Research article

FREQUENCY AND FORMS OF SCHOOL BULLYING: PRE- AND POST-QUARANTINE IN GREECE ACCORDING TO TEACHER OBSERVATIONS

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Abstract:

The purpose of this research was to study the attitudes of teachers of Greek primary and secondary schools towards bullying as a general phenomenon, but more specifically in the context of the closure and the resumption of schools due to the COVID-19 quarantine in Greece. More specifically, we attempted to identify any differences in the forms and the frequency of school bullying before and after the quarantine. In addition, this research aimed to investigate the teachers' attitudes regarding the effectiveness of the various strategies they use to deal with bullying in schools. The data collection method was the survey. Our sample consisted of 110 primary and secondary school teachers from various schools in Greece. The choice of questions was made according to the purpose and objectives of the research. Specifically, the questionnaire was based on similar questionnaires by Thanos (2016) and Tsatsakis (2019) that investigated primary and secondary school teachers' views on school violence and delinquency. The questionnaire was administered in the final months of the 2022-2023 school year. We confirmed that there were significant differences in the frequency of bullying between the closure and after the resumption of schools due to COVID-19. We also observed an increase in specific forms of bullying that occur in the classroom. Moreover, we observed significant differences between the forms of bullying at primary and secondary education levels. Finally, our results suggest that more experienced teachers tend to evaluate less punitive practices of dealing with bullying to be more effective.

Keywords: Violence;Teacher's; bullying; pandemic; COVID-19.

The phenomenon of school violence is not new, and the interest of researchers increased, especially in the last decades. The phenomenon of bullying is observed in many countries and to such an increased degree that it significantly concerns the international community, as its effects are evident in many areas" (Artinopoulou et al, 2016, pp. 3). School violence is now at the center of scientific, social and educational interest, and bullying is becoming one of the most important social phenomena. As school bullying incidents occur

(usually) in the school, the teachers are mainly in charge of identifying and eliminating school violence. Teachers use various strategies to deal with bullying, depending on how effective they think they are.

According to "Indeed, in recent years in our country, many surveys have been carried out on school violence and delinquency. Most of this research focuses on the forms, the frequency of school violence and delinquency, and the factors that contribute to their appearance, and less on the treatment strategies according to students' views. However, the research focuses much less on teachers' views. Therefore, examining teachers' views is very crucial since it is them that they are responsible for dealing with school violence and delinquency incidents". (Tsatsakis 2019, pp. 18)

The impact of COVID-19 in school violence

As we all know, COVID-19 has enormously impacted virtually every aspect of our lives. The pandemic's effects will undoubtedly be studied for years to come under many different contexts. The pandemic has affected both individuals and communities. One area that was heavily affected was education. Due to the pandemic, schools had to shut down for a long time. Therefore, a reasonable question arises: How was bullying shaped before and after the quarantine? Was there a difference in school violence behaviors and frequency before and after the quarantine? Research on teachers' views on school violence is scarce in Greece. "Teachers play an important role in preventing and responding to school violence "not because they have the power to punish, but because they can become role models and complementary parents" for students" (Panousis, 2012, pp. 13).

According to Panousis (2012) "Teachers' views are particularly important in studying school violence because they highlight the "...aspect of the internal (by teachers themselves) assessment of domestic violence, its form, the extent and, most importantly, its management" (in Thanos, 2016, pp. 115). In the survey by Tsiganou, Daskalaki & Tsamparli (2004) of secondary school teachers in Greece of 1,075 secondary school teachers, the teachers' views on school violence and delinquency of students at school, teachers and peers are examined. Regarding student violence against teachers, the majority of teachers in the sample report that it is a phenomenon that occurs "rarely" or "never". On the contrary, incidents of student-on-student violence occur "often/very often", according to teachers' responses, which involve: verbal Violence (1/3 of high school teachers and 1/5 of high school teachers), fights (2/5 of high school teachers and 16.5% of high school teachers) and scuffles (30% in high school and 10.2% in junior high school). Another study of primary and secondary schools in Greece (Salichos, P. & Alevisos, S., 2015) explored the views of primary and secondary school teachers on bullying and its consequences. The study sample consisted of 100 primary teachers (58.1%) and 72 high school teachers (41.9%). A questionnaire was used to collect data.

When asked if they consider bullying to be a serious problem in their school, 40% of teachers answered positively, which is twice as much as the corresponding percentage of teachers (20.8%). Regarding the ways of showing aggression, such as social exclusion, ridicule,

contempt and humiliation, the percentages collected by teachers and educators did not differ significantly with respect to the ways of showing aggression, such as pushing, threatening, hooliganism or stealing. where teachers observed it at 70% as opposed to the teacher rate of 26.7%. To deal with the phenomenon by themselves, 83% of teachers and 63.9% of teachers suggest discussing it with the "victim" and the "perpetrator". 52.6% of teachers and 41.7% of teachers reported seeking to bring the parties involved into discussion. 56, 7% of teachers and 45.8% of teachers responded that they should settle the problem themselves. 84.5% of teachers and 65.3% of teachers were in favour of possible punishment of the "offender". Moreover, 25.8% of teachers and 19.4% of teachers suggested strict supervision as a solution. All teachers (100%) were against non-intervening.

A survey by Christofi (2015) in Greece , examined teachers' views on the frequency and forms of offending behavior of students. The sample of the survey consisted of 153 secondary school teachers. A questionnaire was used as a means of data collection. The sample results stated that the occurrence of deviant behavior in students at school is "a little" common. Their opinions varied in terms of the location and population of the area in which the school was located. In areas with a population of more than one million, teachers consider deviant student behavior to be a "fairly" common occurrence, in contrast to teachers serving in areas with a smaller population. No deviant student behavior related to the orderly conduct of the instructional process and school property was reported by teachers to be observed "very" or "quite" often. The only forms of deviant behavior that teachers in the sample reported as being observed "quite" often were verbal violence and hostile gestures.

