje pravnega kategorialnega aparata na področju lokalne varnosti.

Izvirnost/pomembnost prispevka:

Prispevek je pregledne narave, zato je njegova izvirnost omejena. Avtor namreč ne postavlja znanstvenih spoznanj na novo, temveč na pravno-analitični način z znanstveno metodo povzema in opredeljuje tisto, kar je že znano. Izvirna vrednost prispevka je v tem, da avtor pravne in represivne ukrepe občinskih redarjev postavi v berljiv in lahko razumljiv kontekst, da si jih bo bralec zapomnil. Definicije pojmov, prikazanih v članku, so uporabne in bodo marsikateremu bralcu prišle prav pri nadaljnjem študiju ali raziskovanju.

Gljučne besede: lokalna varnost, občinsko in medobčinsko redarstvo, ukrepi in pooblastila občinskih redarjev, pravica do varnosti, slovensko upravno pravo

UDK: 351.78

1 INTRODUCTION

Two types of local bodies have been set up in Slovenia to regulate minor offences in the field of security, falling within the powers of municipalities that most frequently sanction municipal and state offences subject to control by the municipalities. These are municipal warden services and municipal inspectorates. The focus of the sections below will mainly be on municipal warden services. As minor offence authorities, they form part of the national security system in the Republic of Slovenia. They have become an important part of the national security system after the adoption of the first Municipal Warden Services Act (»ZORed«, 2006). This law conferred on municipal wardens' specific powers that they had not previously possessed. The duties of municipal wardens and their area of work are set out in the »ZORed« (2006) as well as in municipal decrees adopted on a proposal from the mayor by municipal councils in accordance with Article 2 of the aforementioned act. On grounds of procedural economy and streamlining of municipal warden services, inter-municipal warden services may also be provided in the form of a body of a common administration between at least two

municipalities. When no municipal warden services are organised (or no inter-municipal warden services are co-organised) by a municipality, it should identify another minor offence body to be authorised to decide on offences pertaining to the area of work covered by municipal warden services (»ZORed«, 2006: Article 4).

In 2017, the »ZORed« (2006) was amended following the adoption of the Act Amending the Municipal Warden Services Act (»ZORed-A«, 2017), that substituted specific articles of the »ZORed« (2006), notably the provisions relating to the establishment of municipal warden services, areas of work, and duties of municipal wardens. Because of the constant extension of the municipal wardens' powers, their area of work is governed not only by the aforementioned act but also by other laws, such as the law governing the roads, the law governing public order and the law governing minor offences, etc. According to Lavtar and Kečanović (2007), the powers exercised by local communities under the new arrangements primarily include the duties focused on traffic control and maintenance of law and order.

The powers that municipal wardens may use in their work to ensure safety are material for the success of such services provided at the local level. According to Žaberl (2007), municipal wardens' powers resemble the police powers, but due to the nature of their work they are more specifically targeted and therefore much more sensitive as regards the interference with bodily integrity of individuals.

Municipal warden services are a part of the municipal administration and independent internal organisational units, which within the framework provided by the law and based on the municipal safety programme ensure public safety and public order in a certain area and carry out the tasks within their powers. »ZORed« is designed as an organisational regulation and it regulates the following areas of operation of warden services (Lavtar & Kečanović, 2007): (1) the establishment, scope of work, organisation, and management of municipal warden services, (2) the requirements for performing the tasks of municipal warden services, (3) the powers of municipal wardens, (4) the uniform, equipment, and emblems of municipal wardens, (5) training programmes and training in the professional competences of authorised officials of municipal warden services, (6) the content and manner of keeping records of municipal warden services. An important document for the operations of a municipal warden service is the municipal safety programme, which is also adopted by the municipal council upon the proposal of the mayor. The programme details the type and scope of municipal warden service tasks, taking into consideration an assessment of the safety situation in the municipality. The safety programme is a long-term municipal strategic document that determines the starting points for ensuring a safe and quality life at the local level (Lavtar & Kečanović, 2007).

Therefore, in the sections below this article is drafted using the grammatical interpretation of applicable laws (a *de lege lata* analysis) relating to the wardens' powers, as well as the teleological interpretation of their powers tackling safety in municipalities (a *ratio legis* analysis).

2 REGULATORY FRAMEWORK OF MUNICIPAL WARDEN SERVICES IN THE REPUBLIC OF SLOVENIA

Article 21 of the Local Self-Government Act (»Zakon o lokalni samoupravi« [ZLS-UPB2], 2007) provides that the tasks of municipalities also include the provision of municipal warden services. Moreover, Article 49 of the same Act specifies that the tasks relating to the provision of public services falling within the municipal competence shall be carried out by the municipal administration.

The Municipal Warden Services Act (»ZORed, 2006«; »ZORed-A, 2017«) is the originating organisational legal act governing the work of municipal wardens. Article 3 of this Act sets out the scope of work and duties of municipal wardens, while its Article 5 specifies who shall perform the municipal warden functions. In Chapter II of the Act the focus is on the municipal programme on safety, coordination of programmes, provision of expert assistance and cooperation between wardens and police officers. Chapter III is dedicated to the powers possessed by wardens when performing their duties, and to the conditions for the exercise of such powers. Article 10 stipulates, *inter alia*, that the law governing the police duties and powers shall apply to specific powers whose application is not laid down in this Act.

Article 15 of the Road Traffic Rules Act (»Zakon o pravilih cestnega prometa« [ZPrCP-UPB7], 2021) stipulates that municipal warden possess specific powers that apply to municipal roads inside and outside settlements open to public traffic (»ZPrCP-UPB7«, 2021). Their activities include, among others, the control of environmental protection, traffic-calmed zones, pedestrian zones, driving a vehicle on a road, vehicles exceeding speed limits, stopping vehicles, parking and many others. The third indent of Article 15 reads: »On roads within built-up areas, on municipal roads outside built-up areas used for public road traffic, municipal traffic wardens shall regulate traffic, perform measures provided by this and other Acts, and measures provided by municipal acts regulating traffic according to this Act« (»ZPrCP-UPB7«, 2021).

In accordance with the provisions of the Roads Act (»Zakon o cestah«, 2010), municipal wardens possess powers to control the use of public and non-categorised roads, as well as a number of other duties, including those allowing them to withdraw a vehicle from traffic. Police officers, municipal wardens and toll supervisory inspectors oversee the implementation of this Act as part of the road traffic monitoring. On a road in respect of which municipal wardens have the power to provide control and the road is open to public transport, wardens may take provisional measures to prevent risks to road users if any deficiencies are identified posing a direct threat to the road safety. They shall notify thereof the competent provider of regular road maintenance services, the road owner or the road operator duly authorised by the road owner and the competent road inspection body. Municipal wardens may also order the removal of specific objects from roads causing dazzle to road users, reducing the view ahead on roadways, reducing visibility of road traffic signs or equipment, misleading, hampering or distracting road users (»Zakon o cestah«, 2010).

The Protection of Public Order Act (»Zakon o varstvu javnega reda in miru« [ZJRM-1], 2006) confers powers on municipal wardens to implement

the provisions of this Act relating to indecent behaviour, making noise, use of hazardous materials for banging, damaging an official sign, mark or decision, writing on buildings, vandalism, camping, use of animals, etc. In accordance with Article 25 of the ZJRM-1, municipal wardens may seize objects or gas mixtures for loud banging causing disturbance or a feeling of insecurity among people (»ZJRM-1«, 2006).

The Minor Offences Act (»Zakon o prekrških« [ZP-1-UPB8], 2011) does not lay down the scope of work of municipal wardens, their duties and powers. It is important, however, in that it stipulates general conditions for identification of minor offences and sanctions for such offences. In addition, general conditions for liability for minor offences are set out.

In accordance with Article 140 of the Constitution of the Republic of Slovenia (»Ustava Republike Slovenije«, 1991), the competencies of a municipality comprise local affairs which may be regulated by the municipality autonomously and which affect only the residents of the municipality. Legal sources produced in municipalities include statutes, rules of procedure, decrees, budgets, orders, rulebooks and guidance (Brezovnik & Grafenauer, 2006). On the basis of the General Administrative Procedure Act (»Zakon o splošnem upravnem postopku«, 2006), a municipal council shall confer by way of a decree official authority to conduct procedure and make decision in administrative matters falling within the primary competences of self-governing local communities.

A municipal safety programme is a basic and reference strategic and safety document covering the work of municipal wardens. It is adopted by a municipal council on a proposal from the mayor to determine the type and scope of tasks of municipal wardens based on the assessment of the security situation in the municipality (»ZORed«, 2006). It lays down the criteria for ensuring public safety and public order in the territory of the municipality as well as the goals and measures to achieve these goals. Moreover, its purpose is to develop partnership between the police and municipal wardens in the provision of all warden services as defined in Article 3 of the »ZORed« (Gostič, 2007).

3 ANALYSIS OF SAFETY POWERS OF MUNICIPAL WARDENS IN SLOVENIAN LAW

The right to security as determined in the constitution should be borne in mind when analysing the exercise of safety powers of municipal wardens. The modern concept of personal security thus on one hand entails personal security against violence or harm, and on the other access to basic human and social values. This includes, inter alia, protection against personal and structural violence and crime and protection against other social and natural phenomena that endanger personal security. More broadly speaking, the modern concept of personal security is also closely intertwined with the concept of sustainable human development (Flander & Tičar, 2019).

In accordance with Article 34 of the Constitution of the Republic of Slovenia (»Ustava Republike Slovenije«, 1991), everyone has the right to personal dignity and safety. This constitutional provision is concretised by the constitutional

theory and constitutional case-law. In its Decision No. U-I-25/95 (Ustavno sodišče RS, 1997), the Constitutional Court of the Republic of Slovenia explained, *inter alia*, that the right to personal security is primarily a negative right. As such, this right imposes on the state, local communities, other holders of public authority and in general on everyone the obligation to abstain from any intentional inadmissible interference with bodily integrity and security of an individual. Any infringement of the right to personal security is prohibited by the constitution, except for those explicitly allowed (U-I-25/95).

On the other hand, the right to security is also a right to positive state action as set out by the Constitutional Court in its Decision No. Up-1082/12 (Ustavno sodišče RS, 2013). The state and local communities are required to actively seek to ensure the highest possible reasonably achievable level of security of residents.

In this respect, local community authorities are also obliged to ensure to the entire population, within the scope of their powers, efficient criminal law, minor offences law, civil law, administrative law and other legal protection against any interference with their personal security (Ustavno sodišče RS, 2013). The sections below contain an analysis of repressive powers of municipal wardens in the field of ensuring safety and security.

In order to ensure security municipal wardens may impose the following measures and carry out the following proceedings in which a penalty is imposed:

- 1. A warning** is the least restrictive measure that may be used by a municipal warden. This power is regulated in the »Police Tasks and Powers Act« (ZNPPol, 2013). Wardens may issue a warning to draw attention of natural and legal persons, including state authorities, to the circumstances, acts and omissions that could constitute a threat to human life, security, property or public order. It may be issued orally or in writing by using technical means or via public media. Warnings should be clear, brief and unambiguous.

When municipal wardens as an authority decide on the rights, obligations, and legal benefits of clients, they are primarily bound by the principle of legality. Their decisions are subject to the law and regulations both formally and substantively. Any decisions bound by the law are considered as primary and fundamental, meaning that an authorised officer shall use substantive and procedural rules as enshrined in the law. Another potential form of decision-making when issuing a warning is the use of discretionary decisions. It is legally permissible and governed in the »ZP-1-UPB8« (2011). The third decision-making option would be legally unbound or arbitrary decisions that are prohibited by law.

Discretionary powers of municipal wardens constitute a bridge between a series of unexpected, unpredictable situations and a substantive decision they should take. They are based on a clear legal authorisation under the Minor offences act (»ZP-1-UPB8«, 2011) of the misdemeanour authority, i.e. a municipal warden that holds this right and exercises it. A discretionary power is always determined by law. Instruments of a lower rank, such as government decrees, regulations of ministers or decisions issued by municipalities do not provide a sufficient legal basis for a legal and systemic regulation of discretionary powers.

Once a discretionary power to decide is laid down in the law, municipal wardens remain bound by substantive and procedural law. However, in addition to those other circumstances are taken into consideration. Wardens may make various decisions relating to the identification of a minor offence. They may issue a decision imposing a fine or a reprimand, a payment order if it is prescribed or they may suspend the procedure using a formal note. Municipal wardens possess discretionary powers when conditions are met for issuing a warning rather than a specific act, including sanctions.

The Minor offences act (»ZP-1-UPB8«, 2011) lays down when and how a warning should be issued, in what way municipal wardens are bound by regulations, what are the limits on the discretion and when the conditions are satisfied indicating that discretion powers are appropriate, namely: »The minor offence authority's authorised official may, instead of imposing a sanction, issue a warning to the offender in cases where the minor offence is insignificant and the official is of the opinion that a warning is a measure proportionate to the gravity of the act committed. The authorised official shall warn the offender and explain to him or her the nature of the minor offence. The minor offence authority may keep a record of warnings issued but shall not be allowed to process personal data in this context.«

2. Imposition of a fine in the case of minor offences forms part of wardens' powers they possess when a minor offence is established in accordance with the Minor offences act (»ZP-1-UPB8«, 2011). A fine is imposed as the main penalty for offences regulated in municipal decrees or laws which are subject to the review by municipal wardens in substantive and legal terms. A fine is always indicated on a payment order or a minor offence decision. Normally, a payment order is issued, but municipal wardens issue a decision Minor offences act (»ZP-1-UPB8«, 2011, Article 56.) if the substantive provision, defining a minor offence, provides for mandatory confiscation of objects in addition to the imposition of a fine; in the event of asset recovery; if a reprimand is issued instead of a fine; if a municipal warden imposes a fine lower than the minimum fine prescribed (only in cases of infringements of government regulations; in municipal regulations, however, fines are indicated in single amounts rather than using a scale of fines) and in other cases when the conditions for issuing a payment order do not exist.

3. Moreover, municipal wardens may give a **verbal order** when performing their tasks, including mandatory instructions and prohibitions, measures and activities directly impacting successful provision of municipal warden services (»ZORed«, 2006). This power resembles the police power, namely an order on the basis of which police officers may give instructions or require certain behaviour from individuals to be able to perform their tasks (»ZNPPol«, 2013).

4. Municipal wardens **establish identity** of persons in respect of whom there are grounds for believing, based on their behaviour and conduct at a specific place or at a specific time, that they will commit, are committing or have committed a minor offence or a criminal offence whose perpetrators are prosecuted ex officio. The identity is established by stopping a person in an appropriate manner and explaining the reason for that, followed by the request

to hand over a public document bearing the person's photograph issued by a state authority. If the person is covered or masked, the municipal warden may demand that the person uncover himself/herself to determine his/her identity. If the municipal warden has doubts regarding the authenticity of the public document or if the person does not have such a document, or if the identity cannot be established with certainty, the municipal warden may establish identity through a discussion, verification of data on identity with the aid of data from other documents and the aid of other persons, or at another location or in a manner suggested by the person, if such an action is deemed safe and practical. If, however, the municipal warden is unable to establish the person's identity he/she may request the police to establish the identity («ZORed«, 2006).

5. Municipal wardens may also conduct a **security check of a person** in accordance with the provisions of the «ZNPPol« (2013) specifying that a security check may be carried out of a person if according to the circumstances the person in question might attack someone or harm himself/herself. The security check includes checking the persons, their possessions and transport means, whereby police officers, municipal wardens will establish if the person is armed or carries other dangerous objects or substances on his/her person by tapping down using their hands the individual's clothes, gloves, hair coverings and hair and examine the shoes. A security check of a person does not include a body search, or a strip search and municipal wardens are not allowed to search any hidden parts of the vehicle. As a rule, the search is performed by a police officer of the same sex, except when a security search cannot be postponed. Technical instruments or a service dog may be used during the search («ZNPPol«, 2013).

6. **Confiscation of items** is a power not specifically laid down by the «ZORed« (2006) and as a result, the provision of the law applies governing the manner in which the power is exercised by police officers. It specifies that items intended for assault or self-infliction, as well as items that can seriously endanger public order or the general safety of people or property may be confiscated. An item must be confiscated so as not to cause unnecessary damage, a confiscation certificate must be issued to the person in question and confiscated items handed over to the competent body where a follow-up procedure is carried out. If proceedings against the person whose items have been confiscated have not been initiated before a competent body, the items must be returned to the individual unless they are regarded as dangerous items or as items to be confiscated by law or if the person unambiguously expresses his/her intention not to possess the item any longer. Any items to be confiscated under the law shall be destroyed under official supervision and a relevant report shall be drawn up («ZNPPol«, 2013).

7. By **detaining a person** municipal wardens may temporarily restrict the movement of a person subject to the proceedings, they must acquaint the person with the reason for his/her detention and if the person so wishes also with the expected duration of the detention. Detention should only be for the period necessary to fulfil the procedures or a maximum of one hour since the

beginning of the procedure. A person whose identity should be established may be detained at the scene; a person caught in the act of committing a criminal offence in respect of which a perpetrator is persecuted ex officio and a perpetrator of an offence falling within the jurisdiction of another misdemeanour authority when it is necessary to ensure security of persons and property (»ZORed«, 2006).

8. Municipal wardens are allowed to use **three different instruments of restraint**, i.e., physical force, means of cuffing and restraining and gas spray. Municipal wardens must not use instruments of restraint against children or the visibly ill, elderly or impaired persons, persons with apparent severe disabilities or visibly pregnant women, unless this is strictly necessary to bring their resistance to detention under control or repel an assault or prevent a person from self-harm (»ZORed«, 2006). As regards the power relating to the **use of physical force** the same conditions apply to municipal wardens as to police officers. Physical force may be used if they are unable to control the person's resistance in any other way, repel an attack or prevent self-harm of the person. Therefore, municipal wardens are allowed to use professional hand grips, hand, and foot strikes, throws and takedowns, exert expert pressure, physical force for pushing, shoving, transporting or separating people. The principle of professionalism applies to the use of any force (»ZORed-A«, 2017; »ZNPPol«, 2013). Municipal wardens may use **gas spray** if the conditions for the use of physical force are fulfilled and if they are unable to use any other less stringent instrument of restraint (»ZORed-A«, 2017). It is a means of defence to temporarily incapacitate the perpetrator. Aggressiveness of an attacker is not the sole sufficient precondition for the application of gas spray but also a simultaneous attack that cannot be averted (Zaberl, 2007). In accordance with Article 14 of the »ZORed-A« (2017), municipal wardens are allowed to **use means of cuffing and restraining** if a person resists detention, for averting an attack and preventing self-harm of the person.

4 ANALYSIS OF THE LATEST AMENDMENTS TO THE LEGAL REGULATION OF MUNICIPAL WARDEN SERVICES AND THE CONCLUSION

The »ZORed-A« (2017) brought about amendments to the previous »ZORed« (2006) with most amendments referring to the third chapter governing the powers of municipal wardens when performing their tasks. The first amendments relate to Article 10 of the »ZORed« (2006) reading: »Unless otherwise provided by this Act, the provisions of the Police Tasks and Powers Act (ZNPPol, 2013) and implementing regulations governing the principles and manner of using similar powers of police officers shall apply to the exercise of the powers of giving warnings, carrying out a security search, seizing items and the application of coercive measures.«

The second indent of Article 10 of the »ZORed-A« (2017) reads: »The exercise of the powers referred to in the preceding paragraph shall be subject to

the provisions of the Act governing police tasks and powers, unless otherwise provided by this Act.«

In Article 12 of the »ZORed-A« (2017) the term identity was replaced by identity. Municipal wardens, therefore, have the power to establish the identity, but it is not identical to the power of police officers who are given access to consult the data contained in appropriate records (Lavtar, 2017). If municipal wardens wish to carry out an identification procedure they must still request the assistance of the police.

Another amendment refers to Article 13 of the »ZORed« (2006), which stated that at the location of an incident, municipal wardens may detain a perpetrator and a person who has been caught committing a criminal offence for which the perpetrator is prosecuted *ex officio* or on the proposal, and that they were also allowed to detain a person where identification by the police was required, namely until the police arrive, but no longer than one hour (»ZORed«, 2006).

In accordance with the »ZORed-A« (2017), this Article now states that municipal wardens may temporarily restrict the movement of the person involved in a procedure, that they must clarify the reasons for detention to the person at issue and inform the person, if so requested, of the expected duration of detention. Moreover, municipal wardens may detain at the location of an incident a person whose identity needs to be established, a person who has been caught committing a criminal offence for which the perpetrator is prosecuted *ex officio* or a perpetrator if this is necessary to ensure the safety of people and property. The detention may last for as long as it is necessary, but no longer than one hour after the procedure has begun (»ZORed-A«, 2017).

Article 14 of the »ZORed-A« (2017) was also extended by stating more clearly the conditions for the application of specific instruments of restraint. In accordance with the amendment to the Act, municipal wardens may use the means of cuffing and restraining if the person resists detention, in order to repel an assault and in order to prevent a person from self-harm (»ZORed-A«, 2017). Municipal wardens may use physical force if they cannot otherwise bring the resistance of the person who needs to be detained under control, repel an assault, or prevent self-harm. Municipal wardens may use gas spray if the conditions for the use of physical force are fulfilled and if they are unable to use any other less stringent instrument of restraint (Lavtar, 2017). As a result of this amendment the issues not regulated with sufficient clarity in accordance with the »ZORed« (2006) were resolved. Under this amendment, the instruments of restraint are classified by severity level and the use of physical force, means of cuffing and restraining and gas spray is clarified better. Their application must be based on concrete cases, whereby an instrument of restraint should be used causing the smallest possible consequences (Lavtar, 2017).

Article 16 of the »ZORed« (2006) was amended by listing the powers, the use of which must be reported by municipal wardens to their superior officer.

In addition to the amendments, Article 28a was added referring to the records of the use of instruments of restraint. It states that municipal warden services shall keep records to be retained for two years. The information processed in the records include the data on the municipal warden who used the instrument of

restraint, the data on the person against whom the instrument of restraint was used and the information on the incident (»ZORed-A«, 2017).

The »ZORed« (2006) is a framework law defining the work of municipal wardens. The scope and tasks performed by officials authorised to perform municipal warden services are also set out in other laws and regulations. These laws are amended and give more and more powers to municipal wardens. The »ZORed-A« (2017) has brought about conceptual changes resulting in coordination of specific provisions from other laws by amending certain articles relating to the supervision of the use of powers of municipal wardens or articles regulating the conditions for performing the duties of a municipal warden. Nevertheless, municipal wardens still use the »ZNPPol« (2013) for the application of specific powers and comply with the conditions set out therein (Lavtar & Kečanović, 2017). In view of this, the first hypothesis may be confirmed since the »ZORed-A« (2017) has clarified more appropriately certain ambiguities of the »ZORed« (2006). The amendment to the legislation is considered useful by arranging in a comprehensive and systematic manner the organisation and determining the scope, tasks, and powers of municipal warden services (Lavtar, 2017).

As indicated above, the right of an individual to personal security is a relative right, meaning that it is limited by the rights and liberties of other people (Flander & Tičar, 2019). As a consequence, situations arise in the legal system where an individual's right to personal security is in conflict with other rights of other people. Municipal wardens must also pay attention to this concept of understanding safety at the local level.

Even though the duties and responsibilities of municipal wardens are increasing, municipal wardens continue to control primarily the municipal roads where they ensure safety and smooth traffic flow. Moreover, they ensure safety on municipal public space areas, protect public property, the natural and cultural heritage and maintain public order. The municipal wardens' powers should, therefore, be understood as the right and duty to perform the tasks as authorised officials on behalf of the state or a local community, whereby they should also consider specific principles and the manner in which the police powers are exercised (Dvojmoč, 2017).

