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School-Wide Positive Behaviour Support as Preventive Framework to Reduce Disruptive Behaviours: A Cross-Sectional Study

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Abstract

Disruptive behaviours negatively interfere with learning outcomes, forcing schools to identify effective preventive and intervention strategies in order to improve behavioural school climate. An extensive body of research promotes School-Wide Positive Behaviour Support (SWPBS) as an effective preventive framework to foster prosocial behaviours and simultaneously reduce disruptive behaviours. This paper presents the findings from a study that aimed at investigating problematic behaviours during primary education among typically developing children and to examine subgroup differences in the effectiveness of the SWPBS framework in Romania. Participants in our study were a sample of 973 teachers teaching in 30 schools from the Arges county schools. A descriptive statistical analysis was undertaken (a) to identify the type and intensity of disruptive behaviours, (b) to analyse the characteristics of schools with a high frequency of problematic behaviours and (c) to test if school-related variables (such as school size and location) can be linked with students' disruptive behaviours. Results indicated that higher rates of disruptive behaviours identified by teachers from our research sample were noisiness while entering the school, running in hallways. Problematic behaviours are more likely to be identified and defined by more experienced teachers, although the correlation proved to be small. Problematic behaviours correlated positively with school size and location. The bigger the school, the more disruptive behaviours were present. The current study adds to the evidence that schools are unique organizations and a school-wide prevention model should be developed considering the school characteristics and their specific

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context. Research limitations and implications for policies are also discussed in this paper.

Keywords: school climate, disruptive behaviours, positive behaviour support, School-Wide Positive Behaviour Support.

Introduction

A growing body of research has reported a worryingly high prevalence of disruptive behaviours in schools (Fossum *et al.*, 2008; Astor & Benbenishty, 2019). Studies (Bettencourt *et al.*, 2018; Collins *et al.*, 2016; Malloy *et al.*, 2018; McGuire & Meadan, 2022) show that teachers see disruptive behaviours as a major problem, interfering with learning, and rate managing challenging behaviours as the most stressful problem in their professional lives (Howard Seeman, 2010). Disruptive behaviours negatively interfere with learning outcomes, forcing schools to identify effective preventive and intervention strategies in order to improve behavioural school climate. Some examples of behaviours interfering with learning are characterized by aggression, noncompliance, and negative emotionality, such as intimidation, hostility, anger, avoidance, social withdrawal, and defiance. Concern about discipline and about the need to consistently manage disruptive behaviours has made teachers focus on school strategies and practices to prevent challenging behaviours and create a positive school climate. Schools play a crucial role in preventing disruptive behaviours and in promoting a positive and healthy learning environment for child development (Pulimeno *et al.*, 2020; Costache *et al.*, 2022). In the past decade, teachers have become more aware of the impact of a positive approach on managing disruptive behaviours and have reported their need to get trained so as to manage better challenging behaviours in the classroom (Huang & Anyon, 2020). Professional development training for school staff can be helpful in developing and implementing more effective strategies on managing and reducing disruptive behaviours (Mahvar *et al.*, 2018). To address this gap, School-Wide Positive Behaviour Support (SWPBS) proposes a framework to engage school communities and equip teachers and parents with the necessary knowledge and skills to develop a positive and supportive learning environment. A stronger identification with the organisation determines more cooperative behaviour (Toker & Gorener, 2022), based on the positive impact of human psychology on daily life activities (Vaiz & Ekemen, 2022). Involving the teacher in the delivery of the program increases the likelihood of generalisation of the program throughout the school day (Muratori *et al.*, 2019). An effective discipline strategy will be based on a crucial factor, consistency (Rogers, 2011), which can only be ensured if all actors involved in the child's life are applying the same principles in managing problematic behaviours, correcting them and shaping positive ones.