The research (Thanos, T., & Tsatsakis, A.,2015) aimed to examine the views of secondary school teachers on school violence and delinquency among students in terms of its frequency, forms, and factors. The sample of the study consisted of 530 secondary school teachers. The sample was not selected by any systematic method but was based on the accessibility of schools and teachers. A questionnaire was chosen as the instrument for data collection. The frequency with which the different forms of school violence occur varies between schools. Some forms occur 'quite' often, others 'a little' often and others 'not at all' often. The most frequent forms of school violence concerning interpersonal relationships between pupils were verbal violence, mockery and gestures.

The research (Nikolova, S. ,2021) summarizes critically important realities in the global field of education -the problem of distance education as a cultural and educational trend and teacher work's crisis in assessing psychosocial stress and mental health. The focus of this review was the assessment of the impacts of COVID-19 on stress, anxiety, depression and burnout in teachers at different levels of education. "One of the significant social systems - education - has proved particularly vulnerable in the current global pandemic. The indefinite and unpredictable duration of the spread of COVID-19 has led the affected societies to a psychosocial crisis through impaired social functioning. Teachers were among the most exposed groups to the adverse psychological effects of a pandemic. High levels of stress, burnout, and anxiety were reported" (Nikolova, 2021, pp. 1253). "Symptoms of depression,

anxiety, and feelings of isolation are starting points for researchers concerning intra- and inter-psychiatric changes in educators experiencing the pandemic(Kush et al., 2021, in Nikolova, 2021, pp. 1255).

Research that examines the effect of COVID-19 and bullying is non-existent in Greece, and extremely scarce internationally. In addition, most of international research attempts to examine Cyberbullying phenomena in relation to COVID-19. That is "because of the implementation of social distancing measures following the onset of the COVID-19 pandemic, face-to-face interaction has plummeted, which has resulted in the prolific use of social networking services (SNS) and increased activity in the cyberspace environment. This is especially true for teenagers and young adults with the shift to online classes in the education sector, which has increased the chances of being exposed to cyberbullying" (Choi et al., 2022, p. 1). In research (Bacher-Hicks et al., M. (2021), the researchers tested their hypothesis that the suspension of lessons due to the pandemic would force cyberbullying to grow dramatical "As schools were forced to close and shift to remote learning across the U.S. in March 2020, there was a sudden decrease in in-person interaction and dramatic surge in the use of digital technology" (Koeze & Popper, 2020; De et al., 2020, pp.51).

Given the small number and limitations of existing research, this study seeks to fill this gap by assessing in real-time and with a measure of behavior generated by a wide cross-section of Americans whether bullying involvement has varied over the course of the pandemic. The researchers used data from Google internet searches to examine changing bullying patterns as COVID-19 disrupted in-person schooling. According to their results, pre-pandemic historical patterns show that internet searches provide useful information about actual bullying behavior. Real-time data then shows that searches for school bullying and cyberbullying both dropped about 30-40 per cent as schools shifted to remote learning in the spring of 2020. This drop is sustained through the fall and winter of the 2020-21 school year, though the gradual return to in-person instruction partially returns bullying searches to pre-pandemic levels. These results highlight how in-person interaction is an important mechanism underlying not only in-person school bullying, but also cyberbullying.

In areas where more schools re-opened there was a greater return to pre-pandemic levels for bullying in Canadian students (Vaillancourt, T., et al., 2021).

Despite anti-Asian rhetoric during the pandemic, no difference was found between East Asian Canadian and White students on bullying victimization. Finally, research largely confirmed previous published patterns in both conditions:

(1) girls were more likely to report being bullied than boys,

(2) boys were more likely to report bullying others than girls,

(3) elementary school students reported higher bullying involvement than secondary school students,

(4) gender diverse and LGTBQ + students reported being bullied at higher rates than students who identified as gender binary or heterosexual.

According to the researchers, the results highlight that the pandemic may have mitigated bullying rates, prompting the need to consider retaining some of the educational reforms used to reduce the spread of the virus that could foster caring interpersonal relationships at school such as reduced class sizes, increased supervision, and blended learning. (Vaillancourt, et al 2021, pp. 557). Given the enormous impact of the pandemic on human health, several scholars in Shantou City, China (Xie, L. et al. 2023) have conducted comparative studies on various aspects before and during the pandemic. The researchers concluded that types of bullying victimization and perpetration (physical, verbal, social and property bullying) were more common during the pandemic than before the pandemic. The prevalence of bullying victimization and bullying perpetration was higher during the pandemic than before the pandemic, which was contrary to the findings of (Vaillancourt et al., 2021).

There has been only a handfull of international research on the implications of COVID-19 and the quarantine to school bullying. According to the limited research so far, there is not a universal pattern in the research about the impact of the quarantine to school bullying. One study (Choi et. al., 2022) concluded that the average age of those who engage in cyberbullying decreased in 2020 compared to 2019. Some studies (Vaillancourt et al., 2021; Repo et. al 2022), concluded that the prevalence of bullying has been decreased and that students reported far higher rates of bullying involvement before the pandemic than during the pandemic across all forms of bullying (general, physical, verbal, and social), except for cyberbullying, where differences in rates were less pronounced. Another study (Bacher-Hicks et. al, 2021) concluded that both in-person bullying and cyberbullying decreased dramatically during the school years affected by the pandemic. Other studies (Patchin, Hinduja, 2022) suggest that "physical" bullying has been decreased (due to the schools being closed), while cyberbullying remained stable. There were also studies (Xie et.al., 2021; Forsberg, & Thorvaldsen, 2022), that concluded that the prevalence of bullying victimization and bullying perpetration of traditional and digital bullying, was higher during the pandemic than before the pandemic.

