

Aggression During Playful and Athletic Activity in the Greek Primary School

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ABSTRACT

The purpose of this pan- Hellenic research was to study the aggressive behavior of students during sports activities and play in the school yard. Specifically, through the answers of 562 (100%) teachers (396 teachers 70% and 166 physical education 30%) the following were investigated: a) the existence and forms, the individual characteristics of children who receive or show aggression, the training of teachers and coping practices that help minimize forms of aggression, and b) differences in teachers' responses to gender, years of service, and specialization. A relevant questionnaire with a five-point scale was prepared and distributed electronically to all primary schools in Greece. Before descriptive and inductive statistics, the a-Cronbach test had showed a value of 0.898 and the control of bifurcation (Guttman) had showed a value of 0,789 which indicates that the questionnaire has good reliability. They were carried out the t-test control for independent samples, ANOVA and χ^2 control for the differences in the teachers' answers regarding teachers' gender, specialty, and years of service. The results showed that all teachers agree that there are forms of aggression during play and sports activity in the elementary school yard and these are distinguished into physical (pushing, kicking, pulling), verbal (swearing, mocking performance), emotional (social exclusion) and some are repetitive and deliberate. We have a significant difference between the teachers in terms of the methods they suggest and the actions they take to deal with the phenomenon. The teachers have done relevant training but this is not enough. They need even more to deal with the phenomenon on their part more effectively.

Keywords: aggression, play, sports activity, elementary school yard

INTRODUCTION

In Greece the total involvement in school aggression (either as perpetrators or as victims) is 41.3% and ranks third among 40 countries [1]. Recent research [2, 3, 4, 5] data shows that school aggression exists in the primary school environment and in fact to a significant degree. In a large study in Germany [6], with a sample of 2,766 elementary school students aged 9 to 11, it looked at six locations where aggressive behaviors may be committed. The research showed that the place where the victims were most aggressive was the school yard with 76.9%, followed by the school hall with 40.5% [6]. The same conclusions were reached by research [7], in which they found that the schoolyard is the main place where aggressive and intimidating behaviors occur, especially during breaks. A systematic review [8] of 16 studies examining aspects and variables related to school violence in children aged 7 to 14 years, showed that during the Physical Education course, where sports and games are mainly played at school age, the phenomenon of school aggression was very widespread. The same researcher [8] points out that although some studies have shown that the Physical Education course has the potential to promote behaviors contrary to school violence and bullying, there is still insufficient scientific evidence to have a positive impact on reducing or preventing this phenomenon. As [9] points out, the size of the Physical Education teaching environment, where mainly sports activities and play are carried out at school age, in combination with noise and visual obstacles, creates an environment where school attitudes of aggression may be more difficult to observe. Therefore, it is considered important to be able to distinguish the normal aggression and intense physical play of preschool and school children from the dangerous aggressive and bullying behavior, as this will determine whether or not to intervene, and how, because research [10, 11] has shown that aggression that begins at a young age continues throughout development, and that the critical window of intervention should be in the early years [12].

Research highlights the impact that school aggression can have on the mental and physical health of young people and underscores the long-term effects of adulthood on these individuals [13, 14]. Empirical evidence also suggests that when school aggression occurs during sports and play in the Physical Education class, students usually avoid specific activities and choose not to be physically active [15, 16, 17]. With all of the above mentioned, one can conclude that by trying to avoid engaging students with their classmates during sports and play activities, they will receive lower levels of physical activity and may be less likely to be active even in times when they are alone [15].

According to [18], the establishments of a climate of equal support for children, regardless of learning efficiency and behavioral characteristics as well as the avoidance of stigmatization of students are primary goals of any effective intervention in the classroom. Based on the above reports, the present research which was conducted on the views of primary school teachers on aggression, which occurs during play at break and in sports play, is considered necessary and substantial.

The purpose of this pan -Hellenic research was to study the aggressive behavior of students during sports activities and play in the schoolyard according to the views of primary school teachers. Specifically, the following were investigated: a) the existence, the causes and the forms, the individual characteristics of the children who receive aggression, teacher training and coping practices that help minimize forms of aggression, and (b) differences in teachers' responses to gender, years of service and specialization.

RESEARCH METHODOLOGY

Sampling and sampling

The research sample consists of 562 (100%) Primary education teachers, and specifically, 396 Teachers (70%) and 166 Physical Education teachers (30%). Also, the teachers who participated in the present survey came from all the Regional Units of Greece, and specifically, 380 (68%) from the hinterland and 182 (32%) from the island part of Greece. The majority (322, 57.3%) of the teachers attended relevant seminars and were trained in issues of students' aggressive behavior, while 240 teachers (42.7%) did not attend. All the authorities of the primary education were informed about the present research and after the relevant permits were given, the teachers answered the questionnaire freely and voluntarily. The sampling was done randomly.

