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Abstract

Inclusion is never only a practical issue of placement. School-wide systemic change, together with well-functioning, multi-tiered support, can promote the inclusion of all pupils. This paper draws on research conducted in two mainstream primary schools in Finland. The primary focus was to gain insight into practical solutions to facilitate the inclusion of pupils with attention deficit hyperactivity disorder (ADHD) in mainstream teaching. Using an experimental, multiple-baseline, single-case design, we examined the effects of Check-in Check-out (CICO) support on changes in the behaviour of two pupils who displayed ADHD-type behaviours. The key features of CICO are brief morning and afternoon meetings with an adult, the use of a daily report card (DRC), regular positive feedback during the day, and parental involvement. This study examined if behavioural gains made during the implementation of CICO support can be maintained. Visual data analysis revealed differences in two CICO-ending strategies on maintenance in pupils with ADHD symptoms. The results suggest that consistent universal positive behaviour support (PBS) systems together with additional behavioural support can facilitate the successful inclusion of pupils observed by teachers to have even severe disruptive behaviours in a mainstream learning environment.

Keywords: positive behaviour support, inclusive education, evidence-based interventions, maintenance, single case experimental design, whole-school approach

Inclusion of Pupils with ADHD Symptoms in Mainstream Classes with PBS Inclusion in Finland

Broad definition of inclusive education promoted by for example UNESCO (2005; 2009) resembles the Nordic well-fare ideology, on the basis of which the Finnish comprehensive school was created in the 1970s (Engelbrecht et al.2017). The objective was to create equal chances to pupils from various backgrounds and with diverse individual characteristics to participate in free public education. However, the smooth functioning of the comprehensive school has been guaranteed by an exceptionally extensive special education system within the mainstream education (Kivirauma and Ruoho 2007). In recent years, national-level efforts have been launched to promote more inclusive education in Finland but have proved to be a complex process, as the traditional medical-deficit understanding of diverse educational needs has played and still play a significant role (Engelbrecht et al., 2017). The most recent reform changed the comprehensive school support system; instead of general and special education classes, support for pupils is provided at three levels of intensity: universal support for all, intensified support for pupils at risk, and special support for students needing support beyond the first two levels (the Basic Education Act 2010). This multi-tiered support reform was driven in part by the national strategy that adopted the universal aim of moving towards inclusive education. This was translated into concrete goals of supporting pupils' flexibility and organising support as early as possible. Also, it was suggested that this new approach would allow different intensities of support to be built around the pupil instead of 'pulling out' the pupils needing support and transferring them into a segregated setting. For example, the so-called part-time special education teachers assigned to every primary school who previously provided learning support mainly by

teaching small groups of pupils one to three lessons a week in a separate learning support room were supposed to be able to provide support on all three levels. However, five years later, the practice of transferring pupils into special education classes still prevails in rhetoric and practice, as almost forty percent (39.7%) of the 7.8% of pupils identified as needing special support still study in special classes or special schools full time (Statistics Finland 2015). However, the number of separate special schools and other segregated services has decreased quite dramatically (Itkonen & Jahnukainen 2010). At the same time, while Finnish pupils perform well academically in international comparisons, they consistently report being exposed to bullying more than pupils in the Organisation for Economic Cooperation and Development (OECD) countries on average (Välijärvi 2017). Välijärvi (2017) points out, that being bullied is connected to a weaker sense of belonging and overall well-being at school.

Pupils defined as having behaviour problems were mentioned as a special challenge for inclusiveness of the recent reform in Finland (TUEF 2009) and are consistently mentioned in public media (e.g. Helsingin Sanomat 2017) as one of the biggest worry or challenge for teachers. These worries have also been widely documented in international research (Klassen & Chiu 2010; Ross, Romer, & Horner 2012; Närhi et al. 2015). We understand behaviour not as a permanent characteristic internal to a pupil (or any individual), but emerging in interactions with social and environmental conditions. The purpose of this study was to test a specific support approach known as Check-in Check-out (CICO) for pupils observed to have severe behaviour problems, in this case also diagnosed with attention-deficit hyperactivity disorder (ADHD). These pupils learn in schools that have built a well-functioning universal-level positive behaviour support (PBS) system in a concrete effort to promote inclusive education. This intervention study documents an example of building intensified support around individual pupils so that they can be fully included in mainstream teaching.