There are conflicting results among the few studies on bullying. The aforementioned studies corroborate the significance of the pandemic on traditional school bullying and suggest that we should further examine it during public health emergencies such as the COVID-19 pandemic. Thus, we were motivated to conduct a relevant study in Greece.

Method

The aim of this study is to investigate the assessment of teachers in Greek primary and secondary schools regarding the phenomena of bullying in a subjective comparative framework BEFORE the closure and AFTER the resumption of normal educational regimes interrupted by the pandemic. In addition, the differences in the forms and frequency of school bullying before and after the quarantine should be established, as well as the assessment of teachers regarding the effectiveness of different strategies to deal with bullying implemented in school. The selection of teachers was not done in a systematic method but was based on the availability of teachers through Facebook and Viber social media. Participants were asked to fill out a

questionnaire via the Google Forms platform.In addition, the attitudes of Primary and Secondary school teachers regarding bullying (in the context of the closing and resumption of schools due to the COVID-19 pandemic in Greece), will be examined. More specifically, this research attempts to identify any changes in the frequency and forms of bullying that took place after the resumption of lessons in schools due to the COVID-19 pandemic.

For research purposes, a structured survey was developed in which we borrowed and modified items from related questionnaires (Thanos, 2016; Tsatsakis, 2019) exploring the views of elementary and junior high school teachers regarding school violence and crime. The main content of the survey included questions exploring the subjective comparison of teachers' observation of the forms and levels of school bullying BEFORE the closure and AFTER school reopening due to the national quarantine. The data analysis only included information from participants who had submitted a completed survey.

Research hypotheses

Our leading hypothesis is based on the assumption of differences in specific forms of classroom violence in a comparable chronological plan - BEFORE the national quarantine during the COVID-19 pandemic, and AFTER the restoration of the normal educational process.

Furthermore, we expected to find differences in how teachers assess the handling of bullying at their educational institutions, based on their demographic profiles. Additionally, we anticipated variations in their opinions on addressing school bullying in general.

The questionnaire was administered in the final months of the 2022-2023 school year, a period when teachers would have formed a more comprehensive view of student violence in schools. The questions were for the 2020 to 2023 school years, and teachers were required to serve in the same school before and after the extended quarantine. This was done because the questions related to school violence needed to have a specific spatiotemporal context in order for the answers to be specific. As N. Kourakis states, questions about school violence should not be vague but specific: "One should first of all limit the question to the last year or even the previous year". (Kourakis, N. (2018)

As in Tsatsakis' research (2019), the questionnaire presented to teachers clearly indicated that the questions were for the current school year. As an example, the question on forms of school violence and their frequency, the question was worded as follows: "In the school you serve this year, which of the following forms of school violence -among your students- have you observed and how often?". The questions were adapted to the characteristics of teachers in primary and secondary schools. The questions of the questionnaire are divided into two major sections. The first section includes questions on the individual data/characteristics of secondary school teachers such as: gender, years of service, teaching grade, education and the population of the school district where the teacher teaches. The second section includes specific questions regarding secondary school teachers' views on school violence.

Method of statistical data analysis

Raw data were transformed into ordinal Likert-type variables. The statistical processing of the data was performed out with SPSS.23 system program, applying descriptive statistics (Crosstabs for a graphical representation of the distribution) and Pearson's Chi square analysis.

Analysis of the results

The study sample consisted of 110 primary and secondary teachers from different schools in Greece. Table 1 presents the demographic characteristics of the teachers

Table 1

Demographic characteristics of teachers (n=110).

Characteristic		*n* (%)
Gender	Male	19 (17.3)
	Female	91 (82.7)
Academic degree	Bachelor's degree	31 (28.2)
	Master's degree	65 (59.1)
	PhD	14 (12.7)
Level of teaching	Primary education	42 (38.2)
	Secondary education	68 (61.8)
Capacity of the educational institution	Up to 300 pupils	55 (50)
	301 to 500 pupils	26 (23.6)
	Over 500 pupils	29 (26.4)
Professional experience (years)	1-5	37 (33.6)
	6-10	23 (20.9)
	11-15	20 (18.2)
	16-20	19 (17.3)
	21-25	3 (2.7)
	Over 26	8 (7.3)
Type of area	Rural	21 (19.1)
	Semi-Urban	24 (21.8)
	Urban	65 (59.1)

*Note. (Example of table footnote formatting). Decimal numbers should appear with a full stop (.) in English texts. In English texts, also omit the zero before the dot (e.g. p= .03)

19 sample teachers were male (17.27%), and 91 were female (82.73%). In terms of years of service, 37 teachers of the sample (33.63%) have up to 5 years of service, 23 teachers (20.91%) have 6 to 10 years of service, 20 (18.18%) have 11 to 15 years of service, 19 (17.28%) have 16 to 20 years of service, 1 (0.91%) have 21 to 25 years of service, and 8 (7.27%) have 26 or more years of service. One person (0.91%)did not specify years of service. Regarding education, 28.19% of the teachers in the sample stated that they have a bachelor's degree, 50.09% have a

master's degree, and 12.73% have a doctorate[1]. In terms of the level of education of the teachers sample, 42 teachers (38.18%) teach in primary education and 68 (61.82%) in secondary education. The majority of teachers (61.82%) teach in the secondary education. Regarding the number of students at the schools that the sample teachers teach, according to their responses presented, 55 teachers (50%) teach in schools with up to 300 students, 26 (23.64%) teach in schools with 301 to 500 students, 29 (26.36%) teachers teach in larger schools with over students. The half of teachers (50%) teach in smaller schools. The majority of the teachers in the sample (59.09%) teach in schools located in urban areas. 21.82% of teachers teach in a semi-urban area and 17.27% of teachers teach in a rural area. Regarding the number of inhabitants of the area in which the school where the sample teacher's school is located, 28.18% answered that they teach in schools located in places with a population of up to 10,000 inhabitants, 13.64 % teach in schools located in cities with a population between 10.001 to 25.000 inhabitants, 10.91% teach in schools located in cities with a population between 25.001 to 50.000 inhabitants. 15.5% teach in schools located in cities with a population between 50.001 to 100.000 inhabitants. 10% teach in schools located in cities with a population between 100.001 to 200.000 inhabitants. 7.27% of the teachers teach in schools located in cities with a population between 200.001 and 500.000. Finally, 13.64 of the sample teachers, teach in schools located in very large cities with a population of more than 500.001 inhabitants.