Table 1: Characteristics of the Pan-Hellenic sample of primary education teachers in terms of gender, specialty, and years of service (N = 562, 100%)

GENDER	Years of service	Teachers		Physical Education Teachers		TOTAL	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
MALE	0 – 10	42	7,5	29	5	71	12,5
	11–20	34	5,8	49	9	83	14,8
	21–30	51	8,7	46	8	97	16,7
	+30	32	5,5	22	4	54	9,5
	Total	159	27,5	146	26	305	53,5
FEMALE	0–10	29	5	18	3,2	47	8,2
	11–20	40	6,8	45	7,7	85	15,5
	21–30	45	7,7	49	9	94	17,7
	+30	23	4	8	1,1	31	5,1
	Total	137	23,5	120	23	257	46,5
TOTAL		296	52,5	266	47,5	562	100

Procedure

A questionnaire of thirty-two questions was constructed and the measurement of views and attitudes was done by the method of cumulative measurements on a five-point bipolar scales (strongly disagrees / strongly agree). The questionnaire consists of five sections. The first section (questions 1 to 7) refers to the personal characteristics of the respondent and relates to: gender, years of service and the specialty of the teacher. The second section (questions 8 to 16) explores teachers' views on the existence of aggression, such as: a) if children are aggressive, b) if aggression is more common in the schoolyard, c) if it is repetitive and intentional, d) if it is characterized by a power inequality between perpetrator and victim, e) if it causes unpleasant feelings in the recipient and f) what forms it takes (physical, verbal, social exclusion). The third section (questions 17 to 27) examines teachers' views on gender as well as the individual characteristics of children who display or accept aggressive behavior, such as: a) whether boys or girls display aggressive behavior and whether these actions target individuals of the same or opposite sex, b) if children with reduced motor skills are aggressive, c) if obese children are aggressive, d) if children with attention deficit hyperactivity disorder are aggressive, and e) if children with an immigrant background accept or exhibit aggressive behavior. The fourth section (questions 28 to 38) explores teachers' attitudes and views on practices that may help eliminate the phenomenon, such as: a) choosing non-competitive games but also adhering to specific rules, b) conducting activities in closed space, c) the cooperation of teachers and parents, d) the adoption of authoritarian attitudes but also the supervision of

the teacher, e) the good interpersonal relations between children and teachers, f) the properly designed spaces, g) the choice of the teacher to give time for children to resolve their differences on their own and h) encouraging children to speak when they engage in aggressive behavior. The fifth section (questions 39 to 45) examines teachers' views on their educational readiness to prevent and manage aggressive behaviors, such as: a) if they know any of the prevention practices, b) if they know how to manage perpetrators, c) if they know how to support victims, d) whether they can intervene and resolve incidents, e) whether they can assess the importance of an incident and f) whether they are anxious to deal with an incident. A pilot survey was conducted prior to the final distribution of the questionnaires to the entire sample. Specifically, questionnaires were distributed to twenty-one teachers, in order to check its suitability.

Statistical analysis

The statistical analysis was performed with the help of the SPSS 23 software at four levels. At the first level the regularity check of the value of the variables showed that there was no smooth distribution (for all questions the results of the non-parametric criterion One Sample Kolmogorov Smirnov test showed $p \leq .001$). In the second level, a reliability test was performed with the alpha factor (Cronbach's Alpha) for the 34 questions that showed a value of .815 and that the scale has good reliability. The bifurcation reliability (according to Guttman) of the 34 items showed a value of 0.789, which indicates that the scale has good reliability. In the third level they were performed: a) descriptive statistical analysis with the central tendency indicators, b) frequency tables were constructed (see tables 2, 3, 4 & 5), c) the parametric t-test control procedures for independent samples and ANOVA for the determination correlation of the questionnaire scales with the variables of teachers' gender, specialty and years of service and finally c) inductive non-parametric statistical analysis χ^2 (Pearson chi-square) for the correlation of the variables of each question separately with gender, specialty and years of service teachers.

RESEARCH RESULTS

Results of descriptive statistics

Table 2 shows the results of all Grade B questions that examine the views of Primary school teachers regarding the existence of aggression and the forms it takes, and we find that the average of the answers ranges from 2.69 for question 10 to 4.10 for question 12. The most common answer is 4 which correspond to the answer "I agree". Only in question 10 the most common answer is "Disagree", while in questions 11 and 13 the most common answers are "Neither agree nor disagree".

Table 2: frequencies and percentages and the indicators of central tendency of the values from the teachers' answers (N = 562, 100%) of the second scale of the questionnaire (questions 8 -16).