Positive Behaviour Support and ADHD

ADHD is among the most common developmental disorders in childhood, and the number of pupils diagnosed with ADHD has increased globally (Thomas et al. 2015). The number of pupils displaying symptoms (behaviours) of hyperactivity or impulsiveness without diagnosis is even greater. To address ADHD-type behaviours in the school environment, support tends to emphasise behaviour control interventions and reactive, punishment-based approaches, which are rarely sufficient to address social and academic difficulties (DuPaul and Weyandt 2006; Hill and Brown 2013). School-Wide Positive Behaviour Interventions and Supports (SWPBIS) is a whole-school initiative intended to create a more positive learning environment. PBS can be defined as 'strategies that are respectful of a person's dignity and overall well-being and that are drawn primarily from behavioural, educational, and social sciences' (Kincaid et al. 2016, p. 71). SWPBIS was developed in the United States to support the inclusion of all pupils and to specifically respond to the challenge of increasing problematic behaviour in schools (Walker and Horner 1996; Carr et al. 2002; Sugai and Horner 2002;). The three major principles behind SWPBIS are inclusive education, behavioural psychology, and ecological psychology aimed at systemic change and continuum of support services (Carr et al. 2002). The focus on reducing challenging behaviour is mainly on fixing problem contexts, not on fixing the problem behaviour itself. In practice, this focus means addressing the challenging behaviour by developing educational approaches and environments by applying the theory of behavioural psychology-threeterm contingency (stimulus-response-reinforcing consequence). Universal, proactive, behaviourally supportive environments promote pupils use of pro-social behaviour (Lewis et al. 2010).

Pupils with challenging behaviour—like difficulty in waiting their turn, remaining seated, engaging in activities quietly, sustaining attention, and frequently making careless mistakes like blurting out answers beforehand (symptoms for ADHD diagnosis)—can be found in every school. Many of these challenges can be addressed with an environmental redesign at the universal level of PBS, which includes teachers' attitudes. Teachers' positive attitudes towards inclusion are strongly

connected to the self-efficacy belief of implementing inclusive practices on a concrete and pragmatic level (Savolainen et al.2012). Educational change and environmental redesign (improving team structure, collaboration, and positive interactions with adults and pupils) also increases teacher perceptions of efficacy and decreases their symptoms of burnout (Ross, Romer and Horner 2012). In previous literature, school-based support for pupils with ADHD symptoms has been found to be effective for both academic and behavioural outcomes (DuPaul, Eckert, & Vilardo 2012). The most effective support for pupils with ADHD symptoms does not rely solely on medical treatment but on a combination of medication and psychosocial support implemented in pupils' ordinary social environments (Pelham et al. 2014). Support by behavioural classroom management has been introduced as an evidence-based practice (Evans, Owens, and Bunford 2014) to improve the behaviour and learning of pupils with ADHD symptoms at school.

Sustainable Improvement in Behaviour with CICO?

CICO support is based on the philosophy and practice of PBS (Carr et al. 2002). CICO includes the use of a daily report card (DRC) with daily home-school communication. However, what makes CICO unique is its emphasis on promoting pupil engagement with school and strengthening positive adult communication (Crone, Hawken, and Horner 2010). CICO's primary goal is to help individuals change their behaviour in a direction that provides opportunities to achieve goals in a socially acceptable manner. Reducing or eliminating episodes of problem behaviour gives all stakeholders (teachers, parents, classmates, and pupils themselves) opportunities to enjoy improved quality of schooling (Hill and Brown 2013; Kincaid et al. 2016). Daily home-school collaboration enables parents to be part of the support and fosters greater school success as demonstrated in this study and previously published literature (Hawken, MacLeod, and Rawlings 2007; Vannest et al. 2010).