Thirteen forms of violence were examined, to which teachers (by different level of teaching) responded on a four-point Likert scale. The question seeks the subjective evaluation of the educators on the difference in levels of violence. Responses to each form of violence were analyzed with Pearson Chi-square analysis (Tables 2-14). This is a retrospective assessment of teachers, as the question requires them to compare with past unspecified periods the frequency of forms of bullying at the moment.

Statistically significant differences were found (more often in secondary education) in the levels of Verbal violence towards classmates Verbal violence towards teachers, Physical violence towards teachers (fairly often), Negative gestures (eg giving the finger) towards teachers, Cyber-bullying (threatening messages, etc.) and Sexual harassment, according teachers observations.

There were no statistically significant differences in teachers' observations regarding Physical violence towards classmates, Bustle/noise in the classroom, Negative gestures (eg giving the finger) towards classmates, Mocking / Spreading malicious rumours, Isolation/exclusion from peer groups, Racist comments and Intimidation by extortion (deliberate extortion of money or objects, or coercion into specific acts) according the levels ot teaching in the forms of violence.

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[1] Most demographic descriptions are also presented by gender in order to be more informative.

Table 2

Results of Pearson's chi-square analysis of significant differences in Verbal violence towards classmates according to teachers observation (different level of teaching).

Verbal violence towards classmates

X^2=8,707/df=3/**p=0.033**			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	3	4	21	14	42
		%	7,1%	9,5%	50,0%	33,3%	100,0%
	Secondary education	Count	1	5	21	41	68
		%	1,5%	7,4%	30,9%	60,3%	100,0%

Table 3.

Results of Pearson's chi-square analysis of significant differences in Verbal violence towards teachers according to teachers observation (different level of teaching).

Verbal violence towards teachers

X^2=16,617/df=4/**p=0.002**			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	13	19	6	4	42
		%	31,0%	45,2%	14,3%	9,5%	100,0%
	Secondary education	Count	8	20	26	14	68
		%	11,8%	29,4%	38,2%	20,6%	100,0%

Table 4.

Results of Pearson's chi-square analysis of significant differences in Physical violence towards classmates according to teachers observation (different level of teaching).

Physical violence towards classmates

X^2=16,617/df=4/p=0.098			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	4	8	23	7	42
		%	9,5%	19,0%	54,8%	16,7%	100,0%
	Secondary education	Count	4	21	23	20	68
		%	5,9%	30,9%	33,8%	29,4%	100,0%

Table 5.

Results of Pearson's chi-square analysis of significant differences in Physical violence towards teachers according to teachers observation (different level of teaching).

Physical violence towards teachers

$X^2=9,085/df=2$/**p=0.011**			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	35	7	0	0	42
		%	83,3%	16,7%	0,0%	0,0%	100,0%
	Secondary education	Count	38	28	2	0	68
		%	55,9%	41,2%	2,9%	0,0%	100,0%

Table 6.

Results of Pearson's chi-square analysis of significant differences in Bustle/noise in the classroom according to teachers observation (different level of teaching).

Bustle/noise in the classroom

$X^2=2,591/df=3$/p=0.459			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	1	3	10	28	42
		%	2,4%	7,1%	23,8%	66,7%	100,0%
	Secondary education	Count	0	3	13	52	68
		%	0,0%	4,4%	19,1%	76,5%	100,0%

Table 7.

Results of Pearson's chi-square analysis of significant differences in Negative gestures (eg giving the finger) towards classmates according teachers observation (different level of teaching).

Negative gestures (eg giving the finger) towards classmates

$X^2=5,142/df=3$/p=0.162			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	2	5	20	15	42
		%	4,8%	11,9%	47,6%	35,7%	100,0%
	Secondary education	Count	2	7	20	39	68
		%	2,9%	10,3%	29,4%	57,4%	100,0%

Table 8.

Results of Pearson's chi-square analysis of significant differences in Negative gestures (eg giving the finger) towards teachers according teachers observation (different level of teaching).

X^2=8,026/df=3/**p=0.045**			Negative gestures (eg giving the finger) towards teachers				
			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	20	16	5	1	42
		%	47,6%	38,1%	11,9%	2,4%	100,0%
	Secondary education	Count	22	19	22	5	68
		%	32,4%	27,9%	32,4%	7,4%	100,0%

Table 9.

Results of Pearson's chi-square analysis of significant differences in Mocking / Spreading malicious rumors according to teachers observation (different level of teaching).

X^2=7,149/df=3/p=0.067			Mocking / Spreading malicious rumours				
			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	6	9	20	7	42
		%	14,3%	21,4%	47,6%	16,7%	100,0%
	Secondary education	Count	3	13	27	25	68
		%	4,4%	19,1%	39,7%	36,8%	100,0%

Table 10.

Results of Pearson's chi-square analysis of significant differences in Isolation/exclusion from peer groups according to teachers observation (different level of teaching).