Literature review

School-wide positive behavioural support interventions

Developed in early 1990, by George Sugai & Rob Horner (Sugai & Horner, 2000), SWPBS is a framework of strategies, built on Skinner behaviourism (1965), promoting inclusive philosophy and a proactive approach to positive behaviours teaching. Pro-active learning approaches enrich the pro-social students' behaviours, positive behaviours that will replace the problematic ones. It has been used extensively in the US (Algozzine *et al.*, 2019), and has a growing popularity in the European school settings (Bodin *et al.*, 2016). SWPBS is a multitiered framework, proposing an evidence-based approach for (re)thinking and (re)structuring school discipline systems to provide universal, targeted, and intensive support to form a positive, supportive and inclusive environment and encourage positive social, emotional, and behavioural growth in all students. Several principles are guiding school discipline procedures: (1) establishing common values for school staff, for students and their parents and for the community, (2) identifying some behavioural expectations and routines that would shape students' development towards embracing those common values, (3) observing, teaching and reteaching, rewarding, acknowledging positive behaviours (Freeman *et al.*, 2016; Sadusky *et al.*, 2018). SWPBS proposes a more proactive approach to managing challenging behaviours, based on a broad range of systemic and individualised strategies with significant impact on students' academic performance. Yet, exclusionary disciplinary practices in schools are currently used extensively in elementary schools world-wide (Sobalvarro *et al.*, 2016; Jacobsen *et al.*, 2019), with certain studies reporting an increase in the use of suspension and exclusion as a disciplinary strategy, which is a reactive approach (Graham, 2020). Behavioural expectations along with whole-school staff's use of a rewarding system and specific positive feedback are elements of positive behavioural support interventions at the school level.

SWPBS impact on managing disruptive behaviours

Challenging behaviours interfere with learning, those behaviours affect the learning and peer interactions for all students (Ingemarson *et al.*, 2020). A common vision, clarity of school rules and focus on teaching and reinforcing positive behaviours facilitate a positive classroom climate. The SWPBS framework proposes a consistent and structured teaching of positive behavioural expectation and routines, reinforcing behavioural engagement, and enables teachers with a wide range of strategies to approach disruptive behaviours that have been proved to be effective (Freeman *et al.*, 2016). The SWPBS framework focuses on personalising the school environment and meeting all student' diverse social and emotional needs by implementing policies, routines, and evidence-based

instructional practices in a systematic manner. As educators are often key to preventing students' misbehaviours and negative experiences at school, it is central to provide teachers with a better understanding of what a disruptive behaviour is, what are the impact of those behaviours on student learning is, how to recognise a disruptive behaviour and what strategies are efficient for each specific type of challenging behaviour. It is crucial for teachers to identify and analyse the main stereotypes, attitudes and prejudices that might prevent specific students, such as migrant students, from feeling included (Vilà Baños *et al*., 2022). Studies identified teacher support as a crucial factor in the efficiency of SWPBS implementation (Feuerborn *et al.*, 2015). Therefore, SWPBS implementation is based on providing training for teachers and the whole school staff in the positive discipline philosophy, in the use of praise and reward system along with specific positive feedback (Ingemarson *et al.*, 2020).

Overall, studies have shown reductions in problem behaviours, increases in academic outcomes, improved school climate, increased perceptions of safety, and better teacher wellbeing as a result of SWPBS implementation (Bradshaw *et al.*, 2010). The impact of the SWPBS framework on preventing problem behaviour and supporting pro-social behaviour in schools was explored in a meta-analysis (Solomon *et al.*, 2012; Korpershoek *et al.*, 2016; Mitchell *et al.*, 2018). The focus of SWPBS is on building learners' community, connecting all together by setting up a common vision and behavioural philosophy, as well as common values. Feeling connected to the school and being supported by teachers promote students' possibilities to develop in positive ways, both socially and academically (Kearney, 2008). The engagement of parents in the behavioural management program is essential for its effectiveness (Constantinescu *et al.*, 2017).

Teachers' perception and impact on school behavioural climate

The core of SWPBS implementation is represented by the teachers' willingness to embrace the SWPBS philosophy and their engagement in this process. At the same time, teachers have a crucial role in shaping a supportive social classroom climate (Pas *et al.*, 2015). Teachers' perception of disruptive behaviours is one of the factors influencing the school behavioural climate. The knowledge and the ability of teachers to identify problematic behaviours, to recognise their signs from an early stage and predict some triggers can have a positive impact on reducing and managing problematic behaviours in the classroom. Failing in identifying and assessing student behaviour may lead to increased stress levels in the teacher (Bushaw & Gallup, 2008). In order to address problematic behaviours, it is important to rapidly identify when they occur, to be able to assess the type and the intensity of the behaviour, to analyse the antecedent and consequences for generating better decisions on prevention and intervention techniques (Hanley *et al.*, 2003). Yet, there is little knowledge on how the SWPBS framework might influence teachers' perception of disruptive behaviours (Hosford & O'Sullivan,

2016). Teachers find disruptive behaviours as the main factor of professional burn-out and dissatisfaction, the quality of a school's teaching and learning environment is closely linked to student and teacher wellbeing (Malloy *et al.*, 2018).

