

# The Development of a Sport-based Personal and Social Responsibility Intervention on Daily Violence in Schools

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**Abstract** This research assess the improvements that the implementation of Personal and Social Responsibility Model produces on observed and suffered violence among teenagers. In order to this, a training course was taught to 9 teachers (5 from primary school and 4 from secondary school), who implemented the Responsibility Model during 24 Physical Education lessons. The participants, 215 students from primary education and 189 from secondary education, were divided on 9 control groups and 9 experimental groups. Posttest results point that observed violence as well as suffered violence improved significantly on experimental groups, in contrast to control groups, where there were not significant differences in any of both variables. Therefore, Personal and Social Responsibility Model is an efficient teaching methodology to improve the quotidian scholar violence in Physical Education lessons.

**Keywords:** education in values, violence, students

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## 1. Introduction

Since last years, scholar violence has become a serious problem at educative centres, creating conflictive atmosphere and relationships, inadequate to learning and personal and social development, due to the lack of the required competences to solve peacefully the aforementioned conflicts [1].

This phenomenon has been called quotidian violence among equals [2], referring to those contexts that are characterized by interpersonal relationships that solve their conflicts through unjustified aggressive conducts, mainly mutual and among students, that are often insults, physical aggressions, social exclusions or threatens; coexisting two types, depending on whether the violence has been observed or suffered [3].

Different studies point a progressive increase of aggressiveness and antisocial and violent behaviours from primary education and secondary education until 15-16 years old, when there is a decrease of impulsiveness and values and rules are embraced [4].

In this way, Physical Education lessons and Scholar Sport represent an educative field where their environment and the activities they involve, allow to create very open interpersonal relationships among equals as well as with their teachers, offering the opportunity to show tangibly

and instantaneously personal and social skills that in other scholar context could result much more difficult to show [5,6].

Considering these data, during last decades, important efforts have been devoted to design and develop intervention programs in order to develop positive behaviours (responsibility, self-control, leadership, self-concept, autonomy, etc.) and to decrease violent or negative behaviours [7-12].

One of the programs that has had the best results is Personal and Social Responsibility Model by Hellison (2003). This model was designed, initially, with the aim that teenagers and youngs at risk lived success experiences that ease the development of their personal and social skills, as much in sport as in life. Personal and Social Responsibility Model (PSRM) hold the need of teaching behaviours and values that improve the life of the students through sport. In this way, Hellison (2003), associates two values to personal wellness and development: effort and self-management, and other two values to social integration and development: respect for other feelings and rights; and the skill to listen and put themselves on other place [13].

The central core of PSRM is that students, in order to be efficient in their environment individuals, have to learn to be responsible of themselves and others and incorporate the strategies that let them exercise the control of their lives [6]. To carry out this learning, Hellison (2003),

proposes five responsibility levels: Level 1, respect for others' feelings and rights; Level 2, effort; Level 3, autonomy; Level 4, help and caring for others; and Level 5, transferring the learnings to other context out of the program. These levels, that are showed to students progressively and cumulatively, define behaviours, attitudes and personal and social values [5] to be developed through physical activity and sport from concrete and simple goals. For each level, there is a sort of specific strategies and methods to e developed by students and teachers, so they can reach the goals they aim in each level of PSRM.

Different researchers [6,9,14,15,16,17,18] have pointed through numerous researches how the implementation of PSRM has developed aspects related with Personal and Social Responsibility, like respect, self-control, self-esteem, effort, self-concept, wellness feeling, emotional stability, autonomy or leadership, at Physical Education lessons and other contexts like familiar, educative or sport [6], as well as a decrease of anxiety, depression or stress perception [5,6]. Additionally, other studies have demonstrated how, after the implementation of the model, there were significant improvements in violent and non-sportmanship behaviours [9,18].

Therefore, the main goal of this research is to diminish the levels of observed and suffered scholar violence on students through the implementation of PSRM in Physical Education lessons.

## 2. Methodology

### 2.1. Participants

The sample was made up by 404 students, 215 from sixth grade of primary education (129 boys and 86 girls) and 189 from third grade of secondary education (100 boys and 89 girls) whose mean ages were  $12.26 \pm 0.71$  years old and  $15.43 \pm 0.84$  years old respectively. The selection of the educative centres has been done according to the geographic division of the Teachers and Resources Centre of the Region of Murcia, so each one of the nine centres participated with one primary school or one secondary school.