B SCALE Questions 8 - 16	I totally disagree		I disagree		So and so		I agree		I totally agree		TOTAL		Mean	St. Dev.	Mode	Sum
	f	%	f	%	f	%	f	%	f	%	f	%				
8	14	2,5	56	10	146	26	306	54,4	40	7,1	562	100	3,54	0,86	4	1988
9	16	2,8	98	17,4	128	22,8	284	50,5	36	6,4	562	100	3,40	0,94	4	1912
10	32	5,7	226	40,2	196	34,9	100	17,8	8	1,4	562	100	2,69	0,87	2	1512
11	14	2,5	168	29,9	208	37	162	28,8	10	1,8	562	100	2,98	0,87	3	1672
12	4	0,7	18	3,2	60	10,7	318	56,6	162	28,8	562	100	4,10	0,76	4	2302
13	4	0,7	88	15,7	250	44,5	214	38,1	6	1,1	562	100	3,23	0,74	3	1816
14	8	1,4	18	3,2	86	15,3	380	67,6	70	12,5	562	100	3,86	0,71	4	2172
15	10	1,8	40	7,1	84	14,9	370	65,8	58	10,3	562	100	3,76	0,80	4	2112
16	20	3,6	126	22,4	188	33,5	200	35,6	28	5	562	100	3,16	0,94	4	1776

8: Children display aggressive behavior during sports activities and play in the school yard.

9: Children's aggressive actions during sports activities and play in the school yard are more common than in the classroom.

10: The aggressive actions of children during sports activities and play in the school yard are repetitive and deliberate.

11: During sports activities and play in the school yard the relationship between the person involved and the recipient is characterized by a power inequality such as body type.

12: Children's aggressive actions during sports activities and play in the school yard cause unpleasant feelings to the recipient.

13: Children who display aggressive behavior during sports activities and play in the schoolyard they comply and regret their action afterwards.

14: Aggressive actions of children during sports activities and play in the school yard contain physical violence e.g. (pushes, pulls, tripods, kicks).

15: Aggressive actions of children during sports activities and play in the school yard contain verbal violence e.g. (mockery of performance, teasing).

16: The aggressive actions of children during sports activities and play in the school yard take the form of social exclusion e.g. (exclusion from team play / activities).

Table 3 shows the results of all Grade Γ questions that examine the views of Primary school teachers about the gender and individual characteristics of children who accept and exhibit aggressive behavior, where we note that the average of the answers ranges from 2, 65 for question 22 to 3.67 for question 18. We also note that the most common answer is 3 but also 4 which corresponds to the answer "I agree". Only in question 26 the most common answer is "I disagree".

Table 3: frequencies and percentages and the indicators of the central tendency of the values from the teachers' answers (N = 562, 100%) of the third sub-scale of the questionnaire (questions 17 - 27).

Γ SCALE Questions 8 - 16	I totally disagree		I disagree		So and so		I agree		I totally agree		TOTAL		Mean	St. Dev.	Mode	Sum
	f	%	f	%	f	%	f	%	f	%	f	%				
17	4	0,7	26	4,6	202	36	302	53,7	28	5	562	100	3,57	0,69	4	2010
18	4	0,7	36	6,4	146	26	332	59,1	44	7,8	562	100	3,67	0,74	4	2062
19	32	5,6	138	24,6	244	43,4	132	23,5	16	2,8	562	100	2,93	0,90	3	1648
20	20	3,6	138	24,6	232	41,3	152	27	20	3,6	562	100	3,02	0,89	3	1700
21	26	4,6	98	17,4	196	34,9	220	39,1	22	3,9	562	100	3,20	0,93	4	1800
22	44	7,8	206	36,7	226	40,2	78	13,9	8	1,4	562	100	2,64	0,86	3	1486
23	20	3,6	96	17,1	156	27,8	244	43,4	46	8,1	562	100	3,36	0,97	4	1886
24	18	3,2	76	13,5	130	23,1	280	49,8	58	10,3	562	100	3,51	0,95	4	1970
25	24	4,3	122	23,5	198	35,3	180	32	28	5	562	100	3,15	0,97	3	1742
26	34	6	184	32,7	180	32	142	25,3	22	3,9	562	100	2,93	0,96	2	1620
27	30	5,3	148	26,3	206	36,7	158	28,1	20	3,6	562	100	2,98	0,94	3	1676

17: Boys show aggressive behavior during sports activities and play in the school yard.

18: Boys show aggressive behavior against other boys during sports activities and play in the school yard.

19: Boys show aggressive behavior against girls during sports activities and play in the school yard.

20: Girls display aggressive behavior during sports activities and play in the school yard.

21: Girls show aggressive behavior to girls during sports activities and play in the school yard.

22: Girls show aggressive behavior during to boys' sports activities and play in the school yard.

23: Children with reduced levels of motor skills during sports activities and play in the schoolyard are more aggressive than other children, e.g. (exclusion from team play, mockery, teasing).

24: During sports activities and play in the school yard obese children are the subject of teasing and negative comments more than other children.

25: Children with attention deficit hyperactivity disorder during sports activities and play in the schoolyard are more aggressive than other children, e.g. (exclusion from team play, mockery, teasing).

26: Children with different cultural backgrounds are more aggressive than other children during sports activities and play in the schoolyard.

27: During sports activities and play in the school yard, children with different cultural backgrounds show more aggressive behavior than other children.

Table 4 presents the results of all the questions of scale Δ, which examines the views of Primary education teachers on the treatment options they choose to eliminate the phenomenon of aggression. We find that the average of the answers ranges from 2.83 for question 30 to 4.36 for question 38. The most common answer is the four corresponding to the answer "I agree". Only in question 30 the most common answer is "Neither agree nor disagree".