Methodology

An extensive body of research promotes School-Wide Positive Behaviour Support (SWPBS) as an effective preventive framework to foster prosocial behaviours and simultaneously reduce disruptive behaviours. This paper presents the findings from a study implemented during a three-year project, Building School-Wide Inclusive, Positive and Equitable Learning Environments through a Systems-Change Approach [SWPBS]. Disruptive behaviours are still raising concerns for most of the educators and there is a need to investigate the phenomenon and explore the effects of a preventive, positive-approach to managing problematic behaviours.

Research questions

Our study aimed to investigate problematic behaviours during primary education among typically-developing children and to examine subgroup differences in the effectiveness of the SWPBS framework in Romania.

The research questions of the present study were threefold:

RQ1: What are the teachers' perceptions towards the type and intensity of disruptive behaviours found in their school settings?

RQ2: What are the characteristics of schools with a high frequency of problematic behaviours?

RQ3: Is there a correlation between school-related variables (such as school size and location) and students' disruptive behaviours?

We hypothesised that the correlation of disruptive behaviours would be greater in bigger schools from urban areas.

Research methods

An anonymous voluntary 50-items web-based questionnaire was distributed to teachers working in 30 public secondary schools from Arges County, Romania, during the 2019 -2022 school years. The participating schools were recruited based on location, as it was necessary to visit the schools in order to provide SWPBS training and coaching, and on the reported availability in implementing SWPBS framework. The data in the present study is based on questionnaire responses from a sample of 973 teachers. The SWPBS Questionnaire consisted of 50 questions,

built upon several instruments: Teacher's evaluation of Classroom behavioural climate (Närhi *et al.*, 2015), Teacher evaluations on behavioural problems in school (Grey & Sime, 1989), Organisational health and school climate and Revised School Level Environment Questionnaire (R-SLEQ) (Johnson *et al.*, 2007), and Teacher Collective efficacy (Tschannen-Moran & Barr, 2004). The Teacher Questionnaire was designed to measure several factors: Problematic behaviours in school (Factor I), Classroom behavioural climate (Factor II), School climate (Factor III) and Teacher collective efficacy: Collective teacher Beliefs Scale (Factor IV). Data were collected at three time points (T1, T2, T3) at the beginning of the school year 2019-2020, the beginning of the school year 2020-2021 which was our second measurement, and at the end of the school year 2020-2021 for the third measurement. A descriptive statistical analysis was undertaken (a) to identify the type and intensity of disruptive behaviours, (b) to analyse the characteristics of schools with a high frequency of problematic behaviours and (c) to test if school-related variables (such as school size and location) can be linked with students' disruptive behaviours.

Research sample

Data in the present study were collected also based on questionnaire responses from teachers from both research groups (experimental and control). The teachers filled in paper questionnaires on site in the classroom during T1 and online during T2 and T3. The distribution of the number of teachers from the schools for both groups, experimental and control, is shown in the Table 1. The sample variation during the three time points (T1-T3) is due to the teachers mobilities during the academic year. Data on teacher perceptions were collected at three time points (T1-T3) at the beginning of the school year 2019-2020, the beginning of the school year 2020-2021 which was our second measurement, and in the end of the school year 2020-2021 for the third measurement. The first data collection for the Baseline (T1) was done close to the initiation of the intervention and the beginning of a new school year (October-November 2019) on-site and on paper. To standardize the assessment procedures, written instructions were given. Teachers were informed about the study and a written consent was obtained. The second and the third data collection (T2 and T3) was sent online together with the description of the research and the consent form, because of the COVID-19 pandemic.