X^2=3,371/df=3/p=0.287			Isolation/exclusion from peer groups				
			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	4	13	15	10	42
		%	9,5%	31,0%	35,7%	23,8%	100,0%
	Secondary education	Count	2	17	24	25	68
		%	2,9%	25,0%	35,3%	36,8%	100,0%

Table 11.

Results of Pearson's chi-square analysis of significant differences in Cyber-bullying (threatening messages, etc.) according to teachers observation (different level of teaching).

Cyber-bullying (threatening messages, etc.)

$X^2=10,650/df=4/\textbf{p=0.031}$			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	1	14	9	12	6
		%	2,4%	33,3%	21,4%	28,6%	14,3%
	Secondary education	Count	0	8	19	21	20
		%	0,0%	11,8%	27,9%	30,9%	29,4%

Table 12.

Results of Pearson's chi-square analysis of significant differences in Sexual harassment according to teachers observation (different level of teaching).

Sexual harassment

$X^2=23,597/df=4/\textbf{p<0.001}$			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	0	30	9	2	1
		%	0,0%	71,4%	21,4%	4,8%	2,4%
	Secondary education	Count	1	18	23	20	6
		%	1,5%	26,5%	33,8%	29,4%	8,8%

Table 13.

Results of Pearson's chi-square analysis of significant differences in Racist comments according to teachers observation (different level of teaching).

Racist comments

| $X^2=3,936/df=3/p=0.268$			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	5	12	12	13	42
		%	11,9%	28,6%	28,6%	31,0%	100,0%
	Secondary education	Count	5	11	21	31	68
		%	7,4%	16,2%	30,9%	45,6%	100,0%

Table 14.

Results of Pearson's chi-square analysis of significant differences in Intimidation by extortion (deliberate extortion of money or objects, or coercion into specific acts) according to teachers observation (different level of teaching).

			Intimidation by extortion (deliberate extortion of money or objects, or coercion into specific acts)				
X^2=7,378/df=3/p=0.061			Never	Rarely	Fairly Often	Very Often	Total
The school you are currently placed belongs to:	Primary education	Count	15	17	7	3	42
		%	35,7%	40,5%	16,7%	7,1%	100,0%
	Secondary education	Count	14	21	19	14	68
		%	20,6%	30,9%	27,9%	20,6%	100,0%

Answers to question: "Based on your experience, was there any difference in the phenomenon of school bullying before school closures and after Covid-19 (when the schools re-opened after the quarantne)"?

The results show that almost half of the teachers (46.30%) think that the phenomena of school bullying have been increased compared to the pre-Covid19 era and remain increased to this day. According to another large part of them (33.33%) there was no change in the frequency of school bullying phenomena before and after Covid-19. One person, or less than 1% of the sample, is of the opinion that the phenomena of school bullying have decreased and remain decreased, compared to the pre-Covid-19 era (Figure 1).


Based on your experience, was there any difference in the phenomenon of school bullying before school closures and after Covid-19 (when the schools re-opened after the quarantne)?
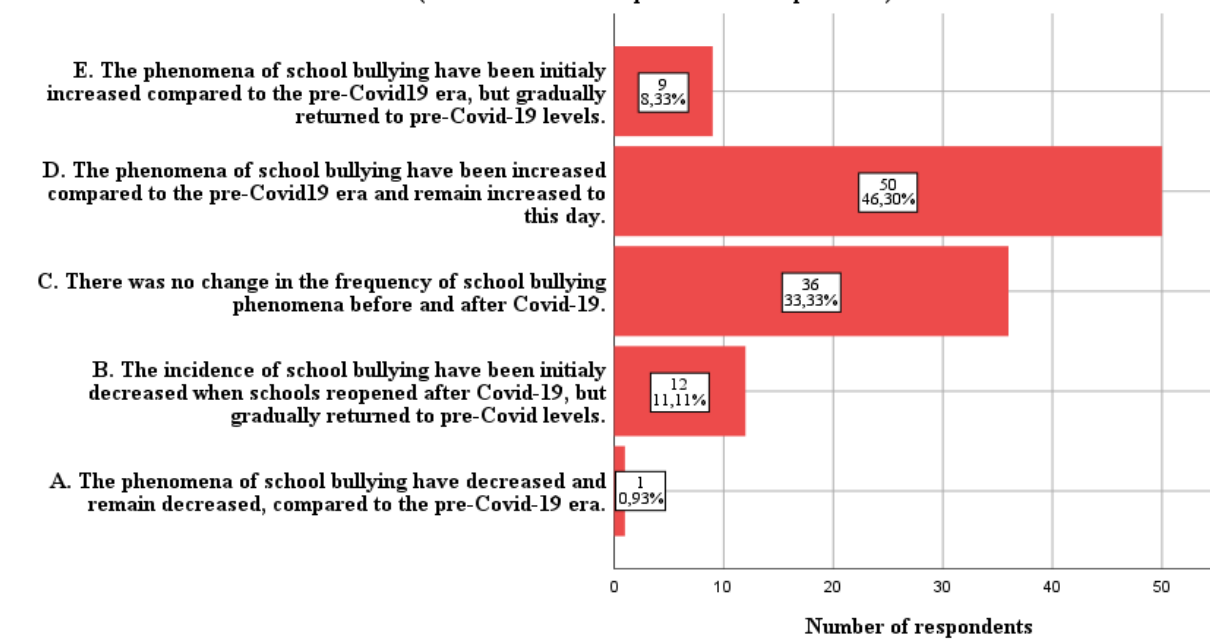
Figure 1. *Results of answering the question „Based on your experience, was there any difference in the phenomenon of school bullying before school closures and after Covid-19 (when the schools re-opened after the quarantne)?*

