



Article

The Relationship between Individual and Family Characteristics and Cyberbullying Exposure in a Nationally Representative Sample of School-Aged Children Living in Serbia

Ljiljana Rakic ^{1,†}, Milena Santric-Milicevic ^{2,*}, Dejan Nikolic ^{3,4}, Milena Vasic ^{5,6}, Uros Babic ^{3,7}, Jovana Todorovic ², Zorica Terzic-Supic ² and Sanja Milenkovic ⁸

- ¹ Clinic for Hematology, University Clinical Center of Serbia, 11000 Belgrade, Serbia; lj.rakic68@gmail.com
² Institute of Social Medicine, Centre-School of Public Health and Health Management, Faculty of Medicine, University of Belgrade, 11000 Belgrade, Serbia; jovana.todorovic@med.bg.ac.rs (J.T.); zorica.terzic-supic@med.bg.ac.rs (Z.T.-S.)
³ Faculty of Medicine, University of Belgrade, 11000 Belgrade, Serbia; dejan.nikolic@udk.bg.ac.rs (D.N.); uros.babic@med.bg.ac.rs (U.B.)
⁴ Department of Physical Medicine and Rehabilitation, University Children's Hospital, 11000 Belgrade, Serbia
⁵ Institute of Public Health of Serbia, 11000 Belgrade, Serbia; milena_vasic@batut.org.rs
⁶ Faculty of Dentistry in Pancevo, University Business Academy of Novi Sad, 26000 Pancevo, Serbia
⁷ Clinic of Urology, University Clinical Center of Serbia, 11000 Belgrade, Serbia
⁸ Institute of Hygiene and Medical Ecology, Faculty of Medicine, University of Belgrade, 11000 Belgrade, Serbia; sanja.milenkovic@med.bg.ac.rs
* Correspondence: milena.santric-milicevic@med.bg.ac.rs
† Both authors contributed equally to this manuscript and are the first authors.



Citation: Rakic, L.; Santric-Milicevic, M.; Nikolic, D.; Vasic, M.; Babic, U.; Todorovic, J.; Terzic-Supic, Z.; Milenkovic, S. The Relationship between Individual and Family Characteristics and Cyberbullying Exposure in a Nationally Representative Sample of School-Aged Children Living in Serbia. *Int. J. Environ. Res. Public Health* **2021**, *18*, 7443. <https://doi.org/10.3390/ijerph18147443>

Academic Editor:
Rosario Ortega-Ruiz

Received: 15 April 2021
Accepted: 9 July 2021
Published: 12 July 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: The study provides evidence on the individual and family factors as potential predictors (odds ratio—OR and 95% CI) of cyber-violence among school-aged children (11–17 years old) from 64 schools participating in the 2017 Serbian Study on health behavior in school-age children (HBSC). The standardized international HBSC research protocol was used. The study population was the nationally representative sample of 3267 students of V and VII grades of primary and I grade of secondary schools in Serbia. Potential predictors for the probability of occurrence vs. non-occurrence of cyberbullying exposure at least once and multiple times were identified among 24 explanatory variables, including the individual characteristics and family context. The cyberbullying exposure was more prevalent among girls than among boys of school-age, i.e., over one in seven girls and one in ten boys were exposed to cyberbullying. Over one in seven students at age 13 years and almost every seventh student at grade I of the gymnasium were exposed to cyberbullying. There were more students exposed to at least one cyberbullying than to multiple cyberbullying. Potential predictors of exposure to cyberbullying are gender, opinion of the family's affluence status, fathers' employment, communication with father, and family support. The study compensates for the evidence of cyberbullying in Serbia, which could help raise awareness, inform national and international stakeholders in the region and enable their efforts and strengthen cooperation in ending cyberbullying. This study's findings could inform the development of an intervention program aimed at families and various professionals involved in protecting and improving school-age children's health and well-being.

Keywords: cyberbullying; exposure; prevalence; predictors; family; Serbia

1. Introduction

The modern society is characterized by the fourth industrial revolution, the exponential evolution of “a fusion of technologies that blurs the lines between the physical, digital, and biological spheres” that offers another environment for human beings to live, work and socialize in. Recent estimates are that 53% of the global population has internet access [1].

Today's school-age children are born and raised with technological innovations and tend to use cyberspace to connect and share information. The frequency of internet use among youth of 16–19 years old in the Europe region considerably increased over the period from 2011 to 2019, with the lowest reported in Turkey, 41% (2012), and the highest in Croatia, Latvia, Malta, United Kingdom, Iceland and North Macedonia 100% (2019) [2]. Youth more frequently use the Internet than the general population. For example, in 2019, 96% of youth vs. 83% of individuals have ever used the Internet in Serbia [2]. The use of digital technologies and artificial intelligence can support increased efficiency and productivity, intercultural understanding and cohesion, and advances in living standards. There is also the possibility of cyber-technology abuse, which forces us to redefine our moral boundaries, structures, habits, relationships, regulations, and policies. Cyberbullying among school-age children is a form of a child's loss of control over privacy and personal data due to someone's attempts to injure, harass, insult and deliberately attack other children through social media platforms and technological devices in school and outside [3]. Therefore, cyberbullying is considered a form of indirect aggression [4]. The difficult peculiarity of the cyberbullying phenomenon is that it can be almost endless even after a single act; for example, cyberbullies anonymously and without consent post or produce and share someone's picture or video for the purpose of humiliation. In this form of violence among young people, the perpetrators feel the power of repeating cyberbullying, almost indefinitely, using cyberspace's breadth and depth, which ultimately contributes to the destruction of the victim's life. The United Nations Children's Fund found that 33% of school-aged children from 30 countries reported cyberbullying in 2019 [5]. The average prevalence of cyberbullying exposure among school-aged children has been 12% for boys and 14% for girls [6], with variations among countries from 3% among 15-year-old boys in Spain to 29% among 15-year-old boys in Lithuania [7]. To date, many countries have also indicated that at age 13, girls are more than boys exposed to at least once cyberbullying, with the respective prevalence varying within the range 27% vs. 22% (Latvia, 2017/18) to 6% vs. 4% (Spain, 2017/18) [6,7].

Plenty of literature highly discusses the relationship between the utilization of the Internet and cyberbullying [8–16]. As everyday use of the Internet is common among school-age children, the quality of time they spend with their families may be relevant to reducing their predisposition to cyberbullying [17–19]. Arguments about the protective potential of the paternal style [18,19], monitoring [20], and the relationship between parents and children [21–27] against cyberbullying are ongoing. However, to our knowledge, in Serbia, none of the similar research on a representative sample has comprehensively explained cyberbullying exposure within an array of family factors.

The various theoretical and empirical approaches that emerge from the socio-ecological theory help understand cyberbullying of school-aged children. The socio-ecological theory [28] explains that violence, in this case, cyberbullying, is a product of combined influences of biological, social, cultural, and economic factors that affect the individual, interpersonal relationships, community, and the entire society [28]. For most of these factors, beyond the individual, such as the fundamental cognitive perspective, interaction models, and coping strategies are established within the family environment. Cyberbullying exposure and aggression seem to be often present among adolescents from single-parent and other types of non-nuclear families [29]. Family relationships can undoubtedly affect children's behavior, development (including physical, psychological and cognitive, social and emotional, sexuality and gender identity), progress, and social interactions, including resilience to cyberbullying and vice versa.

The Global Strategy for Women's, Children's, and Adolescents' Health (2016–2030) [30], among other international policy initiatives, calls for better monitoring and consideration of cyberbullying. Scoping the family factors of school-aged children is needed both locally and internationally for providing a comprehensive legally binding document and a proper community preparation for cyberbullying prevention and protection and victims support. In Serbia, several national legislative documents emphasize the role of family for the youth

safety, health, and development, including the following: Law on Youth, Strategy for Youth Development (2015–2025), Law on Public Health, National Program for Health Care of Women, Children and Youth (2009) and the Decree that regulates preventive measures for the safety and protection of children when using information and communication technologies (the Internet) [31–35]. However, despite their importance, family factors are less analyzed in contexts outside of domestic violence in the Serbian literature [36]. Researchers mainly report on children exposed to physical or psychological violence types [37–42], while predictors of cyberbullying exposure are less studied. Multidisciplinary research in Serbia shows that bullying begins in early childhood [37], has the gender dimension, and that more than two-thirds of the school-aged children were at least once exposed to internet risk [36]. Repeated cyberbullying threatens to humiliate and undermine children and may also develop cumulatively into severe cases. Knowing that in a virtual environment, a single violent act often becomes repetitive [43], we hypothesize that a criterion for prevention and protection from cyberbullying should be exposure to a single and not repetitive acts. It is essential to identify common elements for exposure to single and multiple cyberbullying acts and examine factors associated with repeated victimization [44]. Acting upon the predictors could help prevent isolated cyberbullying events and exacerbation into multiple and repetitive behaviors [44,45].

The WHO Regional Office for Europe Health information gateway [46] does not contain data on cyberbullying among school-aged children from Serbia. Since 1983, a network of 45 countries across Europe and North America study cross-nationally health behavior in school-aged children (hereinafter referred to as HBSC). The new cyberbullying issues were presented in the recent HBSC survey covering the school year 2017/2018 [6,7]. The Republic of Serbia, the European Union (EU) candidate country, has applied HBSC methodology for the first time in the spring of 2017 on a nationally representative sample of schools [42] to prove the national capacity to conduct in full the methodology and the protocol of the HBSC study. After the successful piloting, in 2018, the Republic of Serbia has been accepted for official membership in the network of countries conducting the HBSC study [6,47]. Comparing the successive HBSC findings for 2017 and 2018, progress can be detected, if any. The Serbian National Contact Center for Child Safety on the Internet [48] points out that cyberbullying needs a better understanding of the family context's problem to prevent its escalation among school-aged children. The international [6,7] and both Serbian HBSC reports [40,47] contain some information on cyberbullying (i.e., data by gender and family affluence status). However, Serbia lacks comprehensive, nationally representative findings regarding cyberbullying's potential predictors amongst the family characteristics collected through HBSC surveys. Effective action at a national or international level can be wisely tailored only upon comprehending cyberbullying at a local level. In this study, we try to compensate for that kind of evidence for Serbia, inform national and international stakeholders, and enable their efforts to strengthen cooperation in stopping cyberbullying among school-age children. The study objective is to examine the relationship between individual and family characteristics and cyberbullying exposure among school-aged children (11–17 years) living in Serbia in a nationally representative sample of primary and secondary schools. The research's main purpose is to heighten the public health stakeholders, families, and school awareness about the family issues related to the school-aged children who experienced cyberbullying.

2. Methods

2.1. Study Design and Sample

This study was a secondary analysis of 2017 HBSC data focusing on cyberbullying in a nationally representative sample of 3267 students of 64 schools (V and VII grades of primary and I grade of secondary schools) in Serbia [40]. The Institute of Public Health of Serbia (IPHS), with the support of the World Health Organization (WHO), the Ministry of Health, and the Ministry of Education, Science and Technological Development conducted the HBSC survey as a pilot study with the standardized (2013/2014) international HBSC

research protocol, from 3 May to 8 June 2017 on the territory of the Republic of Serbia (not including data for Kosovo and Metohija) [40].