In studies conducted in the United States, CICO is considered as evidence-based support (Maggin et al. 2015; Wolfe et al. 2016), that seems to fit well in multi-tiered PBS implementation. CICO is also one of the most researched (Bruhn, Lane, and Hirsch 2014) and utilised (Rodriguez, Loman, and Borgmeier 2016) behavioural interventions implemented within SWPBIS. However, maintaining the positive effects gained as a result of CICO support is not known. It is important to evaluate whether the support can be successfully ended at some point: the resources required for implementation can be redirected to other needs. Overall, sustaining the behavioural treatment effects for pupils with ADHD symptoms has been somewhat neglected in the ADHD treatment literature (Fabiano et al. 2009). No published CICO studies include maintenance data demonstrating the positive effects of CICO can be sustained (Miller et al. 2015; Wolfe et al. 2016).

Research Questions

The primary focus of this study was to document and analyse how the inclusion of pupils with ADHD can be facilitated with practical, SWPBIS support. This paper draws on research conducted in two Finnish mainstream primary schools. This study examined if CICO support led to positive changes in pupils' behaviour and whether these behavioural gains could be maintained. Visual data analysis was used to reveal differences between two CICO support-withdrawal strategies and their effect on the maintenance of positive behaviours. The specific research questions were: (1) Did CICO support produce changes in the behaviour of pupils diagnosed with ADHD? (2) Can positive outcomes achieved during CICO support be maintained?

Method

Single-Case Experimental Design and Data Analysis

Single-case designs can be used to examine if an intervention, in this case additional support for pupils learning in inclusive classroom, is more effective than the current baseline or "business-asusual" condition. To examine the effects of the CICO support on problem behaviour, the present study used a multiple-baseline design with two subjects. Within the design outcome variables were measured repeatedly within individuals and across different conditions: these different conditions are referred to as phases (baseline, intervention phase and maintenance) (Kratochwill et al. 2010). The current study extended from the autumn term until the end of the spring term. Analysis of the data included a visual examination of each phase, with a focus on performance level, trends (rate of increase or decrease in performance), and variability.

Participants

Pupil participants were two primary school-age boys: John and Andrew. John was a secondgrade pupil whose parents were separated; he lived one week at a time with each of his parents. Andrew was a sixth-grade pupil who lived in a family with two parents. Both boys were diagnosed with ADHD by a child neurologist or psychiatrist in a university hospital clinic. ADHD was diagnosed by symptoms of inattention, over-activity, and impulsivity, using the World Health Organization ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines (STAKES 1995). Like many pupils diagnosed with ADHD, these boys were also taking methylphenidate; medication dosages remained at a constant level throughout the study. Andrew was also taking risperidone (for aggressiveness) at a constant level throughout the study.

Setting

The study was conducted during the 2014–2015 school year in two primary schools in eastern Finland. Both schools were in the same town, and each had a little over 300 pupils. School A was a

typical Finnish primary school serving pupils from preschool through sixth grade and was in the first year of implementing Tier 2 behavioural CICO support during this study. School B also served pupils from preschool through sixth grade and was in the second year of implementing Tier 2 behavioural CICO support during the study. School B was an atypical Finnish school, however, because of its explicit commitment to inclusion and inclusion-based supports. In School B, all the pupils of each agecohort studied in a big class of 30 to 45 pupils. Each class used one big classroom along with two or more smaller rooms, and two or three teachers worked collaboratively. Usually one of the teachers was a special education teacher; all classes had some teaching assistance. For some lessons, pupils were divided into smaller groups. The inclusive solutions of collaborative teaching did not include all pupils identified as having special educational needs, and there were still a few special education classes through ninth grade (aged 6 to 16) in School B.

At the time of this study, both schools had been implementing the whole-school PBS system known as ProSchool for approximately three years. ProSchool is an adapted Finnish version of the SWPBIS. Teachers and staff had been learning to use proactive universal behaviour support strategies. The staff had defined core behaviour expectations together, and positive feedback was provided for pupils frequently. The expectations for pupil behaviour were explicit, simple, and consistent. All teachers taught target behaviours to pupils in the classroom setting and other school environments.