Table 4: frequencies and percentages and the indicators of central tendency of the values from the teachers' answers (N = 562, 100%) of the fourth scale of the questionnaire (questions 28 - 38).

Δ SCALE Questions	I totally disagree		I disagree		So and so		I agree		I totally agree		TOTAL		Mean	St. Dev.	Mode	Sum
8 - 16	f	%	f	%	f	%	f	%	f	%	f	%				
28	8	1,4	18	3,2	96	17,1	322	57,3	118	21	562	100	3,93	0,79	4	2210
29	4	0,7	8	1,4	42	7,5	312	55,5	196	34,9	562	100	4,22	0,70	4	2374
30	50	8,9	176	31,3	184	32,7	122	21,7	30	5,3	562	100	2,83	1,03	3	1592
31	2	0,4	4	0,7	62	11	372	66,2	122	21,7	562	100	4,08	0,61	4	2294
32	8	1,4	34	6	70	12,5	276	49,1	174	31	562	100	4,02	0,89	4	2260
33	16	2,8	92	16,4	152	27	214	38,4	88	15,7	562	100	3,47	1,03	4	1952
34	4	0,7	2	0,4	38	6,8	346	61,6	172	30,6	562	100	4,21	0,63	4	2366
35	2	0,4	4	0,7	60	10,7	346	61,6	150	26,7	562	100	4,14	0,64	4	2324
36	8	1,4	14	2,5	120	21,4	320	56,9	100	17,8	562	100	3,87	0,77	4	2176
37	12	2,1	68	12,1	140	24,9	294	52,3	48	8,5	562	100	3,53	0,88	4	1984
38	2	0,4	4	0,7	34	6	274	48,8	248	44,1	562	100	4,36	0,66	4	2448

28: Choosing games / activities that are not based on children's competition and athletic ability can reduce the incidence of aggressive behavior.

29: The adaption of specific rules of behavior such as responsibility, respect for others, fair play and adherence to them by children can reduce cases of aggression.

30: Conducting sports activities and playing indoors can reduce cases of aggression.

31: Activities / games that promote children's social and emotional skills act as a deterrent to aggressive behavior.

32: The cooperation of teachers and parents leads to the successful management of aggression incidents.

33: The adoption of authoritarian behaviors by teachers can increase the incidence of aggression.

34: Active supervision of the teacher helps prevent the occurrence of aggressive behaviors or the peaceful resolution of conflicts.

35: Good interpersonal relationships between teachers and children help avoid aggressive behaviors.

36: A school yard with floor toys (hopscotch, little snake) and well-designed playgrounds can reduce cases of aggression.

37: I give children time to settle their differences on their own.

38: I encourage children to inform teachers when they accept or observe aggressive behavior.

Table (5) presents the results of all Grade E questions that examine Primary education teachers' views on their readiness to prevent and manage aggressive behaviors. We find that the average of the answers ranges from 3.43 for question 44 to 4.27 for question 45. The most common answer is the fourth one that corresponds to the answer "I agree".

Table 5: frequencies and percentages and the indicators of the central tendency of the values from the teachers' answers (N = 562, 100%) of the fifth scale of the questionnaire (questions 39 - 45).

E SCALE Questions 8 - 16	I totally disagree		I disagree		So and so		I agree		I totally agree		TOTAL		Mean	St. Dev.	Mode	Sum
	F	%	f	%	f	%	f	%	f	%	f	%				
39	8	1,4	80	14,2	148	26,3	240	42,7	86	15,3	562	100	3,56	0,96	4	2002
40	2	0,4	36	6,4	152	27	296	52,7	76	13,5	562	100	3,73	0,78	4	2094
41	2	0,4	32	5,7	138	24,6	304	54,1	86	15,3	562	100	3,78	0,78	4	2126
42	2	0,4	44	7,8	122	23,5	316	56,2	68	12,1	562	100	3,75	0,80	4	2090
43	4	0,7	40	7,1	113	20,6	324	57,7	78	13,9	562	100	3,76	0,80	4	1118
44	12	2,1	110	19,6	112	19,9	284	50,6	44	7,8	562	100	3,43	0,96	4	1924
45	8	1,4	8	1,4	34	6	284	50,5	228	40,6	562	100	4,27	0,75	4	2402

39: I know practices for preventing the phenomenon of aggression.

40: I know how to manage students (perpetrators) who show aggressive behavior.

41: I know how to support children (victims) who engage in aggressive behavior.

42: I feel I can intervene and deal with incidents of aggression.

43: I feel I can assess the gravity of an incident of aggression.

44: I'm anxious about dealing with children's aggressive behavior.

45: I would like to participate in a seminar on the prevention and treatment of aggressive behaviors in schools.

Results of the control of the correlation of the scales (B, Γ , Δ & E) of the Questionnaire with the Gender of the teachers

The t-test for independent samples was selected to test the correlation between the scales of the questionnaire and the gender of the respondent (Table 6). We find that there is a statistically significant difference between the answers of men and those of women in Scales Γ ($p_{2\text{-tailed}}=0,014$), Δ ($p_{2\text{-tailed}}=0,008$), and E ($p_{2\text{-tailed}}=0,000$) of the questionnaire (Table 6). Only in Scale B ($p_{2\text{-tailed}}=0,787$) of the questionnaire there is no statistically significant difference.