According to the international HBSC survey methodology, the HBSC study for 2017 in Serbia was conducted on a nationally representative sample [40]. The sample was selected to provide statistically reliable indicators by region for primary and secondary schools. There were four statistical regions: Belgrade, Vojvodina, Sumadija and Western Serbia, Southern and Eastern Serbia. Schools were selected using the probability proportional to size algorithm, where the school's size is determined by the number of students of a given grade. The primary unit sampling for each grade was the school or the class (each class of the sample should contain 1500 children), yielding the sample of 64 schools (38 schools as the main sample and additional 26 schools as substitutes for each class because of potential refusals to participate in the survey). After selecting the schools, a list of classes is nominated using a random number in each school. Replacements were activated when the main sample has not reached the expected number of participants. The sampled schools were informed on the research protocol, ethical aspects, instrument, and objectives and asked to submit their consent to participate and carry out the procedure of obtaining parental consent for children's participation in the research. In 2017, the HBSC study in Serbia had 3267 students in the national representative sample.

2.2. Study Instrument and Variables

Following the WHO methodology and the standardized international research protocol, the 2017 HBSC study in Serbia also used the HBSC standardized questionnaire. The standardized HBSC questionnaire was translated from English into Serbian and then back into English [40]. The Ethics Committee of IPHS gave consent for this specific secondary analysis (Decision 1934/1, 3 March 2020). Students self-completed the questionnaire voluntarily and anonymously.

The present study of cyberbullying among school-aged children in Serbia has two outcome variables and 24 explanatory variables. The response rate ranged from 91.7 to 97.5% so that the missing responses by variables were less than 9%.

2.2.1. Outcome Variables

The study's two outcomes described exposure to cyberbullying in the past couple of months: at least once and multiple times. Specific questions investigated exposure to cyberbullying [36]: "How often did they abuse you in the following way . . . ?

- Someone sent malicious instant messages, posted on the wall, sent emails or text messages, or designed a website where others made fun of me;
- Someone took photos of me that are not suitable for sharing without my permission and posted them on the Internet".

The four original possible answers were re-coded as follows:

- "I have not been abused in this way in the past couple of months"—None;
- "Once or twice"—At least once;
- "Two or three times a month; About once a week; Several times a week;"—Multiple times;
- "I don't know/no answer"—Missing;

The four categories of answers allowed us to explore the prevalence and predictors of cyberbullying exposure, including:

- At least once versus none (Model 1);
- Multiple times versus none (Model 2); and
- Multiple times versus at least once (Module 3).

2.2.2. Explanatory Variables

This study explored two sets of explanatory variables, individual and family characteristics (five and nineteen variables, respectively). The individual variables, mainly

socio-demographic characteristics, include the following: gender (boys, girls), age (11–12 years, 13–14 years, 15–17 years); school type, grade (primary, V grade; primary, VII grade; gymnasium I grade; and vocational school, I grade); life satisfaction (measured on a scale from 0 (worst) to 10 (best, and then re-coded into 1—very bad life, 2—bad life, 3—average life, 4—good life, 5—very good life), and region of their residence (Belgrade, Vojvodina, Sumadija and Western Serbia, Southern, and Eastern Serbia). The family context variables include family members, relations, communication, and support. More precisely, these variables are the following:

- The family size, i.e., number of family members (2–3 members, 4–5 members, 6–7 members, 8 and more members);
- Live with (both parents, one parent, one parent and step-father/mother, relatives/legal guardians);
- Brothers and sisters (none, one sister/brother, two or more sisters/brothers);
- Family Affluence Scale (FAS) (low, average, high);
- Father’s employment (unemployed, employed, don’t know/not seeing father);
- Mother’s employment (unemployed, employed, don’t know/not seeing mother);
- Opinion of the family financial state (bad, average, good);
- Think the important things are talked about in family (absolutely disagree, disagree, neither agree nor disagree, agree, absolutely agree);
- When a student speaks, someone in the family listens to what he/she says (absolutely disagree, disagree, neither agree nor disagree, agree, absolutely agree);
- When don’t understand something, questions are asked in student’s family;
- When there is disagreement, in student’s family, they talk until it is resolved;
- Student talks with father about the things that bother the student;
- Students talks with mother about the things that bother the student;
- Student talks with step-father about the things that bother the student;
- Students talks with step-mother about the things that bother the student;
- Family is trying really to help the student;
- Student receives from family necessary emotional help and support;
- Student can talk about his/her problems with family;
- Family is ready to help him/her in decision making.

2.2.3. Family Affluence Scale (FAS)

FAS score was calculated based on the question: How many computers (computers) does your family have (including laptops and tablets, NOT including console players and smartphones)? 0—None; 1—One; 2—Two; 3—More than 2; Does your family have a car, van, or truck? 0—No, 1—Yes, one, 2—Yes, two and more; Do you have the room that you only use? 0—No, 1—Yes; Does your family have a dishwasher at home? 0—No, 1—Yes; How many bathrooms (bath/shower room or both) are in your house? 0—None; 1—One; 2—Two, 3—More than two; In the last 12 months, how many times have you traveled for holidays or holidays with your family outside Serbia? 0—None; 1—Once; 2—Twice; and 3—More than twice. The range of FAS Score was: 0–13, where respondents classified as Category I have low FAS (0–4), Category II average (5–9), and Category III have high FAS (10–13) [49].

2.3. Statistical Analysis

Descriptive statistics were used to present the prevalence of outcome variables in regard to explanatory variables as percentages (%) with a 95% confidence interval (CI). Analytical statistics used the Pearson chi-square test to assess the statistically significant difference (at $p < 0.05$) between categorical variables. Univariate and multivariate logistic regression (a cross-odds ratio—OR with a 95% confidence interval—CI) was calculated to quantify the strength of association between explanatory variables and four outcome variables (different bullying types and participation in fights). Based on the answers to the questions, each outcome variable had three models of predictors:

- In the first model (Model 1), the reference was “not exposed (none) (0)” versus “exposed at least once (1)”.
- In the second model (Model 2), the reference was “not exposed (none) (0)” versus “exposed multiple times (1)”.
- In the third model (Model 3), the reference was “exposed at least once (0)” versus “exposed multiple times (1)”.

All statistical analyzes were performed by the IBM SPSS Statistics for Windows, version 22.0 (IBM Corp., Armonk, NY, USA).

3. Results

3.1. The Prevalence of Cyberbullying Exposure among School-Aged Children in Serbia, 2017

In the sample of 3267 students, there were more males than females and more students at age 15–17 years (Table 1). The cyberbullying exposure was more prevalent among girls than among boys of school-age, i.e., over one in seven girls and one in ten boys were exposed to cyberbullying (Table 1). Additionally, over one in seven students at age 13 years and almost every seventh student at grade I of the gymnasium were exposed to cyberbullying.

Table 1. Prevalence of cyberbullying exposure among school-aged children in Serbia, 2017.

Variables	Sample * n (%)	Cyberbullying Exposure Prevalence (%) and (95% CI)		
		At Least Once	Multiple Times	Total
<i>Individual characteristics</i>				
1. Gender	3267 (100)			
Boys	1633 (51.3)	6.9 (5.6–8.1)	3.9 (3.0–4.9)	10.8 (9.3–12.3)
Girls	1553 (48.7)	10.6 (9.1–12.2)	2.4 (1.7–3.2)	13.1 (11.4–14.7)
Pearson Chi-square <i>p</i>	0.156	<0.001	0.018	0.045
2. Age, years	3186 (100)			
mean ± standard deviation	14.2 ± 1.71			
11–12	854 (26.8)	5.3 (3.8–6.8)	2.6 (1.5–3.6)	7.8 (6.0–9.6)
13–14	931 (29.2)	10.3 (8.4–12.3)	3.2 (2.1–4.4)	13.5 (11.3–15.7)
15–17	1401 (44.0)	9.7 (8.2–11.3)	3.6 (2.6–4.5)	13.3 (11.5–15.1)
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.430	<0.001
3. School type, grade	3186 (100)			
Primary, V grade	876 (27.5)	5.3 (3.8–6.7)	2.9 (1.8–4.0)	8.1 (6.3–9.9)
Primary, VII grade	922 (28.9)	10.6 (8.6–12.6)	2.9 (1.8–4.0)	13.6 (11.3–15.8)
Gymnasium, I grade	342 (10.7)	10.5 (7.3–13.8)	4.4 (2.2–6.6)	14.9 (11.1–18.7)
Vocational school, I grade	1046 (32.8)	9.3 (7.5–11.0)	3.3 (2.3–4.4)	12.6 (10.6–14.6)
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.535	<0.001
4. Life satisfaction	3149 (100)			
Very bad	28 (0.9)	7.1 (−2.4–16.7)	14.3 (1.3–27.2)	21.4 (6.2–36.6)
Bad	62 (2.0)	17.7 (8.2–27.3)	6.5 (0.3–12.6)	24.2 (13.5–34.9)
Average	520 (16.5)	14.2 (11.2–17.2)	3.5 (1.9–5.0)	17.7 (14.4–21.0)
Good	1046 (33.2)	9.8 (8.0–11.5)	2.5 (1.5–3.4)	12.2 (10.3–14.2)
Very good	1493 (47.4)	5.4 (4.2–6.5)	3.1 (2.3–4.0)	8.5 (7.1–9.9)
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.004	<0.001

Table 1. Cont.