We made several more demographic cuts of the teachers' subjective global evaluation regarding the effectiveness of the approach to dealing with bullying of the educational institution in which they work. Here we can observe trends in which teachers with shorter professional experience (from 1 to 5 years) give higher ratings of effectiveness in dealing with bullying (Very effective and Fair effective) (Figure 2).
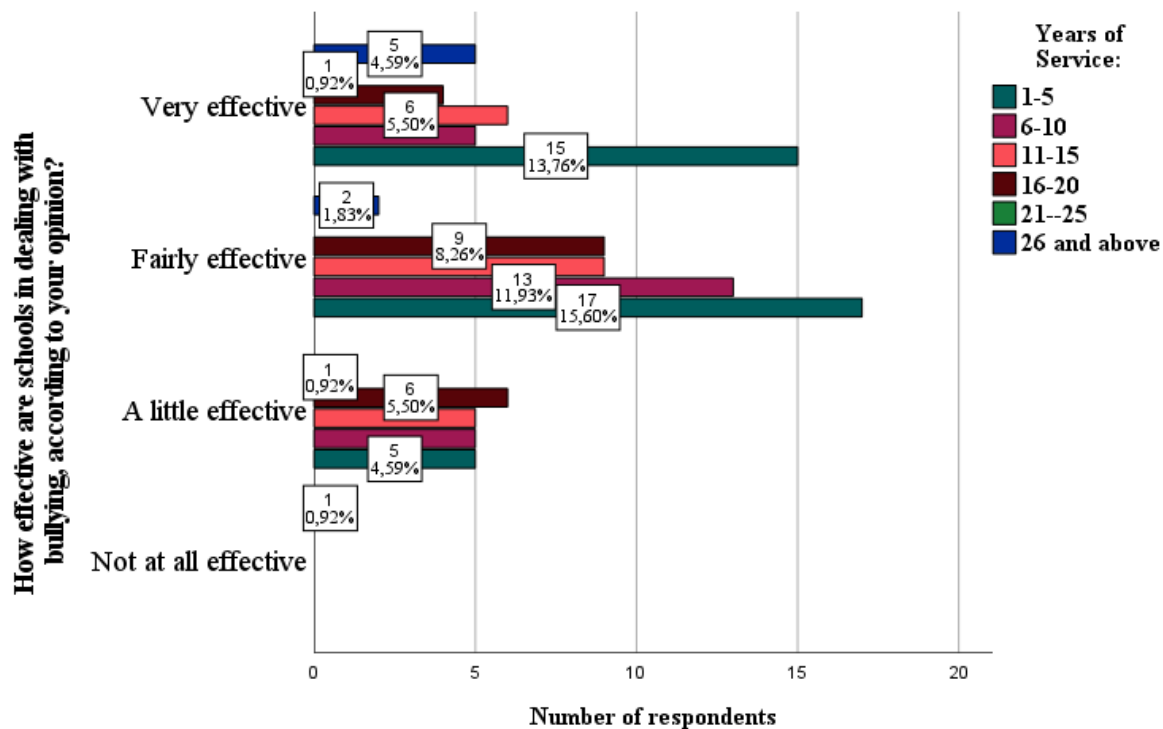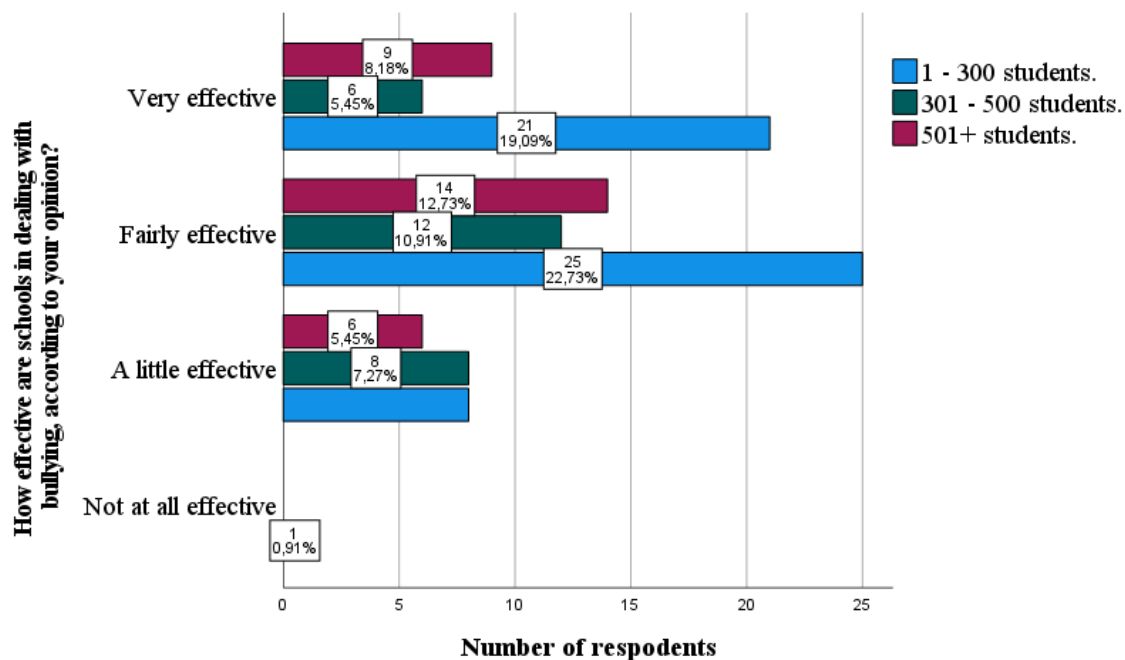

Figure 2. *Presenting teachers' views on the effectiveness of schools in dealing with bullying according to their years if service*