Table 6: Results of t-test correlation test for independent samples, of the scales of the questionnaire B, Γ , Δ & E with the gender of the respondent.

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
B_SCALE		.688	.408	.271	279	.787	.136	.501	-.851	1.122
				.273	247.436	.785	.136	.497	-.843	1.114
Γ _SCALE		.124	.725	2.465	279	.014	1.970	.799	.396	3.543
				2.437	230.781	.016	1.970	.808	.377	3.563
Δ _SCALE		4.472	.035	-2.652	279	.008	-1.667	.629	-2.904	-.429
				-2.482	185.426	.014	-1.667	.672	-2.992	-.342
E_SCALE		2.670	.103	-4.101	279	.000	-1.805	.440	-2.672	-.939
				-3.924	202.994	.000	-1.805	.460	-2.712	-.898
ALL_SCALE		.125	.724	-.823	279	.411	-1.366	1.660	-4.634	1.902
				-.816	232.974	.415	-1.366	1.675	-4.666	1.934

Results of the control of the correlation of the scales (B, Γ , Δ & E) of the Questionnaire with teachers' years of service

The ANOVA analysis of variance was chosen to test the correlation between the questionnaire scales and the teachers' years of service (Table 7). In table 7 below we note that in two Scales of the questionnaire there is a correlation with the years of service of the surveyed teachers. In the case of Scale B and E the value of p is <0.05 (0.053, 0.031), in the other two cases of sub-

scales Γ and Δ the value of $p > 0.05$ (0.996, 0.128 respectively), so we note that there is statistically significant difference between the answers of the categories of teachers depending on their years of service with the subscales B, and E of the questionnaire. Only in sub-scales Γ and Δ of the questionnaire there is no statistically significant difference.

Table 7: Results of ANOVA analysis of variance, to check the correlation of the scales of the questionnaire B, Γ , Δ & E with the years of service teachers'.

		Sum of Squares	df	Mean Square	F	Sig.
B_SCALE	Between Groups	183,108	5	36,622	2,213	,053
	Within Groups	4550,116	275	16,546		
	Total	4733,224	280			
Γ_SCALE	Between Groups	16,058	5	3,212	,072	,996
	Within Groups	12286,582	275	44,678		
	Total	12302,641	280			
Δ_SCALE	Between Groups	232,657	5	46,531	1,729	,128
	Within Groups	7401,564	275	26,915		
	Total	7634,221	280			
E_SCALE	Between Groups	168,256	5	33,651	2,499	,031
	Within Groups	3703,296	275	13,467		
	Total	3871,552	280			
ALL_SCALE	Between Groups	1615,699	5	323,140	1,761	,121
	Within Groups	50460,479	275	183,493		
	Total	52076,178	280			

Checking the Correlation of the scales (B, Γ , Δ & E) of the Questionnaire with the Specialty of the teachers.

The ANOVA analysis of variance was chosen to test the correlation between the scales of the questionnaire and the Specialty of the respondents (Table 8). In table 8 below we note that only in one Scale of the questionnaire there is a correlation with the specialty of the interviewed teachers. In the case of Scale E the value of $p < 0.05$ (0.022), in all other cases the value of $p > 0.05$ (0.167, 0.125, 0.158 respectively), so we find that there is a statistically significant difference between the specialty of teachers according to their years of service with the E scales of the questionnaire. There is no statistically significant difference in scales B, Γ and Δ of the questionnaire.

Table 8: Results of ANOVA analysis of variance, for the control of the correlation of the scales (B, Γ , Δ & E) of the questionnaire with the specialty of the teachers.

		Sum of Squares	df	Mean Square	F	Sig.
B_SCALE	Between Groups	60,489	2	30,244	1,799	,167
	Within Groups	4672,735	278	16,808		
	Total	4733,224	280			
Γ _SCALE	Between Groups	182,646	2	91,323	2,095	,125
	Within Groups	12119,994	278	43,597		
	Total	12302,641	280			
Δ _SCALE	Between Groups	100,778	2	50,389	1,859	,158
	Within Groups	7533,443	278	27,099		
	Total	7634,221	280			
E_SCALE	Between Groups	105,317	2	52,658	3,887	,022
	Within Groups	3766,235	278	13,548		
	Total	3871,552	280			
ALL_SCALE	Between Groups	,376	2	,188	,001	,999
	Within Groups	52075,802	278	187,323		
	Total	52076,178	280			

Checking the Correlation of the teacher's Questions with Gender, years of service and specialty This section presents the results of the test of correlations with the criterion χ^2 test (Pearson chi-square), among the answers given to the questions of scales B, Γ , Δ and E of the questionnaire with gender, years of service and specialty of the teacher. Table (9) summarizes the results of the correlation test of scales B, Γ , Δ and E of the questionnaire with the criterion χ^2 test where it is checked whether the answers to each question are related or not related to the variable under consideration. Values where the p -value is less than the value 0.05 show a correlation of the question with the variable under consideration.