Variables	Sample * n (%)	Cyberbullying Exposure Prevalence (%) and (95% CI)		
		At Least Once	Multiple Times	Total
5. Region	3186 (100)			
Belgrade	681 (21.4)	8.8 (6.7–10.9)	4.0 (2.5–5.4)	12.8 (10.3–15.3)
Vojvodina	732 (23.0)	8.5 (6.5–10.5)	3.6 (2.2–4.9)	12.0 (9.7–14.4)
Sumadija and Western Serbia	1078 (33.8)	7.5 (5.9–9.1)	2.5 (1.6–3.4)	10.0 (8.2–11.8)
Southern and Eastern Serbia	695 (21.8)	10.6 (8.4–12.9)	3.2 (1.9–4.5)	13.8 (11.2–16.4)
Pearson Chi-square <i>p</i>	<0.001	0.152	0.353	0.087
<i>Family characteristics</i>				
Family size (number of members)	3001 (100)			
Mean ± standard deviation	4.81 ± 1.40			
2–3 members	388 (12.9)	9.0 (6.2–11.9)	3.4 (1.6–5.1)	12.4 (9.1–15.6)
4–5 members	1768 (58.9)	9.1 (7.8–10.4)	2.7 (1.9–3.4)	11.8 (10.3–13.3)
6–7 members	748 (24.9)	8.7 (6.7–10.7)	2.5 (1.4–3.7)	11.2 (9.0–13.5)
Eight and more members	97 (3.2)	8.2 (2.8–13.7)	4.1 (0.2–8.1)	12.4 (5.8–18.9)
Pearson Chi-square <i>p</i>	<0.001	0.175	0.711	0.945
Live with	3001 (100)			
Both parents	2540 (84.6)	8.6 (7.5–9.7)	2.8 (2.2–3.4)	11.4 (10.1–12.6)
One parent	368 (12.3)	10.9 (7.7–14.0)	3.0 (1.2–4.7)	13.9 (10.3–17.4)
One parent and stepfather/mother	58 (1.9)	6.9 (0.4–13.4)	1.7 (−1.6–5.1)	8.6 (1.4–15.8)
Relatives/Legal guardians	35 (1.2)	11.4 (0.9–22.0)	0	11.4 (0.9–22.0)
Pearson Chi-square <i>p</i>	<0.001	0.450	0.728	0.485
Have brothers and sisters	3046 (100)			
None	350 (11.5)	9.1 (6.1–12.2)	2.6 (0.9–4.2)	11.7 (8.3–15.1)
One	1698 (55.7)	9.3 (7.9–10.7)	2.8 (2.0–3.5)	12.1 (10.5–13.6)
Two or more	998 (32.8)	7.4 (5.8–9.0)	3.0 (1.9–4.1)	10.4 (8.5–12.3)
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.895	0.734
Family affluence (FAS)	3135 (100)			
Mean ± standard deviation	7.26 ± 2.54			
Low	475 (15.2)	9.5 (6.8–12.1)	2.5 (1.1–3.9)	12.0 (9.1–14.9)
Average	2020 (64.4)	8.4 (7.2–9.6)	3.1 (2.3–3.8)	11.4 (10.0–12.8)
High	640 (20.4)	9.5 (7.3–11.8)	3.8 (2.3–5.2)	13.3 (10.7–15.9)
Pearson Chi-square <i>p</i>	<0.001	0.557	0.495	0.426
Father's employment	3125 (100)			
Unemployed	418 (13.4)	8.9 (6.1–11.6)	3.3 (1.6–5.1)	12.2 (9.1–15.3)
Employed	2594 (83.0)	8.8 (7.7–9.9)	2.7 (2.1–3.4)	11.5 (10.3–12.8)
Don't know	113 (3.6)	9.7 (4.3–15.2)	12.4 (6.3–18.5)	22.1 (14.5–29.8)
Pearson Chi-square <i>p</i>	<0.001	0.949	<0.001	0.003
Mother's employment	3148 (100)			
Unemployed	985 (31.3)	7.8 (6.1–9.5)	3.1 (2.1–4.2)	11.0 (9.0–12.9)
Employed	2115 (67.2)	9.3 (8.1–10.6)	2.9 (2.2–3.7)	12.2 (10.8–13.6)
Don't know	48 (1.5)	2.1 (−2.0–6.1)	10.4 (1.8–19.1)	12.5 (3.1–21.9)
Pearson Chi-square <i>p</i>	<0.001	0.010	0.013	0.584

Table 1. Cont.

Variables	Sample * n (%)	Cyberbullying Exposure Prevalence (%) and (95% CI)		
		At Least Once	Multiple Times	Total
Opinion on the family financial state	3161 (100)			
Bad	157 (5.0)	18.5 (12.4–24.5)	10.8 (6.0–15.7)	29.3 (22.2–36.4)
Average	986 (31.2)	10.0 (8.2–11.9)	2.7 (1.7–3.8)	12.8 (10.7–14.9)
Good	2018 (63.8)	7.4 (6.2–8.5)	2.8 (2.1–3.5)	10.2 (8.8–11.5)
Pearson Chi-square <i>p</i>	<0.001	<0.001	<0.001	<0.001
In my family, I think the important things are talked about	3132 (100)			
Absolutely disagree	42 (1.3)	14.3 (3.7–24.9)	11.9 (2.1–21.7)	26.2 (12.9–39.5)
Disagree	62 (2.0)	19.4 (9.5–29.2)	3.2 (−1.2–7.6)	22.6 (12.2–33.0)
Neither agree nor disagree	286 (9.1)	9.4 (6.1–12.8)	5.2 (2.7–7.8)	14.7 (10.6–18.8)
Agree	952 (30.4)	9.5 (7.6–11.3)	1.8 (0.9–2.6)	11.2 (9.2–13.2)
Absolutely agree	1790 (57.2)	7.8 (6.6–9.1)	3.3 (2.5–4.1)	11.1 (9.7–12.6)
Pearson Chi-square <i>p</i>	<0.001	0.011	<0.001	<0.001
In my family, when I speak someone listens to what I say	3119 (100)			
Absolutely disagree	73 (2.3)	13.7 (5.8–21.6)	5.5 (0.3–10.7)	19.2 (10.1–28.2)
Disagree	108 (3.5)	12.0 (5.9–18.2)	4.6 (0.7–8.6)	16.7 (9.6–23.7)
Neither agree nor disagree	289 (9.3)	10.0 (6.6–13.5)	4.2 (1.9–6.5)	14.2 (10.2–18.2)
Agree	1014 (32.5)	10.5 (8.6–12.3)	2.6 (1.6–3.5)	13.0 (10.9–15.1)
Absolutely agree	1635 (52.4)	7.2 (5.9–8.4)	2.9 (2.1–3.8)	10.1 (8.6–11.6)
Pearson Chi-square <i>p</i>	<0.001	0.012	0.349	0.008
In my family, when I don't understand something, we ask questions	3119 (100)			
Absolutely disagree	38 (1.2)	10.5 (0.8–20.3)	18.8 (4.2–27.4)	26.3 (12.3–40.3)
Disagree	65 (2.1)	20.0 (10.3–29.7)	4.6 (−0.5–9.7)	24.6 (14.1–35.1)
Neither agree nor disagree	228 (7.3)	11.4 (7.3–15.5)	6.6 (3.4–9.8)	18.0 (13.0–23.0)
Agree	996 (31.9)	8.5 (6.8–10.3)	2.5 (1.5–3.5)	11.0 (9.1–13.0)
Absolutely agree	1792 (57.5)	8.2 (6.9–9.5)	2.7 (1.9–3.4)	10.9 (9.4–12.3)
Pearson Chi-square <i>p</i>	<0.001	0.010	<0.001	<0.001
In my family, when there is disagreement, we talk until it is resolved	3115 (100)			
Absolutely disagree	78 (2.5)	12.8 (5.4–20.2)	11.5 (4.4–18.6)	24.4 (14.8–33.9)
Disagree	134 (4.3)	14.2 (8.3–20.1)	3.7 (0.5–6.9)	17.9 (11.4–24.4)
Neither agree nor disagree	289 (9.3)	11.1 (7.5–14.7)	3.8 (1.6–6.0)	14.9 (10.8–18.8)
Agree	825 (26.5)	9.6 (7.6–11.6)	2.1 (1.1–3.0)	11.6 (9.4–13.8)
Absolutely agree	1789 (57.4)	7.4 (6.2–8.6)	3.0 (2.2–3.7)	10.4 (9.0–11.8)
Pearson Chi-square <i>p</i>	<0.001	0.013	<0.001	<0.001
Can you talk with further family members about the things that bother you?				
Father	2935 (100)			
Very easy	1472 (47.3)	6.3 (5.1–7.6)	3.2 (2.3–4.1)	9.5 (8.0–11.0)

Table 1. Cont.

Variables	Sample * n (%)	Cyberbullying Exposure Prevalence (%) and (95% CI)		
		At Least Once	Multiple Times	Total
Easy	879 (28.2)	9.9 (7.9–11.9)	1.3 (0.5–2.0)	11.1 (9.1–13.2)
Hard	388 (12.5)	12.1 (8.9–15.4)	5.2 (3.0–7.4)	17.3 (13.5–21.0)
Very hard	196 (6.3)	15.8 (10.7–20.9)	5.6 (2.4–8.8)	21.4 (15.7–27.2)
Pearson Chi-square <i>p</i>	<0.001	<0.001	<0.001	<0.001
Step-father	188 (100)			
Very easy	74 (3.3)	8.1 (1.9–14.3)	8.1 (1.9–14.3)	16.2 (7.8–24.6)
Easy	52 (2.3)	9.6 (1.6–17.6)	5.8 (−0.6–12.1)	15.4 (5.6–25.2)
Hard	29 (1.3)	10.3 (−0.7–21.4)	13.8 (1.2–26.3)	24.1 (8.6–39.7)
Very hard	33 (1.5)	15.2 (2.9–27.4)	15.2 (2.9–27.4)	30.3 (14.6–46.0)
Pearson Chi-square <i>p</i>	<0.001	0.737	0.418	0.274
Mother	3048 (100)			
Very easy	2088 (67.3)	7.5 (6.4–8.7)	2.7 (2.0–3.4)	10.2 (8.9–11.5)
Easy	682 (22.0)	10.1 (7.9–12.4)	3.7 (2.3–5.1)	13.8 (11.2–16.4)
Hard	196 (6.3)	17.9 (12.5–23.2)	4.1 (1.3–6.9)	21.9 (16.1–27.7)
Very hard	82 (2.6)	12.2 (5.1–19.3)	6.1 (0.9–11.3)	18.3 (9.9–26.7)
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.168	<0.001
Step-mother	149 (100)			
Very easy	63 (2.8)	15.9 (6.8–24.9)	3.2 (−1.2–7.5)	19.0 (9.4–28.7)
Easy	38 (1.7)	5.3 (−1.8–12.4)	5.3 (−1.8–12.4)	10.5 (0.8–20.3)
Hard	18 (0.8)	5.6 (−5.0–16.1)	33.3 (11.6–55.1)	38.9 (16.4–61.4)
Very hard	30 (1.3)	10.0 (−0.7–20.7)	20.0 (5.7–34.3)	30.0 (13.6–46.4)
Pearson Chi-square <i>p</i>	<0.001	0.328	<0.001	0.059
My family is trying really to help me	3128 (100)			
Absolutely disagree	177 (5.7)	9.0 (4.8–13.3)	7.9 (3.9–11.9)	16.9 (11.4–22.5)
Disagree	98 (3.1)	15.3 (8.2–22.4)	8.2 (2.7–13.6)	23.5 (15.1–31.9)
Neither agree nor disagree	91 (2.9)	9.9 (3.8–16.0)	4.4 (0.2–8.6)	14.3 (7.1–21.5)
Agree	357 (11.4)	15.7 (11.9–19.5)	2.2 (0.7–3.8)	17.9 (13.9–21.9)
Absolutely agree	2405 (76.9)	7.4 (6.4–8.4)	2.5 (1.9–3.1)	9.9 (8.7–11.1)
Pearson Chi-square <i>p</i>	<0.001	<0.001	<0.001	<0.001
I receive from my family necessary emotional help and support	3110 (100)			
Absolutely disagree	186 (6.0)	6.5 (2.9–10.0)	8.1 (4.2–12.0)	14.5 (9.5–19.6)
Disagree	127 (4.1)	15.0 (8.8–21.2)	6.3 (2.1–10.5)	21.3 (14.1–28.4)
Neither agree nor disagree	98 (3.2)	18.4 (10.7–26.0)	2.0 (−0.8–4.8)	20.4 (12.4–28.4)
Agree	460 (14.8)	13.3 (10.2–16.4)	2.4 (1.0–3.8)	15.7 (12.3–19.0)
Absolutely agree	2239 (72.0)	7.4 (6.3–8.5)	2.5 (1.8–3.1)	9.9 (8.6–11.1)
Pearson Chi-square <i>p</i>	<0.001	<0.001	<0.001	<0.001
With my family I can talk about my problems	3112 (100)			
Absolutely disagree	195 (6.3)	10.8 (6.4–15.1)	8.2 (4.4–12.1)	19.0 (13.5–24.5)

Table 1. Cont.