### 2.2. Instruments

*Scholar violence.* The Quotidian Scholar Violence was designed from California School Climate and Safety Survey (CSCSS) by Rossenblatt and Furlong [19]. From this version, Fernández-Baena et al. [3] chose 14 items that were conceptually adequate to assess scholar violence among equals, including suffered violence (for instance: "I have been punched or kicked") and observed violence (for instance: "students get involved in fights"). Items are presented in 5 options Likert scale, from 1 (never) to 5 (always).

### 2.3. Procedures

The sample was randomly divided into two groups: experimental group (n = 198, 116 boys and 82 girls) and control group (n = 206, 113 boys and 93 girls). Experimental groups' teachers participated in a training course about the implementation of PSRM, whose duration was 30 hours, divided into 5 lessons. This course, that was taught by specialized in this model speakers, provided the needed tools to adapt the traditional teaching of Physical Education contents to new pedagogical strategies and to create new curricular material specific of PSRM.

Once the teachers formation was ended, pretest was developed in all centres, in experimental and control groups, where the quotidian scholar violence questionnaire was administrated, reminding the anonymity of the answers. Then, experimental groups' teachers implemented PSRM during 4 months (24 lessons); meanwhile, control groups' teachers kept on with their habitual methodology. Within the intervention period, 4 following meetings were celebrated, with a total duration of 20 hours, to ensure that teachers were implementing PSRM adequately. When the invertention period ended, posttest was developed, administrating the quotidian scholar violence questionnaire during Physical Education lessons.

## 3. Results

### 3.1. Psychometric properties of Quotidian Scholar Violence Questionnaire

Table 1. Descriptive statistics and intern consistency

Scale	M	SD	TICC-c	$\alpha$ without item	As	Ku
Suffered violence						
1. I have been pushed	2.25	1.21	.51	.87	.64	-.50
2. I have been punched or kicked	1.60	.97	.57	.87	1.67	2.25
3. I have been hit with an object	1.43	.79	.48	.87	1.90	2.91
4. I have been stolen	1.63	.94	.49	.87	1.88	3.09
5. I have been said I was going to be hit	1.42	.91	.57	.87	2.04	5.51
6. Someone broke any of my things	1.44	.84	.59	.87	2.09	4.07
7. I have been threatened	1.37	.82	.60	.86	2.54	6.36
8. I have been mocked	1.59	1.02	.53	.87	1.88	2.92
Observed violence						
9. Students use drugs	1.51	1.02	.47	.87	1.99	3.03
10. Students destroy things	2.05	1.15	.61	.86	.86	-.103
11. Students get involved in fights	2.55	1.28	.53	.87	.39	-.90
12. Students steal things	2.02	1.15	.61	.86	.83	-.33
13. Students threaten other students	2.41	1.32	.66	.86	.48	-.92
14. Students insult other students	3.38	1.44	.48	.87	-.39	-1.14

Note: As: Asymmetry; Cu: Kurtosis; TICC-c: total-item corrected coefficient correlation;  $\alpha$  without item: scale Cronbach's alpha removing the item.

Firstly, the characteristics of the questionnaire items were analyzed using the whole sample (Table 1), checking if alpha scale increased after removing any item as well as considering Nunnally and Bernstein [20] recommendations to keep a item inside a factor: total-item corrected coefficient correlation (TICC-c)  $\geq .30$  and asymmetry index between 2 and -2. On the other side, total scale reported a Cronbach's Alpha of .87, considered as very acceptable for this type of questionnaires, and similar to

the value found by Fernández-Baena et al. [3] in the instrument validation article.

In order to know the suitability of the use of Quotidian Scholar Violence Questionnaire, exploratory factor analysis was done, ratifying the initial proposal of Rossenblatt and Furlong [19], that groups the items into two factors, this is, observed violence and suffered violence (Table 2).

**Table 2. Obtained factors and items saturation in the factor**

Suffered violence	Saturation	Observed violence	Saturation
1. I have been pushed	.48	9. Students use drugs	.72
2. I have been punched or kicked	.62	10. Students destroy things	.62
3. I have been hit with an object	.49	11. Students get involved in fights	.71
4. I have been stolen	.61	12. Students steal things	.61
5. I have been said I was going to be hit	.69	13. Students threaten other students	.75
6. Someone broke any of my things	.62	14. Students insult other students	.67
7. I have been threatened	.73		
8. I have been mocked	.64		

### 3.2. Effects of PSRM Implementation on Levels of Quotidian Scholar Violence

In order to determine the changes that PSRM has produced, T test for two related samples was developed.

There were significant decreases on levels of observed and suffered violence in experimental groups, meanwhile there were not differences on any variable in control groups (Table 3).