However, both in theory and practice the general feeling is that the main reason why local communities prescribe penalties and introduce municipal warden services with the relevant powers in accordance with the regulations is to fund municipal budgets rather than perform their principal function, i.e. to ensure citizens' safety and security. If in any specific case such allegations turn out to be true the question arises as to the legitimacy and legality (Meško et al., 2016) of municipalities defining minor offences and prescribing sanctions (Tičar et al., 2020).

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About the author:

Prof. Bojan Tičar, PhD, Doctor of Legal Sciences and full professor of public law and public administration at the University of Maribor, Faculty of Criminal Justice and Security. E-mail: bojan.ticar@fvv.uni-mb.si

Study of Different Forms of Peer Violence in Primary and Secondary Schools – a Systematic Literature Review

Teja Primc, Teja Lobnikar, Blažka Tratnik, Miha Dvojmoč

Purpose:

The purpose of this article is to review the literature on peer violence in primary and secondary schools, and to present key findings of these studies.

Design/Methods/Approach:

The systematic literature review was performed in the Web of Science and Scopus databases, using the PRISMA method.

Findings:

A total of 81 articles were selected for the final review. The issue of bullying and cyberbullying is extensive and complex, yet there is still no single definition of this phenomenon. Traditional bullying in primary schools reaches up to 76%, while the prevalence of cyberbullying varies below 10%. The perpetrators are more often boys, while girls are often in the role of victims. Violence is more common in younger children. Risk factors for exposure to violence include belonging to an ethnic minority and the lower economic class. Well-developed emotional intelligence is highlighted as a protective factor. There is more cyberbullying in secondary schools (67%), while traditional bullying is as high as 97%. Male students are more often perpetrators, while female students are more often victims. Students with low self-esteem, members of ethnic minorities and lower economic classes are more exposed to violence. Risk factors for causing violence include a previous history of violence, substance abuse, bad associations, and a poor family environment.

Research Limitations/Implications:

The findings of the article provide a starting point for the compilation of a comprehensive plan for researching the phenomenon of peer violence in primary and secondary schools in Slovenia, and serve as a basis for the development and implementation of a programme for establishing a safe educational environment.

Originality/Value:

The article is the starting point for an empirical study that will address peer violence in primary and secondary schools in Slovenia.

Keywords: bullying, cyberbullying, peer violence, primary schools, secondary schools

UDC: 343.915

Proučevanje medvrstniškega nasilja v osnovnih in srednjih šolah – sistematični pregled literature

Namen prispevka:

Namen prispevka je pregled literature s področja medvrstniškega nasilja v osnovnih in srednjih šolah in predstavitev ključnih ugotovitev teh študij.

Metode:

Sistematični pregled literature je bil opravljen po metodi PRISMA v bazah podatkov Web of Science in Scopus.

Ugotovitve:

V končni pregled smo izbrali skupno 81 prispevkov. Problematika ustrahovanja in spletnega ustrahovanja je obsežna in kompleksna, kljub temu pa še vedno ni enotne definicije tega pojava. Tradicionalno ustrahovanje v osnovnih šolah sega do 76 %, medtem ko se pojavnost spletnega ustrahovanja giblje pod 10 %. Povzročitelji so pogosteje dečki, deklice pa so večkrat v vlogi žrtve. Nasilje je pogostejše pri mlajših otrocih. Dejavnika tveganja za izpostavljenost nasilju sta pripadnost etnični manjšini in nižjemu ekonomskemu razredu. Kot varovalni dejavnik je izpostavljena dobro razvita čustvena inteligenca. V srednjih šolah je spletnega ustrahovanja več (67 %), medtem ko tradicionalno ustrahovanje sega kar do 97 %. Dijaki so pogosteje povzročitelji, dijakinje pa žrtve nasilja. Nasilju so bolj izpostavljeni dijaki s slabo samopodobo, pripadniki etničnih manjšin in nižjih ekonomskih razredov. Dejavniki tveganja za povzročitev nasilja so predhodna zgodovina nasilja, zloraba substanc, slaba družba in slabo družinsko okolje.

Omejitve/uporabnost prispevka:

Ugotovitve prispevka dajejo izhodišče za sestavo celovitega načrta raziskovanja pojava medvrstniškega nasilja v osnovnih in srednjih šolah v Sloveniji ter služijo kot osnova za razvoj in vpeljavo programa za vzpostavitev varnega vzgojnega in izobraževalnega okolja.

Izvirnost/pomembnost prispevka:

Prispevek je izhodišče za empirično študijo, ki bo obravnavala medvrstniško nasilje v osnovnih in srednjih šolah v Sloveniji.

Ključne besede: ustrahovanje, spletno ustrahovanje, medvrstniško nasilje, osnovne šole, srednje šole

UDK: 343.915

1 INTRODUCTION - DEFINITION OF THE CONCEPT AND THE OBJECTIVE OF STUDY

Providing education – and thus school organisations in a broader sense – can be categorised as a critical infrastructure responsible for »creating the citizens of the future«. Such organisations are the place where children spend a significant portion of their time. In Slovenia, the average number of planned instructional hours in primary schools for students of different ages (ranging from 7 to 14 years) is 711 hours. This means that children spend as many as 119 days a year in school, which amounts to one third of the calendar year. There are different levels and forms of interpersonal relationships occurring in schools, and both students and teachers can be exposed to various threats to their safety, including violence.

A safe school environment is a basic prerequisite for effective education of children and youth. Violence in schools in all its forms creates insecurity and fear, which harms the general school environment and violates the right of students to learn in a safe and supportive environment. In addition to endangering children's rights, it poses a particular risk to vulnerable children, with a focus on children with disabilities, excluded children, or simply children who are different from their peer group (Menesini & Salmivalli, 2017).

A statement from the National Association of Psychologists on school violence (NASP, n.d.) emphasised the importance of schools' efforts to continue to act as safe havens that allow all young people to grow academically, socially and emotionally. School safety must include structured safety, as well as unstructured measures such as raising awareness, providing communication, strengthening and empowering students (Mali, 2019).

The problem of dealing with bullying in schools has led to many suggestions in recent years on how best to address it. The most commonly used approach is to introduce a zero-tolerance policy and to ensure that those perpetrating bullying are punished, regardless of the severity of the threats (Arslan et al., 2011; Carrera-Fernández et al., 2021; Mali, 2019; Rigby, 2012; Yurtal, 2014).

Peer violence is one of the most commonly observed types of violence in schools (Rigby, 2012), and the latest definitions of this type of violence include, in addition to physical violence, economic, emotional, verbal and sexual forms of violence. In modern times, it most often manifests in the form of physical violence, (including bullying) and cyberbullying (Frederique, 2020). The broader definition of peer violence has been defined as »aggressive, deliberate acts committed repeatedly and continuously by a group or individual against a victim who cannot easily defend themselves« (Menesini & Salmivalli, 2017).

There is no uniform definition of bullying, as various experts define the term differently, and bullying itself is not legally regulated in the Slovenian environment. Scientific literature most often defines bullying as repetitive behaviour aimed at affecting another person, primarily on an emotional level, and often deliberate (Bae, 2021; Basile et al., 2020; Ekşi & Türk-Kurtça, 2021; Evans & Smokowski, 2016; Manin et al., 2020; Sherer & Sherer, 2011; Zych et al., 2019). Such behaviour is aggressive and involves an element of imbalance of power and continuity (Perren et al., 2010; Rigby, 2012; Stickl Haugen et al., 2019). Bullying thus includes actions such as threats, spreading rumours, and physical or psychological attacks with

intent to harm an individual (Bellmore et al., 2017; Gaffney et al., 2019). There are several types of bullying: verbal, social, and physical bullying (Turkmen et al., 2013; Whittaker et al., 2015). Verbal bullying includes teasing, insults, inappropriate sexual comments, and threats (indirect and direct). Social bullying includes aspects of damaging reputation by spreading rumours and untruths, ignoring, social exclusion, and humiliation, while the highest level of bullying is physical bullying, where verbal and social bullying escalates into bodily harm to the individual.

Recently, however, a new form of bullying has emerged with digitalisation: cyberbullying or online bullying (Perren et al., 2010). Scientific literature suggests several definitions of cyberbullying, but it is generally considered to be a form of bullying that uses technology to achieve a goal (De Pasquale et al., 2021; Manin et al., 2020; Margitics et al., 2020; Perren et al., 2010; Wang & Sek-yum Ngai, 2021). Cyberbullying is perpetrated by using digital technology, and the most commonly used are cell phones, computers, and tablets. It is understood as intentionally reparative behaviour that has a damaging effect on the victim. Authors mention three important aspects of traditional bullying which are intention, repetition, and power imbalance. Adding that cyberbullying also includes elements of anonymity and publicity (Campbell & Bauman, 2017). The difference between traditional bullying and cyber bullying is mainly that traditional bullying happens face to face, while cyberbullying happens online so the perpetrator can hide behind the computer screen. As cyberbullying allows anonymity it can result in perpetrators being crueller towards their victims (Donegan, 2012).

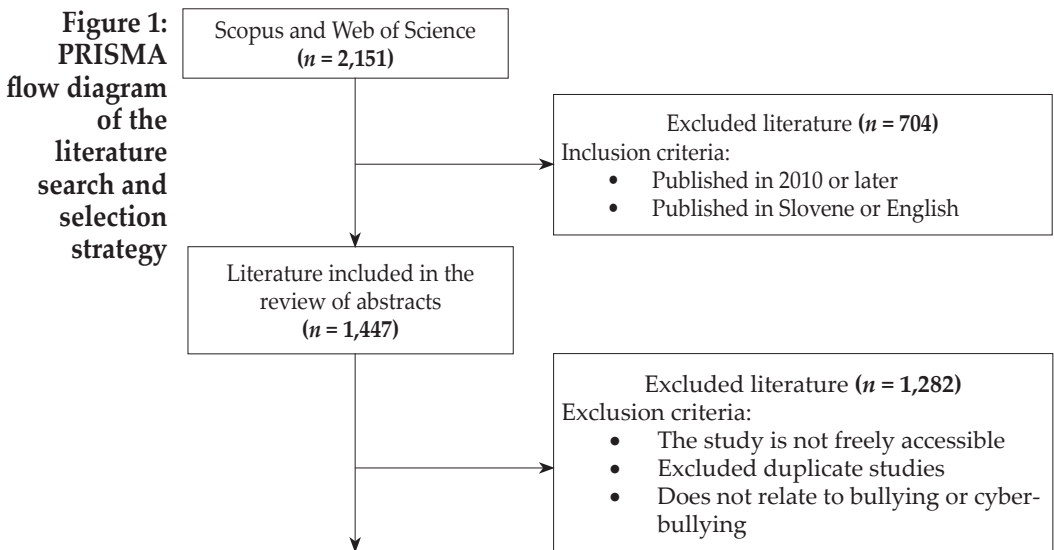
Currently, bullying and denigration are very common on social media (Margitics et al., 2020). Social media is used to post negative, harmful, false or malicious content about someone else, which is sent with the intent to cause embarrassment or humiliation (Mohseny et al., 2020). In this article we consider bullying to be one of the forms of peer violence that can include or not include cyberbullying.

The article presents a comprehensive review of literature on the prevalence of research on peer violence in primary and secondary schools. In this systematic literature review we included research that involves children from ages 6 to 19. According to the Slovenian school system we divided articles into two age groups (primary and secondary school). Children from ages 6 to 14 were included for the primary schools and ages 15 to 19 for the secondary schools. We summarise the findings of existing studies on the prevalence of violence in schools, on differences in age and sex of children and adolescents in relation to causing or experiencing violence, describe the different types of bullying, and present a comparison of selected good practices, which describe different approaches to creating a safe school environment with a zero-tolerance policy on violence. At the end of the article, we summarised our conclusions, discussed the gaps in the field of peer violence in schools, and provided guidelines for further research.

2 DESCRIPTION OF METHODOLOGY

The systematic review of literature on the topic of peer violence in primary and secondary schools was conducted in the Scopus and Web of Science databases. For the research of literature regarding peer violence in primary schools, we used the following search query combination: ((bull* OR bully* OR teasing OR tormenting OR harassing OR browbeat* OR hectoring OR tyranniz* OR »cyber bully*« OR »online bully*« OR »online harass*« OR »cyber harass*« OR »bullying online« OR »harassment online« OR trolling) AND (»elementary school*« OR »primary school*« OR »grade school*« OR »junior school*« OR »grammar school*« OR »folk school*«)). For the research of literature on the topic of peer violence in secondary schools, we used the following search query combination: ((»high school« OR »middle school« OR teen* OR adolescent) AND ((bull* OR bully* OR teasing OR tormenting OR harassing OR browbeat* OR hectoring OR tyranniz* OR »cyber bully*« OR »online bully*« OR »online harass*« OR »cyber harass*« OR »bullying online« OR »harassment online« OR trolling). The synonyms used to define the search parameters for schools were determined on the basis of the most frequently used synonyms for primary and secondary schools in the global research environment and the valid Slovenian school system. We searched for the chosen combination of words in literature titles, keywords and abstracts. The literature review was conducted on 17 February 2021. Our inclusion criteria captured articles published in 2010 or later and articles written in Slovene or English. In the next phase, duplicate contributions were excluded from the article database. Furthermore, we excluded literature that is not freely available and that does not relate to bullying or cyberbullying. In reviewing the full texts of the articles, we excluded in the last phase studies that were not relevant for our review and those that do not meet all inclusion criteria.

The literature review process for articles on peer violence in primary schools is presented in Figure 1.



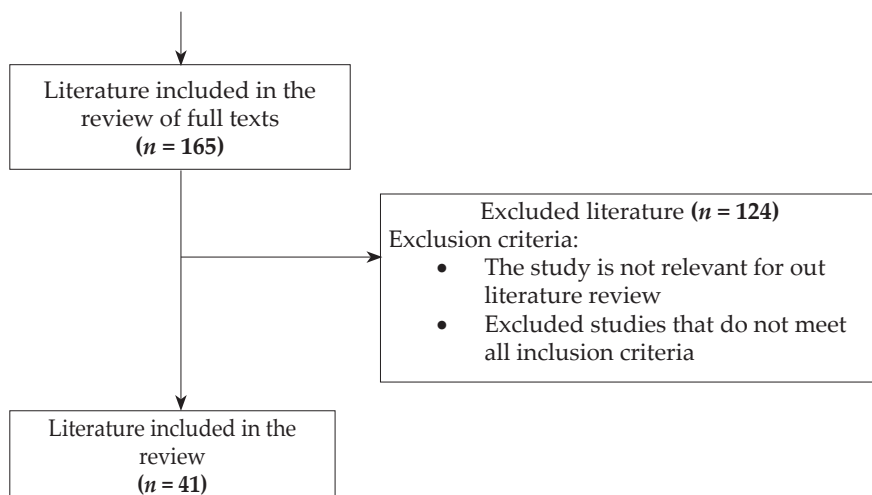


Figure 2 presents the literature review process for articles on peer violence in secondary schools.

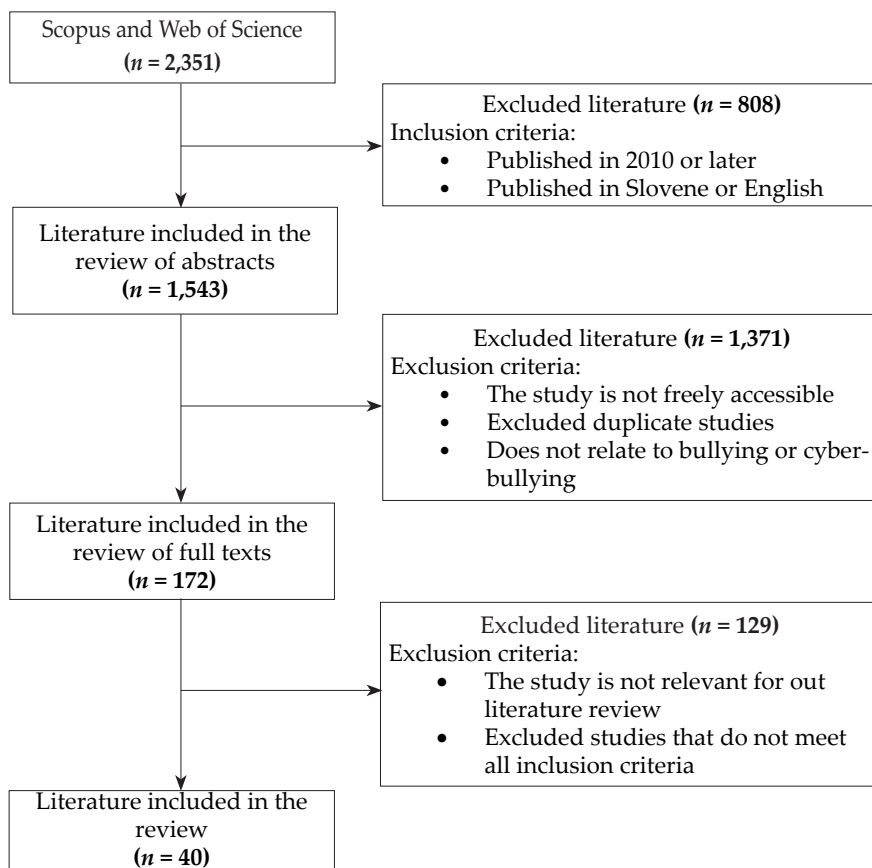


Figure 2: PRISMA flow diagram of the secondary school literature search and selection strategy.

3 FINDINGS

Based on the literature collection process described, a query using the selected search string returned a total of 4,502 potentially relevant papers. Taking into account the inclusion and exclusion criteria and after excluding any duplicates, 81 papers were included in the final analysis, of which 41 on the topic of peer violence in primary schools and 40 regarding peer violence in secondary schools. A description of the papers included in the systematic literature review is presented in Table 1 and Table 2.

3.1 Findings of literature review on peer violence in primary schools

Table 1:
Description
of articles
included in
the literature
review

Article	Type of article	Key results and findings
1. (Agee & Crocker, 2016) Are Current U.S. Anti-Bullying Programs Net Beneficial to Parents? Inferences from School Switching	Survey <i>Parents from 595 families</i>	There is a link between changing schools and bullying of children, as the victim’s parents do not trust the quality and good work of the school. On average, parents would be willing to pay \$130.00 per year to reduce their child’s victimisation. The amount ranges from \$54.00 (parents of non-victim children) to \$633.00 (parents of child victims).
2. (Aizenkot & Kashy-Rosenbaum, 2020) The effectiveness of Safe Surfing, an Anti-cyberbullying Intervention Program in Reducing Online and Offline Bullying and Improving Perceived Popularity and Self-esteem	Experiment and survey <i>1,550 students</i>	The implemented prevention programme reduced the prevalence of bullying, as well as cyberbullying, although it was focused primarily on the online form. Students’ self-esteem had also improved.

3.	<p>(Al-Saadoon et al., 2014)</p> <p>The Magnitude and Impact of Bullying among School Pupils in Muscat, Oman: A Cross-sectional Study</p>	<p>Cross-sectional study</p> <p>1,229 students</p>	<p>76% of students were victims of one type of bullying. Predominantly, victimisation took place near the school and was caused by students of the same or higher age as the victim. The most common form was verbal violence. The effects of bullying were resulted in absences, as the victims were more often absent from school.</p>
4.	<p>(Axford et al., 2020)</p> <p>The Effectiveness of the KiVa Bullying Prevention Program in Wales, UK: Results from a Pragmatic Cluster Randomized Controlled Trial</p>	<p>Longitudinal study</p> <p>22 schools from Wales</p>	<p>The bullying prevention programme did not show results in the schools where the programme was implemented. The data showed no improvement compared to the control group of schools.</p>
5.	<p>(Baas et al., 2013)</p> <p>Children's Perspectives on Cyberbullying: Insights Based on Participatory Research</p>	<p>Group sessions</p> <p>28 primary school students</p>	<p>Conversations with children indicated that not everyone knows the difference between cyberbullying and pranks. The distinction emphasised the purpose of the perpetrator and the frequency of the events. Children highlighted their fear of the parents' reaction if they found themselves in the role of victim.</p>
6.	<p>(Chokprajakchat & Kuanliang, 2018)</p> <p>Peer Victimization: A Review of Literature</p>	<p>Literature review</p>	<p>Due to the occurrence of bullying in schools, a large number of prevention programmes have emerged over the years. The authors emphasise the importance of establishing programmes focused on victims and the possible consequences of bullying, which will understand the characteristics of perpetrators of violence.</p>

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7.	(Clarkson et al., 2019) Introducing KiVa School-based Antibullying Programme to the UK: A Preliminary Examination of Effectiveness and Programme Cost	Longitudinal study <i>41 primary schools in the UK</i>	Following the introduction of the one-year prevention programme, the level of bullying in primary schools decreased. However, the authors emphasise results should be interpreted with caution, as the study included no control group. The programme also proved to be financially favourable.
8.	(Corcoran & McGuckin, 2014) Addressing Bullying Problems in Irish Schools and in Cyberspace: A Challenge for School Management	Survey <i>44 principals</i>	There was very little response among principals to participate in the survey. The responses indicated that all participants had implemented policies to reduce bullying in their schools. Most had also included cyberbullying in their policies. The problems facing principals are reflected in further action in this area and the education of their employees. The authors emphasise the importance of better guidance and leadership by the Ministry of Education.

9.	<p>(Donoghue et al., 2015)</p> <p>When is Peer Aggression ‚Bullying?‘ An Analysis of Elementary and Middle School Student Discourse on Bullying at School</p>	<p>Focus groups</p> <p>54 students</p>	<p>When describing their own perception of the definition of bullying, students used different words than those used in the definitions. However, they distinguished bullying from other aggressive acts among peers by similar criteria. Younger students placed more emphasis on the role of teachers to solve victimisation than older students, who stated that they would try to solve the problem on their own. Children often do not know the true definition of bullying, and education provided by teachers and parents plays an important role.</p>
10.	<p>(Dulovics & Kamenská, 2017)</p> <p>Analysis of Cyber-bullying Forms by Aggressors in Elementary and Secondary Schools</p>	<p>Survey</p> <p>390 primary school students and 541 secondary school students</p>	<p>One in ten students bullied others online, and did so repeatedly. The most common forms were insults, threats and name-calling. In terms of forms of bullying, girls had a higher prevalence than boys only for social exclusion.</p>
11.	<p>(Eriksen, 2018)</p> <p>The Power of the Word: Students’ and School Staff’s Use of the Established Bullying Definition</p>	<p>Interviews</p> <p>455 employees and students in primary schools in Norway</p>	<p>Interviews were conducted in schools where the definition of bullying is clearly established. Teachers’ responses showed that this very specific definition was too rigid and not the best for use in schools. They also highlighted the excessive use of the word bullying among students, even if bullying did not occur.</p>

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12.	(Grifoni et al., 2021) Against Cyberbullying Actions: An Italian Case Study	Case study <i>Students, teachers and parents from 22 primary schools in Italy</i>	Strategies and preventive measures to reduce cyberbullying are key to improving the problem. They should be included in the school system itself. It is important that students, teachers and parents are actively involved.
13.	(Hall & Chapman, 2018) The Role of School Context in Implementing a Statewide Anti-Bullying Policy and Protecting Students	Survey <i>505 employees in schools</i>	There have been major differences observed in different schools in the implementation of the anti-bullying policy in effect in North Carolina. Larger schools with more student expulsions were less successful in the implementation of the policy. In addition, secondary schools were more effective than primary schools. The level of protection of children by teachers, however, was higher in primary schools.
14.	(Han et al., 2017) School Bullying in Urban China: Prevalence and correlation with school climate.	Survey <i>3,675 students</i>	The results of the questionnaire showed that 26.9% of students were victimised. Bullying is more common in primary schools than secondary schools. A good relationship with teachers and classmates is very important in protecting students against bullying.