Variables	Sample * n (%)	Cyberbullying Exposure Prevalence (%) and (95% CI)		
		At Least Once	Multiple Times	Total
Disagree	172 (5.5)	11.0 (6.4–15.7)	3.5 (0.7–6.2)	14.5 (9.3–19.8)
Neither agree nor disagree	117 (3.8)	14.5 (8.1–20.9)	6.8 (2.3–11.4)	21.4 (13.9–28.8)
Agree	521 (16.7)	14.2 (11.2–17.2)	1.9 (0.7–3.1)	16.1 (13.0–19.3)
Absolutely agree	2107 (67.7)	6.9 (5.8–8.0)	2.5 (1.8–3.2)	9.4 (8.2–10.6)
Pearson Chi-square <i>p</i>	<0.001	<0.001	<0.001	<0.001
My family is ready to help me in decision making	3115 (100)			
Absolutely disagree	177 (5.7)	7.9 (3.9–11.9)	9.0 (4.8–13.3)	16.9 (11.4–22.5)
Disagree	97 (3.1)	15.5 (8.3–22.7)	4.1 (0.2–8.1)	19.6 (11.7–27.5)
Neither agree nor disagree	79 (2.5)	11.4 (4.4–18.4)	5.1 (0.2–9.9)	16.5 (8.3–24.6)
Agree	417 (13.4)	14.9 (11.5–18.3)	2.6 (1.1–4.2)	17.5 (13.9–21.2)
Absolutely agree	2345 (75.3)	7.5 (6.4–8.6)	2.5 (1.8–1.1)	10.0 (8.8–11.2)
Pearson Chi-square <i>p</i>	<0.001	<0.001	<0.001	<0.001

* Response rate range 91.7–97.5%.

There were more students exposed to at least one cyberbullying than to multiple cyberbullying. At least once exposure to cyberbullying (Table 1) was the most prevalent for those at the age of 13–14 years (10.3%, or over one in nine school-aged children), at VII grade of primary school (9.3%), with bad life satisfaction (17.7%), living with one brother or sister (9.3%), and with employed mother (9.3%). The prevalence of at least one exposure to cyberbullying was significantly higher among school-aged children: whose family does not talk until the disagreement is resolved (14.2%), whose family is not ready to help in decision making (15.5%), or is not trying really to help (15.7%); does not talk about important things (19.4%), does not listen to what they say (13.7%), or questions are not asked in the family when not understood (20.0%) and, among those who talk very hard with father (15.8%), or talk hard with mother (17.9%) about the things that bother them, those who neither agree nor disagree that receive from the family necessary emotional help and support (18.4%), and talk about the problems with the family (14.5%) (Table 1).

The multiple times cyberbullying exposure (Table 1) was the most prevalent among boys (3.9%), and respondents with very bad life satisfaction (14.3%), who do not know father's (12.4%) and mother's (10.4%) employment, with a bad opinion on the family financial state (10.8%), those who absolutely disagree that the important things are talked about (11.9%), that questions are being asked in the family if not understood (18.8%), that the family talks until resolve disagreement (11.5%), those who talk very hard with father (5.6%), or with step-mother (33.3%) about the things that bother them, those who disagrees that family is trying really to help them (8.2%), those who absolutely don't receive necessary emotional help and support from the family (8.1%), and cannot talk about the problems with the family (8.2%) and those who absolutely disagree that their family is ready to help them in decision making (9.0%) (Table 1).

Table 2 shows that boys and girls who have been victims of cyberbullying differ in age, school grade, and family wealth status. These aspects are relevant for defining the target population for protection against cyberbullying. In the observed age groups, girls were most exposed to cyberbullying in general at the age of 13 to 14 years ($p < 0.001$), but to at least one cyberbullying at the age of 15 to 17 years ($p < 0.001$). Boys were most exposed to cyberbullying in general at ages 15 and 17 ($p = 0.001$). At the age of 13 to 14, there were more cyberbullying victims among boys than among girls ($p = 0.027$).

Table 2. Selected socio-demographic characteristics of boys and girls exposed to cyberbullying, Serbia 2017.

Variables	Sample *		Cyberbullying Exposure Prevalence (%) and (95% CI)								
	n (%)		At Least Once			Multiple Times			Total		
	Boys	Girls	Boys	Girls	<i>p</i>	Boys	Girls	<i>p</i>	Boys	Girls	<i>p</i>
<i>Individual characteristics</i>											
Age, years	1633	1553									
	(100)	(100)									
11–12	414	440	2.6	2.7	0.879	1.8	0.8	0.086	4.3	3.5	0.380
	(25.4)	(28.3)	(1.5–3.6)	(1.6–3.8)		(0.9–2.6)	(0.2–1.4)		(3.0–5.7)	(2.3–4.7)	
13–14	464	467	3.4	2.0	<0.001	2.0	1.2	0.141	5.5	8.1	0.027
	(28.4)	(30.1)	(2.3–4.6)	(1.1–2.9)		(1.1–2.9)	(0.5–1.9)		(4.0–6.9)	(6.3–9.8)	
15–17	755	646	4.1	5.6	0.079	2.1	1.4	0.154	6.3	7.0	0.448
	(46.2)	(41.6)	(3.1–5.2)	(4.4–6.8)		(1.4–2.9)	(0.8–2.0)		(5.0–7.6)	(5.7–8.3)	
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.816	<0.001		0.145	0.435		0.001	<0.001	
School type, grade	1633	1553									
	(100)	(100)									
Primary, V grade	429	447	2.5	2.7	0.765	2.1	0.8	0.027	4.6	3.5	0.275
	(26.3)	(28.8)	(1.5–3.5)	(1.7–3.8)		(1.1–3.0)	(0.2–1.4)		(3.2–5.9)	(2.3–4.8)	
Primary, VII grade	458	464	3.6	7.0	<0.001	1.7	1.2	0.332	5.3	8.2	0.012
	(28.0)	(29.9)	(2.4–4.8)	(5.4–8.7)		(0.9–2.6)	(0.5–1.9)		(3.9–6.8)	(6.5–10.0)	
Gymnasium, I grade	140	202	2.3	8.2	<0.001	2.0	2.3	0.794	4.4	10.5	0.002
	(8.6)	(13.0)	(0.7–3.9)	(5.3–11.1)		(0.5–3.5)	(0.7–3.9)		(2.2–6.6)	(7.3–13.8)	
Vocational school, I grade	606	440	4.7	4.6	0.916	2.2	1.1	0.061	6.9	5.7	0.281
	(37.1)	(28.3)	(3.4–6.0)	(3.3–5.9)		(1.3–3.1)	(0.5–1.8)		(5.3–8.4)	(4.3–7.1)	
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.041	<0.001		0.907	0.173		0.104	<0.001	
<i>Family characteristics</i>											
Family affluence (FAS)	1629	1506									
	(100)	(100)									
Low	243	232	2.9	6.5	0.009	1.9	0.6	0.081	4.8	7.2	0.133
	(14.9)	(15.4)	(1.4–4.5)	(4.3–8.7)		(0.7–3.1)	(−0.1–1.3)		(2.9–6.8)	(4.8–9.5)	
Average	1034	986	3.4	5.0	0.015	1.7	1.3	0.306	5.1	6.3	0.119
	(63.5)	(65.5)	(2.6–4.2)	(4.0–5.9)		(1.2–2.3)	(0.8–1.8)		(4.2–6.1)	(5.2–7.3)	
High	352	288	4.4	5.2	0.512	2.7	1.1	0.039	7.0	6.3	0.574
	(21.6)	(19.1)	(2.8–6.0)	(3.4–6.9)		(1.4–3.9)	(0.3–1.9)		(5.1–9.0)	(4.4–8.1)	
Pearson Chi-square <i>p</i>	<0.001	<0.001	0.389	0.380		0.336	0.429		0.152	0.771	

* Response rate range 96.0–96.9%.

When there is an intervention in schools against at least one cyberbullying (Table 2), vocational schools (the 1st grade) should focus on the protection of boys because their prevalence of exposure is highest at this level of education ($p = 0.041$). Together with the highest prevalence rates among girls, the intervention in the 7th grade of primary school and the 1st grade of gymnasium should aim at protecting girls from at least one cyberbullying ($p < 0.001$) and cyberbullying in general ($p < 0.001$). In the 7th grade of primary school and the gymnasium I, girls were more often victims than boys of at least one cyberbullying ($p < 0.001$, i.e., $p < 0.001$), as well as victims of cyberbullying in general ($p = 0.012$ and $p = 0.002$, respectively).

Suppose the family is the context for intervention against at least one cyberbullying. In that case, a target population should be girls with low and average family affluence status ($p = 0.009$ and $p = 0.015$, respectively) because their prevalence of exposure was higher than that of boys (Table 2). However, boys with a high family affluence status were more often victims of multiple cyberbullying than girls ($p = 0.039$), which indicates the need for a different preventive intervention.

3.2. Models of Cyberbullying Exposure among School-Aged Children in Serbia, 2017

In Model 1, the individual variables such as gender (girls), age (older than 11 years), school grade (primary school grade VII and higher) were positively associated with once-twice cyberbullying exposure. Family variables that were negatively associated with once-twice cyberbullying exposure (Model 1) are as follows: opinion that family financial status is average and good; listening to each other; talk to resolve the disagreements within the family and talk about the problems with the family. Family variables positively associated with once-twice cyberbullying exposure (Model 1) are as follows: not very easy talk with the father; and not absolute receiving the necessary emotional help and support from the family (Table 3).

Table 3. Individual and family characteristics associated with cyberbullying exposure among school-aged children in Serbia, 2017: Univariate logistic regression models, OR (95% CI).