Also, those who give high ratings are likelier to work as secondary education teachers in smaller schools in urban areas (1-300 students) (Figure 3,4,5).
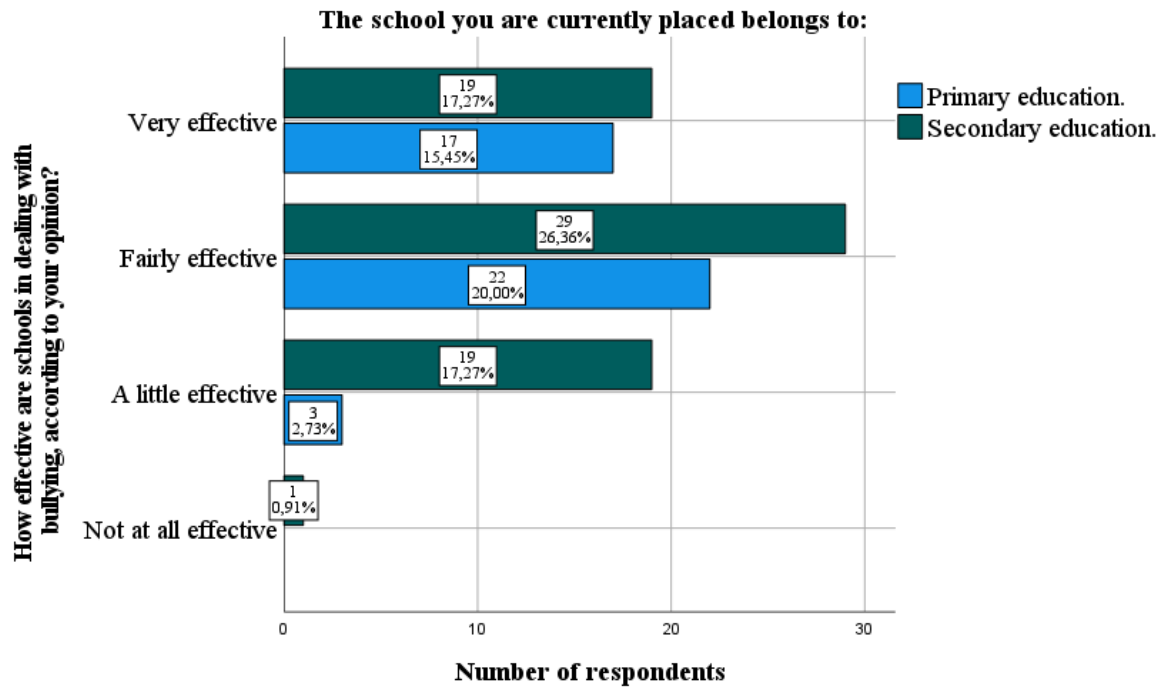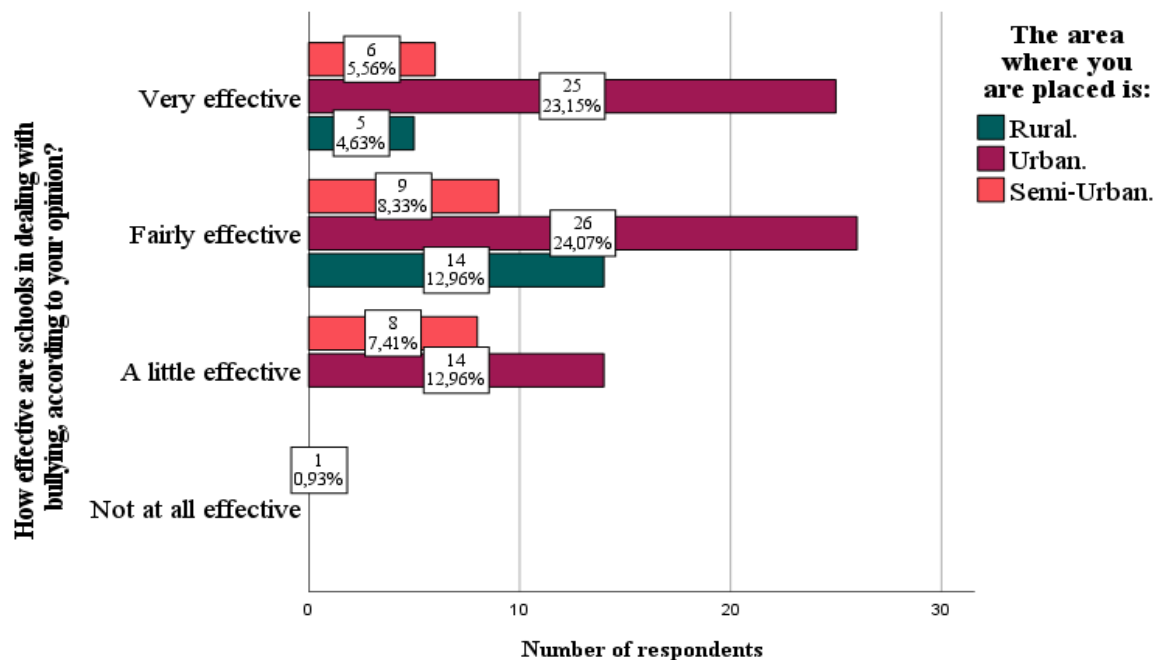
Figure 3. *Presenting teachers' views on the effectiveness of schools in dealing with bullying according to their level of teaching*

Figure 4. *Presenting teachers' views on the effectiveness of schools in dealing with bullying according to the number of students in their school.*

Figure 5. *Presenting teachers' views on the effectiveness of schools in dealing with bullying according to different areas.*

Finally, teachers were asked to rate various strategies for addressing school bullying (Table 15). Some of them have a more restrictive character, while others can be described as more constructive and positive. The results indicate that nearly half of the teachers surveyed rated certain restrictions, such as hourly expulsion from class, verbal reprimands, indifference toward the student, and isolation of the student from the teacher and classmates, as not very effective or somewhat effective. And again, nearly half of teachers rated more constructive strategies such as projecting the student's positive characteristics onto himself, Informing parents about the student's behavior, and especially expert support of the student (psychologist, etc.) as the most effective.