15.	<p>(Jansen et al., 2012)</p> <p>Prevalence of Bullying and Victimization among Children in Early Elementary School: Do Family and School Neighbourhood Socioeconomic Status Matter?</p>	<p>Survey</p> <p><i>6,379 primary school students</i></p>	<p>A third of the children were involved in bullying. Most of them were perpetrators of bullying, followed by students who were both victims and perpetrators. A few children were just victims of bullying. Statistically, the survey did not show a link between a higher prevalence of bullying and schools in a poorer socioeconomic environment. However, there was a greater likelihood that a child would participate in bullying if they came from a family with poorer socioeconomic circumstances.</p>
16.	<p>(Karabacak et al., 2015)</p> <p>Determination of the Level of Being Cyber Bully/Victim of Eighth Grade Students of Elementary Schools</p>	<p>Survey</p> <p><i>167 students</i></p>	<p>Among Turkish children, the survey showed that cyberbullying is not very widespread. There is a higher proportion of boys among victims and perpetrators. A child who is a victim is also more likely to act as a perpetrator of cyberbullying.</p>
17.	<p>(Kaufman et al., 2018)</p> <p>Why Does a Universal Anti-Bullying Program Not Help All Children? Explaining Persistent Victimization During an Intervention</p>	<p>Longitudinal study</p> <p><i>9,122 primary school students</i></p>	<p>When the KiVa bullying prevention program was introduced, students observed three different outcomes: bullying decreased, bullying remained frequent, and there was no bullying (stable). Isolation from classmates, internalisation of problems, and poor relationships with parents are the reasons why some children were still victimised even after the intervention.</p>

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18.	(Khan et al., 2020) Traits, Trends, and Trajectory of Tween and Teen Cyberbullies	Literature review	The literature review did not provide authors with an insight into when cyberbullying begins and how it develops. The traditional form develops long before entering adolescence. The online form of bullying, however, depends on the child starting to use the web.
19.	(Kim et al., 2011) Bullying at Elementary School and Problem Behaviour in Young Adulthood: A Study of Bullying, Violence and Substance Use from Age 11 to Age 21	Survey and observational study <i>957 of young students</i>	The study showed that bullying at school can affect later behaviour. Specifically, it showed connections between causing violence and the use of alcohol and marijuana.
20.	(Kisfalusi, 2018) Bullies and Victims in Primary Schools: The Associations between Bullying, Victimization, and Students' Ethnicity and Academic Achievement	Survey <i>1,054 primary school students in Hungary</i>	The study did not show a link between bullying and belonging to ethnic minorities in students with a higher socioeconomic status. Students who belonged to the lower socioeconomic class and were members of minorities were more often bullied. Students with higher grades are less victimised.
21.	(Kisić-Tepavčević et al., 2020) Bullying Victimization in Primary School: A Cross-sectional Study in One Municipality in Belgrade	Cross-sectional study <i>380 students from 6 primary schools in Belgrade</i>	According to the results of the questionnaire, the prevalence of victimisation is 39.7%. This prevalence, however, decreases with age. So, it is higher in lower than in the higher grades. Gender differences are also evident, as the percentage of bullied boys is higher than the percentage of bullied girls. Bullying most often happens in classrooms and schoolyards. Education and the role of teachers are important in reducing the problem.

22.	(Kokkinos et al., 2013) Cyber-bullying, Personality and Coping among Pre-adolescents	Survey <i>300 primary school students</i>	There were no observable gender differences when it comes to the role of a victim of cyberbullying. However, perpetrators were more often boys. Children who are victims or perpetrators showed greater emotional instability in surveys. Boys, who are more aggressive by nature, are more likely to become perpetrators. On the other hand, children who did not participate in any of the roles showed a higher level of conscience.
23.	(Krek, 2020) Structural Reasons for School Violence and Education Strategies	Empirical study (survey and interview) <i>Survey: 175 teachers</i> <i>Interviews: 29 teachers, counsellors and principals</i>	Teachers have sufficient pedagogical knowledge to recognise violence among children and the reasons for it. Most of the respondents take appropriate steps to stop violent behaviour. Teachers are aware that the responsibility for action lies not only with counsellors, but also with teachers themselves. In practice, however, most leave measures to the counsellors.
24.	(Kritzinger, 2017) Growing a Cyber-safety Culture amongst School Learners in South Africa Through Gaming	Survey <i>47 students</i>	Educating students about online safety and cyberbullying is very poor in South Africa. Using video games could improve the situation and educate students, as well as teachers and parents.
25.	(León-Del-Barco et al., 2020) Emotional Intelligence as a Protective Factor Against Victimization in School Bullying	Survey <i>822 primary school students</i>	A child with better developed emotional intelligence and understanding has a lower likelihood of becoming a victim of bullying. These characteristics can thus be a protective factor for children. It makes sense to introduce learning emotional control into the school system itself or into prevention programmes.

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26.	(Machimbarrena & Garaigordobil, 2017) Bullying/Cyberbullying in 5th and 6th Grade: Differences between Public and Private Schools	Cross-sectional study <i>1,993 students</i>	In a comparison of public and private schools, the study found no statistically significant differences in the prevalence of violence. However, public school students experienced several different types of violence. More aggressive behaviour was observed in public schools.
27.	(Mobin et al., 2017) Cybervictimization Among Preadolescents in a Community-based Sample in Canada: Prevalence and Predictors	Survey <i>5,783 primary school students</i>	10.2% of surveyed children were bullied online. Among them, most were girls and students who are also traditionally bullied, have low self-esteem and poor relationships with their parents.
28.	(Monks et al., 2016) The Emergence of Cyberbullying in Childhood: Parent and Teacher Perspectives	Focus groups <i>41 parents and teachers of primary school students</i>	Participants in the focus group showed that they understand what cyberbullying is, as well as its forms and potential consequences. They agreed that, in terms of severity, cyberbullying can be equated with traditional bullying. Supervising the use of the web and mobile phones at home was seen as a good measure to reduce the problem.
29.	(Muijs, 2017) Can Schools Reduce Bullying? The Relationship between School Characteristics and the Prevalence of Bullying Behaviours	Survey <i>1,411 primary school students and 68 teachers</i>	There is less bullying in schools where prevention programmes are in place, and teachers and students monitor violent events in more detail. The size and type of school has no effect on the prevalence.

30.	(Rawlings & Stoddard, 2019) A Critical Review of Anti-Bullying Programs in North American Elementary Schools	Review and comparison <i>10 prevention programmes</i>	The PEGS prevention programme showed the greatest effect on reducing bullying in schools. This programme focuses on students who perpetrate bullying and thus changes their behaviour. Programmes that are universal and include all students are not as effective, but show positive effects on victims who gain more »allies«. It would make sense to combine these two types of programmes.
31.	(Ross & Horner, 2014) Bully Prevention in Positive Behavior Support: Preliminary Evaluation of Third-, Fourth-, and Fifth-Grade Attitudes Toward Bullying	Longitudinal study <i>3 schools</i>	A few steps have been added to the already introduced prevention programme in schools that would further improve the issue of bullying. Teachers assessed the programme as effective and easy to implement. The results of the study showed that children changed their behaviour, especially in the role of observer of victimisation. The practice of the stop sign worked very well in schools, empowering witnesses to take action in the event of incidents.
32.	(Salehi et al., 2016) Primary School Teachers and Parents Perception of Peer Bullying Among Children in Iran: A Qualitative Study	Interviews <i>4 teachers and 8 parents perpetrators of bullying and the victim</i>	Parents and teachers understand the issue of bullying, and perceive it as physical and verbal. But they are not aware of the long-term psychological consequences that children may bear. Teachers list punishment as the most effective method of ending bullying. Parental involvement is crucial in various prevention programmes and workshops.

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33.	(Seo et al., 2017) Factors Associated with Bullying Victimization among Korean Adolescents	Survey <i>2,936 students</i>	Bullying in schools declines with age. The 10 to 12 age group showed a higher rate of being bullied (9.5%) than the 15 to 17 age group (6.4%). Girls are more often victims of bullying.
34.	(Sidera et al., 2020) Bullying in Primary School Children: The Relationship Between Victimization and Perception of Being a Victim	Survey <i>4,646 primary school students</i>	The results of the survey showed that 36.7% and 4.4% of students were victims of bullying and cyberbullying, respectively. It is of some concern, however, that 56.9% of students were unaware that they were victims of traditional bullying. The data thus indicates normalisation of bullying among primary school students.
35.	(Tangen & Campbell, 2010) Cyberbullying Prevention: One Primary Schools Approach	Survey <i>35 students</i>	The study explored the effects of an approach based on the philosophy of community and dialogue building among students (Philosophy for children). Students attending schools with an implemented P4C programme recorded a higher rate of traditional bullying than children without the programme. The prevalence of cyberbullying did not differ significantly.
36.	(Umoke et al., 2020) Bullying Experience of Pupils in Nigerian Primary Schools	Observational study / cross-sectional study <i>1,080 primary school students</i>	Nigerian primary school students face a high rate of bullying (51.4% of boys and 50.8% of girls). There are also high rates of children witnessing and those perpetrating bullying. There is no gender difference in these three different roles. The implementation of state-supported anti-violence programmes is crucial.

37.	(Utari & Hermawati, 2017) Cyber Media Analysis: How to Read Cyber Bullying Messages among Children	Review of content and interviews <i>250 students</i>	When using the Facebook social network, children use fake names and do not post their personal pictures. On their profiles, they also change their age by up to 10 years. When committing bullying, children are not fully aware of the consequences of their actions. Parents are responsible for supervising their use of social networks.
38.	(Van der Ploeg et al., 2016) The Support Group Approach in the Dutch KiVa Anti-bullying Programme: Effects on Victimization, Defending and Well-being at School	Longitudinal study <i>66 primary schools (38 victims of bullying)</i>	The study investigated the effects of a support group on the frequency of victimisation of victims, their well-being at school, and the number of victim advocates. Reduced victimisation and improved child well-being were only short-term effects of the programme. During the school year of the study, the effects were no longer observed. Long-term improvement was seen observed with increased number of victim advocates.
39.	(Vannini et al., 2011) »FearNot!«: a Computer-based Anti-bullying-programme Designed to Foster Peer Intervention	Longitudinal study <i>2 primary schools</i>	In implementing the three-week prevention programme, the authors found that in both schools, there is a higher proportion of boys who are victims or perpetrators of bullying. As part of the workshops, children most often chose girls as so-called victim advocates. At the last evaluation, the results showed that German children responded positively to the programme, and the situation improved. The opposite is true for children from the United Kingdom, where the results were not evident.

40.	(Woolley, 2019) Towards an Inclusive Understanding of Bullying: Identifying Conceptions and Practice in the Primary School Workforce	Survey <i>131 employees in primary schools</i>	There are many different definitions of bullying in use. Teachers who themselves judged that the most common form of bullying was verbal violence did not highlight it in their definition. More than half of respondents described bullying as a recurring event rather than a one-off event. A single definition is needed – one that is clear, comprehensive and understandable.
41.	(Zequinão et al., 2016) School Bullying: A Multifaceted Phenomenon	Survey <i>409 students from socially vulnerable schools</i>	The prevalence of bullying ranges up to 29.8% and 40.5% in boys and girls, respectively. There is no statistical difference between the roles played by the different sexes. The lack of social support, however, is particularly noticeable in children coming from more vulnerable families. Insufficient action by teachers when violent situations arose was also apparent.

A review of literature on bullying in primary schools reveals a significant predominance of studies investigating the prevalence of bullying (Al-Saadoon et al., 2014; Dulovics & Kamenská, 2017; Han et al., 2017; Jansen et al., 2012; Karabacak et al., 2015; Kisić-Tepavčević et al., 2020; Mobin et al., 2017; Seo et al., 2017; Sidera et al., 2020; Umoke et al., 2020; Utari & Hermawati, 2017) and studies relating to evaluation of prevention programmes (Aizenkot & Kashy-Rosenbaum, 2020; Axford et al., 2020; Clarkson et al., 2019; Hall & Chapman, 2018; Kaufman et al., 2018; Muijs, 2017; Rawlings & Stoddard 2019; Ross & Horner, 2014; Van der Ploeg et al., 2016; Vannini et al., 2011).

When discussing bullying in its traditional form, most studies present a high percentage of victims of bullying. This percentages though vary due to different reasons. Authors of studies use different definitions of bullying and cyberbullying, different methodologies when researching the problem, studies are carried out at different time slots, the samples vary in size etc. The percentage of traditional bullying is high and ranges from 26.9% (Han et al., 2017) to 76% (Al-Saadoon et al., 2014). In some cases, however, there are schools with a low rate of victimisation, only 9.5% (Seo et al., 2017). Compared to traditional bullying, cyberbullying is much less widespread (Dulovics & Kamenská, 2017; Karabacak et al., 2015; Mobin et al., 2017; Sidera et al., 2020). Surveys collected in this literature review have

shown a prevalence of cyberbullying of around 10% or less. The survey that found 36% of children to be victims of traditional bullying, found only 4% of children to be victims of cyberbullying (Sidera et al., 2020). The most common form of bullying is verbal violence (Al-Saadoon et al., 2014; Woolley, 2019), which occurs mainly in classrooms, in schoolyards and near schools (Al-Saadoon et al., 2014; Kisić-Tepavčević et al., 2020).

Some studies indicate no gender differences in causing violence (Umoke et al., 2020), while others indicate statistically higher prevalence of boys as perpetrators of violence (Kisić-Tepavčević et al., 2020; Kokkinos et al., 2013; Vannini et al., 2011). Specifically, boys are more often in the role of the victim and in the role of the perpetrator. In some places, however, girls are more often in role of the victim (Mobin et al., 2017; Seo et al., 2017; Zequinão et al., 2016). Differences can also be observed in the connections between bullying and other demographic factors, such as age, socioeconomic circumstances, and belonging to ethnic minorities (Kisfalusi, 2018; Kokkinos et al., 2013). The authors of the articles noticed that violence is more common in younger children and that the prevalence decreases with age (Kisić-Tepavčević et al., 2020; Seo et al., 2017). Students who belong to ethnic minorities and also to a lower socioeconomic class are more likely to become victims of bullying. However, being a member of an ethnic minority has no effect if the child belongs to the higher socioeconomic class (Kisfalusi, 2018). When a child is growing up in a family with a poorer economic status, there is a greater likelihood that they will participate in bullying. Schools located in a poorer socioeconomic environment do not record a higher prevalence of bullying (Jansen et al., 2012). Well-developed emotional intelligence and understanding, however, are personal characteristics of children that supposedly reduce the likelihood of victimisation (León-Del-Barco et al., 2020). However, in the case of a pronounced aggressive character, it is necessary to observe the student in more detail, as the likelihood of committing violence against others is greater (Kokkinos et al., 2013).

Studies in the field of prevention programmes in schools assess the success or improved circumstances after the completion of the programme. We could say that the perception of bullying has changed over the years due to the increased public attention and reduced tolerance. Chokprajakchat and Kuanliang (2018) emphasize that bullying in schools has become more serious and noticeable therefore, a large number of different programs have been developed. However, different programmes bring different results. Among the very positive results, of course, is the reduced prevalence of bullying. Simultaneously, some schools have improved students' self-esteem and empowered witnesses to take action in the event of incidents (Aizenkot & Kashy-Rosenbaum, 2020; Ross & Horner, 2014). Furthermore, teachers and students monitor violent events in more detail (Muijs, 2017). Following the introduction of a one-year prevention programme in the United Kingdom, the prevalence of bullying in primary schools dropped significantly, but the authors emphasise caution in interpreting the results, as the study did not use a control group (Clarkson et al., 2019). In a study conducted in the U.S., where several programmes were included in the evaluation, the PEGS prevention programme (Rawlings & Stoddard, 2019) had the greatest effect on reducing bullying in schools. The study of the European KiVa programme,

which was conducted using a control group, showed no effect in improving the problems in schools (Axford et al., 2020). A separate article, referring to the same study, concluded that reduced victimisation and improved child well-being are only short-term results of the programme. During the next school year, the effects of the study were no longer observed (Van der Ploeg et al., 2016). It should be understood that different programmes also perform differently in different schools. In the implementation of the anti-bullying policy in the US, larger schools with more student expulsions were less successful in the implementation of the policy (Hall & Chapman 2018). In the implementation of the three-week prevention programme, the authors found that German children responded positively to the programme, and the situation improved. The opposite is true for children from the United Kingdom, where the results were not evident (Vannini et al., 2011).

In addition to many prevention programmes, there are also many different definitions of what bullying is. Often, teachers in the same schools use different definitions and want the competent institutions to define a single definition that is clear, comprehensive and understandable (Woolley, 2019). On the other hand, teachers from schools where the definition is well defined have the opposite opinion. They consider the definition too rigid to be used in schools (Eriksen, 2018). Even children are usually unfamiliar with the description of bullying, which is reflected in the excessive use of the term, even if this type of violence is not present (Baas et al., 2013; Donoghue et al., 2015).

Awareness and correct measures by teachers and parents are also important factors in reducing violence in schools. In studies, teachers and parents demonstrate sufficient knowledge for identifying both traditional bullying and cyberbullying, as well as an understanding that action is needed (Krek, 2020; Monks et al., 2016). Of course, some are not aware of the long-term psychological consequences that children may bear and thus implement the wrong measures (Salehi et al., 2016).

The majority of the articles included in this literature review mainly took place in the countries of Europe, such as Netherlands and Spain and in the UK. Other studies, included in our review took place in USA, Oman, South Korea, China, Iran, and Nigeria. The largest study was carried out within Dutch KiVa anti-bullying intervention program in a five-wave survey among 9,122 children, where authors of the study (Kaufman et al., 2018) tried to test whether social standing, child characteristics, and parent-child relationships explain why some children are persistently victimized despite participating in an anti-bullying intervention. The analysis of the findings of included articles shows no significant correlation between results of studies, carried out in a similar geographic environment.

3.2 Findings of literature review on peer violence in secondary schools

Article	Type of article	Key results and findings
1. (Aoyama et al., 2011) Cyberbullying among high school students	Grouping analysis <i>133 secondary schools</i>	Parental supervisions of children's social media use reduces the occurrence of cyberbullying. Victims of cyberbullying often become perpetrators of cyberbullying themselves.
2. (Arslan et al., 2011) Prevalence of Peer Bullying in High School Students in Turkey and the Roles of Socio-Cultural and Demographic Factors in the Bullying Cycle	Relational study <i>1,670 adolescents from secondary schools</i>	Boys use more direct methods of bullying compared to girls. A higher percentage of boys take the role of perpetrators, while a higher percentage of girls are victims of bullying.
3. (Atalay et al., 2018) Violence and related factors among high school students in semirural areas	Cross-sectional study <i>1,465 adolescents from secondary schools</i>	8.5% of students exhibited violent behaviour at school, with the main reasons for such behaviour being social status, family problems and rejection among classmates.
4. (Bae, 2021) The relationship between exposure to risky online content, cyber victimization, perception of cyberbullying, and cyberbullying offending in Korean adolescents	Survey analysis <i>4,779 adolescents from secondary schools</i>	Male students are more likely to perpetrate bullying than female students. Secondary school performance is directly related to bullying at school and online, and the detection of online and physical bullying and school supervisions have a significant impact on reducing both forms of bullying. A key factor in reducing bullying is limiting exposure to harmful content online.
5. (Bai et al., 2021) Cyberbullying victimization and suicide ideation: A crumbled belief in a just world	Survey analysis <i>3,322 adolescents from secondary schools</i>	Cyberbullying victimisation can lead to adolescent suicidal ideation. Adolescents' self-esteem and social support have the effect of reducing the cyberbullying victimisation.

Table 2:
Description of articles included in the literature review.

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24.	(Basile et al., 2020) Interpersonal Violence Victimization Among High School Students – Youth Risk Behavior Survey, United States, 2019	Survey analysis <i>13,872 adolescents from secondary schools</i>	One in five students reported being bullied at school, and one in twelve students reported cyberbullying.
6.	(Bellmore et al., 2017) The Trouble with Bullying in High School: Issues and Considerations in Its Conceptualization	Literature review	The organisational and social aspects of secondary school can have an influence on bullying among students. Prevention programmes and a zero-tolerance policy towards bullying are successful solutions.
7.	(Bhat et al., 2017) Online Bullying among High-School Students in India	Survey analysis <i>646 adolescents from secondary schools</i>	Half of the participating students have already been victims of cyberbullying. Cyberbullying is more often perpetrated by male students, while female students are most commonly victims of sexual cyberbullying.
13.	(Carrera-Fernández et al., 2021) Me and Us versus the Others: Troubling the Bully Phenomenon	Survey analysis <i>1,165 adolescents from secondary schools</i>	Bullying is influenced by sociocultural factors, such as gender stereotypes, sexism and attitudes towards cultural diversity.
30.	(De Pasquale et al., 2021) The role of mood states in cyberbullying and cybervictimization behaviors in adolescents	Survey analysis using FCB-VC and POMS <i>554 adolescents from secondary schools</i>	Cyberbullying is more commonly perpetrated by older male adolescents, and the main contributing factor is anger or anxiety/tension.
8.	(Dorio et al., 2020) School Climate Counts: A Longitudinal Analysis of School Climate and Middle School Bullying Behaviors	Survey analysis <i>870 adolescents from secondary schools</i>	Students consider the school atmosphere to have a strong influence on the level of bullying at school and online. Students are aware of the importance of safety at school and that they help create it together with the school staff.
9.	(Edwards & Batlemento, 2016) Caregiver Configurations and Bullying Among High School Students	Survey analysis <i>3,793 adolescents from secondary schools</i>	Bullying in secondary school poses a major risk of suicidal ideation and other long-term and negative psychological consequences.

10.	(Ekşi & Türk-Kurtça, 2021) The Witness Experiences of Bullying in High school Students	Review and qualitative study <i>36 adolescents from secondary schools</i>	Findings show that bullying is a common problem in today's schools. Cognitive empathy needs to be added to the anti-bullying programmes in schools. Bullying affects both the victims of bullying themselves and the students who witness this form of violence. Combating bullying needs to be undertaken systemically, and must involve school staff, parents, bullies, victims and witnesses.
11.	(Evans & Smokowski, 2016) Theoretical Explanations for Bullying in School: How Ecological Processes Propagate Perpetration and Victimization	Literature review	Studying the theory of social capital, the theory of domination, the theory of humiliation, and the theory of organisational culture helps us better understand the motivation for bullying behaviour. Bullying at school affects the school culture and school atmosphere, and can even increase in some cases of passive response to bullying among students.
12.	(Fahmi et al., 2020) Self-esteem and bullying behavior among junior high school students	Qualitative study <i>176 adolescents from secondary schools</i>	The number of cases of bullying in the school environment are increasing, and these are affecting the mental health of students themselves. Students' self-esteem and self-respect affect the likelihood of a person becoming a perpetrator or a victim of bullying.
14.	(Fischer et al., 2021) Teachers' Self-efficacy in Preventing and Intervening in School Bullying: a Systematic Review	Literature review	A teacher's effectiveness in perceiving and recognising bullying is influenced by their theoretical knowledge of the problem and their interaction with students.
15.	(Frederique, 2020) What do the data reveal about school violence in schools?	Analysis of statistical data and studies	Data from secondary schools show that the level of violence and bullying in schools is decreasing, while more serious incidents (suicides, systematic bullying) are more frequent.