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
<i>Individual characteristics</i>			
Gender			
Boys	1	1	1
Girls	1.59 (1.24–2.04) **	0.64 (0.43–0.96) *	0.40 (0.25–0.64) **
Age years			
11–12	1	1	1
13–14	2.09 (1.44–3.01) **	1.33 (0.76–2.33)	0.64 (0.33–1.23)
15–17	1.96 (1.38–2.77) **	1.47 (0.89–2.45)	0.75 (0.41–1.38)
School type, grade			
Primary, V grade	1	1	1
Primary, VII grade	2.15 (1.50–3.10) **	1.09 (0.63–1.90)	0.51 (0.27–0.97) *
Gymnasium, I grade	2.1 (1.37–3.42) **	1.66 (0.86–3.19)	0.77 (0.35–1.66)
Vocational school, I grade	1.86 (1.29–2.67) **	1.23 (0.73–2.08)	0.66 (0.36–1.24)
Life satisfaction			
Very bad	1	1	1
Bad	2.57 (0.53–12.6)	0.47 (0.11–2.05)	0.29 (0.05–1.67)
Average	1.90 (0.44–8.26)	0.23 (0.07–0.74) *	0.18 (0.02–1.41)
Good	1.22 (0.28–5.27)	0.16 (0.05–0.48) **	0.13 (0.02–0.73) *
Very good	0.64 (0.15–2.79)	0.19 (0.06–0.57) **	0.12 (0.02–0.72) *
<i>Family characteristics</i>			
Family size (number of members)			
2–3 members	1	1	1
4–5 members	1.00 (0.68–1.47)	0.79 (0.42–1.47)	0.79 (0.38–1.61)
6–7 members	0.95 (0.62–0.46)	0.75 (0.37–1.53)	0.79 (0.35–1.78)
Eight and more members	0.55 (0.21–1.45)	1.19 (0.38–3.74)	2.15 (0.50–9.28)
Live with			
Both parents	1	1	1
One parent	1.30 (0.91–1.86)	1.10 (0.58–2.10)	0.84 (0.41–1.73)
One parent, stepfather/mother	0.78 (0.28–2.17)	0.60 (0.08–4.39)	0.77 (0.08–6.98)
Relatives/legal guardians	1.33 (0.47–3.81)	0 (0)	0 (0)

Table 3. Cont.

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
Have brothers and sisters			
None	1	1	1
One	1.02 (0.69–1.52)	1.08 (0.52–2.23)	1.06 (0.47–2.37)
Two or more	0.80 (0.52–1.23)	1.15 (0.54–2.45)	1.44 (0.62–3.38)
Family affluence (FAS)			
Low	1	1	1
Average	0.88 (0.62–1.24)	1.21 (0.65–2.26)	1.38 (0.68–2.77)
High	1.02 (0.68–1.53)	1.51 (0.75–3.05)	1.48 (0.67–3.26)
Father's employment			
Unemployed	1	1	1
Employed	0.99 (0.68–1.42)	0.81 (0.45–1.45)	0.82 (0.42–1.61)
Don't know	1.24 (0.61–2.53)	4.17 (1.92–9.07) **	3.36 (1.24–9.15) *
Mother's employment			
Unemployed	1	1	1
Employed	1.21 (0.92–1.59)	0.95 (0.61–1.47)	0.78 (0.47–1.30)
Don't know	0.27 (0.04–1.99)	3.36 (1.25–9.10)*	12.40 (1.39–110.60) *
Perception of family financial status			
Bad	1	1	1
Average	0.44 (0.28–0.70) **	0.21 (0.11–0.39) **	0.64 (0.33–1.26)
Good	0.32 (0.20–0.49) **	0.20 (0.11–0.36) **	0.47 (0.22–0.97)*
In my family, I think the important things are talked about			
Absolutely disagree	1	1	1
Disagree	1.29 (0.44–3.80)	0.26 (0.05–1.42)	0.20 (0.03–1.35)
Neither agree nor disagree	0.57 (0.22–1.49)	0.38 (0.13–1.12)	0.67 (0.17–2.56)
Agree	0.55 (0.22–1.36)	0.23 (0.09–0.61) **	0.51 (0.15–1.72)
Absolutely agree	0.46 (0.19–1.11)	0.13 (0.04–0.36) **	0.23 (0.06–0.83) *
In my family, when I speak, someone listens to what I say			
Absolutely disagree	1	1	1
Disagree	0.85 (0.35–2.07)	0.82 (0.21–3.18)	0.96 (0.20–4.54)
Neither agree nor disagree	0.69 (0.32–1.49)	0.71 (0.22–2.29)	1.03 (0.27–3.95)
Agree	0.71 (0.35–1.43)	0.44 (0.15–1.29)	0.61 (0.18–2.11)
Absolutely agree	0.47 (0.23–0.94) *	0.48 (0.17–1.38)	1.03 (0.31–3.43)
In my family, when I don't understand something, we ask questions			
Absolutely disagree	1	1	1
Disagree	1.86 (0.55–6.25)	0.29 (0.07–1.23)	0.39 (0.09–1.59)
Neither agree nor disagree	0.97 (0.32–3.00)	0.37 (0.13–1.05)	0.22 (0.06–0.80) *
Agree	0.67 (0.23–1.96)	0.13 (0.05–0.35) **	0.20 (0.05–0.75) *
Absolutely agree	0.64 (0.22–1.86)	0.14 (0.06–0.36) **	0.15 (0.03–0.91) *
In my family, when there is disagreement, we talk until it is resolved			
Absolutely disagree	1	1	1
Disagree	1.02 (0.44–2.33)	0.30 (0.10–0.93)	0.29 (0.08–1.11)
Neither agree nor disagree	0.77 (0.36–1.65)	0.29 (0.12–0.74) **	0.38 (0.12–1.18)

Table 3. Cont.

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
Agree	0.64 (0.32–1.30)	0.22 (0.10–0.46) **	0.44 (0.17–1.15)
Absolutely agree	0.49 (0.25–0.98) *	0.15 (0.07–0.36) **	0.24 (0.08–0.68) **
In the family, can you talk with further family members about the things that bother you?			
Father			
Very easy	1	1	1
Easy	1.60 (1.18–2.17) **	0.40 (0.21–0.77)	1.42 (0.66–3.08)
Hard	2.10 (1.45–3.04) **	1.77 (1.03–3.02) *	1.36 (1.14–1.90)
Very hard	2.88 (1.86–4.47) **	2.02 (1.03–3.99) *	1.20 (0.51–2.85)
Step-father			
Very easy	1	1	1
Easy	1.17 (0.34–4.09)	0.71 (0.17–2.97)	0.60 (0.10–3.72)
Hard	1.41 (0.32–6.12)	1.88 (0.48–7.29)	1.33 (0.20–8.71)
Very hard	2.25 (0.63–8.08)	2.25 (0.63–8.08)	1.00 (0.19–5.36)
Mother			
Very easy	1	1	1
Easy	0.56 (0.28–1.11)	1.42 (0.88–2.30)	1.02 (0.59–1.76)
Hard	0.79 (0.39–1.60)	1.75 (0.82–3.74)	0.64 (0.28–1.46)
Very hard	1.53 (0.72–3.28)	2.50 (0.97–6.44)	1.40 (0.46–4.28)
Step-mother			
Very easy	1	1	1
Easy	0.30 (0.06–1.46)	1.50 (0.20–11.2)	5.00 (0.42–59.7)
Hard	0.46 (0.05–4.01)	7.29 (1.36–39.1)	10.0 (1.28–78.1)
Very hard	0.73 (0.18–2.92)	13.9 (2.47–78.3)	30.0 (2.22–405.9)
My family is trying really to help me			
Absolutely disagree	1	1	1
Disagree	1.84 (0.86–3.92)	1.12 (0.45–2.79)	0.61 (0.20–1.87)
Neither agree nor disagree	1.06 (0.45–2.51)	0.54 (0.17–1.69)	0.51 (0.13–2.02)
Agree	1.76 (0.97–3.17)	0.29 (0.12–0.70) **	0.39 (0.18–0.84) *
Absolutely agree	0.76 (0.44–1.29)	0.29 (0.16–0.53) **	0.16 (0.06–0.46) **
I receive from my family necessary emotional help and support			
Absolutely disagree	1	1	1
Disagree	0.92 (0.50–1.69)	0.85 (0.35–2.07)	0.34 (0.11–1.03)
Neither agree nor disagree	2.81 (1.64–4.80) **	0.27 (0.06–1.22)	0.27 (0.12–0.60) **
Agree	2.31 (1.38–3.87) **	0.30 (0.14–0.67) **	0.14 (0.05–0.39) **
Absolutely agree	1.91 (1.40–2.61) **	0.29 (0.16–0.52) **	0.09 (0.02–0.46) **
With my family, I can talk about my problems			
Absolutely disagree	1	1	1
Disagree	0.97 (0.50–1.88)	0.40 (0.15–1.06)	0.41 (0.14–1.28)
Neither agree nor disagree	1.39 (0.70–2.77)	0.86 (0.35–2.08)	0.62 (0.21–1.79)
Agree	1.27 (0.76–2.14)	0.27 (0.15–0.49) **	0.48 (0.23–0.99) *
Absolutely agree	0.57 (0.35–0.93) *	0.23 (0.10–0.51) **	0.18 (0.07–0.45) **

Table 3. Cont.

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
My family is ready to help me in decision making			
Absolutely disagree	1	1	1
Disagree	2.02 (0.93–4.40)	0.47 (0.15–1.46)	0.39 (0.10–1.54)
Neither agree nor disagree	1.43 (0.59–3.47)	0.56 (0.18–1.73)	0.29 (0.13–0.63) **
Agree	1.89 (1.03–3.49)	0.29 (0.13–0.65) **	0.23 (0.06–0.87) *
Absolutely agree	0.88 (0.50–1.55)	0.25 (0.14–0.45) **	0.16 (0.06–0.41) **

1 = reference; * $p < 0.05$; ** $p < 0.01$.

In Model 2, the individual variables such as gender (girls) and the average, good, or very good life satisfaction were negatively associated with multiple cyberbullying exposures. Family variables positively associated with multiple cyberbullying exposures (Model 2) are: unknown employment of a father and a mother; and hard/very hard talk to the father about the problems. Family variables negatively associated with multiple cyberbullying exposures (Model 2) are as follows: perceived average and good family financial state; talks about the important things in the family; asking questions in the family if not understood; talk until the disagreement is resolved; the family trying really to help the one; receiving from the family necessary emotional help and support; talk about the problems with the family; and the family ready to help the one in decision making (Table 3).

In Model 3, the individual variables such as gender (girls), primary school VII grade, and good or very good life satisfaction were negatively associated with multiple cyberbullying exposures. Family variables positively associated with multiple cyberbullying exposures (Model 3) are unknown employment of a father and a mother, and hard/very hard talk to the father about the problems. Family variables negatively associated with multiple cyberbullying exposure (Model 3) are as follows: perceived family financial state as good; talks about the important things in the family; asking questions in the family if not understood; talk until the disagreement is resolved; the family trying really to help the one; receiving from the family necessary emotional help and support; talk about the problems with the family; and the family ready to help the one in decision making (Table 3).