Table 15.

The total percentages of teachers' opinions regarding different strategies for dealing with school bullying are presented in a pie charts.

Strategies for Coping with School Bullying	Not effective	Little effective	Fairly effective	Very effective
Hourly expulsion from the class.	**45 / 40, 91%**	**47 / 42, 73%**	15 / 13, 64%	3 / 2, 73%
One, or more days of expulsion from the school.	24 / 21, 82%	43 / 39, 09%	22 / 20%	21 / 19, 09%

Verbal reprimand.	**53 / 48, 18%**	**39 / 35, 45%**	15 / 13, 64%	3 / 2, 73%
Referral to the school principal.	7 / 6, 42%	38 / 34, 86%	43 / 39, 45%	21 / 19, 27%
Threat of sanctions towards the student.	15 / 13,76%	39 / 35, 78%	42 / 38, 53%	13 / 11, 93%
Indifference towards the student.	**67 / 62, 04%**	**32 / 29, 63%**	8 / 7, 41%	1 / 0, 93%
Isolation of the student (from teacher and classmates)	**50 / 45, 45%**	**41 / 37, 27%**	16 / 14, 55%	3 / 2, 73%
Discussion/approach on an individual level.	3 / 2, 73%	42 / 38, 18%	33 / 30%	32/ 29, 09%
Discussion/approach in the classroom level.	4 / 3, 64%	33 / 30%	36 / 32, 73%	37 / 33, 64%
Projection of his/her positive characteristics towards the student.	1 / 0, 91%	20 / 18, 18%	**43 / 39, 09%**	**46 / 41, 82%**
Informing the parents of the student's behavior.	16 / 14, 55%	24 / 21, 82%	**43 / 39, 09%**	27 / 24, 55%
School mediation.	10 / 9, 17%	28 / 25, 69%	41 / 37, 61%	30 / 27, 52%
Grade reduction.	27 / 25%	35 / 32, 41%	36 / 33, 33%	10 / 9, 26%
Expert's help to the student (psychologist, etc.)	1 / 0, 92%	7 / 6, 42%	**42 / 38, 53%**	**59 / 54, 13%**

Limitations of the research

The sample was selected based on ease of access. Therefore, the results and conclusions of the survey cannot be representative. Also, this research did not examine how teachers perceive and define school violence and offending. The research is subject to all the limitations that any research that uses a questionnaire as a means of data collection is subject to, such as: the impossibility of suggesting and formulating clarifying questions, the failure to collect additional data, the impossibility of checking the subject's response and the honesty of the questions, etc.

Strengths of the research:

The advantages of our study are two. Firstly, it focuses on psychosocial aspects, and the survey method we used is well-established and appropriate for this purpose. Recently, online surveys are increasingly seen as representative, and during the pandemic, they have been

objectively necessary. Secondly, the survey provides an original instrument, specifically based
on literature from the last retrospective stage of the pandemic.

Discussion

The multiple closures of educational institutions around the world during the last
pandemic contributed to changes in the phenomena of school bullying. The limited amount of
literature on these subjects amid an unpredictably ongoing pandemic motivated us to
investigate this within a Greek population. Based on our structured survey, we examined the
subjective assessment of these phenomena among Greek primary and secondary school
teachers, in line with current literature.

We found statistically significant differences, associated with relative increases (more
often in secondary education) in the levels of Verbal violence towards classmates, Verbal
violence towards teachers, Physical violence towards teachers, Negative gestures (eg giving the
finger) towards teachers, Cyber-bullying (threatening messages, etc.) and Sexual harassment,
according to teachers observations. 46.30% of the teachers think that the phenomena of school
bullying have increased compared to the pre-COVID-19 era and remains increased to this day.
According to 33.33% of them, there was no change in the frequency of school bullying
phenomena before and after Covid-19. Less than 1% of the sample, thinks that the phenomena
of school bullying have decreased and remain decreased, compared to the pre-Covid-19 era.
The surveyed teachers who highly rated the effectiveness of the anti-bullying approaches
implemented in their institution are typically less experienced, mainly teach in secondary
education, and work in small urban schools. Nearly half of the surveyed teachers rated certain
restrictions, such as being expelled from class for an hour, receiving verbal reprimands, being
ignored by the teacher, and being isolated from the teacher and classmates as not very effective
or somewhat effective. Additionally, nearly half of the teachers rated more constructive
strategies such as highlighting the student's positive characteristics, informing parents about the
student's behavior, and seeking expert support for the student (such as from a psychologist) as
the most effective.

Our results are consistent with reported specific increases in some forms of bullying in
school settings during the pandemic (Vaillancourt, T., et al., 2021; Choi et. al., 2022; Repo et.
al 2022; Patchin, Hinduja, 2022). Our findings expand and detail knowledge about
manifestations of school bullying such as Verbal violence towards classmates, Verbal violence
towards teachers, Physical violence towards teachers, Negative gestures (eg giving the finger)
towards teachers, Cyber-bullying (threatening messages, etc.) and Sexual harassment whom are
indirectly affected by the quarantine pauses. In addition, these findings indicate a significant
social trend: teachers' assessment of the effectiveness of anti-bullying strategies implemented in
their schools. In particular, the high assessment of strategies such as projecting the student's
positive characteristics onto himself, informing parents about the student's behavior, and expert
support of the students. These findings can shape educational and social policies concerning

collaborative approaches to addressing bullying in school, regardless of historical circumstances.

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