The schools had one day of CICO training before the intervention study was implemented. Training was aimed at the teachers with pupils possibly eligible for CICO support and the teaching assistants who play a significant role in the support, and also each schools' behaviour support team members (including the principal, special educators, and general educators). The training included instructions for conducting the pupil identification procedure and the key elements of CICO support. The six-hour training included tasks for the PBS support team to plan for school-level implementation. The behaviour support team discussed the pupils' assessments and selected pupils for CICO support

and the intervention study; the team also met regularly, reviewed pupils' data, and made decisions about each pupil's ongoing support.

Intervention

CICO support (Crone, Hawken, and 2010) revolved around the use of a DRC, which was a visual reminder of the behavioural goals. In the CICO support, pupils 'checked-in' in the morning with an adult (usually a teaching assistant), where they received their DRC for that day. The CICO assistant was the same person throughout the intervention phase so that a safe and trusting adult/pupil relationship was established. DRCs included individually planned behavioural goals for each participant. During the day, teachers evaluated the pupils' behaviour in relation to their behavioural goals at the end of every lesson. These cards included a three-point scoring criterion: 0 (expectations not met), 1 (expectations partly met), or 2 (expectations met). Teachers were also instructed to give pupils regular, positive verbal feedback about their behaviour. If goals were not met, teachers were instructed to remind the pupil how to meet the goals in the next lesson. At the end of the day, in the check-out meeting, pupils reviewed their DRCs with the CICO assistant. Pupils points were converted to a daily percentage of points earned (range 0 to 100%). If pupils met their predetermined goal, they earned a token. The tokens were points or stickers, and by collecting them, the pupils could receive bigger rewards at the end of the week or after earning an agreed number of tokens. The bigger rewards were usually privileges, such as extra recess or time to play with a tablet computer. Parents were asked to sign the DRC every day and encouraged to provide positive feedback for the day's successes. If the DRC showed that the school day had been difficult, parents were guided to encourage pupils to succeed the next day. The feedback in the DRCs produced information that could be used, together with qualitative information, to estimate the sufficiency of classroom support (Chafouleas et al. 2005).

Data Collection and Inter-Observer Agreement

Five teaching assistants and two teachers were trained to conduct observations. The primary dependent variables were the percentage of observation intervals with problem behaviour and the daily percentage of points in the DRC. In the observation form, problem behaviour was described as one of the following: (a) disruption, (b) out of seat, (c) noncompliance, and (d) negative verbal or physical interaction (Campbell & Anderson, 2011). All the behaviours from (a) to (d) were used as an index of overall problem behaviour. In other words, an interval was reported as a problem behaviour interval if one or more of the problem behaviours occurred during that interval.

Observational data were collected using pen and paper across 15-minute observations using a 10-second partial interval recording system. After collecting the data, observers entered them into a database. Observations were conducted at least three times per week during academic activities identified as the most difficult for each participant in the teacher interviews.

Observers were trained on the observation procedures during two five-hour training sessions (definitions of the problem and appropriate behaviours, coding the behaviours on the observation form, entering data into the computer, making observations independently using the same recording, and calculating inter-observer agreements). During the training, observers watched five-minute video clips (with an added 10-second interval signal voice) and filled in the forms independently at the same time. The ratings for three video clips were compared to the original coding conducted by the researcher (AK). After watching the videos, the appropriate ratings for each video were discussed. After the training, practice observations continued in the classrooms until the inter-observer agreement of all observers met the 90% criteria.

Inter-observer agreement data were collected in 31.4% of the observation sessions for John (37.0% during the baseline, 26.2% during the first CICO support phase, 30.0% when returning to baseline, 33.3% during the second CICO support phase, and 40.0% during the maintenance phase).

Inter-observer agreement data were collected in 30.8% of the observation sessions for Andrew (45.0% during the baseline, 25.0% during CICO support, and 27.8% during the maintenance phase). Data were collected by having two observers in the same setting, hearing the same observation recording but marking their observations independently. Total agreement was calculated by dividing the number of agreed intervals by all intervals and multiplying by 100. The mean was 96.8% (range = 84.4-100%) for John and 93.3% (range = 83.3-100%) for Andrew. The overall mean was 93.3%.

