

PEDAGOGICAL STAFF MEMBERS PERSPECTIVE: CHANGE OF EMOTIONAL AND BEHAVIORAL PROBLEMS OF SPECIAL SCHOOL STUDENTS

Kristi Kõiv, & Liis Pendla

Institute of Education, University of Tartu (Estonia)

Abstract

The goal of this study was to examine, from the perspective of pedagogical staff, the differences between emotional and behavioral problems of SEN students in one special school in Estonia in two timepoints – at the beginning and end of the school year. A sample of all SEN students ($n = 51$) in one special school was rated individually by their teachers ($n = 12$), assistant teachers ($n = 12$) and support specialist ($n = 3$) at two timepoints. For all the students, the three same members of the school pedagogical (one teacher, one assistant teacher, one support specialist who deal with students daily) staff completed the Strengths and Difficulties Questionnaire – Instructor Version. Research results indicated that special school students' emotional and behavioral problems – hyperactivity, emotional problems, conduct problems and peer problems, at the beginning of a school year were more frequent compared to the results at the end of the school year. Also, it was found that prosocial behavior was more prevalent among students in the special school at the end of the school year compared to the beginning of the study. Additionally, in terms of gender differences, the results of this study are in line with the other studies suggesting that boys were more likely to have higher behavioral problems scores and girls have a significantly greater level of prosocial behavior and emotional problems. The results of this pilot study extended research findings in this area identifying the improvement of behavioral functioning among special school students with intellectual disabilities during one full school year as assessed by pedagogical staff.

Keywords: *Emotional and behavioral problems, SDQ, special needs school.*

1. Introduction

Schools have to provide optimal learning opportunities for all pupils regarding the academic and well as social-emotional competences, which is important in the framework of various research focuses, e.g., the differences between students with and without special educational needs (SEN) and SEN students in different settings – inclusive classes or special school settings. Research (e.g., Schwab et al., 2016) indicated higher rates of students with SEN in both special schools and inclusive classes compared with students without SEN, whereby school setting (attending an inclusive class or special school) does not explain any differences between students' self-reported and parents-reported socio-emotional problems. Research findings (Reed et al., 2012) show for example that children with autism spectrum disorders who were placed in special schools improved their behavioral problems (conduct and hyperactivity among others) better than children in regular schools followed by parents' reports. On the one hand, the number of learners enrolled in special classes in mainstream schools has increased and on the other hand, learners with officially defined SEN in special schools has decreased year by year in Estonia (European Agency for Special Needs and Inclusive Education, 2023; Santiago et al, 2016).

The current pilot study examined the impact of behavioral functioning of SEN students with mild intellectual disabilities attending the special school during school year. This pilot study tries to provide an estimation of the change of the prevalence of pedagogical staff-assessed emotional and behavioral problems of children with SEN on the example of one special school in Estonia.

2. Methods

In this pilot study we examined changes in emotional and behavioral problems during one school year period for SEN students in one of the special schools in Estonia. A longitudinal single group pre-post

design was used to compare measures of the staff ratings of all SEN students across SDQ subscales scores in the beginning and end of the academic year.

The special school for SEN students was chosen by convenience from among 41 special schools in Estonia intending SEN children with mild intellectual disabilities and where the teaching takes place according to the Simplified National Curriculum (2010) for basic schools, which is the curriculum for students with mild intellectual disability in Estonia. The special school in the study was smaller in size (range 51-53 students) with small classes (range 4-7 students) under the supervision of a teacher with postgraduate qualifications in teaching and specialist training in special educational needs. In addition to the teacher, each class had assistant teachers and support specialists (psychologist, special educator; social pedagogue, speech therapists). The children attended the school daily.

2.1. Research method, data collection and sampling

The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) is an internationally widely used brief screening instrument for identifying emotional and behavioral problems in children with student, parent, and instructor versions used freely (SDQ, 2001) and differences during schoolyear in this study were measured using change scores for SEN students on the SDQ – as an official Estonian translation of the instructor-reported SDQ and as a validated and reliable measure (Kyttälä et al, 2021).