Table 9: Results of control of the correlations of the answers of grades B, Γ , Δ & E with gender, years of service and the specialty of teachers.

B SCALE Questions (8-16)	p value			Γ SCALE Questions (17 - 27)	p value			Δ SCALE Questions (28 - 38)	p value			Δ SCALE Questions (39 - 45)	p value		
	Gender	Years of service	Specialty		Gender	Years of service	Specialty		Gender	Years of service	Specialty		Gender	Years of service	Specialty
8	,259	,786	,036	17	,990	,194	,660	28	,066	,804	,626	39	,001	,318	,161
9	,876	,307	,001	18	,383	,533	,421	29	,258	,058	,002	40	,004	,094	,094
10	,540	,762	,142	19	,175	,855	,624	30	,041	,206	,749	41	,012	,133	,040
11	,221	,019	,081	20	,001	,211	,411	31	,441	,145	,097	42	,050	,122	,017
12	,265	,023	,320	21	,010	,954	,120	32	,002	,573	,009	43	,023	,361	,636
13	,275	,270	,634	22	,207	,453	,210	33	,001	,065	,010	44	,252	,554	,218
14	,796	,795	,530	23	,026	,232	,665	34	,305	,695	,612	45	,027	,043	,029
15	,054	,367	,375	24	,041	,206	,096	35	,144	,039	,179				
16	,055	,038	,611	25	,017	,888	,136	36	,420	,010	,001				
				26	,805	,557	,025	37	,001	,121	,001				
				27	,016	,522	,144	38	,114	,193	,153				

The correlation test with the χ^2 test criterion, between the answers given for questions 15 and 16 with the gender of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.054$ & $0.055 \leq 0.05$). The correlation test with the χ^2 test criterion, among the answers given for questions 8 and 9 with the specialty of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.036$ and $0.001 < 0.05$). The correlation test

with the criterion χ^2 test (Pearson chi-square), between the answers given to questions 11, 12 and 16 with the years of service of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.019, 0.023 \text{ \& } 0.038 < 0.05$).

The correlation test with the χ^2 test criterion, among the answers given to questions 20, 21, 23, 24, 25 and 27 with the gender of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.001, 0.010, 0.026, 0.041, 0.017 \text{ and } 0.016 \leq 0.05$). The correlation test with the criterion χ^2 test (Pearson chi-square), between the answers given for question 26 with the specialty of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.025 < 0.05$).

The test of correlation with the criterion χ^2 test, among the answers given for questions 30, 32, 33 and 37 with the gender of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.041, 0.002, 0.001 \text{ and } 0.001 \leq 0.05$). The correlation test with the criterion χ^2 test (Pearson chi-square), among the answers given to questions 35 and 36 with the years of service of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.039 \text{ and } 0.010 < 0.05$). The correlation test with the criterion χ^2 test (Pearson chi-square), between the answers given for questions 29, 32, 33, 36 and 37 with the specialty of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.002, 0.009, 0.010, 0.001 \text{ \& } 0.001 < 0.05$).

The test of correlation with the criterion χ^2 test, among the answers given to questions 39, 40, 41, 42, 43 and 45 with the gender of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.001, 0.004, 0.012, 0.50, 0.23 \text{ and } 0.027 \leq 0.05$). The correlation test with the χ^2 test criterion (Pearson chi-square), among the answers given to question 45 with the years of service of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.043 < 0.05$). The correlation test with the χ^2 test criterion (Pearson chi-square), among the answers given for questions 41, 42 and 45 with the specialty of the respondents, showed that there is a statistically significant correlation ($P_{2\text{-TAILED}} = 0.040, 0.017 \text{ \& } 0.029 < 0.05$).

CONCLUSIONS – DISCUSSION

The school teachers of Greece state that during the sports activities and the play in the yard of the primary school the children show aggressive behavior. Similar results are presented in their research [19, 7], in which they have recorded aggressive behaviors in school children during sports activities in the course of Physical Education and also [20, 21] who observed early forms of school aggression in preschool children during their play with peers. In this question it seems that the specialty of the surveyed physical education teachers and teachers agree that there is aggression.

Despite the existence of aggression stated by the teachers of the research that exists in the school environment, when asked if the aggressive actions of children are repetitive and deliberate but also if they are characterized by a power inequality between the involved and the recipient, it seems that the majority of teachers are either hesitant or they disagree. The same conclusions were reached by a study [22] in which although the teachers of the research stated that there is aggression in the school environment, the vast majority did not agree that these actions of children are intentional or repeated. This may be due in part to the young age