Procedure

The teacher interview used for pupil identification in this study was modified from the Functional Assessment Checklist for Teachers and Staff (FACTS) (March and Horner 2002). During the interview, problem behaviours were defined, including frequency of occurrence and most problematic situations. Then, the behaviour support team member and class teacher made one to three positively framed individual goals for the pupils' behaviour that aligned with the school's general behavioural expectations. Once pupils were selected for the study, the baseline phase began. During the baseline, teachers did not provide feedback to the pupils but did score the pupils' behaviour on the DRC for all lessons.

The behaviour support team estimated when a pupil was ready to 'graduate' from the programme. An ending plan for each pupil was individually designed by the school team. The goal was to find the easiest way to end the support and still maintain the behaviour. Recommendations for the graduation meeting (keep the atmosphere positive, stay focused, show progress in figures, give specific positive feedback to pupil, give specific positive feedback to parents, remind participants that support can be restarted if needed) were adapted from the manual of Crone, Hawken and Horner (2010).

Fidelity

Treatment fidelity was calculated on the core components of the CICO support (Hawken and Horner, 2003; Hawken, MacLeod and Rawlings 2007). It was measured throughout the study via summary data sheets completed by the CICO assistants. The CICO assistant initialised the summary data sheet (a) when the pupil attended morning check-in and (b) when the pupil attended check-out. In the morning, the CICO assistant also completed the summary data sheet (c) if the pupil returned signed the DRC in the morning and (d) if the pupil received marks from the teachers' DRC in the afternoon. The pupils' daily success (percentage of DRC points earned) was also marked in the summary data sheet as (e) DRC data collection.

Social validity

A modified version of the Behaviour Education Program (BEP) Acceptability Questionnaire (Hawken and Horner 2003) was used to assess social validity. Scores were on a Likert scale from 1 to 6, with higher scores indicating more favourable perceptions. The social validity of the CICO support was assessed by each of the three teachers (John was studying in a class with two teachers) and three households (John spent alternate weeks with his mother and father) participating in the study. The assessment measured the extent to which the CICO support was perceived (a) to decrease problem behaviour at school, (b) to increase appropriate behaviour at school, (c) to be easy to implement, (d) to be worth the effort required to implement, and (e) to be worth recommending to others.

Pupils' and teachers' perceptions need to be considered when planning effective support to address the needs of pupils displaying severe behavioural challenges (Hill and Brown 2013). Pupils' perceptions of the support they received from teachers and parents during the CICO implementation were assessed using a five-item questionnaire (items are listed in Table 2 in the Results section) with a

four-point Likert-like scale ranging from 4 (totally agree) to 1 (totally disagree). Higher scores indicated that a pupil felt more supported during the CICO support.

Results

Changes in behaviour

Figure 1 shows the percentage of observation intervals with problem behaviours in the baseline, during the CICO support, and in the maintenance phase. Overall, levels of problem behaviour decreased during the CICO support; some reduction also occurred in the variability of pupils' behaviour. During the baseline, the percentages of problem behaviour intervals were highly variable for both pupils: the mean baseline percentage for John was 24.6 % (range 0–69.4%) and for Andrew was 40.6% (range 3.3–100%).

Problem behaviour decreased significantly during the CICO support; the mean CICO percentage was 11.2% (range 0–32.2%) for John and 17.5% (range 0–100%) for Andrew. During the CICO support, while Andrew's behaviour stayed highly variable, the overall mean of problem behaviour decreased.

The first pupil (John) ended the CICO support quickly. The pupil was told that he no longer needed support and his parents were informed. After ending the CICO support, the pupil kept asking when he could start CICO again. During this phase of the study (Maintenance 1), the pupil's behaviour was highly variable (range 0–100%) and the mean level increased to 25.3%; hence, John re-started CICO support. When the next pupil (Andrew) was ready to end the CICO support, the school team decided to use a different way to end the support. The school team suggested that the teacher convene a meeting of the pupil, parents, and school staff. After this meeting, Andrew's observed behaviour stayed

at an excellent level for several weeks. The mean of problem behaviour in the maintenance phase was 12.0% (range 0-74.4%).