A sample of all SEN students ($n = 51$) in one special school in Estonia was rated individually by their teachers ($n = 12$) and assistant teachers ($n = 12$) and support specialist ($n = 3$) at the beginning of school year (Time 1) and 9 months later at the finishing of school year (Time 2). For all of the students, the three same members of the school pedagogical staff (one teacher, one assistant teacher, one support specialists – school psychologist, special educator, social pedagogue or speech therapists) who deal with students daily completed individually the SDQ questionnaire at T1 and T2. In total, members of the school pedagogical staff ($n = 27$) reported on the students they teach and deal with daily basis. Staff members were on average 41.12 years old ($SD = 11.88$) and 82% were female. The student sample included 51 11–17-year-old pupils attending to the special schools. At T1 students were on average 14.28 years old ($SD = 2.04$) with 55% boys and 45% girls. Thus, we had data for 96% of all students attending the participating school. Data was not available for the remaining students ($n = 2$) due to a decision by parents.

Multi-informant ratings were aggregated using combined ratings about special school students' emotional and behavioral problems comparing SDQ scores across five (conduct problems, emotional problems, hyperactivity, peer problems, and prosocial behaviors) subscales at both assessment points. High scores on the difficulties (conduct, emotional, hyperactivity, and peer problems) scales represent a high degree of difficulties and a high score on the prosocial scale represents a high degree of prosocial behavior scoring on a three-point scale (0 = not true, 1 = somewhat true, and 2 = certainly true).

2.2. Data analysis

For the analysis of the data, we used an overall mean raw score calculated from the means of all subscales with higher values indicating more severe problem behaviors or higher degree of prosocial behavior. Multi-informant ratings were aggregated using combined (teacher, assistant teacher and support specialists) ratings about each SEN students' SDQ subscales scores, whereby multi-informant data are generally superior for obtaining reliable prevalence estimates (Johnson et al., 2014). A series of paired *t*-tests were used for comparing SDQ subscales across different timepoints among SEN students' scores.

3. Findings

The descriptive analyses concern SEN students' emotional and behavioral problems in two timepoints based on school staff ratings, showing significant differences in all SDQ subscales both in the total sample and for boys and girls separately between two timepoints of measurement. It was found that special school boys' and girls' emotional and behavioral problems – conduct problems, emotional problems, hyperactivity, and peer problems, at the beginning of a school year were more frequent compared to the results at the end of the school year. In addition, prosocial behavior was more prevalent among boys and girls in special school at the end of the schoolyear compared to the beginning of the study. Thus, preliminary results in the form of descriptive statistics showed that special school students' emotional and behavioral problems decreased, and prosocial behavior increased during the school year, indicating an improving effect (Table 1).

Table 1. *SDQ mean scores for subscales in boys and girls and in all special school students based on pedagogical staff members reports at the beginning of study (T 1) and at the end of study (T 2).*

	Timepoint			Timepoint			Timepoint		
	1	2		1	2		1	2	
	All	All	<i>t</i> -value	Boys	Boys	<i>t</i> -value	Girls	Girls	<i>t</i> -value
Conduct problems	0.66	0.36	8.95**	0.83	0.44	8.04**	0.46	0.27	4.57
Emotional problems	0.82	0.50	10.68**	0.85	0.49	8.62**	0.79	0.51	6.40
Hyperactivity	1.10	0.84	7.31**	1.24	0.98	5.46**	0.94	0.69	5.07
Peer problems	0.76	0.46	9.99**	0.84	0.50	7.91**	0.68	0.40	6.23
Prosocial behavior	0.72	1.34	24.14**	0.66	1.29	17.48**	0.78	1.41	16.85

Table 2 shows the means for all subscales of the SDQ according to gender in two timepoints and results indicated that conduct problems, hyperactivity, and peer problems scores were significantly higher for boys based on pedagogical staff members reports. Prosocial behavior was higher for girls based on school staff reports in two timepoints (statistically significant differences), but there were no statistically significant differences in emotional problems between boys and girls across two timepoints of measuring.