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16.	(Gaffney et al., 2019) Examining the Effectiveness of School-Bullying Intervention Programs Globally	Meta-analysis <i>100 studies from 12 different countries</i>	The results showed that anti-bullying and violence programmes assessed in Greece were the most effective in reducing bullying, followed by programmes in Spain and Norway. The NoTrap programme is the most effective programme in reducing victimization among students.
18.	(Juvonen, 2001) School Violence: Prevalence, Fears and Prevention	Literature review	Schools are aware of the importance of ensuring safety, and thus use both preventive and reactive programmes to ensure a high level of safety for all students.
19.	(Karaman et al., 2016) Opinions of High School Students involved in Violence	Survey analysis <i>45 adolescents from secondary schools</i>	Students perpetrated violence and bullying at school due to insufficient anger control, insufficient problem-solving skills, and for seeking support. Violent individuals also had poorer academic performance and often had problems in their home environment as well.
20.	(Liu et al., 2021) The association between sibling bullying and psychotic-like experiences among children age 11–16 years in China	Cross-sectional study <i>3,231 adolescents from secondary schools</i>	The prevalence of bullying among under-age siblings is 13%, and bullying among siblings can also grow into bullying of other peers.
21.	(Mali, 2019) Prevention of Violence and Bullying in the School	Qualitative analysis <i>20 adolescents from secondary schools</i>	Almost every student is involved in violence and bullying during their education, which has major psychosocial consequences for adolescents.
22.	(Manin et al., 2020) Was that (cyber)bullying? Investigating the operational definitions of bullying and cyberbullying from adolescents' perspective	Literature review <i>899 adolescents from secondary schools</i>	Young people who are directly involved in bullying (both online and physically) have different understanding of the operational concept of bullying, depending on whether they are perpetrators or victims of bullying.

23.	(Margitits et al., 2020) Cyberbully and Cyber-victimization in Schools / Presentation of the Cyber Bully and Cyber Victim Scale	Analysis of surveys in e-book <i>882 adolescents from secondary schools</i>	68.7% of students were involved in cyberbullying. Online exclusion based on an individual's social status is also common.
25.	(Mohseny et al., 2020) Exposure to cyberbullying, cybervictimization and related factors among junior high school students	Cross-sectional study <i>1,456 adolescents from secondary schools</i>	Social media has a tremendous effect on interactions between adolescents, and cyberbullying has evolved together with their development. Among secondary school students, cyberbullying has a prevalence of 22.3%, and as many as 18% of male and female students have already been victims of cyberbullying.
26.	(Myklestad & Stration, 2021) The relationship between self-harm and bullying behaviour among students	Population study <i>16,182 adolescents from secondary schools</i>	15% of individuals who were victims of cyberbullying and bullying at school reported self-harm. The tendency to self-harm is 5 times higher among victims of bullying in schools compared to other peers.
27.	(Nickerson, 2017) Preventing and Intervening with Bullying in Schools: A Framework for Evidence-Based Practice	Literature review	Schools are striving to establish a safe and accepting environment for all students, with the focus on bullying prevention programmes and intervention programmes in the event of such violence.
28.	(O'Malley Olsen et al., 2014) School Violence and Bullying Among Sexual Minority High School Students	Review of literature and statistics	Students belonging to sexual minorities are often victims of both violence and bullying. Students with low self-esteem are more often victims of bullying.
31.	(Perren et al., 2010) Bullying in school and cyberspace: Associations with depressive symptoms in Swiss and Australian adolescents	Survey analysis <i>1,320 adolescents from secondary schools</i>	Victims of bullying are much more prone to depression and social exclusion. People who are victims of bullying in schools are often also victims of cyberbullying.

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32.	(Rigby, 2012) Bullying in Schools: Addressing Desires, not only Behaviors	Literature review	The approach of responding to bullying in schools focuses mainly on the use of punishments, which is statistically not the most effective. A more effective approach is to identify motives for bullying.
33.	(Rigby, 2019) Do teachers really underestimate the prevalence of bullying in schools?	Survey analysis <i>1,688 adolescents from secondary schools</i>	The argument that teachers often underestimate the prevalence of bullying among students is incorrect, as teachers perceive bullying / violent behaviour much earlier, and take strongly preventive action.
34.	(Sherer & Sherer, 2011) Violence among high school students in Thailand	Survey analysis <i>2,897 adolescents from secondary schools</i>	Bullying is directly affected by the social status of the student. Male students are more violent than female students, which also coincides with the local cultural arrangements.
17.	(Stickl Haugen et al., 2019) School District Anti-Bullying Policies: a State-Wide Content Analysis	Analysis review	For anti-bullying policies to be effective, they must be clear and unambiguous, they must include both logistical aspects, response models, as well as investigation and prevention of bullying.
35.	(Topaloglu & Topaloglu, 2016) Cyberbullying Tendencies of High School Students	Survey analysis <i>300 adolescents from secondary schools</i>	One of the most effective ways to deal with cyberbullying is to raise awareness among individuals. Cyberbullying is most often expressed in the form of harassment and humiliation.
36.	(Turkmen et al., 2013) Bullying among High School Students	Survey analysis <i>6,127 adolescents from secondary schools</i>	97% of students were already involved in bullying (either as perpetrators or victims). A male student was found to be 8.4 times more likely to be involved in violent behaviour than a female student.

37.	(Wang & Sek-yum Ngai, 2021) Understanding the effects of personal factors and situational factors for adolescent cyberbullying perpetration: The roles of internal states and parental mediation	Survey analysis <i>1,103 adolescents from secondary schools</i>	The ability to use technology is directly related to cyberbullying. Cyberbullying among peers is directly related to an individual's social status, but is not related to a person's physical strength. Parental intervention has a positive effect on reducing cyberbullying.
38.	(Yurtal, 2014) Violence in schools: From the perspective of students, teachers and mothers	Survey analysis <i>36 adolescents from secondary schools, 16 teachers and 17 parents</i>	Students and parents view solving the problem of bullying as distinctly repressive (punishment, expulsion from school, etc.), whereas school staff is focused primarily on solving the cause of the communication problem.
39.	(Zhu et al., 2021) Cyberbullying Among Adolescents and Children	Comprehensive literature review	Verbal violence is the most common type of cyberbullying. To be more successful in combating bullying, educational institutions need to collaborate with parents to design appropriate prevention programmes.
40.	(Zych et al., 2019) School Bullying and Dating Violence in Adolescents: A Systematic Review and Meta-Analysis	Meta-analysis <i>23 studies</i>	A connection was found between bullying at school and dating violence, as the manifestation of both is based on antisocial or violent dispositions.

Secondary school safety allows adolescents to be involved in a stimulating environment that aims for both social and creative learning (Evans & Smokowski, 2016; Frederique, 2020; Sherer & Sherer, 2011; Zych et al., 2019). If the safety needs of a child are not met in secondary school, adolescents are at risk of not feeling comfortable and safe in school (Mali, 2019; Turkmen et al., 2013). A safe learning environment and an environment where an individual develops both personally and professionally is essential for all secondary school students (Basile et al., 2020; Karaman, et al., 2016). Adolescents are very vulnerable when they enter secondary school (Parris et al., 2012), as their personalities are formed during these years (Myklestad & Stration, 2021). Secondary schools are thus organisations responsible for teaching certain skills and values, as well as a space where formal and informal socialisation takes place, both of which have a strong influence on the formation of a unique personality of the adolescent (Perren et al., 2010; Rigby, 2019).

Research shows a high occurrence of bullying in secondary schools: it ranges from 20.3% (Popović-Čitič et al., 2011) to 97% (Turkmen et al., 2013). One in five students reported being bullied at school (Basile et al., 2020), and a survey

conducted by Mali (2019) shows that almost every student is involved in violence and bullying during their education – directly or indirectly.

When any type of violence is present in the learning environment, it is the students who are most affected (Juvonen, 2001). Several studies have confirmed that even individuals who are not directly involved in violence itself are very likely to witness violence during their secondary school years (Dorio et al., 2020; Mali, 2019; Popović-Čitić et al., 2011; Stickl Haugen et al., 2019). Secondary school safety is important to protect all students and school staff from violence (Carrera-Fernández et al., 2021).

The problem of bullying in secondary schools has been present for a long time and manifests itself in various forms, with indirect bullying being more subtle and complex than direct bullying (Bae, 2021). Students perpetrate violence and bullying at school due to insufficient anger control, insufficient problem-solving skills, and for seeking support (Karaman et al., 2016). The main risk factors for a student becoming a bully are previous history of violence, alcohol and drug exposure, poor associations, poor family environment, poor school grades, poverty and low self-esteem (Evans & Smokowski, 2016; Fahmi, Aswirna & Ajeng, 2020; Orpinas, 2006; Turkmen et al., 2013).

Male students are more likely to engage in bullying than female students (Bae, 2021; De Pasquale et al., 2021), as male students were found to have an 8.4% higher likelihood to be involved in bullying (Turkmen et al., 2013), whereas female students are most often in the role of a victim (Arslan et al., 2011). These findings are also confirmed by the study conducted by O'Malley Olsen et al. (2014), where they add that homosexual students are more likely to be victims of both violence and bullying. Victims of bullying are most often adolescents who have low levels of self-esteem, poor self-image, who are not accepted by classmates due to their differences, and who come from minorities or have a poorer socioeconomic status (Sherer & Sherer, 2011; Whittaker et al., 2015). Victims of bullying are much more prone to depression and social exclusion, with a tendency to self-harm five times higher among victims of bullying in schools compared to other peers (Myklestad & Stration, 2021), which has long-term negative consequences for every individual (Edwards & Batlemento, 2016).

With the development of technology and digitalisation, young people are exposed to dangers in the online environment, as well as the physical environment. Cyberbullying is based primarily on psychological violence (De Pasquale et al., 2021) or online exclusion (Margitics et al., 2020). Verbal violence is the most common type of cyberbullying (Zhu et al., 2021), with research showing the prevalence of cyberbullying among secondary school students from 22.3% (Mohseny et al., 2020) to 67% (Margitics et al., 2020). Cyberbullying is much more brutal and direct due to the potential anonymity of the perpetrator, and the attacks are cruel and distinctly personal (Wang & Sek-yum Ngai, 2021). Cyberbullying is more commonly perpetrated by older male adolescents (De Pasquale et al., 2021); however, it is not directly related to a person's physical strength, unlike bullying (Wang & Sek-yum Ngai, 2021). Between 18% and 28% of male and female students have made rude or malicious comments online, 11% to 19% of male and female students have spread rumours about another

person online, and 9% to 15% of individuals have already deliberately harassed or embarrassed another person online (Bae, 2021; Margitics et al., 2020; Mohseny et al., 2020; Topaloglu & Topaloglu, 2016; Zhu et al., 2021). Individuals who have been victims of cyberbullying report self-harm, and also have a higher suicide rate (Edwards & Batlemento, 2016; Mykkestad & Stration, 2021). Often, the victim and perpetrator of cyberbullying are in a direct or even direct relationship in the real world (Vazsonyi et al., 2012), and cyberbullying often develops into bullying at school – is carried over into the physical environment (Bai et al., 2021).

Research shows that bullying is a common problem in today's secondary schools, and bullying in any form affects everyone. Combating bullying needs to be undertaken systemically, and must involve all parties: school staff, parents, bullies or perpetrators of violence, victims and witnesses (Ekşi & Türk-Kurtça, 2021). School staff and parents play a major role in preventing bullying online and in schools (Orpinas, 2006).

In the literature review we also included articles addressing the implementation of prevention programs of peer violence in schools. Bellmore et al. (2017) point out that it is precisely the prevention programs and zero tolerance policy towards peer violence that represent an effective address to the problem of peer violence in schools. The meta-analysis, which covers 12 different countries and analyses different implementations of prevention programs, highlighted the NoTrap program as the best prevention program against school violence – the school-based intervention program that utilizes a peer-led approach to prevent and combat both traditional bullying and cyberbullying (Gaffney et al., 2019). The review has shown that schools are aware of the problem of school violence and the importance of preventing it through prevention programs (Basile et al., 2020; Juvonen, 2001; Mali, 2019; Nickerson, 2017).

Students and parents view solving the problem of bullying as distinctly repressive (punishment, expulsion from school, etc.), whereas school staff is focused primarily on solving the cause of the communication problem (Yurtal, 2014). Successfully combating bullying can be achieved through reciprocal reactive and preventive addressing of the problem, by designing programmes that identify the causes of bullying rather than simply preventing its consequences (Fischer et al., 2021; Nickerson, 2017; Parris et al., 2012; Rigby, 2012; Stickl Haugen et al., 2019).

The review of literature on peer violence in secondary schools showed that very few studies have been conducted in Europe and more in Asia. The majority of the studies were carried out in USA, Turkey and China. Although the largest study was conducted in Norway (Mykkestad & Stration, 2021) among 16,182 adolescents, studying the relationship between self-harm and bullying behaviour among students. The study pointed out, that the tendency to self-harm is five times higher among victims of bullying in schools compared to other peers.

4 DISCUSSION AND CONCLUSION

Based on the systematic review of literature, we find that a large number of articles have been written on the topic of safety in primary and secondary schools,

specifically on the topic of traditional bullying and cyberbullying. The findings of our systematic review of 41 articles selected for the review of safety in primary schools and the 40 articles on safety in secondary schools show, that the issue of peer violence and thus bullying and cyberbullying is widespread and complex. The main challenge presents the lack of consensus among the research community and the profession on the very definition of peer violence. Nevertheless, we managed to capture various data on the prevalence of peer violence, definitions of this phenomenon, prevention programmes, and the role of parents and teachers in identifying and taking action in cases of violence.

The authors of the studies point out the high prevalence of violence in school settings. Traditional bullying in primary schools reaches up to 76% (Al-Saadoon et al., 2014), while the prevalence of cyberbullying varies below 10%. The results of studies in primary schools are comparable to studies conducted in secondary schools, but differ in terms of reporting on the prevalence of cyberbullying. Cyberbullying is more common among secondary school students, as studies show a prevalence of 22.3% (Mohseny et al., 2020) to 67% (Margitics et al., 2020). Violence is more common in younger children. In both primary and secondary schools, the perpetrators are more often boys, while girls are often in the role of victims. Main identified risk factors in children in primary schools for exposure to violence were belonging to an ethnic minority and the lower economic class. Well-developed emotional intelligence was highlighted as a protective factor. In secondary schools, students with low self-esteem, members of ethnic minorities and lower economic classes were more exposed to violence. The most commonly identified risk factors for causing violence were previous history of violence, substance abuse, bad associations, and a poor family environment.

Considering the full literature review, large discrepancies can be observed in the findings of the studies. The authors use different methods to justify different points of view, which makes it somewhat difficult to draw sound conclusions. It is also important to emphasise that differences appear in the theory itself. There is no well-defined and standardised definition describing bullying and cyberbullying. Furthermore, most studies use surveys taken from other studies, which are then slightly modified by the authors to ensure a better fit to the measurements of their definition of the studied phenomenon. This prevents us from properly comparing the statistical data obtained in different studies. It would therefore make sense to establish a uniform definition of bullying and uniform questionnaires to investigate the prevalence of this problem.

Studies have shown the problem of bullying is extensive and complex, and researchers' interest in studying it has been growing exponentially over the last decade. With the growing research of this problem, the awareness among children and adolescents to recognise and talk about violence has also increased. Awareness of the seriousness of the problem is also reflected in the fact that young people, teachers, and parents show a greater degree of understanding of this phenomenon, which, unfortunately, has no effect on reducing its prevalence. With the rapid development of technology and social networks, a growing body of research on cyberbullying can also be observed. Since 2015, research in the secondary school environment has focused primarily on cyberspace. At the same

time, the traditional form of bullying was pushed somewhat into the background of research. We must keep in mind that all forms of bullying are serious problem and need to be researched equally or given the same amount of attention.

In the literature review, we also found some examples of good practices or implementation of effective prevention programmes. We would like to highlight three prevention programmes that have had a positive impact on reducing bullying. Programmes KiVa and PEGS address both traditional bullying and cyberbullying, whereas the Safe Surfing programme focuses on cyberbullying. However, there is a lack of articles related to events or actions after serious incidents, as there is (too) little written about the actions of parents and school employees. Our collection of literature also shows the obvious lack of research conducted in Slovenia. Existing research shows that Slovenia is no exception to the phenomenon of bullying in primary and secondary schools, so further research would be needed in Slovenia to help us better understand and confront this issue, and consequently contribute to the introduction of effective preventive measures.

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About the Authors

Teja Primc, PhD student at the Faculty of Criminal Justice and Security, University of Maribor. E-mail: teja.primc@student.um.si

Teja Lobnikar, Postgraduate student at the Faculty of Criminal Justice and Security, University of Maribor. E-mail: teja.lobnikar@student.um.si

Blažka Tratnik, Postgraduate student at the Faculty of Criminal Justice and Security, University of Maribor. E-mail: blazka.tratnik@student.um.si

Miha Dvojmoč, PhD, Assistant Professor at the Faculty of Criminal Justice and Security, University of Maribor. E-mail: miha.dvojmoc@fvv.uni-mb.si

Violence Against the Elderly - Analysis of Further Research Needs Based on a Systematic Review of Research

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Teja Primc, Branko Lobnikar, Kaja Prislan

Purpose of the Paper:

The purpose of this paper is to investigate the current state of research on the topic of elder abuse both in the institutional and domestic environment and to present the key findings of existing studies. The paper also aims to shed light on areas requiring additional research and present the directions for further research.

Methods:

A systematic literature review was conducted using the PRISMA method in the Web of Science and Scopus databases. The review included 29 papers published between 2010 and 2021.

Findings:

Elder abuse is an under-researched topic. The lack of research is particularly apparent in the incidence and nature of the problem in the home environment. Previous studies focus on the various forms of abuse, its perpetrators and risk factors. Rates of psychological abuse, neglect and physical abuse are high in nursing homes and among older visitors to ambulatory care facilities and emergency departments, while self-neglect, neglect and psychological abuse are prevalent in the home environment. Women between the ages of 70 and 75, who are socially isolated and require daily care, are more exposed to abuse. The perpetrators of the abuse are most often family members.

Limitations/Applicability of the Research:

The paper's findings provide insight into research on elder abuse and can serve as a basis for planning research into this phenomenon. The paper highlights research gaps and introduces opportunities for improvements in the systemic approaches when addressing the issue.

Originality/Relevance of the Paper:

The paper presents the systematic and up to date analysis of past studies on elder abuse. The results are intended for professionals and researchers working in the field.

Key words: violence, abuse, neglect, elderly, systematic literature review.

UDC: 343.988-053.9

Nasilje nad starejšimi – analiza prihodnjih raziskovalnih potreb na podlagi sistematičnega pregleda dosedanjih raziskav

Teja Primc, Branko Lobnikar, Kaja Prislan

Namen prispevka:

Namen prispevka je ugotoviti stanje raziskovalne dejavnosti s področja nasilja nad starejšimi v institucionalnem in domačem okolju ter predstaviti ključne ugotovitve obstoječih študij. Prav tako je cilj osvetliti področja, ki zahtevajo dodatno raziskovalno pozornost in predstaviti izhodišča za nadaljnje raziskave.

Metode:

Izveden je bil sistematični pregled literature opravljen po metodi PRISMA v bazah podatkov Web of Science in Scopus. V pregled je bilo vključenih 29 prispevkov, objavljenih v obdobju med 2010 in 2021.

Ugotovitve:

Nasilje nad starejšimi je premalo raziskano področje, še posebej primanjkuje raziskav o pojavnosti in naravi problematike v domačem okolju. Obstoječe študije se vsebinsko osredotočajo na posamezne oblike nasilja, povzročitelje in dejavnike tveganja. V domovih za starejše in med starejšimi obiskovalci ambulant ter urgentnih oddelkov je visoka pojavnost psihičnega nasilja, zanemarjanja in fizičnega nasilja, medtem ko v domačem okolju prevladuje samozanemarjanje, zanemarjanje in psihično nasilje. Nasilju so pogosteje izpostavljene ženske, stare med 70 in 75 let, ki so socialno izolirane in potrebujejo vsakodnevno oskrbo. Povzročitelji nasilja so najpogosteje družinski člani.

Omejitve/uporabnost raziskave:

Ugotovitve prispevka dajejo vpogled v raziskovalno dejavnost na področju nasilja nad starejšimi ter lahko služijo kot osnova za načrtovanje raziskovanja tovrstnega pojava v Sloveniji in drugod. V prispevku so izpostavljene raziskovalne vrzeli in predstavljena izhodišča za izboljšave sistemske obravnave problematike.

Izvirnost/pomembnost prispevka:

Gre za enega redkih prispevkov, ki sistematično analizira pretekle študije nasilja nad starejšimi. Rezultati so uporabni za načrtovanje prihodnjih raziskav na tem področju, uporabni pa so tudi strokovnjakom, ki se ukvarjajo z zagotavljanjem zdravstvenih in socialnih storitev starejšim.

Ključne besede: nasilje, zloraba, zanemarjanje, starostniki, sistematični pregled literature

UDK: 343.988-053.9

1 INTRODUCTION

Elder abuse is recognised internationally as a widespread, complex and growing public health and human rights issue, affecting the well-being of the elderly and causing a myriad of health problems or even the death of the elderly (Botngård et al., 2020; Fang & Yan, 2021; Luzny & Jurickova, 2012; Neuberger et al., 2019). With age come many physiological and psychological changes, a decrease in physical and cognitive abilities, and a shrinking social network, all of which are often accompanied by several health problems (Şen & Merci, 2019). As a result, the elderly are one of the most vulnerable demographic groups, as they are often marginalised, isolated and exposed to various types of abuse stemming from negative stereotypes depicting them as helpless and useless members of society (Primc & Lobnikar, 2019). For example, World Health Organization (WHO, 2011) data from 2011 showed that at least half of the elderly population in Europe have experienced some form of abuse. A Slovenian study from 2015 (Primc & Lobnikar, 2019) conducted on a sample of 220 elderly individuals showed that 21% of the respondents experienced one form of abuse. With the rapidly growing elderly population worldwide, this issue will only continue to escalate, yet it is still a widely neglected issue on the systemic level.

This multidimensional problem was first documented in the late 1970s and early 1980s, and the first definitions of this phenomenon were derived from the then existing frameworks developed to define the neglect and mistreatment of children (Alexa et al., 2019). Based on studies among the elderly and health professionals on their perceptions of what abuse means to them, the World Health Organization (WHO, 2002) has formed a universal definition of this phenomenon and defined it as *a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person*. Definitions of this phenomenon, as well as the methods employed for researching it varies according to different legal orders and from country to country (Luzny & Jurickova, 2012). In general, the authors note that elder maltreatment can take various forms of abuse, such as psychological or emotional abuse, physical abuse, economic or financial abuse, sexual abuse, but can also be the result of intentional or unintentional neglect (Alexa et al., 2019; Ben Nathan et al., 2010; Botngård et al., 2020; Luzny & Jurickova, 2012). It can occur in different domestic, private, and institutional settings and perpetrated by different individuals, such as caregivers, relatives, spouses, or family members (WHO, 2011). Neuberger et al. (2019) define elder abuse and neglect as refusing or failing to fulfil a caregiver's obligation to meet the needs of elderly individuals' needs to punish or hurt them. A particular form of elder abuse is self-neglect, which is characterised as the behaviour of an elderly person that threatens his/her health or safety. It often manifests itself in an older person as a refusal or failure to provide for their own needs (e.g., water, food, clothing, shelter, personal hygiene, medication) (Dong, 2014).