Table 4 shows five predictors of cyberbullying among the Serbian school-aged children, one individual factor—gender; and four family variables—father's employment; talk to father about things that bother them; talk with family about problems and the perception of family financial status. Girls were by 1.63 times more likely than boys exposed to at least one cyberbullying act (Model 1). However, girls were less likely by 56% than boys exposed to multiple cyberbullying after at least one such event (Model 3). Similarly, those who can easily talk to father about the things that bother them were by 65% less likely exposed to multiple cyberbullying after one such event (Model 3). Unfortunately, those who hardly or very hardly talk to father about things that bother them were more likely than their counterparts (by 1.07 times and by 2.16 times respectively), exposed to at least one event of cyberbullying (Model 1), and by 2.4 times more likely exposed to multiple cyberbullying acts (Model 2). Those who did not know whether their father is employed had by 3.15 higher likelihood than their counterparts for multiple exposures to cyberbullying (Model 2). School-aged students who perceived the financial state as average to good were by 58–68% less likely exposed to at least one cyberbullying (Model 1) and by 72–73% less likely exposed to multiple times (Model 2). Students who can talk with family about problems were by 68–69% less likely exposed than their counterparts to at least one cyberbullying (Model 1).

Table 4. Potential predictors of cyberbullying exposure OR (95% CI) among school-aged children in Serbia, 2017: Multivariate logistic regression models.

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
<i>Individual characteristics</i>			
Gender			
Boys	1	1	1
Girls	1.63 (1.26–2.10) **	0.72 (0.47–1.10)	0.44 (0.26–0.75) **
Age, years			
11–12	1	\	\
13–14	0.98 (0.13–7.54)	\	\
15–17	2.53 (0.22–29.10)	\	\
School type, grade			
Primary, V grade	1	\	1
Primary, VII grade	2.05 (0.27–15.60)	\	0.57 (0.28–1.19)
Gymnasium, I grade	0.76 (0.07–8.78)	\	1.18 (0.49–2.86)
Vocational school, I grade	0.66 (0.06–7.53)	\	0.63 (0.30–1.33)
Life satisfaction			
Very bad	\	1	1
Bad	\	0.41 (0.07–2.20)	0.16 (0.01–2.41)
Average	\	0.39 (0.11–1.43)	0.13 (0.01–1.53)
Good	\	0.31 (0.09–1.11)	0.15 (0.01–1.77)
Very good	\	0.37 (0.11–1.30)	0.33 (0.03–3.88)
<i>Family characteristics</i>			
Father's employment			
Unemployed	\	1	1
Employed	\	1.11 (0.58–2.13)	0.82 (0.37–1.82)
Don't know	\	3.15 (1.25–7.92) *	2.91 (0.78–10.8)
Mother's employment			
Unemployed	\	1	1
Employed	\	0.92 (0.58–1.45)	0.67 (0.38–1.20)
Don't know	\	1.14 (0.34–3.82)	2.42 (0.19–30.50)
Opinion on the family financial state			
Bad	1	1	1
Average	0.42 (0.26–0.67) **	0.28 (0.15–0.59) **	0.82 (0.33–2.04)
Good	0.32 (0.21–0.51) **	0.27 (0.14–0.54) **	0.72 (0.29–1.78)
In my family, I think the important things are talked about			
Absolutely disagree	\	1	1
Disagree	\	0 (0)	0 (0)
Neither agree nor disagree	\	0.84 (0.17–4.21)	3.98 (0.25–63.4)
Agree	\	0.61 (0.12–3.00)	1.33 (0.09–18.9)
Absolutely agree	\	1.10 (0.23–5.29)	1.78 (0.13–24.9)
In my family, when I speak, someone listens to what I say			
Absolutely disagree	1	\	\
Disagree	0.82 (0.30–2.26)	\	\

Table 4. Cont.

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
Neither agree nor disagree	0.66 (0.27–1.64)	\	\
Agree	0.80 (0.34–1.87)	\	\
Absolutely agree	0.77 (0.33–1.80)	\	\
In my family, when I don't understand something, we ask questions			
Absolutely disagree	\	1	1
Disagree	\	0.75 (0.10–5.80)	0.13 (0.00–3.91)
Neither agree nor disagree	\	0.84 (0.17–4.20)	0.81 (0.03–25.1)
Agree	\	0.42 (0.09–2.02)	0.29 (0.01–9.10)
Absolutely agree	\	0.41 (0.08–2.00)	0.17 (0.01–5.59)
In my family, when there is disagreement, we talk until it is resolved			
Absolutely disagree	1	1	1
Disagree	1.06 (0.41–2.71)	0.36 (0.07–1.70)	0.09 (0.01–1.63)
Neither agree nor disagree	0.79 (0.32–1.95)	0.56 (0.15–2.10)	0.73 (0.05–11.2)
Agree	0.89 (0.37–2.12)	0.45 (0.12–1.66)	0.72 (0.04–12.0)
Absolutely agree	1.00 (0.42–2.39)	0.53 (0.14–1.96)	0.79 (0.05–13.5)
In the family, can you talk with further family members about the things that bother you?			
Father			
Very easy	1	1	1
Easy	1.36 (0.98–1.89)	0.52 (0.25–1.09)	0.35 (0.15–0.80) *
Hard	1.07 (1.03–2.48) *	2.26 (0.95–5.34)	1.07 (0.47–2.44)
Very hard	2.16 (1.28–3.63) **	2.40 (1.2–4.71) *	0.70 (0.21–2.27)
My family is trying really to help me			
Absolutely disagree	\	1	1
Disagree	\	1.85 (0.36–9.51)	4.65 (0.36–60.0)
Neither agree nor disagree	\	0.90 (0.13–6.51)	0.83 (0.05–15.2)
Agree	\	0.66 (0.10–4.58)	0.61 (0.05–7.41)
Absolutely agree	\	0.85 (0.14–5.11)	1.20 (0.11–13.3)
I receive from my family necessary emotional help and support			
Absolutely disagree	1	1	1
Disagree	0.30 (0.12–0.81)	0.88 (0.20–3.90)	0.05 (0–1.00)
Neither agree nor disagree	1.56 (0.77–3.13)	0.55 (0.07–4.24)	0.07 (0–2.32)
Agree	1.58 (0.79–3.10)	0.89 (0.16–5.09)	0.10 (0–2.69)
Absolutely agree	1.22 (0.83–1.83)	1.07 (0.19–5.87)	0.13 (0–3.49)
With my family, I can talk about my problems			
Absolutely disagree	1	1	1
Disagree	0.50 (0.20–1.27)	0.69 (0.15–3.24)	3.58 (0.24–53.2)
Neither agree nor disagree	0.61 (0.26–1.41)	2.33 (0.43–12.5)	4.53 (0.29–69.7)
Agree	0.32 (0.14–0.76) *	0.93 (0.18–4.81)	1.92 (0.12–32.0)
Absolutely agree	0.31 (0.13–0.74) **	0.94 (0.20–4.56)	3.68 (0.21–63.0)

Table 4. Cont.

Individual and Family Characteristics	Models of Cyberbullying Exposure, OR (95% CI)		
	Model 1: None versus at Least Once	Model 2: None versus Multiple	Model 3: at Least Once versus Multiple
My family is ready to help me in decision making			
Absolutely disagree	\	1	1
Disagree	\	0.55 (0.11–2.83)	1.41 (0.09–21.9)
Neither agree nor disagree	\	0.32 (0.04–2.35)	1.38 (0.07–28.4)
Agree	\	0.44 (0.08–2.35)	0.41 (0.03–6.59)
Absolutely agree	\	0.44 (0.10–2.03)	0.57 (0.04–9.26)

1 = reference; * $p < 0.05$; ** $p < 0.01$.

4. Discussion

In this study, we investigated the prevalence and predictors of cyberbullying exposure among school-aged children in Serbia. Cyberbullying exposure was defined as when someone via digital media bullied respondents by sending them malicious messages, emails, text messages, photos, posting them on the wall posts and websites, or photographing respondents and posting photos online without permission. In 2017, about one in seven school-aged Serbian children at age 13 years, at gymnasium grade I, or female sex were exposed to cyberbullying.

In the Serbian representative sample, there were more victims of at least one cyberbullying than of multiple cyberbullying. Overall, cyberbullying was more prevalent among Serbian girls than among boys; over one in seven girls and one in ten boys were exposed to cyberbullying. Different gender characteristics in cultural and regulatory contextual arrangements in all countries may be responsible because girls are often cyber-victims [50]. Our finding is slightly lower than the international average prevalence for boys (10.8% vs. 12%) and girls (13.1% vs. 14%) [6]. This study also showed a lower prevalence in Serbia in 2017 than in 2018 of at least one cyberbullying exposure among girls [7] and per school type and grade [40]. This finding indicates an annual increase in the age-gender prevalence of cyberbullying per school grades in Serbia and calls for urgent measures by schools and families to stop the escalation of cyberbullying. The present study findings are similar to the 2017/2018 HBSC studies' reported prevalence of 4% among 13-year-old boys in Spain and 5% among 15-year-old girls in Greece [7]. According to gender and family affluence status, our findings correspond to the internationally typical pattern where girls with low and boys with high affluence status are more likely cyberbullying victims than their counterparts [6,7]. The prevalence in this study is also lower than reported in the HBSC study for Serbia in 2018 and is almost twice lower than the international average for girls in low (7.2% vs. 14%) and boys in high affluence status (7% vs. 12%) [7]. Such socio-demographic profile suggests that cyberbullying prevention programs in Serbia should focus on girls in low family affluence and boys in high family affluence status.

This study showed that 16 of the 24 observed individual and family variables correlated separately with cyberbullying. Furthermore, gender, opinion of the family's affluence status, fathers' employment, communication with father, and family support are potential predictors for cyberbullying exposure in Serbia. Girls were more likely than boys exposed to at least one cyberbullying and will be less likely to be re-exposed afterward. Cyberbullying exposure was more likely for a school-aged child who had poor communication about problems with the father and did not know its work status. On the other hand, a child who was able to talk to his family about problems and thought that the financial situation in the family was good, was less susceptible to cyberbullying. Other researchers have also highlighted the relationship between the type of parental communication (offensive and avoidant vs. open and supportive communication) and cyberbullying [19,27], suggesting the need for social-educational intervention.

Our study results re-emphasize the interactions of family context, communication, and support with cyberbullying. [17–19,22,24,26], and to prevent conversion to cyberbullying within covert social networks among adolescents. As in other countries, in Serbia, family affluence status perception and parenting relationships are potential predictors of cyberbullying among school-aged children [18,20]. Namely, students who perceive better financial status and life are less likely to be exposed to cyberbullying. The family is the central institution of upbringing children and a cornerstone of society, and is of paramount importance for cyberbullying prevention programs [18,29,51–53]. A protective effect of the family is coming from the school-aged child's factors (such as resilience, self-control, socializing with peers) and relationship to the family (such as the support, resilience, connectedness, and supervision) [18–20,37,54,55]. Our study confirms that talk to families about children's problems has a protective effect from exposure to at least one cyberbullying event. Seeking support from the family is a form of a child victim's coping mechanism [56,57]. Some victims, however, fear that a family member may encourage further shame or manipulation if they admit that they have been cyberbullied [58]. That fear might explain the study finding why children who have difficulties talking to their father are at higher risk of at least once or multiple cyberbullying. Additionally, easy conversation with the father reduces the risk of multiple exposures after at least one exposure to cyberbullying. A balanced emotional warmth and protection, spending more time in family activities helps children open and talk about their problems [16,17,52]. To enhance efforts and effective prevention of cyberbullying, stakeholders' promotion of healthier social relationships must consider the complexities of the individual child experience and greater attachment to parents, including appropriate and effective parental control and family behavior.