Table 1. Teachers' demographics

	T1	T2	T3
Teachers (n, %)			
Experimental	548 (57.93%)	225 (64.10%)	329 (60.93%)
Control	398 (42.07%)	126 (35.90%)	211 (39.07%)
Total	946	351	540
Gender (n, %)			
Experimental			
*Mal*e	88 (16.1%)	30 (13.3%)	41 (12.5%)
Female	460 (83.9%)	195 (86.7%)	288 (87.5%)
Control			
Male	67 (16.8%)	16 (12.7%)	41 (19.4%)
Female	331 (83.2%)	110 (87.3%)	170 (80.6%)
Age (M, SD)			
Experimental	44.2 (9.91)	43.8 (9.13)	45.21 (8.91)
Control	43.62 (8.79)	44.68 (8.26)	45.05 (8.20)
Experience (M, SD)			
Experimental	21.06 (10.44)	21.10 (10.37)	22.20 (9.91)
Control	19.88 (10.02)	21.56 (9.63)	21.18 (9.16)
Years at school (M, SD)			
Experimental	20.02 (8.12)	20.04 (8.10)	13.62 (10.51)
Control	19.40 (7.83)	18.45 (7.28)	13.56 (9.85)
Education level (n, %)			
Experimental			
Bachelor	275 (50.2%)	115 (51.2%)	84 (25.6%)
Master	250 (45.6%)	100 (44.4%)	214 (65%)
Phd	4 (0.7%)	-	30 (9.1%)
Other	1 (0.2%)	1 (0.4%)	1 (0.3%)
Missing data	18 (3.3%)	9 (4%)	
Control			
Bachelor	204 (51.2%)	66 (52.3%)	97 (46%)
Master	171 (43%)	55 (43.7%)	113 (53.5%)

Phd	7 (1.8%)	3 (2.4%)	1 (0.5%)
Other	3 (0.8%)	-	-
Missing data	18 (3.3%)	2 (1.6%)	-

Results

As stated above, the SWPBS Teacher Questionnaire was used to explore teachers' perception of students' disruptive behaviours in the participating schools. To answer our research questions on understanding of teachers' perceptions of school climate and types of disruptive behaviours, during all three time points (T1, T2, T3), corresponding to the three-years of SWPBS framework implementation, the questionnaires were collected anonymously via an email survey link. Teachers across all 30 schools expressed their perceptions on disruptive behaviours that affect school climate and the learning environment. The findings proved the utility of SWPBS with respect to improving school climate and reducing specific problematic behaviours often experienced in primary school settings such as lack of concern towards peers, noisiness, running in hallways, rough play, breaking school rules, verbal abuse towards other students (e.g., offensive or insulting remarks), standing in 'prohibited' school areas, rude or disrespectful comments and responses, physical aggression towards other students (e.g., by pushing, punching, striking), leaving school premises without permission, physical destructiveness (e.g., breaking objects, damaging furniture and fabric), verbal abuse towards school staff (e.g., offensive, insulting, insolent or threatening remarks), physical aggression towards school staff. In Table 2, the findings on SWPBS Teacher Questionnaire are presented, and we can see an improvement of overall behaviours of students from T1 to T2, which is an impact indicator of SWPBS implementation. School staff started to apply SWPBS principles. As shown below, 5.5% of teachers reported that their students showed lack of concern towards others daily in T1, at the beginning of project implementation, while for T2 only 1.7% of teachers and for T3 1.1 % of teachers reported the lack of concern of students towards others. As we can note, the problematic behaviour decreased over time. According to teacher responses (9.9%, respectively 9.1 %), the problematic behaviours identified at the beginning of the project implementation as happening several times a day were noisy behaviours, respectively running in hallways. Results from T1 to T2 show that problematic behaviours decreased significantly, indicating that the implementation of SWPBS was effective. Although, from T2 to T3, the problematic behaviours increased again, they did not reach the initial level, which confirms an improvement in reducing challenging behaviours and an increase of the teachers' abilities to manage disruptive behaviours. The findings suggest that SWPBS implementation had a great positive impact after starting the SWPBS

framework implementation, yet, the problematic behaviours started to raise again during the third year of the project.

These findings can be explained by an external factor that seriously affected the school environment, the pandemic crisis triggered by COVID-19. The project implementation (learning of positive behaviours, rewarding system and providing specific positive feedback) had to be adapted for the online learning environment. At the same time, teachers reported not being ready to provide behavioural support during distance education, which affected the consistency of SWPBS implementation. Nevertheless, teachers managed to rapidly adapt the SWPBS program to the new learning conditions, as problematic behaviours did not reach the level identified during T1. Another explanation of the results obtained is the fact that teachers suggested that students became accustomed to rewards, taking them as common things.