**Table 3. Effects of PSRM implementation on the whole sample**

Type of violence	Type of participation	Pretest		Posttest			Sig.
		M	SD	Type of participation	M	SD	
Suffered violence	Control	1.55	.66	Control	1.54	.68	.481
	Experim.	1.60	.63	Experim.	1.39	.76	.037*
Observed violence	Control	2.14	.88	Control	2.29	1.01	.104
	Experim.	2.50	.89	Experim.	2.34	.99	.035*

\* The difference has a significant level of  $p < .05$

Next, the levels of observed and suffered violence before and after the PSRM implementation are presented, for primary control groups and primary experimental groups as well (Table 4). For suffered violence, initial

values are higher in control group with respect to experimental groups meanwhile for observed violence, this relationship is inverted.

**Table 4. Effects of PSRM implementation on Primary students**

Type of violence	Type of participation	Pretest		Posttest			Sig.
		M	SD	Type of participation	M	SD	
Suffered violence	Control	1.77	.77	Control	1.69	.77	.633
	Experim.	1.69	.74	Experim.	1.64	.81	.024*
Observed violence	Control	2.06	.91	Control	2.27	1.00	.094
	Experim.	2.56	.91	Experim.	2.19	.91	.001**

\* The difference has a significant level of  $p < .05$

\*\* The difference has a significant level of  $p < .01$ .

Analogously, this same statistic test has been done for secondary students obtaining the results presented at Table 5. In this case, pretest values, in suffered violence and observed violence, are higher in control group with respect to experimental group, in contrast to primary students; however, the main difference between primary

and secondary students is the effects of PSRM implementation to the extent that on secondary students it supposes a non-significant low increase in observed violence. As against, suffered violence does have a low significant decrease after PSRM implementation.

**Table 5. Effects of PSRM implementation on Secondary students**

Type of violence	Type of participation	Pretest		Posttest			Sig.
		M	SD	Type of participation	M	SD	
Suffered violence	Control	1.51	.48	Control	1.56	.72	.576
	Experim.	1.42	.49	Experim.	1.37	.53	.043*
Observed violence	Control	2.44	.87	Control	2.52	1.06	.733
	Experim.	2.25	.85	Experim.	2.33	1.03	.587

\* The difference has a significant level of  $p < .05$

Finally, regarding the sex of participants, U Mann Whitney test has demonstrated that the intervention of this research has produced improvements on suffered violence

( $p = .021$ ;  $Z = -2.316$ ). These values have been higher on men ( $M = 1.65$ ;  $SD = 0.77$ ) than on women ( $M = 1.47$ ;  $SD = 0.65$ ).

## 4. Discussion and Conclusions

Regarding the first goal of this research, it could be confirmed that Personal and Social Responsibility Model is being considered as an adequate tool to reduce scholar violence in Physical Education lessons, within a short term.

In this way, after 24 Physical Education lessons where PSRM was implemented, significant improvements for experimental groups in observed and suffered violence were appreciated. These improvements coincide with the attached results of other studies about PSRM [9,18] or other similar Education in Values Models [21-26].

Initial data have shown higher levels of observed and suffered violence on secondary students, ratifying the conclusions of other studies about scholar violence [4,27,28], as well as lower values on girls, according to the researches developed by Fernández-Baena et al. [3] and Martínez-Monteagudo et al. [2], who found higher levels of scholar violence among boys.

On the other side, the improvements of PSRM implementation were higher on primary groups with regard to secondary groups, although it is true that secondary students had higher values for observed and suffered violence, coinciding with Felip and Capell's [29] data, who affirm that physical aggressions take place almost always, in secondary schools.

With regard to the sex, the treatment has shown improvements on suffered violence, more noticeable on boys than on girls, in contrast to Trianes, De la Morena, Infante and Raya [30] study, who obtained higher levels on girls, but similar to Fernández-Baena et al. [3] study, who obtained higher values on boys indeed.

Therefore, Personal and Social Responsibility Model is an efficient methodology to educate in values and to improve the coexistence, decreasing the levels of violence, suffered and observed, among young scholars; a collective who needs everyday with more urgency the implementation of programs like the one used on the present research.

Finally, there are some limitations on this research as a consequence of the treatment duration (three months) despite of being similar to other studies [31,32]. In this way, other researches have reached better improvements having implemented the PSRM for more time, what allowed teachers to spend more time to develop each level of personal and social responsibility [33,34]. Therefore, some of the future works proposed suggest the reduction of the number of participant centres at the same time that the increase of the intervention duration (a whole academic year). This has a double aim: on one side, having a more exhaustive control of the implementation, through periodical lessons reports, and, on the other side, considering other type of variables that could be related with education in values and violence, as sportpersonship or responsibility [35].

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