Table 2. *Gender differences across SDQ mean scores among special school students based on pedagogical staff members reports at the beginning of study (T 1) and at the end of study (T 2).*

	Timepoint			Timepoint		
	1	2		1	2	
	Girls	Boys	<i>t</i> -value	Girls	Boys	<i>t</i> -value
Conduct problems	0.46	0.83	7.83**	0.27	0.44	4.15**
Emotional problems	0.79	0.85	1.53	0.51	0.49	0.29
Hyperactivity	0.94	1.24	6.05**	0.68	0.98	5.96**
Peer problems	0.68	0.84	3.61**	0.40	0.50	2.36**
Prosocial behavior	0.78	0.66	3.13**	1.41	1.29	3.32**

4. Conclusion

Initial results of this pilot study measured by pedagogical staff evaluations, in the form of descriptive statistics, show evidence that special school students' emotional and behavioral problems were reduced, and prosocial behavior was elicited showing improving impact during attending special school during the school year. Thus, SEN students with mild intellectual disabilities in one special school in Estonia made improvements in terms of emotional and behavioral (conduct problems, hyperactivity, emotional problems, peer problems and prosocial behavior) problems measured by pedagogical staff multi-informant ratings. These results confirm other recent demonstrations of superior performance in special schools for children with autism spectrum disorders (Reed et al, 2012).

In terms of gender differences, the results of this study are in line with other studies (e. g. Helland et al., 2022; Kytälä et al., 2021; Sargisson et al, 2016) suggesting that boys were more likely to have higher behavioral problems scores with more likely to have conduct, peer and hyperactivity problems and female students have a significantly greater level of prosocial behavior, whereby, research that focused on the concordance between the self- and teacher-rated-versions showed that reports on difficulties in social behavior were not always in agreement (Kytälä et al, 2021).

This study also had some limitations. Due to individual difficulties related to the type of students' disability and for the purpose of gathering the most complete information for all students in special needs schools, we used school staff and not student self-reports. Self-reported measures were not always the best for every population – given the nature of the special needs and the anonymity of the subjects. In this research, there is a lack of generalizability with the small sample size as a pilot study based on the example of one school in Estonia.

The main strength of this study was that, to our knowledge for the first time, a longitudinal research design was used to examine the role of behavioral functioning among students with mild intellectual disability attending special needs schools.

References

- European Agency for Special Needs and Inclusive Education. (2023). *Country system mapping. Country Report: Estonia*. Retrieved March 23, 2025, from <https://www.european-agency.org/activities/CSM/country-reports>
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38, 581-586.
- Helland, W. H., Posserud, M. B., & Lundervold, A. J. (2022). Emotional and behavioural function in children with language problems- a longitudinal, population- based study. *European Journal of Special Needs Education*, 37(2), 177-190, DOI: 10.1080/08856257.2020.1857930
- Kyttälä, M., Sinkkonen, H. M., & Kõiv, K. (2021). Social, emotional, and behavioral strengths and difficulties among sixth grade students: comparing student and teacher ratings in Finland and Estonia, *International Journal of School & Educational Psychology*, 9(1), 42-54. DOI: 10.1080/21683603.2019.1640148
- Reed, P., Osborne, L. A., & Waddington, E. M. (2012). A comparative study of the impact of mainstream and special school placement on the behaviour of children with Autism Spectrum Disorders. *British Educational Research Journal*, 38(5), 749-763. DOI:10.1080/01411926.2011.580048
- Sargisson, R., Stanley, P. G., & Hayward, A. (2016). Multi-informant scores and gender differences on the Strengths and Difficulties Questionnaire for New Zealand children. *New Zealand Journal of Psychology*, 45(2), 4-12.
- Santiago, P., Levitas, A., Radó, P., & Shewbridge, C. (2016). *OECD Reviews of School Resources: Estonia 2016*, OECD Reviews of School Resources. <http://dx.doi.org/10.1787/9789264251731-en>
- Schwab, S., Gebhardt, M., Hessels, M. G. B., & Nusser, L. (2016). Predicting a high rate of self-assessed and parent-assessed peer problems—Is it typical for students with disabilities? *Research in Developmental Disabilities*, 49-50, 196–204. <https://doi.org/10.1016/j.ridd.2015.11.026>
- SDQ (Strengths and Difficulties Questionnaire) (2001). *What is the SDQ?* Retrieved March 23, 2025, from <http://www.sdqinfo.com/b1.html> . <https://www.sdqinfo.org/a0.html>
- Simplified National Curriculum of Basic Schools/Põhikooli lihtsustatud riiklik õppekava*. (2010). Retrieved March 23, 2025, from <https://www.riigiteataja.ee/akt/128122010014?leiaKehtiv>