Research on the prevalence and nature of elder abuse is scarce in Slovenia and around the world, as the topic has so far been studied only partially (e.g. in terms of forms or prevalence of victimisation and risk factors, while other important aspects that should be thoroughly understood in order to plan effective preventive measures remain unexplored). The challenge lies in the lack of consensus across the

scientific and professional community regarding the definition of elder abuse and the research methodologies employed. Although researchers (Fang & Yan, 2021) are aware that the reliability and validity of measurement or research instruments are crucial to ensure the significance, applicability, and relevance of research, very few studies use instruments with established psychometric properties, which results in significant inconsistencies in approaches and divergences between the results of studies examining the same problem. Other additional challenges may hamper our understanding of elder abuse and determining its prevalence. The findings of various authors show that the elderly find it very difficult to speak up about their experiences of abuse perpetrated by their relatives or nursing home employees due to feelings of helplessness, shame and fear that disclosing the abuse might further aggravate their situation. The awareness of this problem also impacts the incidence of elder abuse, the level of knowledge and the willingness of healthcare professionals to take proper action (Luzny & Jurickova, 2012), as well as the fact that the problem is still a taboo. Furthermore, any cases of abuse remain unreported (Lacher et al., 2016). Press reports, social work centres records, and various small-scale studies suggest that this phenomenon is much more common than official statistical data would suggest. In Slovenia, the main issue lies in the fact that data on the prevalence and nature of elder abuse lack transparency and come from different sources, as individual institutions and bodies do not manage such data in a coordinated manner. Only partial data are available on crimes involving the elderly (e.g. property crime, offences against life and limb, economic crime).

Because the elderly represents as much as 20% of the European and Slovenian population and some of the studies that have been conducted on this topic show a high prevalence of victimisation, elder abuse has not been given sufficient attention from the scientific and professional community, as well as the public at large. Therefore, continuous research on the incidence of elder abuse and understanding the factors affecting the occurrence of this phenomenon, both in nursing homes and in private settings, is essential for planning the measures to ensure the safety of this vulnerable demographic.

The paper presents a systematic review of scientific papers on the topic of elder abuse published over the last ten years. The purpose of the review is to determine the relevance of studying the phenomenon of elder abuse as a form of abuse that is still underreported and much less researched, compared to other forms of violence (such as domestic violence, violence against children and peer violence). The review was performed using the Web of Science and Scopus databases and the PRISMA method. The findings of existing studies on the incidence of elder abuse in both institutional and domestic settings and the main risk factors for abuse are summarised. In addition, various forms of abuse experienced by the elderly are described. The systematic literature review aims to determine the state of research to understand the current approaches, topics and methods, identify opportunities for improvement of research approaches, and identify any research gaps or areas in need of additional research attention. The aim is also to identify opportunities for improvement in terms of the approaches and measures employed in the profession to address the issue, which can serve

as a starting point for improving the effectiveness of existing mechanisms and the development of more comprehensive systemic measures and management strategies.

2 METHOD

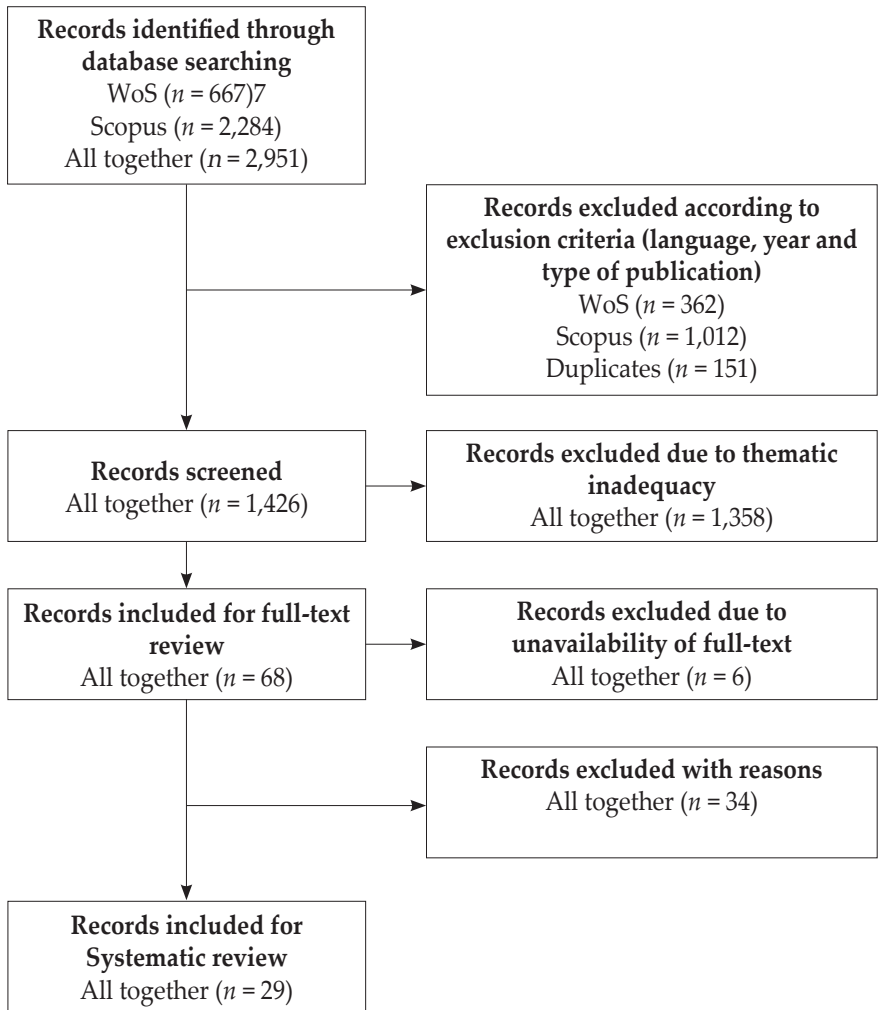
The systematic literature review on elder abuse in the institutional and domestic environment was conducted across two international bibliographic databases, Web of Science (WoS) and Scopus. The same search string with a combination of the following keywords was used for both databases: ((elderly OR »old people« OR senior OR retired) AND (neglect OR violence OR abuse OR mistreatment) AND (»nursing home« OR »retirement home« OR »home environment« OR »senior citizens home« OR hospital)). The search was conducted on May 19th, 2021, using titles, abstracts and keywords to find the relevant papers. The search for results was limited to scientific and conference papers published over the past decade (from 2010 to 2021 inclusive). Inclusion and exclusion criteria are presented in more detail in Table 1..

Inclusion criteria	Exclusion criteria
Papers published in scientific journals or conference papers	Books, book chapters, early access, discussions, editorials, reviews.
Papers published between 2010 and 2021	Papers published before 2010.
Papers in English and Slovenian	Papers in other languages.
Access to the full text	Unavailability of the full text.
Thematic relevance of the paper	<p>Papers not related to elder abuse in the institutional and domestic setting, e.g.:</p> <p>Papers addressing the health of adolescents and women in hospitals.</p> <p>Papers addressing illicit substance abuse among the elderly.</p> <p>Papers addressing the incidence and type of age-related diseases or injuries (hepatitis C, hip fracture, urinary incontinence, stroke, pneumonia, HIV).</p> <p>Papers addressing the incidence of suicides and self-harm in the elderly.</p> <p>Papers addressing firearm-related injuries.</p> <p>Papers related to covid-19.</p>

Table 1:
Inclusion and exclusion criteria

The process of collecting and identifying relevant papers is presented through the PRISMA diagram in Figure 1.

Figure 1: The process of searching and selecting literature



3 RESULTS

Based on the literature collection process described, a query using the selected search string returned a total of 2,951 potentially relevant papers. Considering the inclusion and exclusion criteria and after excluding any duplicates, 29 papers were included in the final analysis. A description of the papers included in the systematic literature review is presented in Table 2.

Table 2: Description of papers included in the literature review

Author and title of the paper	Method and sample size	Research purpose	Key findings
[Adams et al., 2014] Financial Abuse of Older People by a Family Member: A Difficult Terrain for Service Providers in Australia	Qualitative and quantitative research (survey and interviews) <i>228 chief executive officers</i> <i>214 aged care service providers</i>	To determine whether chief executive officers and aged care service providers are well placed on recognising financial abuse against the elderly by their family members, determine the degree of the abuse, and take appropriate action to tackle the problem.	The majority of the respondents (92.6%) recognised financial abuse as one of the forms of abuse perpetrated against the elderly. In the previous 12 months, 128 respondents witnessed 1–5 cases of financial abuse, 22 respondents witnessed 6–10 cases, and nine respondents witnessed more than 50 cases of financial abuse perpetrated against the elderly by their relatives.
[Alexa et al., 2019] Elder abuse and associated factors in Eastern Romania	Quantitative and qualitative research (use of EASI and medical evaluation) <i>386 consecutive hospitalised individuals over 65 years of age</i>	To identify the presence of abuse, the type of abuse and the factors associated with the abuse.	At least 21.5% of the respondents experienced at least one form of abuse. Women were more frequently abused than men. Emotional abuse was the most common type of abuse (60.2%) followed by neglect (53%) and physical abuse (22.91%).
[Altintop & Tatli, 2019] Physical abuse of the elderly: a 4-year retrospective evaluation in the emergency department	Analysis of secondary data <i>116 individuals over the age of 65 with signs of physical abuse</i>	To raise emergency departments' awareness of physical abuse against the elderly.	63% of the individuals suffered physical abuse. Head injuries were visible in 8.6% of cases, the same percentage of injuries were limb injuries, 4.3% of injuries were due to a fall, and in 2.6% of cases, lip injuries and stab wounds were visible.

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<p>[Ben Natan & Lowenstein, 2010]</p> <p>Study of factors that affect abuse of older people in nursing homes</p>	<p>Quantitative research – survey <i>510 nursing home employees</i></p>	<p>To study the effects of long-term care facility traits on the maltreatment of older people.</p>	<p>Slightly more than half of the employees admitted to perpetrating at least one form of abuse against the elderly in the previous 12 months. The most common forms of abuse were mental and physical neglect, followed by psychological abuse and physical abuse.</p>
<p>[Ben Natan et al., 2010]</p> <p>Psycho-social factors affecting elders' maltreatment in long-term care facilities</p>	<p>Quantitative research – survey <i>510 nursing home employees</i> <i>24 directors of the facilities</i></p>	<p>To examine and analyse major variables affecting maltreatment of the elderly.</p>	<p>273 (53.5%) respondents admitted to perpetrating at least one form of abuse against the elderly in the past year. Psychological abuse was the most common type of abuse (64.3 %) followed by neglect (63.9 %), psychological abuse (23 %) and physical abuse (12.28 %). Sexual and financial abuse were reported by 0.1% of the respondents.</p>
<p>[Bloemen et al., 2015]</p> <p>Trends in Reporting of Abuse and Neglect to Long Term Care Ombudsmen: Data from the National Ombudsman Reporting System from 2006 to 2013</p>	<p>Analysis of secondary data <i>11,749 elder abuse and neglect-related complaints per year</i></p>	<p>To describe trends in elder abuse and neglect in nursing facilities received by the long elder abuse and neglect reported in nursing facilities received by the long-term care ombudsmen.</p>	<p>Physical abuse was the most frequently reported, representing 28% of total complaints over 8 years. The abuse was most often reported by the elderly themselves (38%), and in 60% of the cases, the complaint was resolved to the resident's satisfaction.</p>
<p>[Bostanci Daştan et al., 2021]</p> <p>The effect of elder abuse on psychological resilience in individuals 65 years and older admitted to the emergency department</p>	<p>Quantitative research Using the Hwalek-Sengstock Elder Abuse Screening Test and the Brief Psychological Resilience Scale <i>214 elderly individuals</i></p>	<p>To determine the effects of abuse on the psychological state of individuals 65 years and older admitted to the emergency department.</p>	<p>It was determined that 20.6% of the seniors had experienced abuse in the past, and the abuse continued for 1.9%. Most of the perpetrators were the spouse (38.6%) or siblings (29.6%). 86.3% of the elderly experienced physical abuse, 40.9% experienced psychological abuse and 9.1% experienced financial abuse.</p>

<p>[Botngård et al., 2020] Elder abuse in Norwegian nursing homes: A cross-sectional exploratory study</p>	<p>Quantitative research – survey <i>3,693 nursing staff</i></p>	<p>To estimate how often nursing staff had observed abuse towards the elderly and how often they had perpetrated acts of abuse towards the residents in their care over the past year.</p>	<p>76% of nursing staff observed one or more incidents of elder abuse, and 60.3% reported that they had perpetrated one or more forms of abuse. Psychological abuse and neglect were most commonly reported. Male staff reported more acts of physical abuse, while female staff reported more acts of neglect.</p>
<p>[Bužgová & Ivanova, 2011] Violation of ethical principles in institutional care for older people</p>	<p>Quantitative and qualitative research – surveys and structured interviews <i>454 employees 488 elderly individuals from 12 residential homes for older people</i></p>	<p>To define the extent, nature and causes of abuse perpetrated by employees in senior homes towards the elderly.</p>	<p>More than half of the employees (54%) admitted to perpetrating at least one form of abuse against the elderly in the past year, and 65% of the employees had observed abuse perpetrated by their colleagues. The most common forms of abuse were psychological abuse (46%) - of which 70% were recurring incidents and physical abuse (12%) - of which 50% were recurring incidents. Only 11% of the elderly reported the abuse.</p>
<p>[Castle, 2012] Resident-to-Resident Abuse in Nursing Homes as Reported by Nurse Aides</p>	<p>Quantitative research - survey <i>4,451 nurse aides</i></p>	<p>To determine the incidence of resident-to-resident abuse, including verbal, physical, financial, psychological and sexual abuse in nursing homes.</p>	<p>In the past 3 months, 97% of nurse aides observed cases of verbal abuse among the residents, 94% observed cases of physical abuse (pushing, pinching, pulling), 91% observed aggressive behaviour (bullying), 69% intervened when an elderly individual took another elderly individual's property and 77% of the nurse aides observed incidents in which the elderly exposed their private parts to the other residents.</p>

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<p>[Chao et al., 2020]</p> <p>Elder mistreatment and psychological distress among U.S. Chinese older adults</p>	<p>Analysis of secondary data 3,157 elderly individuals</p>	<p>To examine the association between different types of elder abuse and the symptoms of anxiety and depression.</p>	<p>The incidence of elder abuse was 15.14% ($n = 475$). Of these, 308 (9.79%) experienced psychological abuse, 33 (1.04%) experienced physical abuse, 6 (0.19%) experienced sexual abuse, 291 (9.3%) experienced financial abuse and 331 (11.1 5%) were subjected to neglect.</p>
<p>[Dong, 2014]</p> <p>Self-neglect in an elderly community-dwelling U.S. Chinese population: Findings from the population study of Chinese elderly in Chicago study</p>	<p>Analysis of secondary data 3,159 elderly individuals</p>	<p>To examine the prevalence of self-neglect and its specific forms.</p>	<p>Mild self-neglect was observed in 18.2% of the elderly, and moderate to severe self-neglect was observed in 10.9%. The most prevalent forms of self-neglect were unsanitary conditions (17%), followed by the need for home repair (16.3%), hoarding behaviour (14.9%), poor personal hygiene (11.3%) and inadequate living utilities (4.2%).</p>
<p>[Edirisinghe et al., 2014]</p> <p>Elder abuse among outpatient department attendees in a tertiary care hospital in Sri Lanka</p>	<p>Qualitative and quantitative research (conducting interviews and using the Hwalek – Sengstock Elder Abuse Screening Test) 530 adults over 60</p>	<p>To determine the incidence of abuse towards individuals above 60 years of age attending the outpatient department.</p>	<p>239 (45%) of the elderly individuals reported experiencing abuse. Physical abuse was experienced by 5.6% of the elderly, 26% reported loneliness, 5% reported being ignored, 4% were neglected, and 2.6% of the elderly were victims of financial abuse by their caregivers. There were no cases of sexual abuse.</p>
<p>[Evans et al., 2016]</p> <p>Diagnosis of Elder Abuse in U.S. Emergency Departments</p>	<p>Analysis of secondary data 6,723,667 elderly individuals</p>	<p>To analyse two national databases to estimate the proportion of visits to emergency departments by elderly individuals receiving a diagnosis of elder abuse.</p>	<p>Abuse was diagnosed in 3,846 elderly individuals, while neglect (32.9%) and physical abuse (32.2%) were the most common types of abuse.</p>

<p>[Fang & Yan, 2021]</p> <p>Abuse of Older Persons With Cognitive and Physical Impairments: Comparing Percentages Across Informants and Operational Definitions</p>	<p>Qualitative and quantitative research – conducting interviews and questionnaires <i>1,002 adults aged 55 years or above with mild to moderate cognitive and/or physical impairments and their caregivers.</i></p>	<p>To compare the percentages of elder abuse reported by older adults and their family caregivers and clinical team members.</p>	<p>Elderly people reported neglect in 65% of the cases, psychological abuse in 51.1%, financial abuse in 40.8% and physical abuse in 1.2% of the cases. A large discrepancy was observed in the percentages of abuse reported by caregivers and the clinical team compared to the percentages reported by the elderly.</p>
<p>[Lachs et al., 2016]</p> <p>The prevalence of resident-to-resident elder mistreatment in nursing homes</p>	<p>Qualitative research and analysis of secondary data – interviews, observation, analysis of medical records, review of incident reports <i>2011 residents in 10 nursing home facilities</i></p>	<p>To determine the incidence of resident-to-resident abuse, including verbal and sexual abuse in nursing homes.</p>	<p>407 of the 2011 elderly individuals experienced at least one form of resident-to-resident abuse. The prevalence of resident-to-resident abuse among all participating nursing homes was 20.2%. Verbal abuse was the most common type of abuse (9.1 %) followed by physical abuse (5.2 %) and sexual abuse (0.6 %), which was the least common.</p>
<p>[Luzny & Jurickova, 2012]</p> <p>Prevalence of elder abuse and neglect in seniors with psychiatric morbidity – example from central Moravia, Czech Republic</p>	<p>Medical records analysis and focus groups <i>305 elderly individuals 30 nurses</i></p>	<p>To determine the prevalence of elder abuse and neglect in seniors with psychiatric morbidity.</p>	<p>The prevalence of elder abuse in seniors with psychiatric morbidity was 23.8%. The most common forms of abuse were self-neglect, financial abuse and neglect by others.</p>

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<p>[Magruder et al., 2019]</p> <p>Abuse, neglect and exploitation in assisted living: an examination of long-term care ombudsman complaint data</p>	<p>Analysis of secondary data <i>140,497 elder abuse complaints over a period of 8 years</i></p>	<p>To determine the incidence of abuse in assisted living and skilled nursing facilities based on complaints received by the Long-Term Care Ombudsman in Texas.</p>	<p>Individuals in assisted living facilities reported experiencing abuse in 324 cases. Psychological abuse was reported (28.4%), as well as financial abuse (23.46%), while the least reported type of abuse was sexual abuse (5.56%). Residents of nursing homes reported abuse in 1,823 cases, of which 34.78% were cases of psychological abuse, 19.09% were cases of physical abuse and 5.32% were cases of sexual abuse.</p>
<p>[Moore, 2017]</p> <p>Abuse of residents in nursing homes: Results of a staff questionnaire</p>	<p>Quantitative research – survey <i>156 caregivers – nursing home employees</i></p>	<p>To determine the extent and causes of abuse in nursing homes for older people.</p>	<p>88.5% ($n = 138$) of the respondents either witnessed or suspected elder abuse. Psychological abuse was the most common type witnessed (47.6 %) followed by neglect (31.9 %) and physical abuse (20.0 %). There were no reports of sexual abuse. Several forms of abuse were observed more than one time, with 90.8% reporting recurrent abuse and 16.5% reporting a single act, or both.</p>
<p>[Neuberg et al., 2019]</p> <p>Contrasting vantage points between caregivers and residents on the perception of elder abuse and neglect during long-term care</p>	<p>Quantitative research – survey <i>171 caregivers 245 elderly individuals</i></p>	<p>To compare the incidence of elder abuse from the vantage points of elder individuals and caregivers.</p>	<p>In the elderly individuals' group, 101 women and 39 men reported being subjected to abuse. Neglect and abuse were most commonly detected in the elderly between the ages of 75 and 84. Those visited by relatives once a week reported abuse more frequently. 52 female caregivers and 5 male caregivers reported cases of severe abuse. In private nursing homes, caregivers did not report abuse, while it was reported frequently in extended care units (75.4%) and county-owned nursing homes (24.6%).</p>

<p>[Nisha et al., 2016]</p> <p>Study on elder abuse and neglect among patients in a medical college hospital, Bangalore, India</p>	<p>Qualitative research – structured interview <i>200 elderly individuals</i></p>	<p>To determine the prevalence of various types of abuse and neglect and associated factors among elderly patients attending the urban and rural geriatric clinics.</p>	<p>The overall prevalence of elder abuse or neglect was 16% ($n=32$) comprised of: verbal abuse (12.5%); neglect (11%); financial abuse in (8.5%); and physical abuse (1.5%). Many elderly patients have experienced multiple forms of abuse. There was a statistically significant association between elder abuse and total financial dependence, lack of social support, and depression among elderly patients.</p>
<p>[Patel et al., 2018]</p> <p>Prevalence and predictors of abuse in elderly patients with depression at a tertiary care centre in Saurashtra, India</p>	<p>Quantitative research Use of DSM-5, EASI and AAT <i>100 elderly individuals</i></p>	<p>To explore the prevalence and predictors of abuse and its relation to various sociodemographic variables in elderly patients with depression.</p>	<p>The prevalence of abuse was 24%. Among those who had experienced abuse, 50% had experienced psychological abuse, 17% had experienced neglect, 8% had experienced financial abuse, and 4% had experienced physical abuse. About 54% of elderly persons with severe depression had experienced abuse. Daughters-in-law (54%) and sons (42%) were the most common perpetrators of abuse. Illiteracy and depression were risk factors for abuse.</p>
<p>[Schiamberg et al., 2012]</p> <p>Physical Abuse of Older Adults in Nursing Homes: A Random Sample Survey of Adults With an Elderly Family Member in a Nursing Home</p>	<p>Quantitative research – survey <i>452 adults with elderly relatives receiving nursing home care, older than 65 years</i></p>	<p>To determine the prevalence and risk factors of staff physical abuse among elderly individuals receiving nursing home care.</p>	<p>110 elderly people (24.3%) experienced physical abuse by caregivers. The most common forms of abuse were beatings and kicks (27%), inappropriate use of restraints, force-feeding (62%) and sexual abuse (1.1%). The risk factor for abuse was age - with each additional year, the odds of abuse decreased by 49%.</p>

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[Şen & Meriç, 2019] Determination of abuse and depression in the elderly	Quantitative research – survey Using the Geriatric Depression Scale and the Hwalek - Sengstock Elder Abuse Screening Test <i>310 elderly individuals</i>	To assess the prevalence of abuse and depression in elderly individuals.	The prevalence of abuse and depression was higher among women who were divorced or widowed, had a primary school education, had a low income and had no social security. 39% of the individuals suffered abuse.
[Lacher et al., 2016] Types of abuse and risk factors associated with elder abuse	Analysis of secondary data <i>903 dossiers created at an Independent Complaints Authority for Old Age in Zurich</i>	To identify types of elder abuse and to investigate its associated risk factors.	A total of 150 cases reflected at least one form of elder abuse or neglect; 104 cases of abuse and 46 cases of neglect. Psychological abuse was the most reported form of abuse (47 %) followed by financial (35 %) and physical abuse (30 %). Abuse was more often experienced by those living at home.
[Smith et al., 2019] The epidemiology of sexual assault of older female nursing home residents, in Victoria Australia, between 2000 and 2015	Analysis of secondary data <i>28 forensic examinations performed for alleged sexual assault</i>	To determine the incidence of sexual assault of older female nursing home residents.	The median age of victims of sexual assault was 83 years. The most common location where the sexual assault occurred was the older female resident's bedroom (28.6%). The perpetrators were identified in 53.6%, all were male. The same percentage of perpetrators (25%) were caregivers and other residents. In 3.6% of the cases, the perpetrator was a medical practitioner.