The methodological strength of the present study is the use of the standardized international questionnaire, which enables the collection of the same data in all countries from the HBSC network and enables international comparisons and learning good practices [59], but due to contextual specificities, the study findings should not be generalized to other population groups. Another study strength streams from the nationally representative sample of the 2017 HBSC survey because in some countries, evidence on cyberbullying base on convenient samples of youth [51]. Even when done in a representative sample, the findings' generalization is not recommended beyond the studied population [3]. Our study's sample size corresponds to the other studies; it ranged from 1020 in Greenland and 2265 in Malta to 11,136 in Spain and 12,931 in Canada [60]. Since the survey results come from a nationally representative sample of school children in Serbia, they can be compared internationally and used to program regional and local activities to stop school violence across the HBSC network in line with UNESCO's recommendations [61]. A regression modeling approach in the present study is a step further from the Serbian HBSC reports. The findings of this study can be used to develop an intervention program aimed at families and various professionals involved in protecting and improving the health and well-being of school-age children. Because of the cross-sectional design, the causal pathways between cyberbullying and individual and family variables could not be established in this study; instead, the potential predictors of single and multiple cyberbullying events were identified. The study findings inform the need for a family microsystem that helps school-aged children have life satisfaction, healthier peer relationships, and reduce cyberbullying. A set of 24 variables in the study did not account for the influence of many other aspects of family and social context, which need to be explored in new studies. In the next round of the HBSC survey, we recommend complementing information on the magnitude of various forms of cyberbullying with the parental reports and on the opinion of the impact of the social exclusion and the introduction of online education, and the COVID-19 pandemic on family context (since many children might have lost family members). The study's findings may help design specific skills-building interventions targeting vulnerable families with school-age children and longitudinal studies on cyberbullying to determine the cause and consequences to create safer use of cyber technology. Eliminating cyber technologies abuse will make a world of difference to school-aged children's prosperity, particularly the ability

to experience pleasure with mastering new knowledge and skills to support the unfolding developmental process.

5. Conclusions

The cyberbullying exposure was more prevalent among girls than among boys of school-age, i.e., over one in seven girls and one in ten boys were exposed to cyberbullying. Over one in seven students at age 13 years and almost every seventh student at grade I of the gymnasium were exposed to cyberbullying. There were more students exposed to at least one cyberbullying than to multiple cyberbullying. Potential predictors of exposure to cyberbullying are gender, opinion of the family affluence status, fathers' employment, communication with father, and family support. The study findings may contribute to a better understanding of the students' family environment exposed to cyberbullying. The study compensates for the evidence of cyberbullying in Serbia, which could help to raise awareness, inform national and international stakeholders in the region and enable their efforts and strengthen cooperation with parents, schools, and the entire community in ending cyberbullying.

Author Contributions: L.R., M.S.-M. and D.N., conceptualization, investigation, methodology, supervision, and writing original draft; M.V., U.B. and J.T. formal analysis, and writing initial draft; Z.T.-S. and S.M. data curation, investigation, methodology. All authors have read and agreed to the published version of the manuscript.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Institutional Review Board Statement: The secondary analysis in the study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Ethics Committee of IPHS (Decision 1934/1, 3 March 2020).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: All data are presented in this study. Original data are available on request from IPHS.

Acknowledgments: The authors are supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia (Contract No. 175087 and 175046).

Conflicts of Interest: Authors have no conflict of interest to declare.

References

1. United Nations Conference on Trade and Development (UNCTAD). Fifteen Years since the World Summit on the Information Society. 2020. Available online: https://web.archive.org/web/20200625072209/https://unctad.org/en/PublicationsLibrary/dtlstict2020d1_en.pdf (accessed on 9 April 2021).
2. Eurostat. ICT Usage in Households and by Individuals. Available online: <https://ec.europa.eu/eurostat/> (accessed on 9 April 2021).
3. Li, Q.; Luo, Y.; Hao, Z.; Smith, B.; Guo, Y.; Tyrone, C. Risk Factors of Cyberbullying Perpetration Among School-Aged Children Across 41 Countries: A Perspective of Routine Activity Theory. *Int. J. Bullying Prev.* **2020**, *1*–13. [CrossRef]
4. Antoniadou, N.; Kokkinos, C.M. A review of research on cyber-bullying in Greece. *Int. J. Adolesc. Youth* **2015**, *20*, 185–201. [CrossRef]
5. UNICEF. UNICEF Poll: More than a Third of Young People in 30 Countries Report Being a Victim of Online Bullying 2019. Available online: <https://www.unicef.org/press-releases/unicef-poll-more-third-young-people-30-countries-report-being-victim-online-bullying> (accessed on 9 April 2021).
6. Inchley, J.; Currie, D.; Budisavljevic, S.; Torsheim, T.; Jåstad, A.; Cosma, A.; Kelly, C.; Arnarsson, M.A.; Barnekow, V.; Weber, M.M. (Eds.) *Spotlight on Adolescent Health and Well-Being: Findings from the 2017/2018 Health Behaviour in School-Aged Children (HBSC) Survey in Europe and Canada. International Report; Volume 1: Key Data*, WHO Regional Office for Europe: Copenhagen, Denmark, 2020. Available online: <https://www.euro.who.int/en/publications/abstracts/spotlight-on-adolescent-health-and-well-being.-findings-from-the-20172018-health-behaviour-in-school-aged-children-hbsc-survey-in-europe-and-canada.-international-report.-volume-1.-key-findings> (accessed on 10 April 2021).

7. Inchley, J.; Currie, D.; Budisavljevic, S.; Torsheim, T.; Jåstad, A.; Cosma, A.; Kelly, C.; Arnarsson, M.A.; Samdal, O. (Eds.) *Spotlight on Adolescent Health and Well-Being: Findings from the 2017/2018 Health Behaviour in School-Aged Children (HBSC) Survey in Europe and Canada*; International Report; WHO Regional Office for Europe: Copenhagen, Denmark, 2020. Available online: <https://www.euro.who.int/en/publications/abstracts/spotlight-on-adolescent-health-and-well-being.-findings-from-the-20172018-health-behaviour-in-school-aged-children-hbsc-survey-in-europe-and-canada.-international-report.-volume-2.-key-data> (accessed on 10 April 2021).
8. Álvarez-García, D.; Núñez, J.C.; García, T.; Barreiro-Collazo, A. Individual, family, and community predictors of cyber-aggression among adolescents. *Eur. J. Psychol. Appl. Leg.* **2018**, *10*, 79–88. [CrossRef]
9. Lee, C.; Shin, N. Prevalence of cyberbullying and predictors of cyberbullying perpetration among Korean adolescents. *Comput. Hum. Behav.* **2017**, *68*, 352–358. [CrossRef]
10. Kircaburun, K.; Kokkinos, C.M.; Demetrovics, Z.; Király, O.; Griffiths, M.D.; Çolak, T.S. Problematic online behaviors among adolescents and emerging adults: Associations between cyberbullying perpetration, problematic social media use, and psychosocial factors. *Int. J. Ment. Health Addict.* **2019**, *17*, 891–908. [CrossRef]
11. Park, S.; Na, E.Y.; Kim, E.-M. The relationship between online activities, netiquette and cyberbullying. *Child. Youth Serv. Rev.* **2014**, *42*, 74–81. [CrossRef]
12. Ybarra, M.L.; Mitchell, K.J. Youth engaging in online harassment: Associations with caregiver-child relationships, internet use, and personal characteristics. *J. Adolesc.* **2004**, *27*, 319–336. [CrossRef] [PubMed]
13. Stald, G.; Green, L.; Barbovski, M.; Haddon, L.; Mascheroni, G.; Sagvari, B.; Scifo, B.; Tsaliki, L. *Online on The Mobile: Internet Use on Smartphones and Associated Risks Among Youth in Europe*; EU Kids Online, LSE: London, UK, 2014. Available online: <http://core.ac.uk/download/pdf/41537742.pdf> (accessed on 11 July 2021).
14. Whittaker, E.; Kowalski, R.M. Cyberbullying via social media. *J. Sch. Violence* **2015**, *14*, 11–29. [CrossRef]
15. López-Castro, L.; Priegue, D. Influence of Family Variables on Cyberbullying Perpetration and Victimization: A Systematic Literature Review. *Soc. Sci.* **2019**, *8*, 98. [CrossRef]
16. Cassidy, W.; Faucher, C.; Jackson, M. Cyberbullying among youth: A comprehensive review of current international research and its implications and application to policy and practice. *Sch. Psychol. Int.* **2013**, *34*, 575–612. [CrossRef]
17. Cassidy, W.; Faucher, C.; Jackson, M. What Parents Can Do to Prevent Cyberbullying: Students' and Educators' Perspectives. *Soc. Sci.* **2018**, *7*, 251. [CrossRef]
18. Zurcher, J.D.; Holmgren, H.G.; Coyne, S.M.; Barlett, C.P.; Yang, C. Parenting and cyberbullying across adolescence. *Cyberpsychol. Behav. Soc. Netw.* **2018**, *21*, 294–303. [CrossRef]
19. Yubero, S.; Larrañaga, E.; Navarro, R. Los padres ante el ciberacoso: Factores de protección. *Bordón* **2018**, *70*, 141–157. [CrossRef]
20. Cho, S.; Lee, H.; Peguero, A.A.; Park, S.-M. Social-ecological correlates of cyberbullying victimization and perpetration among African American youth: Negative binomial and zero-inflated negative binomial analyses. *Child. Youth Serv. Rev.* **2019**, *101*, 50–60. [CrossRef]
21. Cross, D.; Barnes, A.; Papageorgiou, A.; Hadwen, K.; Hearn, L.; Lester, L. A social-ecological framework for understanding and reducing cyberbullying behaviours. *Aggress. Violent Behav.* **2015**, *23*, 109–117. [CrossRef]
22. Brooks, F.; Chester, K.; Klemmera, E.; Magnusson, J. *Cyberbullying: An Analysis of Data from the Health Behaviour in School-Aged Children (HBSC) Survey for England, 2014*; Public Health England: London, UK, 2017.
23. Public Health England. *How Healthy Behaviour Supports Children's Wellbeing*. 2013. Available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/232978/Smart_Restart_280813_web.pdf (accessed on 9 April 2021).
24. Moreno, C.; Sánchez-Queija, I.; Muñoz-Tinoco, V.; de Matos, M.G.; Dallago, L.; Bogt, T.T.; Camacho, I.; Rivera, F.; HBSC Peer Culture Focus Group. Cross-national associations between parent and peer communication and psychological complaints. *Int. J. Public Health* **2009**, *54* (Suppl. 2), 235–242. [CrossRef] [PubMed]
25. Chester, K.L.; Magnusson, J.; Klemmera, E.; Spencer, N.H.; Brooks, F. The Mitigating Role of Ecological Health Assets in Adolescent Cyberbullying Victimization. *Youth Soc.* **2019**, *51*, 291–317. [CrossRef]
26. Machimbarrena, J.M.; González-Cabrera, J.; Garaigordobil, M. Variables familiares relacionadas con el bullying y el cyberbullying: Una revisión sistemática. *Pensam. Psicol.* **2019**, *17*, 37–56. [CrossRef]
27. Castro Castañeda, R.; Vargas Jiménez, E.; Huerta Zúñiga, C.G. Variables que discriminan a las víctimas y no víctimas de ciberacoso en adolescentes. *IE Rev. Investig. Educ. Rediech* **2019**, *10*, 173–190. [CrossRef]
28. WHO. *Global Plan of Action to Strengthen the Role of the Health System within a National Multisectoral Response to Address Interpersonal Violence, in Particular Against Women and Girls, and Against Children*; World Health Organization: Geneva, Switzerland, 2016. Available online: <https://www.who.int/reproductivehealth/publications/violence/global-plan-of-action/en/> (accessed on 9 April 2021).
29. García, V.P.; del Río, M.I.P.; Castaño, E.F.; del Barco, B.L.; Bullón, F.F. Tipología familiar y dinámica bullying/ciberbullying en Educación Secundaria. *Eur. J. Investig. Health Psychol. Educ.* **2013**, *3*, 161–170. [CrossRef]
30. World Health Organization. *The Global Strategy for Women's, Children's and Adolescents' Health (2016–2030)*. Every Woman Every Child. 2015. Available online: https://globalstrategy.everywomaneverychild.org/pdf/EWEC_globalstrategyreport_200915_FINAL_WEB.pdf (accessed on 11 July 2021).