Table 2. Distribution of student behaviours observed by teachers (T1)

Type of disruptive behaviour		Percentage of teachers' responses (n=973)				
		Not once	Once	Several times	Daily	Several times each day
Showing lack of concern towards others.	T1 T2 T3	39.0 65.8 52.6	25.3 24.2 29.1	27.6 7.4 0.9	5.5 1.7 1.1	2.6 0.9 16.3
When entering school areas (classrooms, assembly, cafeteria), students are noisy.	T1 T2 T3	13.5 49.0 33.5	21.3 26.5 31.9	37.0 18.5 2.0	18.3 5.1 6.9	9.9 0.9 25.7
Running in hallways.	T1 T2 T3	15.9 59.4 35.0	20.6 23.2 34.6	37.5 11.1 1.1	16.9 5.7 5.6	9.1 0.6 23.7
Rough play	T1 T2 T3	55.8 82.1 61.8	26.6 10.8 28.7	11.3 5.1 0.2	4.3 1.4 1.5	2.0 0.6 7.8
Persistently breaking school rules.	T1 T2 T3	43.9 72.8 56.3	31.8 19.4 29.1	17.9 6.3 0.9	4.3 0.9 1.1	2.1 0.6 12.6
Verbal abuse towards other students (e.g., offensive or insulting remarks).	T1 T2 T3	32.0 62.1 53.4	34,4 27.9 32.0	24.0 8.8 0.7	6,2 1.2 2.0	3,4 0 11.9
Standing in 'prohibited' school areas.	T1 T2 T3	74.4 92.9 75.0	16.8 5.4 19.6	6.3 1.7 0.6	1.5 0 1.1	1.0 0 3.7

Rude, disrespectful comments or responses.	T1 T2 T3	49.8 78.3 60.6	32.2 16.2 28.2	13.1 4.3 0.4	3.0 0.9 1.5	1.9 0.3 9.3
Physical aggression towards other students (e.g., by pushing, punching, striking).	T1 T2 T3	41.4 73.8 62.8	35.5 21.9 27.2	17.6 3.4 0.2	2.9 0.3 1.3	2.6 0.6 8.5
Leaving school premises without permission.	T1 T2 T3	79.4 94.0 75.2	10.8 5.7 19.3	8.0 0.3 0.2	1.1 0 0.9	0.7 0 4.4
Physical destructiveness (e.g., breaking objects, damaging furniture and fabric).	T1 T2 T3	69.9 85.8 73.0	21.4 12.5 19.8	7.3 1.4 0	0.8 0.3 1.1	0.6 0 6.1
Verbal abuse towards school staff (e.g., offensive, insulting, insolent or threatening remarks).	T1 T2 T3	85.4 93.7 79.8	9.7 6.0 15.0	4.1 0 0.4	0.5 0.3 0.4	0.3 0 4.4
Physical aggression towards school staff.	T1 T2 T3	96.2 98.3 84.2	2.4 1.7 13.0	0.8 0 0.2	0.1 0 0.7	0.5 0 1.9

To answer our second and third research questions, factors related to the school characteristics are influential and can have consequences on the impact of SWPBS implementation and on effectiveness of prevention and managing of problematic behaviours. To identify correlations among the final teacher outcomes and the corresponding contextual variables (school size, location, teacher experience), a descriptive analysis based on Pearson (r) Correlation Coefficient was used. The major results can be found in the tables below with high correlations at some time points during our research implementation. The findings show that school size has a significant high correlation on overall problematic behaviours and school size ($r = 0.72$, at a significance level of $p < 0.001$) (for time point T1). As is shown in Table 3, for T2 and T3, the correlation is not statistically significant. Therefore, we can infer that for T1, the bigger the school, the more disruptive behaviours were identified by teachers, for T2 and T3, during SWPBS project implementation the correlation is not significant, meaning that teachers from bigger schools managed to address disruptive behaviours.

Table 3. The correlation between disruptive behaviour (overall score) and the school size (T1, T2, T3)

Overall Problem Behaviour	School Size
T1_mean	rho = 0.72 p < .001
T2_mean	rho = 0.11 p = 0.610
T3_mean	rho = 0.12 p = 0.555

Another variable analysed was the location of the school, we were interested to see if there are differences in the overall problematic behaviours at the school level for schools from rural or urban areas. The results can be seen below, in *Table 4*.

Table 4. Descriptive statistics of contextual variables (school location) for T1, T2, T3

Overall Problem Behaviour	Location	n	Mean	Mean Difference	P
T1_mean	rural	18	1.64	-0.32	0.001
	urban	12	1.96		
T2_mean	rural	18	1,29	-0.04	0.508
	urban	12	1,33		
T3_mean	rural	18	1,67	-0.03	0.828
	urban	12	1,70		

As we can see, the findings show that school size has a significant high correlation on overall problematic behaviours and school location ($r = -0.32$, $p < 0.001$) (for time point T1). As is shown in Table 3, for T2 and T3, the correlation is not statistically significant. Therefore, we can infer that for T1, teachers from the schools from urban areas have identified more disruptive behaviours. For T2 and T3, the correlation was not statistically significant, meaning that schools started implementing SWPBS were able to reduce problematic behaviours.