of the children, as research shows that the afore mentioned characteristics, which are "included" in the term school bullying, are observed to a greater extent in surveys where the sample is secondary school students [23, 24], but also that some teachers are not fully trained to recognize the particular characteristics of school bullying. It has been shown by research [25, 26, 27], that teachers feel that they are not ready or sufficiently trained to recognize and deal with school bullying by their students, as they believe that their basic education has not prepared them properly to manage these behaviors in the wider school context. Finally, it is important to note that teachers were more in agreement with the suggestion that children then comply and repent of their actions, this may be due to the fact that mainly in primary school children's aggressive actions are not premeditated and may have as main purpose the grabbing of a game, the claiming of the space but also in general the attempt to dominate in some activity / game. It is also interesting the fact that the teachers of the research state that the aggressive actions of the children during the sports activities and the play in the school yard are more frequent than in the classroom. The same conclusion was reached by an international study [28], which showed that about 85% of incidents of aggressive behavior occur outside the classroom and, in particular, in places intended for rough mobility games such as is the soccer field and the various outdoor games in the schoolyard. In the present question, it has been noted that teachers seemed to agree among them to a greater extent than the Physical Education teachers. This result may be due to the fact that teachers, who observe children in the yard during the break, perceive children's actions as confrontational with the aim of causing harm, while physical education teachers, who observe the children in the sports activities that take place in the lesson, interpret these actions of the children as a competitive game which aims at claiming the ball or other objects used in the activities of the lesson.

Regarding the forms that children's aggressive behavior takes, the teachers seem to conclude that physical violence prevails during sports activities and children's play in the school yard, with verbal violence following with a small difference. Previous empirical data on this topic lead to conflicting results, as a study by [19, 29], indicated that verbal violence prevails during sports activities and play in the Physical Education course. However, there are researchers who have recorded physical aggression as the most common in the school environment [20, 30, & 31]. The majority of teachers state that boys are more aggressive than girls during sports and play activities. Many Greek and foreign scientific researches have reached similar results in the wider preschool [32, 33] but also in school environment [1, 7]. At this point, we also find a correlation with the gender of the respondent, as female teachers do not largely agree with men that girls exhibit aggressive behavior. This result may need further investigation to find out why the two sexes of the teachers surveyed do not fully agree. It is also interesting to note that research teachers believe that aggressive behavior occurs among students of the same sex, something that has been found in other scientific research, both for the wider preschool [34] and school environment [35]. Both men and women in the study seem to agree with this result. Regarding the individual characteristics of children who accept or exhibit aggressive behavior, the Primary education teachers of the research seem to agree that during sports activities and play in the school yard children with reduced level of motor skills, overweight but also with Attention Deficit Hyperactivity Disorder receive aggressive behavior more than other children. The same conclusions have been reached by several studies such as [36, 37, 38, 39, 40], who found that overweight school-age children during physical activity sports activities experience more aggressive behaviors than their peers. Research by [36, 41] noted that children with motor skills deficits were more likely to engage in aggressive behaviors during sports activities

in the course of physical education. Finally, an international study [42] indicated that children with special educational needs such as children with autism, attention deficit disorder and hyperactivity, etc. found themselves largely in situations of bullying during the Physical Education class at the general school. Also, in surveys conducted in various primary schools both in Greece and abroad related to the wider school environment [43, 44, 45], also noted that children with ADHD have a higher rate of exposure to victimization than children without ADHD. It is important to mention that the above results correlated with the gender of the teachers surveyed, as we note that male teachers are more in agreement with their female colleagues. On the other hand, the research teachers did not seem to largely agree that children with different cultural backgrounds experience aggressive behavior during sports activities and play in the school yard. This finding is consistent with another research [46, 47]. However, we cannot ignore the fact that in their research [48, 49] it has been indicated that foreign children accept aggressive behaviors and even to a serious degree. In a second question, this time concerning whether foreign children show aggressive behavior, the percentage of teachers who agreed seemed to have risen. Similar results were indicated in their research [50], where the data highlighted foreign students as more prone to provoking school aggression. Finally, it is important to note that in this question a correlation was found with the gender of the respondent, with the men of the survey stating to a greater extent that they agree with this proposal.

Continuing with the third research question concerning the practices chosen by Primary school teachers to eliminate the phenomenon of aggression, it seems that the vast majority either agree or strongly agree with the suggestions that games /activities that are not based on competition and athletic ability can reduce the incidence of aggressive behavior but also activities / games that promote children's social and emotional skills act as a deterrent to aggression. This has been proven by a domestic research [51], which was conducted on preschool teachers, where all participants in the research report that through play and activities children acquire communication skills, learn how to control themselves, recognize emotions, learn to work in a team and deal with problems that may arise during the game, learn to work together and finally discuss and communicate their needs to others.

Then, teachers seem to largely agree with the suggestions that the adoption of specific rules of conduct such as responsibility, respect for each other, fair and equitable play and the observance of these by children and the active supervision of the teacher help prevent the occurrence of aggression. Behaviors and the peaceful resolution of conflicts. This is also proven by other scientific studies such as of [52] where the existence of active surveillance, i.e. immediate reaction and effective response to aggressive actions works positively but also of [53] where the establishment of rules of good behavior specifically for school playground games can reduce cases of aggression.