31. Government of the Republic of Serbia. *National Strategy for Youth 2015–2025*; No. 22/2015; Official Gazette RS: Belgrade, Serbia, 2015.
32. Government of the Republic of Serbia. *Youth Act*; No. 50/2011; Official Gazette RS: Belgrade, Serbia, 2011.
33. Government of the Republic of Serbia. *Public Health Act*; No. 15/2016; Official Gazette RS: Belgrade, Serbia, 2016.
34. Government of the Republic of Serbia. *Decree on the National Health Care Program for Women, Children and Youth*; No. 28/2009; Official Gazette RS: Belgrade, Serbia, 2009.
35. Government of the Republic of Serbia. *Decree on Safety and Protection of Children When Using Information and Communication Technologies*; No. 61/2016; Official Gazette RS: Belgrade, Serbia, 2016.
36. Popadic, D.; Plut, D.; Pavlovic, Z. *Nasilje u Školama Srbije. Analiza Stanja od 2006. do 2013. Godine*; Institut za Psihologiju, Beograd i UNICEF, Beograd; Scanner Studio: Belgrade, Serbia, 2014. Available online: http://www.mpn.gov.rs/wp-content/uploads/2015/08/Nasilje_u_skolama_Srbije_web_24.3.2015.pdf (accessed on 11 July 2021).
37. Markovic, M. The Family context of children and youths who exhibit violent behaviour. *Facta Univ.* **2015**, *14*, 91–113.
38. Obradovic-Tomasevic, B.; Santric-Milicevic, M.; Vasic, V.; Vukovic, D.; Sipetic-Grujicic, S.; Bjegovic-Mikanovic, V.; Terzic-Supic, Z.; Tomasevic, R.; Todorovic, J.; Babic, U. Prevalence and Predictors of Violence Victimization and Violent Behavior among Youths: A Population-Based Study in Serbia. *Int. J. Environ. Res. Public Health* **2019**, *16*, 3203. [[CrossRef](#)] [[PubMed](#)]
39. Petrovic, M.; Vasic, V.; Petrovic, O.; Santric Milicevic, M. Positive parenting attitudes and practices in three transitional Eastern European countries: Bosnia and Herzegovina, Macedonia and Serbia. *Int. J. Public Health* **2016**, *61*, 621–630. [[CrossRef](#)] [[PubMed](#)]
40. Gudelj-Rakic, J.; Jovanovic, V.; Kilibarda, B.; Vasic, M.; Tosic, M.; Kisic-Tepavcevic, D. *Osnovni Rezultati Istrazivanja Ponasanja u Vezi sa Zdravljem Kod Dece Školskog Uzrasta u Republici Srbiji 2017. Godine (Health Behaviour in School-Aged Children, HBSC)*; Institut za javno zdravlje Srbije “Dr Milan Jovanović Batut”: Belgrade, Serbia, 2018. Available online: <http://www.zjzpa.org.rs/wp-content/uploads/2020/01/2018osnovniRezultatiIstrazivanjaHBSC.pdf> (accessed on 16 December 2020).
41. Ćeriman, J.; Duhaček, N.; Perišić, K.; Bogdanović, M.; Duhaček, D. *Istrazivanje Rodno Zasnovanog Nasilja u Školama u Srbiji*; Centar za studije roda i politike, Fakultet političkih nauka Univerziteta u Beogradu: Belgrade, Serbia, 2015. Available online: <http://www.unicef.org/serbia/media/5976/file/Istrazivanje%20rodno%20zasnovanog%20nasilja%20u%20skolama%20u%20Srbiji.pdf> (accessed on 11 July 2021).
42. Global Initiative to End All Corporal Punishment of Children. Country Report for Serbia. Global Initiative to End All Corporal Punishment of Children & Save the Children Sweden. 2017. Available online: <https://endcorporalpunishment.org/reports-on-every-state-and-territory/serbia> (accessed on 31 August 2018).
43. UNICEF. Violence against Children in Serbia. Determinants, factors, and intervention. National report. Belgrade. 2017. Available online: <http://www.savetzapravadeteta.gov.rs/doc/eng.dokumenta/Violence-against-children-in-Serbia-web.pdf> (accessed on 22 April 2020).
44. Malti, T. Children and Violence: Nurturing Social-Emotional Development to Promote Mental Health. *Soc. Policy Rep.* **2020**, *33*, 1–27. [[CrossRef](#)]
45. Farrell, C.; Zimmerman, G.M. Does offending intensify as exposure to violence aggregates? Reconsidering the effects of repeat victimization, types of exposure to violence, and poly-victimization on property crime, violent offending, and substance use. *J. Crim. Justice* **2017**, *53*, 25–33. [[CrossRef](#)]
46. WHO Regional Office for Europe. *Health Information Gateway*; WHO Regional Office for Europe: Copenhagen, Denmark, 2020. Available online: <https://gateway.euro.who.int/en/> (accessed on 25 February 2020).
47. IPHS. *Health Behavior in School-Aged Children in Serbia*; IPHS: Belgrade, Serbia, 2018. Available online: <http://www.batut.org.rs/download/novosti/rezultatiistrzivanjaponasanjadeceskolskoguzrasta.pdf> (accessed on 10 April 2021).
48. Ministry of Trade. Tourism and Telecommunications of the Republic of Serbia. Available online: <https://mtt.gov.rs/en/releases-and-announcements/national-contact-centre-for-online-safety-of-children/> (accessed on 10 April 2021).
49. Hobza, V.; Hamrik, Z.; Bucksch, J.; De Clercq, B. The Family Affluence Scale as an Indicator for Socioeconomic Status: Validation on Regional Income Differences in the Czech Republic. *Int. J. Environ. Res. Public Health* **2017**, *14*, 1540. [[CrossRef](#)] [[PubMed](#)]
50. Carvalho, M.; Branquinho, C.; Gaspar de Matos, M. Emotional Symptoms and Risk Behaviors in Adolescents: Relationships with Cyberbullying and Implications on Well-Being. *Violence Vict.* **2018**, *33*, 871–885. [[CrossRef](#)]
51. Navarro Olivas, R. (Ed.) *Family, Bullying and Cyberbullying*; MDPI: Basel, Switzerland, 2019.
52. Grunin, L.; Yu, G.; Cohen, S. The Relationship between Youth Cyberbullying Behaviors and Their Perceptions of Parental Emotional Support. *Int. J. Bullying Prev.* **2020**, 1–13. [[CrossRef](#)]
53. Byrne, E.; Vessey, J.A.; Pfeifer, L. Cyberbullying and social media: Information and interventions for school nurses working with victims, students, and families. *J. Sch. Nurs.* **2018**, *34*, 38–50. [[CrossRef](#)]
54. Boniel-Nissim, M.; Sasson, H. Bullying victimization and poor relationships with parents as risk factors of problematic internet use in adolescence. *Comput. Hum. Behav.* **2018**, *88*, 176–183. [[CrossRef](#)]
55. Moreno-Ruiz, D.; Martínez-Ferrer, B.; García-Bacete, F. Parenting styles, cyberaggression, and cybervictimization among adolescents. *Comput. Hum. Behav.* **2019**, *93*, 252–259. [[CrossRef](#)]
56. Jacobs, N.C.L.; Goossens, L.; Dehue, F.; Völlink, T.; Lechner, L. Dutch Cyberbullying Victims’ Experiences, Perceptions, Attitudes and Motivations Related to (Coping with) Cyberbullying: Focus Group Interviews. *Societies* **2015**, *5*, 43–64. [[CrossRef](#)]
57. Sticca, F.; Machmutow, K.; Stauber, A.; Perren, S.; Palladino, B.E.; Nocentini, A.; Menesini, E.; Corcoran, L.; Guckin, C.M. The Coping with Cyberbullying Questionnaire: Development of a New Measure. *Societies* **2015**, *5*, 515–536. [[CrossRef](#)]

58. Childnet International. *Cyberbullying*; DCSF Publications: Nottingham, UK, 2007.
59. Roberts, C.; Freeman, J.; Samdal, O.; Schnohr, C.W.; de Looze, M.E.; Nic Gabhainn, S.; Iannotti, R.; Rasmussen, M.; International HBSC Study Group. The Health Behaviour in School-aged Children (HBSC) study: Methodological developments and current tensions. *Int. J. Public Health* **2009**, *54* (Suppl. 2), 140–150. [[CrossRef](#)] [[PubMed](#)]
60. WHO/Europe. *Growing up Unequal: Gender and Socioeconomic Differences in Young People's Health and Well-Being*; Health Policy for Children and Adolescents, No. 7; Health Behaviour in School-Aged Children (HBSC) Study, International Report from the 2013/2014 Survey; World Health Organization: Copenhagen, Denmark, 2016. Available online: https://www.euro.who.int/__data/assets/pdf_file/0003/303438/HSBC-No.7-Growing-up-unequal-Full-Report.pdf (accessed on 11 April 2021).
61. UNESCO. *Behind the Numbers: Ending School Violence and Bullying*; United Nations Educational, Scientific and Cultural Organization: Paris, France, 2019. Available online: <https://en.unesco.org/themes/school-violence-and-bullying> (accessed on 8 April 2021).