During the second CICO phase, John's problem behaviour decreased again to an average of 8.2% (range 0–67.8%). John ended the second CICO phase with the joint meeting used in Andrew's case. During the second maintenance phase (Maintenance 2), John's problem behaviour averaged 10.0% (range 0-31.1%).



Figure 1 (Percentage of 10-second intervals with problem behaviour)

Fidelity

Fidelity of the CICO support was on the average at a good level (88.7%) including parental feedback, but there was a clear difference between the two schools. The treatment integrity was higher in School B (inclusion-focused school, implementing CICO for the second year). For School A, the mean percentage of the core components (check-in, DRC in use for teacher feedback, check-out, parental feedback, and collecting data) was 78.9% (57.1–96.4%), and for School B, was 98.8% (range 93.9–100%). The lowest scores in both schools were in parental feedback. Also, morning check-ins and

the use of DRCs were on the average at good levels (85.7% and 96.4% for School A and 100% and 100% for School B, respectively).

Social validity

The overall mean score on the social validity questionnaire was 4.7 in responses provided by the teacher. Measures in the middle and end of the CICO support phase were at the same level, indicating that the long period of CICO support did not reduce the social validity of the support. In parents' responses, the overall mean score was 5.3, indicating high acceptability.

Table 1 here. Teacher and parent ratings of social validity.

Ratings of social validity	Teacher $(n = 3)$ in the middle	Teacher $(n = 3)$ at the end	Parents $(n = 3)$ at the end
Decreases problem behaviour	4.7	4.7	5.0
Increases appropriate behaviour	4.3	4.0	5.3
Easy to implement	4.7	5.0	5.0
Worth of time and effort	5.0	4.7	5.3
Recommend CICO to others	5.0	5.3	5.7
Mean	4.7	4.7	5.3

Pupils' perceptions of the support and encouragement they received during the CICO support are presented in Table 2. Mean pupil ratings for feeling supported during CICO were 3.8 for John and 3.6 for Andrew on a four-point scale (where higher scores indicate agreement with the statement). In the pupils' ratings, parental feedback (pupils feeling that they were praised for good marks) got excellent scores from both pupils. Mean pupil ratings for the use of DRCs (getting marks from teachers and parents checking them) were also high. Together, the fidelity data (Table 1 and Table 2) indicate that the pupils were getting regular feedback from their teachers through the DRC.

Table 2. Pupils' perceptions of CICO support.

Question	John	Andrew
I have been encouraged and praised every day at school	4	3
I get marks on my DRC every day	4	4
My parents check my DRC every day	4	3
My parents praise me for my good marks every time	4	4
My parents encourage me to improve my behaviour every day	3	4
Mean	3.8	3.6

Note: Higher scores indicate agreement with the question. The scale was 1-4.

Discussion

Mainstream teachers in Finland and in other countries find it challenging to teach pupils who exhibit externalising behavioural problems (Klassen and Chiu 2010: Savolainen et al. 2012; Malinen and Savolainen 2016). One response to this challenge, demonstrated here, is to create a secure, effective universal-level PBS system and promote the use of evidence-based support methods within the system for those who need more intensified support (Sugai and Horner 2002). In previous literature, behavioural management approaches used at home and in school have been found to be effective (Evans, Owens, and Bunford 2014). The positive findings in this study suggest that CICO support, studied extensively primarily in the United States thus far, can also be implemented in the Finnish school system. CICO may be an efficient way to provide support for pupils with ADHD symptoms up to severe levels and achieve behaviour changes when provided in schools that have effective wholeschool PBS systems functioning. Both pupils in this case study showed small to moderate positive changes in behaviours when receiving CICO support. These observational data were confirmed by the teachers, who also observed positive behaviour changes during the CICO phase, as reported in the DRCs. Overall, the effects of the CICO support in this study were in the same direction and at the same level as in previous international systematic reviews of CICO (Hawken et al. 2014; Maggin et al. 2015).