However, when asked if the conduct of sports activities and playing indoors can reduce the incidence of aggression, the majority seems to be either hesitant or disagree. Similar results in domestic and foreign surveys were not noted. In this question, we also observe a correlation with gender but also the training of respondents, where men seem to be more cautious than women who seem to agree to a greater extent. In terms of training, we notice that teachers who have attended a relevant training seminar are more likely to agree.

Then, regarding the ways of dealing with it, most teachers seem to either agree or strongly agree that the cooperation of teachers and parents leads to the successful management of incidents of aggression. This is also evidenced by a study [54], where all research preschool teachers agreed that it is important to work with parents when a child is a victim or bully of others. The correlation observed in this question is with the gender, specialty and education of the respondents. Women seem to be more in agreement than their male counterparts. As far as the specialty is concerned, we notice that teachers and physical education teachers seem to agree.

Moreover, it is interesting to note that teachers do not significantly consider that adopting authoritarian attitudes on the part of teachers can increase the incidence of aggression but at the same time they agree to a greater extent that we should give children time to solve their problems on their own their differences. The same results were obtained by a study [55], where reprimanding students by teachers did not predict increased students' aggression during the school year. However, their research [56] showed that the authoritarian attitudes of teachers favored to some extent the manifestation of aggression. The specific questions seem to have divided the teachers of the research as we observed correlations in gender and specialty. In the gender of the respondents, we observe that female teachers agree with the above propositions to a greater extent than men. In terms of specialty, we observe that teachers agree with physical education teachers. Furthermore, most of the teachers state that they either agree or strongly agree that good interpersonal relationships between teachers and children help to avoid aggressive behaviors but also encourage children to inform teachers when they accept or observe aggressive behavior. These results are in line with international [57, 58] but also with domestic [59] research, which noted that positive relationships between teacher and students positively affect adapt students to school, the learning process and prevent the development of behavioral problems.

Finally, regarding the practices that would help in the effective treatment of the phenomenon of aggression, we notice that the teachers agree with the suggestion that a school yard with floor toys and well-designed sports facilities can reduce cases of aggression. This is also proven by her research [60], where the majority of pre-school teachers in the research emphasize the small and unsuitable spaces and yards as factors that favor the manifestation of aggression. In this question we also find correlations with the specialty of the respondents where the teachers declare more in line with the above sentence, while the Physical Education teachers who are more directly involved seem to be more divided than the teachers.

Studying the results on the readiness of teachers to deal with situations of student aggression we note through a series of questions, that half of the teachers in the survey state that they are aware of prevention practices, how to manage students' perpetrators and victims, they feel that they can intervene and settle incidents of aggression but also assess the seriousness of an incident of aggression. Research [61, 62, 63] indicates that teachers with a broader knowledge of the phenomenon are more effective at managing problems, show more supportive attitude towards victims, are considered more effective and have confidence in handling episodes of school aggression. In the specific questions we also observe correlations with gender, and specialty. In terms of gender, we notice that women feel more ready to intervene and deal with incidents of aggression but also to support the victims. In terms of specialty, teachers seem to

be more informed and ready to support victims but also to intervene and resolve incidents of aggression.

However, when asked if dealing with children's aggressive behavior causes them anxiety, we notice that a significant percentage agrees. This finding is also consistent with research by [26, 64, 65], who found that teachers feel insecure and anxious whenever they try to deal with children who have behavioral problems. This may also be attributed to the fact that although in previous questions teachers stated that they can intervene, solve, and use practices to deal with aggression, when they are asked to put them into practice, they find it difficult with all this resulting in stress. In addition to the seminars and courses that most teachers have attended individually, perhaps a coordinated effort by the state, where all teachers in the country would be further trained in the prevention and management of school aggression would help teachers feel more prepared and would eliminate the stress that they suffer from. Finally, the vast majority of teachers state that they would like to participate in a seminar on the prevention and treatment of aggressive behaviors. This result can give the competent bodies the opportunity to act appropriately, as mentioned above, so that all teachers in the country have the opportunity to understand the specific characteristics of school aggression and to be able to properly resolve any incidents that will occur in the school unit they serve. In this question we also see a correlation with the gender but also with the years of service of the respondents with men and teachers with many years of service to agree to a greater extent.

FUTURE RESEARCH PROPOSALS

Taking the literature review in consideration, teachers and society in general are called to deal with the international issue of aggression. Although there is a lot of research on teachers' attitudes and views on the phenomenon of aggression, few studies focus on the phenomenon of aggression during play and sports. A suggestion for future research would be to explore the attitudes and views of secondary education teachers, of all specialties, so that we have a broader view on the subject. Another suggestion for study would be the combination of research methods, i.e., in addition to the questionnaires to teachers, questionnaires could be given to children, or some interviews could be conducted in which children or teachers would express their views in more detail about the phenomenon of school aggression. Also, observation would be a useful tool that would give us more reliable results because we come in direct contact with the school environment and do not get results from others. The planning of actions, activities and programs which would aim at the training of students in the context of their studies at the university so that they can properly manage this dangerous phenomenon of school aggression in their later course as teachers could be a suggestion for future research.

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