<p>[Teaster et al., 2015]</p> <p>The Sexual Victimization of Older Women Living in Nursing Homes</p>	<p>Analysis of secondary data <i>64 elderly women, victims of sexual abuse</i></p>	<p>Analysis of data related to alleged and confirmed cases of sexual abuse in nursing homes.</p>	<p>Of the 64 cases of sexual abuse identified, in 20 cases it was confirmed that the abuse did occur, and in 44 cases there was insufficient evidence of the abuse. The median age of the victims was 81 years. The alleged perpetrator was identified in 90% of all confirmed cases. The average age of the perpetrators was 57, 94% of the confirmed perpetrators were male and 72% of them were other residents. The caregivers were the perpetrators in only two confirmed cases.</p>
<p>[Yon et al., 2019]</p> <p>The prevalence of elder abuse in institutional settings: A systematic review and meta-analysis</p>	<p>Systematic literature review <i>55 studies, of which 9 were selected for review</i></p>	<p>A systematic review of the literature on the prevalence of elder abuse in institutional settings in the past 12 months.</p>	<p>The findings suggest that 64.2% of staff admitted to elder abuse in the past year. Residents reported being subjected to psychological abuse (33.4%), followed by physical (14.1%), financial (13.8%), neglect (11.6%), and sexual abuse (1.9%).</p>
<p>[Zhang et al., 2012]</p> <p>Family Members' Reports of Non-Staff Abuse in Michigan Nursing Homes</p>	<p>Quantitative research – survey <i>2,004 adults with elderly relatives receiving nursing home care, older than 60 years</i></p>	<p>To determine the prevalence and risk factors of staff and non-staff elder abuse in nursing homes from family members' perspectives.</p>	<p>36.5% of the respondents reported that a relative in a nursing home had experienced staff abuse in the past year, while 10% had experienced non-staff abuse.</p>

Of the 29 papers included in the systematic literature review, 13 identified the incidence and forms of abuse and the factors related to elder abuse in nursing homes, of which two specifically addressed sexual abuse of elderly female individuals, and one explored financial abuse of the elderly. Ten papers addressed the incidence of elder abuse towards individuals attending ambulatory care facilities and emergency departments, of which one of the studies focused on the abuse of elderly individuals with cognitive impairments and one on the abuse of elderly individuals with psychiatric illness. In three papers, the authors analysed the complaints submitted by elderly individuals to the Long-Term Care Ombudsman or other services in charge with processing such complaints. In two papers, the authors analysed the incidence of self-neglect and the association of elder abuse with symptoms of anxiety and depression among the elderly based on secondary data collected in the PINE study. In one paper, the authors used the systematic literature review method to study the incidence of elder abuse in nursing homes in the past 12 months. The most commonly employed quantitative research method (11 papers) was conducting surveys or using specific psychometric tests. In nine papers, the authors analysed secondary data, and in five papers, a combination of quantitative and qualitative research (surveys and interviews or focus groups) was used. In one paper, qualitative research was used, in the remaining two papers, the authors used a combination of quantitative research and secondary data analysis and qualitative research and secondary data analysis.

3.1 The findings of studies on elder abuse in nursing homes

Studies of elder abuse in an institutional setting have generally focused on the perception or reporting of abuse by medical and other staff, the elderly, and their family members. Between 54% and 60% of nursing home staff admitted to perpetrating at least one form of elder abuse in the previous 12 months before the survey was conducted, and 65% – 76% of nursing home staff witnessed an incident in the same period where a co-worker perpetrated one or several forms of elder abuse (Ben Natan & Lowenstein, 2010; Ben Natan et al., 2010; Botngård et al., 2020; Bužgová & Ivanová, 2011). In a study aimed at determining how many times nursing home staff had witnessed elder abuse in their previous job, caregivers reported the occurrence or the suspicion of abuse in 88.5%. The authors attribute the higher percentage of reported abuse in this study to the fact that caregivers find it challenging to report having observed or perpetrated abuse, as they are afraid of how their employer, supervisors or other co-workers might react, which is the main reason why they do not speak up. When asked about the incidence of abuse at a previous employment, they were more likely to talk about it (Moore, 2017).

Most cases of abuse by caregivers and medical staff were psychological abuse (23% – 46%), with 21% – 70% of cases involving recurring incidents (Ben Natan & Lowenstein, 2010; Botngård et al., 2020; Bužgová & Ivanová, 2011). The predominant forms of psychological abuse were yelling, arguing with a resident, insults and name-calling. The authors (Botngård et al., 2020) attribute the high

rate of yelling and arguing to the fact that staff might perceive this as everyday communication within a nursing home setting. Active neglect was reported by staff in 1% – 34%, while 64% of the respondents reported that physical neglect occurred more than 16 times a year (Ben Natan & Lowenstein, 2010; Botngård et al., 2020; Bužgová & Ivanová, 2011). The most frequent reported acts were neglecting oral care (30.5%), ignoring a resident (25.3%), deliberately delaying care (19.5%) and prohibiting a resident from using the alarm (11.7%) (Botngård et al., 2020). The authors (Ben Natan & Lowenstein, 2010; Botngård et al., 2020) attribute the high rate of reporting neglect to the fact that staff are more inclined to report neglect because it constitutes an omission of a particular act instead of intentionally perpetrating abuse. They perceive neglect as systemic failures rather than their failure to meet the basic needs of the residents (e.g., neglecting oral care is attributed to lack of time or adequate equipment, inadequate training in delivering oral care, or ‘residents’ resistance to care ...).

Caregivers reported physical abuse in 9.6% – 12%, where 2.2% – 50% were recurrent acts (Ben Natan & Lowenstein, 2010; Botngård et al., 2020; Bužgová & Ivanová, 2011). The most frequent acts were pushing, grabbing or pinching a resident and deliberately delaying giving medications. Male staff reported more acts of physical abuse, while female staff reported more acts of neglect. Additionally, higher-educated staff admitted perpetrating more acts of physical and psychological abuse and neglect (Botngård et al., 2020). Staff were the least likely to report financial (0.1% – 1%) and sexual abuse (0.1% – 0.7%) (Ben Natan & Lowenstein, 2010; Botngård et al., 2020; Bužgová & Ivanová, 2011). The authors (Botngård et al., 2020) attribute low rate of reporting sexual abuse to the fact that sexual elder abuse is the most shocking form of abuse, and therefore considered the most hidden and least acknowledged. Ageism and stereotypes about older adults as non-sexual beings might impede nursing staff in recognising and reporting this type of abuse.

Nursing staff who witnessed abuse being perpetrated by their co-workers most often observed psychological abuse (47.6% – 62.4%), with 43.3% reporting they observed this form of abuse on two or more occasions (Ben Natan et al., 2010; Botngård et al., 2020; Moore, 2017). The most frequently observed forms of abuse, in addition to yelling, arguing with the residents, and name-calling, were ignoring a resident, making critical remarks to a resident, verbal abuse, threat of eviction, and threat of catheterisation (Botngård et al., 2020; Moore, 2017). The second most commonly observed abuse form was neglect (9% – 57.8%), where 40.1% were recurrent acts (Ben Natan et al., 2010; Botngård et al., 2020; Bužgová & Ivanová, 2011; Moore, 2017). Other observed forms of neglect included not giving food and drinks, leaving residents in wet clothes or undressed, not washing residents, leaving and forgetting residents on the toilet, unnecessarily sitting in wheelchairs, and placing call buttons out of reach (Moore, 2017). Nursing home staff reported acts of physical abuse committed by their co-workers in 23% – 30% of cases, with 8.7% – 63% being recurrent acts (Botngård et al., 2020; Bužgová & Ivanová, 2011; Moore, 2017). In addition to pushing, pinching, grabbing, and deliberately delaying giving medications (Botngård et al., 2020), physical restraint, forcing residents to get up against their wishes, punches to the hands, face, and legs,

rushing with feeding, over-medication, and giving unprescribed medication were observed (Moore, 2017). As with reported abuse, the least observed forms of abuse were financial (2.1%) and sexual abuse (1.6%). Prevalence rates of perpetrated abuse were lower than rates of observed abuse, suggesting that staff find it easier to report abuse they observe committed by colleagues rather than admitting their own abusive behaviour (Botngård et al., 2020).

Adams et al. (2014) analysed the detection of financial abuse among aged care service providers and chief executive officers in nursing homes and their difficulties and success in dealing with cases of elder financial abuse. According to the authors, financial abuse is the most common form of elder abuse in Australia. This type of abuse consists of the improper and illegal use of an elderly person's financial resources. This may include, for example, pressuring an elderly into changing a will in favour of specific individuals and preventing the elderly person from spending or accessing their own money, stealing money or extorting money from an elderly person, and abusing one's rights as an elderly person's legal guardian. Survey respondents (228 chief executive officers and 214 aged care service providers) reported in 92% that they recognise financial abuse as one of the forms of elder abuse, but often find it challenging to act against it. More than a quarter (27.8%) of the respondents reported that financial abuse is a common form of reported or alleged elder abuse at their establishment. 70% of the respondents reported having specific measures in place to address this form of abuse. According to respondents, the number of reported cases of elder financial abuse perpetrated by relatives in the previous 12 months prior to the survey was between 620 and 1,300 cases. The authors attribute the number of detected cases to greater awareness of this issue and not to a higher incidence of this form of abuse in general. Respondents reported that the most common problems they encountered included difficulties in detecting abuse, obtaining the elderly person's consent before they could take action, the risk that the abusive relatives would transfer the elderly person to another nursing home, and a lack of resources to deal with the complexities inherent in situations of financial abuse. Elderly people are reluctant to report abuse for fear of causing a rift in the family or because they believe it to be a private matter. Family members often react violently when nursing staff share their suspicion of financial abuse. Some staff members might not want to interfere in the elderly person's life, as they find it difficult to ask the right questions without feeling intrusive and without causing conflicts with the family members (which can ultimately cause more harm to the elderly person). Obtaining the consent of the elderly person to take action against abuse is all the more difficult when the person has dementia. Some respondents acknowledged that they find it challenging to report and take action against abuse in cases in a smaller rural area where they also live. Non-reporting abuse is also the result of a lack of legal protection for those who report abuse.

Nevertheless, many institutions have taken a proactive role in addressing the financial abuse of the elderly. Almost 80% of the respondents said that their institutions have included financial abuse in their organisation's definition of elder abuse. Both the chief executive officers and aged care service providers reported several successfully resolved cases of financial abuse by lodging a complaint with

the Guardianship Board ($n = 23$), requiring the Public Advocate to investigate the matter ($n = 16$), reporting the matter to the police ($n = 8$), talking to the abused elderly person's relatives ($n = 10$) or intervening in the case themselves ($n = 13$). Some institutions deal with this issue through their financial service, which is tasked with identifying cases where there are insufficient funds to pay for care or to pay pharmacy bills. The manager or CEO of the institution is then informed about the suspected financial abuse of an elderly person and decides on what action needs to be taken.

Smith et al. (2019) found that sexual abuse is the least acknowledged, detected, and reported type of assault against nursing home residents. The study identified 28 forensic medical examinations performed for alleged sexual assault of elderly women between 2000 and 2015. The actual number of identified cases can vary significantly due to under-reporting by the elderly female victims and lack of identification by nursing home staff. The median age of the victims was 83 years, and most of them had cognitive impairments. The perpetrators were identified in 53.6%, all were male. The same percentage of perpetrators (25%) were caregivers and residents and in 3.6% of the cases the perpetrator was a physician. An examination cannot proceed if the victim is unwilling or unaware of what they are consenting. Forensic evidence is therefore limited by the inability to conduct a complete examination to.

Teaster et al. (2015) also agree that no type of elder abuse is so underreported as sexual abuse. The study identified 64 cases of sexual abuse, however, upon closer analysis, in 20 cases, it was confirmed that the abuse did occur, and in 44 cases there was insufficient evidence of the abuse. The median age of the victims was 81 years. The alleged perpetrator was identified in 90% of all confirmed cases. The average age of the perpetrators was 57, 94% of the confirmed perpetrators were male and 72% of them were other residents. The caregivers were the perpetrators in only two confirmed cases. Contrary to the findings of a study by Smith et al., (2019), in most cases, the victim was not offered the option of a forensic medical examination an assessment by a nurse to identify any injuries that might be the result of abuse; however, support was offered to all victims (both substantiated and unsubstantiated cases). In most cases, victims reported sexual harassment or inappropriate behaviour such as expressing sexual interest in the victim's body, with three cases involving vaginal rape. None of the substantiated cases of abuse resulted in the perpetrator's arrest. Agencies with authority to investigate alleged sexual abuse in nursing homes require evidence sufficient to warrant confirmation of an allegation. Cases, where there was insufficient evidence of abuse, may include actual cases of sexual abuse for which investigators believed there was insufficient evidence to justify a positive finding. This could happen due to various reasons such as contamination or loss of evidence, witnesses and victims may have been fearful of retaliation and recanted statements, and delays of physical examinations of alleged victims or no examinations may have occurred (Teaster et al., 2015). Analysis of reported cases of elder sexual abuse in an institutional setting could help to improve our understanding of the vulnerabilities, injuries and (physical and emotional) responses that are unique to older victims, and therefore aid in

the development of age-appropriate prevention and treatment strategies (Smith et al., 2019).

Studies have found that the rates of elderly residents reporting experiencing abuse are very different from the reporting rates by nursing staff. In a study by Bužgova & Ivanova (2011), where more than 50% of nursing home staff admitted to perpetrating at least one form of abuse, the elderly residents reported having experienced abuse in only 11% of the cases, while only 5% observed that their roommate was a victim of abuse by the staff. While 46% of the nursing home staff reported perpetrating psychological abuse, only 10% of the elderly residents reported experiencing it. About 12% of the nursing home staff admitted to perpetrating at least one form of physical abuse, but less than 2% of the elderly residents reported experiencing it. In a study by Neuberger et al. (2019), 72.1% of elderly women and 27.9% of elderly men reported being subjected to abuse. Neglect and abuse were most commonly detected in the elderly between the ages of 75 and 84 (43.6% of the respondents). Residents whom relatives visited once a month or once or several times a week reported having experienced abuse more often (76.5%), indicating that family support plays an essential role in identifying and recognising abuse in an institutional setting. The perception of abuse was more frequent among elderly individuals with a moderate level of mobility and those receiving care in extended care units. Serious mistreatment was observed in 91.2% of female caregivers and 8.8% of male caregivers. Serious mistreatment was most commonly observed by the respondents under 31 years of age. Abuse was more frequently perceived by morning shift nurses, because the number of nurses working the morning shift and seeing each other work is larger, and hence they notice abuse more often.

The prevalence and risk factors of staff physical abuse among elderly individuals receiving nursing home care from the perspective of family members were investigated by Schiamberg et al. (2012). According to a sample of 452 relatives of older people in nursing homes, 24.3% of elderly individuals reported being subjected to abuse by nursing home staff. Of these, 27% were exposed to beatings, kicks and similar forms of physical abuse, 62% experienced inappropriate use of restraints, forced toilet use or force-feeding, and 11% were victims of sexual abuse. A statistically significant risk factor was the elderly person's age. The study showed that with each additional year, the odds of abuse decreased by 49%. The risk of physical abuse was higher in those elderly residents who had one or more limitations in activities of daily living. Needing help with moving around increased the risk of abuse by as much as 89%. In a study by Zhang et al. (2012), 36.5% of the respondents reported that a relative in a nursing home had experienced staff abuse, while 10% had experienced non-staff abuse. Among those who reported experiencing staff abuse, 19% also reported abuse by other residents. The prevalence of elder abuse from relatives' point of view is significantly higher than the findings of studies where abuse was reported by staff and the elderly themselves. According to the authors, most incidents reflect poor provision of care services by caregivers. Hence, training the nursing staff on how to manage potentially frustrating situations in providing care services is

essential and could prove effective in reducing physical abuse in nursing homes (Schiamberg et al., 2012).

An increasing number of studies report on resident-to-resident elder mistreatment (R-REM) in nursing homes as a subcategory of elder abuse. R-REM can cause physical and psychological injury and death and is defined as hostile and aggressive physical, sexual, or verbal interactions between long-term care residents that in a community setting would likely be construed as unwelcome and have high potential to cause physical or psychological distress in the recipient. (Lachs et al., 2016). In 67% of nursing homes, caregivers reported a high rate of perceived yelling from other residents, and overall, 97% of caregivers witnessed yelling from other residents over the past three months. A high level of physical abuse was perceived by 35% of the caregivers, and overall 94% of the caregivers witnessed physical R-REM during the same period. The physical abuse often consisted of pushing, grabbing, or pinching, while hair pulling and kicking were less common. Caregivers reported the same percentage of perceptions of psychological abuse (aggressive behaviour and threats) in the past three months. 69% of the caregivers reported intervening in cases where an elderly resident took another resident's belongings, while 14% reported intervening in cases where a resident stole money from another resident. 77% of caregivers reported perceptions of sexual abuse when residents exposed their private body parts to other residents (Castle, 2012). In a study by Lachs et al., (2016), 20.2% of all the residents in a nursing home were exposed to at least one form of R-REM over a period of one month. Many of them experienced several forms of abuse; 9.1% were exposed to verbal abuse (yelling, swearing), 5.3% experienced an invasion of privacy, menacing gestures and damage to property, 5.2% experienced physical abuse (beatings, pushing) and 0.6% were subjected to sexual abuse. Most of the incidents occurred in the elderly person's room (40.3%), in the dining room (37.1%) and in everyday activities areas (23.8%). In terms of when the incidents occurred, most of them occurred in the afternoon (40.8%) and in the morning (37.8%), while a lower percentage of them occurred at night (7.4%). The prevalence of incidents was lowest in the summer, and incidents occurred more frequently in facilities for elderly people with dementia. The prevalence of abuse decreased with the age of the elderly person. With each additional year of age, the probability of resident-to-resident mistreatment decreased by 5%, and by 46% for male residents. Elderly people between the ages of 60 and 69 were three times more likely to be exposed to abuse than those over the age of 90 (Zhang, et al., 2012).

The findings of these studies reveal significant differences in the prevalence of abuse in relation to certain risk factors or other influencing factors. According to the type of facility, abuse was not reported by caregivers in private nursing homes, while it was reported frequently in extended care units (75.4%) and county-owned nursing homes (24.6%). This can be attributed to a more open relationship in private nursing homes, greater awareness about abuse among caregivers, and more frequent visits by relatives and friends of the elderly. In county-owned nursing homes, caregivers tend to view the elderly as individuals who can no longer live alone because they urgently need full-time care and who have come to the home to spend the last days of their life. In contrast, a study

conducted by Ben Natan & Lowenstein (2010) found no association between the type of facility (for-profit or non-profit) and the prevalence of abuse. The risk of neglect and abuse was higher in larger facilities with high staff turnover, and where there is a greater number of elderly people requiring care. The authors state that larger nursing homes have a more significant number of elder residents with more complex needs as well as dementia, which puts much pressure on caregivers and carers. An examination of the impact of staff characteristics (length of service, experience working with the elderly, burnout, knowledge, attitudes towards the elderly and attitudes towards elder abuse), the characteristics of the elderly and the characteristics of the nursing facility on the occurrence of elder abuse showed that emotional burnout and intense feelings of depersonalisation among the staff increase the risk of perpetrating elder abuse. Additionally, a higher risk of perpetrating abuse is also associated with having more experience working with the elderly. Some authors did not find a link between academic knowledge, more years of service, attitudes towards abuse, and the gender and age of the employees (Ben Natan et al., 2010), while Bužgová & Ivanová (2011) found that employees with over five years of service and those with inadequate education were more likely to be the perpetrators of abuse. In relation to the characteristics of the elderly, women, especially those who have dementia, were at greater risk of physical abuse, neglect and other types of abuse (Ben Natan et al., 2010; Bužgová & Ivanová, 2011).

3.2 The findings of studies on elder abuse among individuals attending ambulatory care facilities and emergency departments

Studies examining elder abuse towards individuals attending ambulatory care facilities and emergency departments refer to elderly people who have visited ambulatory care facilities to receive medical assistance. Abuse reported by the elderly or perceived by medical staff was experienced by the elderly in their home environment.

Ambulatory care facilities and emergency departments have been shown to be important sites for identifying various types of abuse, including intimate partner violence, child abuse, and also elder abuse (Evans et al., 2016). The results of these studies cannot be generalised to a specific community or environment, because visitors to ambulatory care facilities come from various places. Furthermore, the sample does not include those who do not have access to medical care, who have dementia or other forms of cognitive impairment (Edirisinghe et al., 2014).

Research conducted on this topic has shown that the overall incidence of abuse of elderly visitors to ambulatory care facilities and emergency departments was between 16% and 45% (Alexa et al., 2019; Altintop & Tatli, 2019; Bostanci Daştan et al., 2021; Edirisinghe et al., 2014; Evans et al., 2016; Nisha et al., 2016; Patel et al., 2018; Şen & Meric, 2019). Physical abuse was the form of abuse most commonly reported by the elderly (4% - 84.4%) (Alexa et al., 2019; Alintop & Tatli, 2019; Bostanci Daştan et al., 2021; Edirisinghe et al., 2014; Evans et al., 2016; Nisha et al., 2016; Patel et al., 2018). A higher incidence of physical abuse was detected in the younger seniors age group (65–74 years) (Alexa et al., 2019). The types of

injuries suffered by the elderly were head, limb and lip injuries, as well as stab wounds. The causes of the injuries were mostly punching, hitting with various objects, kicking and strangulation (Altintop & Tatli, 2019). Psychological abuse was reported by between 5% and 60.2% of the elderly (Alexa et al., 2019; Bostanci Daştan et al., 2021; Edirisinghe et al., 2014; Nisha et al., 2016; Patel et al., 2018). The third most commonly reported form of abuse was neglect (4 % – 53 %), (Alexa et al., 2019; Edirisinghe et al., 2014; Evans et al., 2016; Nisha et al., 2016; Patel et al., 2018). In the majority of cases, family members left the elderly without any food, denied them access to health care, and neglected their oral hygiene (Edirisinghe et al., 2014). A higher incidence of neglect was detected in the elderly aged between 75 and 84 (Alexa et al., 2019). Financial abuse was reported less frequently by the elderly (2.6 % - 9.1 %) (Bostanci Daştan et al., 2021; Edirisinghe et al., 2014; Nisha et al., 2016; Patel et al., 2018) while sexual abuse was not reported at all (Alexa et al., 2019; Patel et al., 2018). A study by Edirisinghe et al. (2014), which focused on the incidence of elder abuse among outpatient department attendees in a tertiary care hospital in Sri Lanka, showed that abuse is less common in Asia as the extended family acts as a protective factor. Asian societies have a number of socio-cultural and religious practices based on the concept of the extended family. These values include caring for the elderly by the younger generation, which is why it is not uncommon for the elderly in Asian societies to live with their children, nieces and nephews. However, with globalisation and the migration of younger families, these values and practices have changed. The study found that 45% of the elderly experienced at least one form of abuse. Despite the fact that most elderly people live with children and grandchildren, severe loneliness was reported by 26% of the elderly.