The last contextual variable analysed was teachers' experience, measured in years of teaching. The results are presented in *Table 5*.

Table 5. The correlation between disruptive behaviour (overall score) and teachers teaching experience (T1, T2, T3)

Overall Problem Behaviour	Years of teaching experience
T1_mean	rho = 0.34 p = 0.064
T2_mean	rho = -0.27 p = 0.209
T3_mean	rho = 0.21 p = 0.258

The findings show a low correlation between disruptive behaviours and the teachers' teaching experience, for T1 there is medium correlation (r = 0.34, p = 0.064), proving that at the beginning of the implementation of SWPBS support, teachers with greater teaching experience reported less disruptive behaviours, which means that they can be seen as being more able to prevent and reduce disruptive behaviours than teachers with less teaching experience. The interesting fact is that the correlation is not statistically significant for T2 and T3, which might prove that SWPBS is an effective support framework for teachers, regardless of their teaching experience, that is a teacher, at the beginning of his career, provided with training and support, can feel less stressed towards disruptive behaviours and be able to manage more effectively.

In this study, we investigated the effects of SWPBIS on disruptive behaviour in 30 secondary schools from the Arges County. Implementation of SWPBIS with fidelity was associated with reductions in disruptive behaviours rated, results provided by prior research (e.g., Sørlie *et al.*, 2015; Bohanon *et al.*, 2018; Bohanon & Wu, 2020), however, the effects were not very significant due to the COVID-19 crisis that forced schools to shift to online and hybrid learning.

Conclusion

The purpose of this study was to develop a better understanding of teachers' perceptions related to disruptive behaviours of students in their schools. The current study adds to the evidence that schools are unique organisations and a school-wide prevention model should be developed considering the school characteristics and their specific context. Our findings show that noisiness while entering the school and running in hallways are the most frequent disruptive behaviours identified by the teachers from our research sample. Also, we identified that from the beginning of the SWPBS implementation, from time point T1 to time point T2, there is a decreasing tendency in the frequency of problematic behaviours. Interesting situations occur from T2 to T3, the period when schools changed from remote to

onsite and/or hybrid learning, due to the evolution of COVID-19 cases in the Argeș County. Teachers in T3 identified disruptive behaviours more frequently than in T3, yet the rates haven't reached the initial time point T1. Concerning the relation between overall problematic behaviours and other contextual variables, school size and location, our results show that school size has a significant high correlation on overall problematic behaviours and school size ($r = 0.72$, at a significance level of $p < 0.001$) (T1), while for the T2 and T3, the correlation is not statistically significant. Regarding school location, teachers from urban area schools have identified more disruptive behaviours, than teachers from rural areas. For T2 and T3, the correlation was not statistically significant, meaning that both types of schools, urban and rural, were able to reduce problematic behaviours during SWPBS implementation. Problematic behaviours are more likely to be identified and defined by more experienced teachers, although the correlation proved to be small. Nevertheless, the results from T2 and T3, show that SWPBS framework helped teachers with less experience to manage disruptive behaviours. SWPBS support has an impact on fostering a positive school environment by promoting a schoolwide prevention program (M. Constantinescu *et al.*, 2019). It is fundamental that whole school staff along with stakeholders participate in the implementation of a prevention program for managing disruptive behaviours (Freeman *et al.*, 2016), and provide teachers with the knowledge and skills to identify and define disruptive behaviours.

Limitation of the study

Some limitations should be taken into account when considering our research findings. First, mobility of subjects within both sample groups imposed the need to restart the training and implementation program for a group of participants. Another limitation of the study was the missing values and the small sample size, which also might explain that there is no significant difference across T1 and T2, and T2 and T3, between experimental and control groups. Figures show that for the research variables, both groups, experimental and control group followed a similar pattern, with no statistically significant effect size. Another important limitation was COVID - 19 pandemics that caused the interruption of project implementation and imposed some rethinking of the SWPBS program implementation to online settings, afterwards to hybrid education.

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Ethical approval

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Ethics Committee of Project Research Team.

Informed consent

Every person who participated in the research was informed and signed the consent form. For children under 18 the signed form was signed by their parents or their legal guardians. All data presented in this study are available on request from the corresponding author.

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