Our goal was also to investigate the maintenance of behavioural gains made as a result of the CICO support on pupils with ADHD symptoms. In the maintenance phase, where no external rewards were used, both pupils expressed slightly more variability in their behaviour than during the CICO phase. Nevertheless, maintenance of the intervention gains could be clearly seen in John. There was also positive progress in Andrew's behaviour: intervals including no problem behaviours or only very little problem behaviours (less than 20 %) increased during the CICO support phase, and these gains were sustained during the maintenance phase. However, this case study did not provide a conclusive answer to the question of whether CICO support results can be maintained. Nevertheless, these findings suggest that presenting detailed information about the exact behavioural gains to the stakeholders (e.g., parents and pupil) and celebrating successes (specific positive encouragement) may promote the maintenance of positive gains. Although this is a case study and generalisation to wider populations cannot yet be made, these results send a clear message for school administrators. Schools with solid, school-wide PBS systems are likely to successfully implement secondary-level prevention, like CICO support, which can support the inclusion of pupils with behaviour problems up to severe levels into mainstream classrooms. Previous research has highlighted the importance of universal-level PBS systems as a vital prerequisite for developing more inclusive supports in schools (Bruhn et al. 2014). The fact that School B had higher treatment fidelity outcomes was not surprising. First of all, school B were in their second year of CICO implementation, hence the support was well-known among the staff. School B was also committed to inclusive education, including active teamwork and consistent practice of co-operative teaching between special and general educators. These factors are known to be beneficial when teaching pupils with special educational needs in inclusive settings (Paju et al 2016; Nilsen 2017).

The parents' and pupils' satisfaction with the positive feedback they received during the CICO intervention is also valuable. CICO support promotes positive home-school connections at a practical

level. The parents of the sixth-grader reported that the CICO-ending graduation meeting was the first in their son's school career that was clearly positive and included only positive feedback. Since this case study was aimed at finding adequate support for pupils with severe and longstanding behavioural problems, the intervention phase was longer than on average in CICO implementations in previous studies (McIntosh et al. 2009; Wolfe et al. 2016). The intervention lasted 10 weeks plus an additional 6 weeks for John and 14 weeks for Andrew. Social validity was assessed twice (at the middle and end,) and the results suggest that the length of the intervention did not weaken the social validity of the intervention among the school practitioners. It is worth noting that the most common solution in Finland for pupils who exhibit behaviour problems of the severity of the two pupils in this study would be referral into special education support, carried out most often in a separate class. The last available statistics show that among pupils identified as having difficulties in adjustment or have emotional disorders, more than a half are placed in special education support whereas with other difficulties, for example, language related, only a minority of pupils are in special education support and majority are served by intensified part-time support (Statistics Finland 2010a, 2010b).

Limitations and future directions

The fidelity of the intervention was measured through daily summary data sheets completed by the CICO assistants. The quality and quantity of actual positive feedback that the pupils received was not captured, even though it is known that positive feedback is the most powerful tool to support pupils' behaviour and change it towards a desired direction. Furthermore, the lack of detailed, quantitative information about the quality of the school-level PBS system is a limitation. However, the anecdotal evidence that the research team has compiled after working with schools for more than five years strongly suggests that the schools had well-developed school-wide PBS systems. This factor is

important because the objective is that after an intensive CICO support phase, positive interaction needs to continue between pupil and teacher, which supports the maintenance of positive outcomes as observed in this study. Hopefully, future studies will clarify whether and how this happens.

Conclusion

Once universal-level support is in place, evidence-based solutions like CICO can be easily carried out to provide support for pupils with even severe behavioural problems, such as ADHD symptoms, who are learning in a mainstream classroom setting. CICO support is based on well-tested principles of behaviour theory and has shown promise for achieving long-lasting positive behaviour outcomes and extending successful learning into inclusive classrooms. As such, this support seems to serve well as one way of providing the reasonable accommodations indicated by the article 24 of the UN Convention of the Rights of Persons with Disabilities (United Nations 2006). After providing supportive intervention to reduce pupils' problem behaviours, it is important to ensure that pupils feel safe and able to fully participate in the daily learning activities in a mainstream class, even when the additional support is withdrawn. Above all, this desired outcome emphasises the importance of developing good universal-level support practices, like SWPBIS systems in schools. While this paves the way to create more conducive learning environments for all pupils, it simultaneously requires participation from, and changes in the behaviour of the teachers who play a central role in building more inclusive schools.

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