Several studies have found that women were more likely to be victims of abuse than men (Alexa et al., 2019; Evans et al., 2016; Nisha et al., 2016; Şen & Meric, 2019). In some places, they even represent 73.7% of all victims of abuse (Evans et al., 2016). Higher rates of exposure to abuse were found for: single or widowed women aged between 70 and 74 who had an extended family and needed daily support or care, who lived alone in the city, were economically deprived and without social security, who were under treatment for a specific disease and who had only a primary school education (or lower). The higher prevalence of abuse among those with a lower education level can be attributed to a lack of awareness of the various forms of abuse, the fact that many forms of violent behaviour are considered culturally acceptable and expected, the fear of stigmatisation and the fear that their distress would increase if they decided to speak out on the abuse (Bostanci Daştan et al., 2021; Edirisinghe et al., 2014; Şen & Meric, 2019). According to the type of abuse, verbal and financial abuse and neglect were the most common ones, and elderly women were exposed to physical abuse three times more often than men (Nisha et al., 2016). In contrast, a four-year study by Altintop and Tatli (2019) found that of the 116 individuals with signs of physical abuse identified, 69% were men. According to the studies, the most common perpetrators of abuse were daughters-in-law, children, partners, siblings and others (Alexa et al., 2019; Bostanci Daştan et al., 2021; Patel et al., 2018).

An analysis of the findings of the studies above allows us to highlight some other risk factors for abuse. Patel et al. (2018) listed illiteracy and depression as risk factors. The study results also showed that widows and widowers, homemakers, the illiterate and the unemployed were those most exposed to abuse among the elderly suffering from depression. Depression as a risk factor was also identified by Şen and Meric (2019), as it was confirmed in 46.2% of the respondents. In addition to depression, Nisha et al. (2016) found a statistically significant association between abuse, complete financial dependence, living conditions, and a weak social network.

Mental illness, as a specific risk factor, was confirmed by Luzny and Jurickova (2012) in their study. The results of focus groups in a psychiatric hospital showed a low level of knowledge and awareness of elder abuse and neglect among the nursing staff. 16.7% of them have never heard about symptoms of elder abuse or neglect, 33.3% had only partial knowledge about it, and 50% of the nursing staff had good knowledge about this issue. The prevalence of elder abuse in seniors with psychiatric morbidity was 23.8%, compared to somatically ill seniors, which was significantly lower (2.9%).

A study by Bostancı Daştan et al. (2021) was the only one to address how victims react to abuse and what happens after an incident. 75% of the victims did not talk about the abuse after experiencing it, 9.1% reported the abuse to the police, 4.5% received an apology from the perpetrator and the same percentage of the victims ended their relationship with the perpetrator, 2.3% of the victims left their home and the same percentage of the victims responded to the abuse with physical violence.

Fang and Yan (2021) dealt with the perception of elder abuse from three different aspects – the perspective of relatives, the elderly individuals themselves and the clinical team. 1,002 adults aged 55 years or above with mild to moderate cognitive and/or physical impairments and their caregivers participated in the study. The majority of the participating seniors were men (55.6%). More than 90% of them lived with their guardians, who were their adult children (59.4%) or partners (19.5%) and other relatives (21.1%). The study's findings showed a large discrepancy in the percentages of abuse reported by caregivers compared to the percentages reported by the elderly and the observations of the clinical team. Elderly individuals reported neglect in 65% of the cases (not receiving help with washing, getting to the toilet, eating), and their caregivers reported abuse in 50.2% of the cases, while the clinical team noticed signs of such abuse in only 35.4% of the cases. According to the elderly individuals, the second most common form of abuse was psychological abuse (51.1%, which consisted of yelling and name-calling), while the caregivers reported this form in only 42.8% of the cases, and the clinical team in 11.1% of the cases. Financial abuse was reported by 40.8% of the elderly, 34.2% of the caregivers, and the clinical team in only 17.9% of the cases. In most cases, the abuse consisted of the guardian spending the elderly 'person's money for their own needs (a sense of entitlement to money) and preventing the elderly person from spending their money, to ensure a larger inheritance for the guardian. Physical abuse was the rarest form of abuse to be reported. The elderly reported it in 1.2% of the cases and the guardians in 1%. The authors attribute

the small percentage of guardians reporting abuse to the guardians' reluctance to report abuse for fear of accusations and damaging the family's reputation. The discrepancies can be attributed to the different methods used in the study, indicating the importance of a unified operational definition and method of measuring the incidence of abuse, as well as the need to obtain data from different sources (the victims themselves, their guardians and the medical staff). The lower percentage of perceived abuse by the clinical team raises the question of whether medical staff hold the (wrong) assumption that only intentional behaviour constitutes actual abuse, especially in cases where the abuse is more subtle. Due to the lack of visible signs of abuse, the observation method usually detects less abuse than self-reporting. Nevertheless, the observation method can be helpful for detecting severe cases of elder abuse when the victims are too scared to report the abuse. The results of the study also revealed a general lack of knowledge about elder abuse, both among caregivers and the elderly, as well as the medical staff. All three groups of participants would benefit from additional training, which would enable them to detect and recognise abuse more quickly, as well as take appropriate action.

3.3 The findings of studies on elder abuse in domestic settings

Little is known about elder abuse in private or domestic settings in different communities compared to elder abuse in institutional settings. The Dong study (2014) focused on the incidence of self-neglect among the elderly Chinese population in Chicago. The Chinese community is the largest and fastest-growing Asian-American population subgroup in the United States. Over the past decade, the Chinese community of people over the age of 65 has grown by 55%. Self-neglect in the elderly is the most commonly reported problem at adult social work centres there. Despite the high incidence of this problem, there is very little research done in this area, compared to research on other forms of elder abuse, mainly due to the difficulties in recognising and addressing this problem and the inconsistent definitions of self-neglect. The National Centre on Elder Abuse (NCEA) defines self-neglect as the behaviour of an elderly person that threatens his/her health or safety. It often manifests itself in an older person as a refusal or failure to provide for their own needs (e.g., water, food, clothing, shelter, personal hygiene, medication). Of the 3,159 respondents, mild self-neglect was observed in 18.2% and moderate to severe self-neglect was observed in 10.9%. The most prevalent forms of self-neglect were unsanitary conditions (17%), need for home repair and inaccessibility (16.3%), hoarding magazines (14.9%), poor personal hygiene (11.3%) and inadequate living utilities (4.2%). The prevalence of self-neglect was higher in the elderly with poor quality of life. Cultural and linguistic barriers to accessing health services lead to poor health and an increased risk of self-neglect. Elderly people in the Chinese community affected by poor economic conditions, which make it impossible for them to afford the help of various care units, are even more exposed to living in a dangerous and unhealthy environment. Healthcare professionals should pay more attention to signs of self-neglect in the elderly who report a lower quality of life. They should also be made aware of the

importance of factors that affect self-neglect that could be integrated into routine history taking in a clinical setting.

Chao et al. (2020) used the same pattern as the author in the previously described study to examine the association between different forms of elder abuse, symptoms of anxiety, and depression among the elderly Chinese population in Chicago. According to the study, 15.14% ($n = 475$) of elderly people experienced abuse. Of these 11.1% experienced neglect, 9.79 % experienced psychological abuse, 9.3% experienced financial abuse, 1.04% experienced physical abuse, and 0.19% experienced sexual abuse. The reason for the lower percentage of reported sexual abuse, according to the authors, is the silence of the victims, as traditional Chinese culture dictates that rape is shameful and must remain a private matter. Those who experienced any of the listed forms of abuse were more likely to show symptoms of anxiety, as well as more likely to report symptoms of depression. There was no significant association between sexual abuse and depressive symptoms. Depression and its symptoms, however, were significantly associated with age, income, marital status, general health status, quality of life, and changes in health over the past year. It is not clear whether the signs of depression and anxiety are the cause or consequence of the abuse experienced. As the findings of other studies show that the most commonly reported form of abuse is psychological abuse, the authors attribute such discrepancies in the results to different definitions of abuse, methodological approaches and sampling procedures. As many older people are unaware of the forms of assistance available to them, health professionals should make an effort to establish a connection between social work centres and the elderly population.

3.4 The findings of studies on complaints of violations of the rights of the elderly

The Long-Term Care Ombudsman program [The Ombudsman] is the largest and most well-established national program advocating for the health, safety and well-being of the residents of long-term care facilities in the United States. Among its other activities, the law requires the Ombudsman in each country to identify, investigate and resolve complaints made by or on behalf of the elderly residents and to ensure that they have regular and timely access to the Ombudsman's services. In 1996, the National Ombudsman Reporting System [NORS] was developed, which allows for the efficient collection and analysis of information relating to the Ombudsman's activities (Bloemen et al., 2015). Long-term Care Ombudsman staff are advocates for the elderly who empower and assist the elderly with their complaints about the quality of care and violations of residents' rights of nursing homes and other qualified care facilities. Their services are provided for free (Magruder et al., 2019). They are often the first to receive a complaint and respond to it. An Ombudsman may decide to resolve complaints through mediation, acting on behalf of a nursing home resident, or reporting incidents to the police. Ombudsman staff and volunteers also carry out unannounced visits to these facilities, where they check for issues related to the residents' living conditions, listen to the concerns of residents and try to solve

problems together with or on behalf of the elderly residents (Bloemen et al., 2015; Magruder et al., 2019).

The Ombudsman program in the United States is primarily intended to identify and take action in cases of reported physical abuse perpetrated by employees. Cases of abuse by relatives, friends or others are reported to the centre for social work. Although the findings of other studies show a high prevalence of abuse among the elderly, the number of reports made to the Ombudsman has been declining every year. The reduction in the number of reports of other forms of abuse may be due to the failure to recognise these forms of abuse, both by the elderly, as well as their relatives and medical staff. Many forms of abuse are ignored or seen as normal everyday behaviour or communication. Although most of the reports are made by the elderly, these reports account for less than half of all reports. Given that the NORS has been set up primarily to investigate reports of abuse made by the elderly, these numbers indicate that the elderly are not sufficiently aware of their rights and do not know whom to turn to for help (Bloemen et al., 2015).

An analysis of trends in reports made to the Ombudsman about abuse and neglect of elderly residents in the institutional setting between 2006 and 2013 showed that the Ombudsman received an average of 11,749 reports per year. Every year, physical abuse was the most frequently reported type of abuse, representing 28% of total complaints over an 8-year period. Reports were most often made by the elderly residents themselves (38%), their relatives or friends (20%), while 17% of the reports were made by nursing home staff. The reports were resolved satisfactorily in 60% of the cases, unsatisfactorily in 6% of the cases and in 5% the report was handed over to another organisation (Bloemen et al., 2015).

Magruder et al. (2019) focused on analysing 140,497 reports of abuse from 3,171 long-term care facilities in Texas over the 2010–2017 period. The reports analysed were related to 1,940 assisted living facilities and 1,231 nursing homes. Elderly people in assisted living programs reported abuse in 16% of the cases. Psychological abuse (28.4%) was the most frequently reported form of abuse, followed by financial abuse (23.46%), physical abuse (14%), neglect (11.6%), and sexual abuse (5.56%). The total number of reports relating to abuse or neglect in nursing homes was 1,823. Elderly residents mainly reported being subjected to psychological abuse (34.78%), followed by physical abuse (19%), neglect (6%), and sexual abuse (5.32%), which was the least reported form of abuse.

Lacher et al. (2016) identified 150 of a total of 903 reports of at least one form of abuse or neglect in an analysis of reports submitted to an Independent Complaints Authority for Old Age in Switzerland. Almost 70% of cases were categorised as at least one form of abuse, and 30% were categorised as neglect, with 84.7% of cases constituting active neglect. About 43% of the victims lived in nursing homes, and the rest lived in their apartments. On average, the victims were subjected to abuse for a period of 3 months. The most commonly reported forms of abuse were psychological abuse (47%), followed by financial abuse (35%), physical abuse (30%) and unconstitutional abuse – abuse of constitutional human rights, e.g. theft of identity documents (18%). Women were subjected to abuse more often than men. Those who experienced abuse were more likely to live in

a domestic environment, and victims of neglect were more likely to live in an institutional environment. The authors identified 14 risk factors associated with abuse. They were divided into two groups: a) risk factors related to victims (need for support, need for care, history of violence, aggressive behaviour, dementia, addiction, other psychiatric disease, social isolation); b) risk factors associated with the perpetrators (overload, cohabiting with the victim, dependence on the victim, addiction, other psychiatric disease, dementia). In 87% of the cases, at least one of the listed risk factors was identified, and on average, three risk factors were identified per case. The most common risk factors for victims were the need for support (73%), the need for care (59%) and dementia (41%). The risk factors that were associated with a higher risk for abuse than for neglect were the victim's existing history of violence, cohabitation of the victim and perpetrator, the perpetrator's overload, the perpetrator's dependency on the victim and dementia, or the perpetrator's psychiatric disease. The perpetrators were family members – (46%) partners (17%), sons (14%), daughters (8%) and other family members (7%), 37% of the perpetrators were professional caregivers and 11% were trading companies. The most common risk factors related to the perpetrators were being overburdened with the situation and cohabiting with the victim (33%). In 17% of reported cases, the perpetrator was economically or emotionally dependent on the victim. The perpetrator's overload more often led to neglect than to abuse.

In addition to the empirical papers presented, the systematic literature review also identified a paper that contains a systematic review of literature on elder abuse in nursing homes. Yon et al. (2019) found that elder abuse in the institutional setting has not received equal attention or priority treatment in the public health system compared to other forms of abuse. There is a significant gap in research focusing on this issue. The authors focused on the incidence of abuse over the past year. 55 studies were selected for review, 9 of which were included in the analysis. These studies provided data for staff-to-resident abuse. Four studies examined the prevalence of elder abuse reported by the victims (Czech Republic, Israel, Slovenia and the United States), including one where abuse was reported by someone else (close relatives) and one where abuse was reported by the elderly and the caregivers. In comparison, five studies examined the prevalence of abuse reported by employees (nursing staff). Of the studies on abuse reported by the victims, 64.8% – 82.8% of the victims were female. Women, on average, have a higher life expectancy than men and account for the bulk of the sample in most studies. In two studies, 75% of individuals over 75 years of age were included in the sample. The individuals who participated in the studies could orient themselves in time and space, however, most of them required assistance in activities of daily living. Residents reported being subjected to psychological abuse in the majority of cases (33%), followed by physical abuse (14.1%), financial abuse (13.8%), neglect (11.6%), and sexual abuse (1.9%). There was an increased risk of elder abuse associated with declining health and with needing assistance in activities of daily living. In studies on abuse reported by the staff, they were asked if they had ever perpetrated elder abuse. The majority of participants (80% – 97%) were women. 62.4% of staff admitted to elder abuse. Staff reported two main stressors – staff shortages and time pressure. Staff who self-reported committing abuse described

themselves as emotionally exhausted. The findings of the studies showed that an increased presence of qualified nurses was associated with a reduction in elder abuse risk. The authors point out that elder abuse in the institutional setting needs to be given greater attention and more resources. In order to provide adequate care for the complex needs of older residents, proper support must be provided to staff through training, education, and adequate human resources and wages.

4 DISCUSSION

The paper presents a systematic review of scientific papers published over the last ten years to assess the state of research on the topic of elder abuse. A total of 29 papers were included in the review, which were divided into four content sets according to the topic – papers that: (a) examine the incidence of elder abuse in nursing homes, (b) examine the incidence of elder abuse in ambulatory care facilities and emergency departments, (c) examine the incidence of elder abuse in the domestic environment, and (d) analyse complaints about violations of the rights of the elderly. To our knowledge, this analysis is one of the rare examples to analyse studies on abuse of the elderly as one of the most vulnerable demographics.

Although some countries have mechanisms in place to address abuse and elder maltreatment, such as laws criminalising elder abuse, prevention programs that encourage the disclosure of abuse, complaint mechanisms, and the Ombudsman's long-term care programs, there are very few countries that try to systematically assess whether long-term care is safe, efficient and meets the needs of the recipients of care. This is particularly important given the demographic challenge of an ageing society throughout the world.

Based on a review of the existing literature, we find that elder abuse is an under-researched topic in both institutional and domestic settings. The literature review shows that empirical studies analyse either reports or self-reports by the elderly on experiencing abuse or reports by nursing staff and family members of the elderly on perceptions of elder abuse. In terms of content, studies focus on the incidence of various forms of abuse, its perpetrators and risk factors. Results show that rates of psychological abuse, neglect and physical abuse are high in nursing homes and among older visitors to ambulatory care facilities and emergency departments, while self-neglect, neglect and psychological abuse are prevalent in the home environment. Complaints to the Ombudsman most often report physical, psychological and financial abuse, as well as neglect. Single or widowed women between the ages of 70 and 75, who are socially isolated and require daily care, are more exposed to abuse. The perpetrators of the abuse are most often family members (daughters-in-law, partners and children).

Detecting and investigating elder abuse cases is exceptionally challenging, especially when it comes to types of abuse that are highly sensitive by their very nature, such as sexual abuse. Gathering evidence is the biggest challenge, as confirmed by a study by Smith et al. (2019). Teaster et al. (2015) found that in almost 70% of reported cases of sexual abuse, it was not possible to confirm that the abuse did occur due to contamination or lack of solid evidence. The authors

of these studies also highlight that many cases of abuse are not reported to the appropriate authorities, and the elderly are afraid to speak up about experiencing abuse.

The majority of the studies were conducted in developed, high-income countries, while studies from other parts of the world are few to non-existent. Due to differences in the conceptualisation of abuse in different societies, the different methods and tools used to study this phenomenon, and the different time frames, there are significant discrepancies in the findings of the studies. We did not find any papers from Slovenia among the literature reviewed, which also indicates a lack of studies on the topic in Slovenia. A systematic review of the literature has highlighted some other research gaps. Most research is quantitative, while there is a lack of qualitative studies to provide further in-depth understanding of the issue. There are also very few studies on elderly abuse in home setting or research examining the mechanisms of assistance, reviews by country, method or adequacy of how reported cases are investigated. There is also little research on the psychological consequences of abuse or abuse in different communities or living environments (e.g. rural, urban). This indicates that the research to date has narrowly focused on the types of abuse and risk factors, while other aspects that need to be understood to plan an integrated prevention and response program remain neglected in terms of research.

Future research should focus on elder abuse in the institutional and home setting. The population, the types of abuse (such as elder abuse by employees, resident-to-resident maltreatment in nursing homes and elder abuse by relatives) and the characteristics of institutions (such as staff-to-resident ratio, the number of qualified nursing staff) should be clearly defined. Detailed research methodologies should be adopted, particularly regarding sampling procedures, and the use of standardised measurement tools for data collection should be specified (e.g. in-person interviews with the elderly, staff questionnaires, the Hwalek-Sengstock Elder Abuse Screening Test and the Elder Abuse Suspicion Index). Greater emphasis should also be placed on developing more unified and systematic strategies to manage the quality of nursing home care, which could provide more regular and systematic data collection for future research.

Researchers (Neuberg et al., 2019) also often point to the importance of changing care staff behaviour towards the elderly residents, which is often rude and indifferent. The threat of sanctions against staff does not seem like an appropriate solution, which is why measures such as education, training and motivating caregivers to work with care recipients and developing standardised care procedures are critical factors in improving resident satisfaction, quality of care and reducing conflicts in institutions. Şen and Meric (2019) also believe that training is needed to raise awareness of the elderly, who are at greater risk of becoming victims of abuse, the various forms of abuse and where victims and witnesses can turn for help. It would be helpful for medical staff to assess the incidence of depression during medical examinations of elderly patients. More frequent visits to home care units and a more robust social network can significantly contribute to preventing violent behaviour against the elderly. Health professionals (especially community nurses), who are often the first to encounter

the elderly, should be aware of any risk factors in order to identify abuse and take appropriate action successfully (Lacher et al., 2016). A multidisciplinary approach to recognising and preventing elder abuse in the domestic environment is also needed.

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About the Authors

Teja Primc, PhD student at the Faculty of Criminal Justice and Security, University of Maribor. E-mail: teja.primc@student.um.si

Branko Lobnikar, PhD, Professor, Faculty of Criminal Justice and Security, University of Maribor. E-mail: branko.lobnikar@fvv.uni-mb.si

Kaja Prislan, PhD, Assistant Professor, Faculty of Criminal Justice and Security, University of Maribor, Slovenia. E-mail: kaja.prislan@fvv.uni-mb.si

The Weaponisation of Drones – A Threat from Above Used for Terrorist Purposes

Ice Ilijevski, Zlate Dimovski, Kire Babanoski

Purpose:

The subject of this paper is to determine the threat of drones (unmanned aerial vehicles – UAVs), which are evolving rapidly and becoming more efficient, powerful, and easily weaponised, with regard to their use by terrorist organisations. Because of the precision, efficiency, and economy of drones, in the last decade terrorist organisations have used these to carry out attacks all over the world. The paper discusses the prevention and the countermeasures undertaken by national authorities, as well as the development of defensive tactics against drone strikes. The paper notes that the threat posed drones is even greater than many imagine, as they can be used to attack critical infrastructure.

Design/Methods/Approach:

The tactical ways in which terrorist organisations have made malicious use of drones are considered and described in the paper. In order to better understand the core of this problem, the methods and techniques of attack, the characteristics of the drones and the measures taken by the security and intelligence services in the fight against this threat are reviewed and assessed. All these questions were also addressed by theorists researching this field in semi-structured interviews conducted online.

Findings:

Because of the rapid development of the technology and progress in the area of drone production, as well as their low price and the availability, drones can be easily transformed into improvised explosive devices that are attractive to many terrorist organisations and individuals, producing a new type of asymmetrical threat. The threat coming from air that is posed by drones is very sophisticated and complex, and deserves more attention from national security authorities. Moreover, the development and introduction of protective and preventive approaches and mechanisms on an international level, and full implementation on a national level, is essential to prevent planned attacks with drones.

Originality/Value:

This topic is rarely discussed in security research and studies. The paper offers a solid overview of the problems and threats that drones are already causing to law enforcement agencies, and the challenges for national authorities with regard to preventing them.

Keywords: drone, unmanned aerial vehicle, terrorism, terrorist attack, threat.

UDC: 343.3+629.014.9

Brezpilotni letalniki kot orožje – grožnja od zgoraj, uporabljena v teroristične namene

Ice Ilijevski, Zlate Dimovski, Kire Babanoski

Namen

Predmet tega prispevka je ugotavljanje nevarnosti brezpilotnih letalnikov (dronov), ki se hitro razvijajo in postajajo učinkovitejši, zmogljivejši in jih je enostavno oborožiti, glede na njihovo uporabo terorističnih organizacij. Zaradi natančnosti, učinkovitosti in ekonomičnosti brezpilotnih letalnikov so jih teroristične organizacije v zadnjem desetletju uporabljale za izvajanje napadov po vsem svetu. Prispevek obravnava preprečevanje in protiukrepe, ki jih izvajajo nacionalni organi ter razvoj obrambnih taktik proti napadom z brezpilotnimi letalniki. Avtorji ugotavljajo, da je grožnja napadov z brezpilotnimi letalniki celo večja, kot si mnogi predstavljajo, saj jih je mogoče uporabiti za napad na kritično infrastrukturo.

Metode

V prispevku so obravnavani in opisani taktični načini zlonamerne uporabe brezpilotnih letalnikov, ki so jo uporabljale teroristične organizacije. Za boljše razumevanje bistva tega problema so predstavljene in ocenjene metode in tehnike napada, značilnosti brezpilotnih letalnikov ter ukrepi varnostnih in obveščevalnih služb v boju proti tej grožnji. Vsa ta vprašanja so avtorji naslovili tudi v polstrukturiranih intervjujih, opravljenih preko spleta.

Ugotovitve

Zaradi hitrega razvoja tehnologije in napredka na področju proizvodnje dronov ter njihove nizke cene in razpoložljivosti se ti zlahka spremenijo v improvizirane eksplozivne naprave, ki so privlačne za številne teroristične organizacije in posameznike, pri čemer nastane nov tip asimetrične grožnje. Grožnja iz zraka, ki jo predstavljajo brezpilotni letalniki, je zelo prefinjena in kompleksna ter si zasluži več pozornosti nacionalnih varnostnih organov. Poleg tega je razvoj in uvedba zaščitnih ter preventivnih pristopov in mehanizmov na mednarodni ravni ter njihova popolna implementacija na nacionalni ravni bistvenega pomena za preprečevanje načrtovanih napadov z brezpilotnimi letalniki.

Izvirnost/pomembnost prispevka

O tej temi se v raziskavah in študijah s področja varnosti redko razpravlja. Prispevek ponuja dober pregled težav in groženj, ki jih brezpilotni letalniki že povzročajo organom pregona, ter izzivov za nacionalne organe pri njihovem preprečevanju.

Ključne besede: brezpilotni letalniki, droni, terorizem, teroristični napad, grožnja

UDK: 343.3+629.014.9

1 INTRODUCTION

In recent years there has been a significant increase in the use of unmanned aerial vehicles (UAVs, or drones) for various purposes. Drones give users the opportunity to obtain a bird's eye view of an area, and due to the fast activation method they can be used anywhere and at any time. Drones can be used for personal (i.e. recreational) and commercial goals, and can also be used by law enforcement agencies to support the implementation of the security tasks, such as monitoring state borders, carrying out reconnaissance, monitoring demonstrations, examining areas after natural disasters and catastrophes, and so on, and recently the international community has seen the use of drones in anti-terrorist operations.

However, we have also seen cases of drone misuse by criminal groups and terrorist organisations, because they are easy to control and can be used to carry out various attacks, with some of these briefly presented in the paper. One use of drones is as a new kind of improvised explosive device, which is attractive to many terrorist organisations and individuals due to the low price and wide availability of this technology. As such, the terrorist use of drones represents a new type of asymmetrical threat, and so it is essential to develop and introduction protective and preventive mechanisms to prevent such attacks.

Many countries, including the USA and those of the EU, have issued numerous warnings to drone owners urging all citizens to register the drones they own and apply for a license to use them, i.e. to obtain an official license from a civil aviation authority. This way, national authorities can know more about the current situation with regard to the number, types and owners of drones in their respective countries. If a person does not follow the rules for the use of drones, then they can be fined or even imprisoned.

In October 2014 (»Drone-flying Albanian arrested with guns ahead of Serbia match«, 2015) a drone with a flag was flying over the stadium that was hosting a football match between Serbia and Albania in Belgrade. The responsibility for this provocation was taken by an Albanian extremist. This event shows that a drone can easily be directed to fly over a certain location and to carry an item – in this case a flag, but it could be an explosive or even worse, some kind of weapon of mass destruction (chemical, biological or nuclear).

In December 2018 (»Gatwick Airport: Drones ground flights«, 2018) Gatwick Airport near London had to be temporarily closed due to reports that drones were flying near the runway. As a result, some 760 flights were cancelled, and more

than 110,000 passengers were prevented from travelling. The Gatwick incident, which closed a key part of critical infrastructure for almost 48 hours, is another example of what can happen if drones are misused, again demonstrating the ability of drones to circumvent traditional security measures and at the same time the inability of security forces to counter such a threat.

A brief presentation and analysis of tactical and technical ways of using drones and their use by terrorist organisations will follow, with a special focus on their threat to critical infrastructure and national security. The issues raised, in addition to those related to a theoretical discussion of this problem, will then be explored with the views and opinions of experts with regard to the understanding the malicious use of drones and its prevention.

2 DRONE ARCHITECTURE, TACTICS AND TECHNIQUES OF USING DRONES BY TERRORISTS

The International Civil Aviation Organization (ICAO) (2011) defines an »unmanned aircraft« as an aircraft which is intended to operate with no pilot on board, while it defines an »unmanned aircraft system« as an aircraft and its associated elements which are operated with no pilot on board. It also uses the designation »remotely-piloted aircraft system«, which means a set of configurable elements consisting of a remotely-piloted aircraft, its associated remote pilot station(s), the required command and control links and any other system elements that may be required, at any point during flight operation.

This means that, typically, any drone or drone architecture consists of three main elements (Yaacoub et al., 2020): Unmanned Aircraft (UmA), Ground Control Station (GCS), and Communication Data-Link (CDL). These components, along with others, are briefly described as follows:

- Flight Controller: the drone's central processing unit;
- Ground Control Station: this is based on an On-Land Facility (OLF), which provides human operators with the necessary capabilities to control and/or monitor UAVs during their operations from a distance. GCSs differ depending on the size, type, and drone missions involved;
- Data Links: are wireless links used to control the information flow between the drone and the GCS. This depends on the operational range of UAVs and can be categorised based on their distance from the GCS:
 - Visual Line-of-sight (VLOS) Distance: allows control signals to be sent and received via the use of direct radio waves,
 - Beyond Visual Line-of-Sight (BVLOS) Distance: allows drones to be controlled via satellite communications.

According to their flying mechanisms, drones can be classified into three main types:

- Multi-Rotor Drones: these are also known as rotary-wing drones;
- Fixed-Wing Drones: these are more energy efficient than multi-rotor drones;
- Hybrid-Wing Drones: these are fixed/rotary wing drones that have recently entered the market.

The Weaponisation of Drones – A Threat from Above Used for Terrorist Purposes

The drones can be of different types and can have different characteristics and capabilities. Examples of additional equipment that can be installed include:

- Visual recording equipment;
- Detection equipment (optical-electronic sensors, infrared scanners, radars, etc.);
- Radio frequency equipment;
- Specific sensors for detection of nuclear, biological traces, chemicals, explosive devices, etc.

Drones can be used in many different ways, but these can be roughly divided into considerate or malicious use (Yaacoub et al., 2020). In the last few years, drones have been used in various civilian/commercial multi-purpose use cases, including search and rescue and disaster management (Altawy & Youssef, 2017). The police also use drones for traffic monitoring, tracking escapees, forensic search and rescue, as well as anti-rioting purposes (Straub, 2014). Drones are particularly appealing to the military, especially for intelligence and reconnaissance purposes in the fight against insurgencies and terrorism (Cook, 2007). However, as noted before, drones have also become to criminals and terrorists aiming to launch malicious attacks. Having drones in the wrong hands can lead to serious consequences (Ball, 2017), with Table 1 presenting some of the various ways terrorists can misuse drones.

Table 1: Some of the ways terrorists misuse drones (source: Yaacoub et al., 2020)

	Biological, chemical, radiological and nuclear
	Propaganda
	Psychological
Drone abuse	Cyber-Attack
	Armed Use
	Surveillance
	Suicidal Drone

Experts have pointed to a set of advantages that may make UAVs attractive to terrorists (Miasnikov, 2005):

- The possibility to attack targets that are difficult to reach by land (by cars loaded with explosives or suicide bombers);
- The possibility of carrying out a large-scale (area) attack, aimed at inflicting the maximum death rate on a population (particularly through the use of chemical or biological weapons in cities);
- The covertness of attack preparation and flexibility in choice of a UAV launch site;
- The possibility of achieving long-range and acceptable accuracy with relatively inexpensive and increasingly available technology;
- The poor effectiveness of existing air defences against targets such as low-flying UAVs;
- The relative cost effectiveness of UAVs compared with ballistic missiles and manned airplanes;
- The possibility of achieving a strong psychological effect by scaring people and putting pressure on politicians.

Hezbollah and Hamas were early adopters of drone technology, and maintain an armed drone capability. In 2004, Hezbollah flew a military-grade drone, reportedly acquired from Iran, over Israeli airspace. The Lebanese militant group also conducted strikes in Syria in 2014 with an armed drone, and in 2016 with over-the-counter drones armed with small explosives (Axe, 2016).

The Houthi rebels in Yemen have also been actively using drones. In the first half of 2019, they attacked the Jizan and Abha airports in southern Saudi Arabia, as well as Saudi oil pipelines. Their multiple airport attacks have led to significant civilian injuries, and such activities do not show any signs of stopping in the near future (Bergen, 2019).

Boko Haram also uses drones in their attacks, presenting a serious security threat for Nigeria, and in 2018 the organisation attacked five military targets and caused serious damage (Xinhua, 2018).

The Islamic State has joined other terrorist organisations using drones to achieve their goals. The first case was reported in August 2014, near the northeastern Syrian province of Raqqa, where Islamic State militants sent a commercial DJI Phantom FC40 quad copter to spy on a Syrian air base, followed by a ground attack (Warrick, 2017). In addition to using drones for reconnaissance operations, which they used for propaganda purposes, the Islamic State also began using them for terrorist activities.

In 2015, Kurdish fighters in Syria shot down multiple small commercial drones laden with explosives, reportedly belonging to the Islamic State (Braun, 2020), while in September 2016 it bombed the Turkish military forces in the Vukuf region of northern Syria, wounding three Turkish soldiers (Serkan, 2017). In January 2018, a swarm of 13 homemade aerial drones attacked two Russian military bases in Syria (Pledger, 2021).

Most of Islamic State's drone attacks have involved lightweight military ordnance, such as grenades, rocket warheads, and bomblets from cluster bombs, occasionally modified to improve accuracy. Due to drones' limited carrying capacity, these strikes do not yield the same destructive power that mortar or heavier artillery fire could, but they allow for more precision than mortars or makeshift rocket launchers can provide (Wagner, 2019). When Iraqi troops captured drone facilities in Mosul, in 2017, they discovered scores of documents detailing an elaborate procurement system for purchasing the UAVs and parts, as well as extensive procedures for altering and testing the equipment. The records addressed the group's efforts to secure, modify, and enhance the range and performance of its drones. The documents showed Islamic State's efforts to acquire items like GoPro cameras, memory cards, GPS units, digital video recorders, and spare propeller blades. They also illustrated the group's efforts to secure, modify, and enhance the range and performance of its fleet of drones. To protect the transmission of their drone video feeds, members of the group wanted to acquire encrypted video transmitters and receivers. A long-range radio-controlled relay system was also included on a number of the group's 'acquisition' lists (to extend the range of its drones), as were various types of servo motors.

One recent study (Haugstvedt, 2020) concluded that various non-state actors choose targets carefully when using weaponised UAVs. Moreover, they tend not

to cause mass casualties or injuries, and choose hard over soft targets. While it is true that some non-state actors, such as the Islamic State (also known as ISIS) and the Houthis, may aim to cause mass casualties, they currently do not attempt to do so by using weaponised UAVs. Nearly all incidents of the uses of drones by such groups (98.9% of the total) occurred between August 2016 and March 2020, making non-state actors' offensive use of UAVs a highly recent phenomenon in international conflict and warfare. Moreover, non-state actors' use of weaponised UAVs has been found almost exclusively in the Middle East (98.4% of cases), and mainly in Iraq, Syria, and Saudi Arabia (90.5% of cases). As such, we can say that non-state actors operating in the Middle East have adopted weaponised UAVs for their operations, that ISIS and the Houthis are responsible for the majority of cases, and that our findings are not necessarily transferable to other non-state actors in the region.

3 DRONES AS A THREAT TO CRITICAL INFRASTRUCTURE

The term »critical infrastructure« is not universally defined, but the need to ensure the vital functions of the state determines the significance and criticality of certain elements of a nation's infrastructure. It is thought that the term »critical infrastructure« dates back to the mid-1990s, and is closely related to energy security, telecommunications, energy systems, gas and oil pipelines, the economy, transportation, water supply and so on (Mitrevska et al., 2017). Critical infrastructure involves elements that are fundamental to the normal operations of society, and can be defined as referring to any asset, system or part thereof which is critical for the maintenance of vital societal functions, including the health, safety, security, economic or social wellbeing of people, and the disruption or destruction of which would have a very substantial impact as a result of the failure to maintain those functions (Ani et al., 2019). Critical infrastructure is exposed to many different types of dangers, and the most common are natural disasters, human errors, technical problems and criminal acts, the consequences of which can be huge. The provision of special protection against terrorist attacks is thus especially important with regard to this type of infrastructure, in order to maintain national security.

Such protection is even more necessary because critical infrastructure is very attractive to the criminals, and especially terrorists, for many different reasons (Ackerman, 2007), the main one being the strategic value that it has for society as a whole, especially in highly industrialised developed countries. Negative interventions in the functioning of critical infrastructure, which can then go on to have cascading effects, allow criminal groups to cause large-scale damage with a very small investment, and thus cause a degree of damage that may not be so easy to achieve by other means. For example, non-state entities (terrorist organisations) may attack power generation facilities, gas pipelines, oil pipelines, water systems, computer centres, etc., in order to interrupt the supply of basic resources and information and thus reveal the vulnerability of state institutions. Another possible motivation, related to the two previous ones, would be the

desire to gain more publicity than would be possible by focusing on relatively low-profile targets.

The threats related to terrorism against the critical infrastructure have multiple dimensions depending on their nature (physical versus cyber-attacks), their origins (internal versus external attacks), and the context in which they occur (isolated or multiple-purpose) (United Nation Security Council Counter-Terrorism Committee Executive Directorate & United Nations Office of Counter-Terrorism, 2018).

It is important to emphasise that, given all the advantages of using drones set out above, when a terrorist organisation has all the necessary materials it is very difficult to prevent an attack. Indeed, any event held in the open is vulnerable to this type of attack, especially considering that these aircraft can travel long distances to a target. If we add that they have an electric motor that is very quiet and are usually not brightly coloured, then we can see that the possibility of detection is reduced, both visually and audibly, while their size and low flight paths make drones difficult to be detected by radar (Pejanovic et al., 2018).

4 RESULTS OF SEMI-STRUCTURED INTERVIEWS WITH EXPERTS: UNDERSTANDING THE THREAT OF DRONES

Given that this topic has not received a lot of attention from researchers, and thus the literature remains lacking, several experts dealing with the issues of terrorism, extremism, criminal tactics and techniques, security and safety systems were invited to take part in online interviews to examine and review their opinions and views. All interviewees who accepted the invitation are university staff/theorists who have been researching and/or publishing works related to this topic. The interviews were conducted during the months of April and May 2021. The interviews were semi-structured and composed of several questions related to three issues: (i) terrorist organisations' interests and motivations for using drones; (ii) purposes/types of activities in which they are using drones; and (iii) preventative approaches at the national level for stopping use of drones for terrorist purposes.

Firstly, the motivations and reasons why terrorist organisations are interested in using drones were discussed. All of interviewees agreed that drones have a number of critical qualities that make them attractive to such groups, and contribute to the evolving nature of these groups regarding their operational capacity or functionality. The characteristics of drones, their small size, low cost, ease of manoeuvre and maintenance, and relative difficulty with which they can be detected, make them very attractive devices for terrorists. The answers from the experts with regard to the motivations and reasons for terrorist groups using drones can be categorised as follows:

- **Economic reasons:** Due to their commercial availability, simple procurement (which is not an illegal activity), as well as their low price, armed non-state actors can now enjoy access to the aerial dimension with an ease that was previously unimaginable. Today such groups can acquire drones by several means (via state-support, off-the-shelf

systems, legally purchased or even homemade) and that's why their use is becoming more common.

- **Easy to control remotely:** the control of a drone does not require special technical experience, the technology is easily accessible, and the operator can be at a safe distance from its target. Armed non-state actors consider drones of high value because they contribute to preserving their human resources and advancing their combat capabilities, as they are safe to use, remotely operated, easily cross boundaries, and can engage with a target without the need for in-person presence. This minimises the risk of a terrorist being caught or killed.
- **Lethality:** Although using drones by armed non-state actors does not constitute a »serious threat« given the primitive lethality of UAVs, the threat remains real, as drones can not only inflict severe damage, but can also kill.
- **Uncovered airspace:** The airspace is not fully monitored and is difficult to defend against external threats.
- **Attractiveness:** Drones can be easily re-configured for multiple purposes and missions. They can boost the prestige, status, and morale of these organisations when their missions are successful.

The main goal of terrorist organisations is to launch attacks against individuals (random or targeted), groups of people (random or targeted), and facilities or specific locations (random or targeted).

Interviewee 1¹ (interview conducted on 19. 04. 2021) stated that drones are used in a variety of ways by terrorist organisations, which can be as diverse as the imaginations and creativity of their users. However, their main function is to observe, photograph and record a certain area or space, as well as people of interest, in order to collect information that will be used to plan certain activities, which facilitates the preparation of the field and gaining full insight into the environment before carrying out a particular attack. So, for example, a group can observe the frequency of movement of people in a certain area and at what times of day this happens, where there are any members of the security services present, the lighting of the area, whether the area is under video surveillance, the layout and position of buildings, accessibility to buildings, positions from which it is easiest to carry out an attack, and so on.

Although drones were initially designed as surveillance and info-gathering systems, they have evolved over time and improved their features and performance, thus changing the things they are used for. Today, drones are potentially more lethal than ever, so their deadly nature is their most notable feature in the context of the current study. Armed non-state actors are interested in this, because they can easily create a "threat from above" using a drone.

Interviewee 2² (interview conducted on 21. 04. 2021) explained that terrorist organisations often use drones in the following types of activities (armed and/or non-armed):

1 *Dr. Marija Popovic Mancevic, Professor at University of Criminal Investigation and Police Studies, Belgrade, Serbia.*

2 *Dr. Ali Chehab, Professor of ECE, American University of Beirut, Lebanon.*

- When fighting against legitimate armed forces, terrorist organisations use them for surveillance of the territories around them and to identify targets for attacks. Drones can then be used to launch attacks against some of these targets, as well as guide any shelling that is carried out, and to record the attacks for intelligence or propaganda purposes.
- For assassination missions aimed at the leaders or key figures in a country.
- With the intent to terrorize a population by launching attacks on it, the infrastructure, or government agencies. In addition to regular explosives, terrorists could arm a drone with a chemical agent, and thus cause even greater damage and fear.
- A drone does not need to carry explosives to carry out an attack, as it can also be used as an access point to activate and detonate a bomb that is already placed at a target.
- Smuggling drugs, phones, and even weapons to prisoners.
- To setup a fake mobile Wi-Fi network or a rogue access point to intercept smartphone traffic, or to hijack other drones.

Interviewee 3³ (interview conducted on 06. 05. 2021) put such activities into three major domains:

- Intel-operations – info gathering, surveillance;
- Combat – used as flying bombs or for dropping bombs;
- Trafficking – various criminal activities related to smuggling.

He mentioned that there are two above-regional non-state actors which are known to use armed drones, Hezbollah and ISIS, noting that these are not the only groups to use drones, just the most famous ones. In the last few years, the Iran-backed Houthi militia in Yemen has used drones extensively as flying missiles with relatively precise targeting, and probably top the list worldwide with regard to this, while the Kurdish PKK can be classified as an emerging actor in the field of drones.

The last subject discussed in the interview was the approach that countries around the world should take to prevent the use of drones for terrorist purposes.

Interviewee 4⁴ (interview conducted on 21. 04. 2021) considered that no administrative bans on the use of drones would be effective given their widespread commercial availability, so it is difficult to track who owns each drone and for what purpose. He said that states should instead develop effective anti-aircraft formations that are able to recognise a drone at a sufficient distance to act operatively, i.e. to disable it, but also to prevent it from flying in a predetermined area. In this regard, it is especially important when developing such technology to take into account the disabling of drones without endangering the people of property underneath them. Interviewee 1 also agreed with this approach to anti-drone systems.

Interviewee 3 concluded that preventing armed non-state actors from acquiring drones might be a »mission impossible«, and this is why states should give more attention to developing effective countermeasures. Despite the progress

3 Dr. Ali Bakir, Research Assistant Professor, Ibn Khaldon Center at Qatar University.

4 Dr. Josip Pavlichek, Professor, Police College Zagreb, Croatia.

achieved in this regard in the last few years, efforts to create anti-drone platforms and systems lag behind the evolution of drones, and appear to be random, less cost-effective, and reactive. Efforts to produce effective anti-drone solutions should utilise the growing potential of artificial intelligence and follow a two-path track to provide advanced, pre-emptive, and cost-effective »hard kill« and »soft kill solutions«.

Interviewee 2 gave some concrete proposals for the approaches that countries around the world should introduce to prevent terrorists from using drones, as follows:

- Countries should have very strict policies related to selling drones or selling the essential parts that are used to build them.
- Strict policies should govern the activities of drones when taking images or recording videos of people and property, which should only be done with the correct authorisation.
- A strong security system should be put in place to minimise the risk of terrorists compromising a legitimate drone and gaining access to it. There must be a strong authentication protocol to enable the legitimate owner to operate a drone.
- Governments should have regulations in place and awareness campaigns related to the safe practices and features of drones to ensure their proper integration into the national airspace domain.
- Countries should force drone manufacturers to equip their drones with some type of intrusion detection system to prevent terrorists from taking control of legitimate drones.
- Countries should put in place drone detection systems, especially in sensitive locations likely to attract terrorist interest.

5 CONCLUDING CONSIDERATIONS

Drones (or UAVs) are remotely controlled aircraft that can be equipped with a variety of technical equipment, including deadly weapons for attacking targets.

From the analysis presented above, it is evident that terrorist organisations have access to drones and often decide to use them to strengthen their ability to attack targets in both war zones and beyond. As such, it can be assumed that drones will become a standard tool for terrorist organisations. Since low-flying drones cannot be detected by radar, and so can carry deadly cargo without being noticed by state authorities, security and military technologists must develop and refine effective countermeasures for detecting and preventing their malicious use. At present, however, there are not many practical solutions or concrete measures to counter this threat.

It is therefore necessary for national security services to be better prepared to counter the new risks and have responses ready in advance. Concrete practical measures should be taken immediately to establish preventive actions to counter the misuse of this new technology and develop strategies to combat the threat of drones, such as drone detection measures and techniques. The security services

must be reorganised and well-equipped, and their personnel well-trained and adapted to this emerging threat in order to effectively protect their countries and citizens from such attacks.

However, the aim is not to stop developing new technologies or enjoying their benefits, or to ban the civil/commercial use of drones. Drones are not the problem, the problem is their use and application, especially if they are used for malicious purposes. Understanding this threat, where it comes from and how it works, is key to effectively stopping attacks before they happen. Therefore, any misuse of drones should be identified at a very early stage and effective measures should be undertaken to prevent the potential danger they pose.

That said, because of the reasons set out in this study, such as the low cost of drones, their easy remote control and lethality, as well as unprotected airspace and the possibility to carry out multiple simultaneous attacks, at low cost and considerable distance, these vehicles may soon become the primary tool in terrorist attacks.

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About the Authors:

Ice Ilijevski, PhD, is an Associate Professor at the Law Faculty in Kichevo, University St. Clement of Ohrid in Bitola, North Macedonia. E-mail: iilijevski@uklo.edu.mk

Zlate Dimovski, PhD, is a Full Professor at the Faculty of Security in Skopje, University St. Clement of Ohrid in Bitola, North Macedonia. E-mail: zlate.dimovski@uklo.edu.mk

Kire Babanoski, PhD, holds a PhD in the field of security and is an independent researcher. E-mail: kbabanoski@gmail.com



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