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The Impact of an Elementary Whole-School Nurturing Approach:
A Controlled Multiple-Perspective Follow-Up Study

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Abstract

Introduction. Children's social and emotional wellbeing is associated with subsequent academic achievement and behavioural outcomes, as well as functioning in later life. Nurturing approaches are one way of developing such wellbeing. Whole-school approaches to nurturing have been discussed in the literature, but no studies of any quality have evaluated effects. The aim of this study was to evaluate whether whole-school nurturing had any effect on children's wellbeing from the perceptions of pupils, parents and teachers.

Method. The present study in primary (elementary) schools is controlled, has follow-up, and multiple perspectives from teachers, parents and pupils. Pupils (n=322) from Years/Grades 1, 3 and 4 (aged 6, 8 and 9) (Years limited by school staff time availability) in three intervention and three control schools and their parents and teachers participated over two years. On a pre-post basis, the Strengths and Difficulties Questionnaire (SDQ) was used with teachers and parents and the Stirling Children's Wellbeing Scale (SCWS) with pupils.

Results. On the SDQ for Teachers, the pre-post Total Difficulties scores and the Prosocial scores were significantly better for the intervention than the control group. On the SDQ for Parents, both intervention and control groups improved, and there was no difference. On the SCWS for Children, again both intervention and control groups improved, and there was no difference.

Discussion and Conclusion. The nurturing intervention group was significantly better than controls according to the perceptions of Teachers, but for parents and children both intervention and control groups improved. A number of recommendations for future research were made, and implications for practitioners and policy-makers outlined.

Keywords: nurture, whole-school, elementary, intervention, control, follow-up

Resumen

Introducción. El bienestar social y emocional de los niños está asociado con los logros académicos posteriores y los resultados conductuales, así como con el funcionamiento en la edad adulta. Los enfoques de crianza son una forma de desarrollar ese bienestar. Se han discutido en la literatura los enfoques de crianza integrales de la escuela, pero ningún estudio de calidad ha evaluado los efectos. El objetivo de este estudio fue evaluar si la crianza integral en la escuela tenía algún efecto sobre el bienestar de los niños según las percepciones de alumnos, padres y maestros.

Método. El presente estudio en escuelas primarias (primaria) es controlado, tiene seguimiento y múltiples perspectivas de docentes, padres y alumnos. Alumnos (n=322) de Años/Grados 1, 3 y 4 (de 6, 8 y 9 años) (Años limitados por la disponibilidad de tiempo del personal escolar) en tres escuelas de intervención y tres escuelas de control y sus padres y maestros participaron durante dos años. Antes y después, se utilizó el Cuestionario de Fortalezas y Dificultades (SDQ) con maestros y padres y la Escala de Bienestar Infantil de Stirling (SCWS) con los alumnos.

Resultados. En el SDQ para profesores, las puntuaciones de dificultades totales pre-post y las puntuaciones prosociales fueron significativamente mejores para el grupo de intervención que para el grupo de control. En el SDQ para padres, tanto los grupos de intervención como los de control mejoraron y no hubo diferencia. En el SCWS para niños, nuevamente mejoraron los grupos de intervención y de control, y no hubo diferencia.

Discusión y conclusión. El grupo de intervención de crianza fue significativamente mejor que los controles según las percepciones de los maestros, pero para los padres y los niños, tanto los grupos de intervención como los de control mejoraron. Se hicieron una serie de recomendaciones para futuras investigaciones y se describieron las implicaciones para los profesionales y los responsables de la formulación de políticas.

Palabras clave: crianza, toda la escuela, primaria, intervención, control, seguimient

Introduction

This study investigates any social, emotional, and behavioural effects from the perspectives of students, parents and teachers of a whole-school nurturing approach on pupils in three primary (elementary) schools over a two-year period, in relation to three matched comparison schools. Previous studies have lacked both control groups and follow-up, and often only taken the teacher perspective into account, so this original study is important in filling these gaps, with implications for practice, policy and future research internationally.

Context

There is increasing recognition of the importance of children's wellbeing internationally. Wellbeing is central to the United Nations Convention on the Rights of the Child (UNCRC) (Stewart et al., 2007), ratified in 1989. Beyond this, there is wider evidence of a relationship between children's social and emotional wellbeing and academic achievement outcomes, as well as functioning in later life (American Academy of Pediatrics, 2014; Cheney, Schlosser et al., 2014; Dawson & Singh-Dhesi, 2010; National Institute for Health Care Excellence, 2013; Weare, 2015). However, UNICEF (2017) compared child wellbeing in 41 countries in relation to 25 sustainable development goals. Although some countries showed progress on some indicators, no country made progress on all indicators. Adolescent mental health was worsening and there were considerable variations in the rates of acute bullying and adolescent suicide.

"Wellbeing" has proved difficult to define. UNICEF (2007) suggested the inclusion of six dimensions: material wellbeing, health and safety, educational wellbeing, family and peer relationships, behaviours and risks, and subjective wellbeing. Later et al. (2014) suggested that wellbeing could include physical wellbeing, spiritual wellbeing, emotional and psychological wellbeing, and social wellbeing (Jindal-Snape et al., 2019). Historically, there have been two main approaches to wellbeing: hedonic and eudaimonic (Dodge et al., 2012; Liddle & Carter, 2015). Hedonic wellbeing focuses on maximising pleasurable experiences and happiness and focuses on the short term (Henderson & Knight, 2012). Ryan and Deci (2001) suggested that hedonic wellbeing is the existence of positive mood and lack of negative mood. In contrast, eudaimonic wellbeing focuses on actualising potential (Henderson & Knight, 2012) and relates to longer term personal growth, mastery, acceptance and autonomy (Liddle & Carter, 2015). However et al. (2012) and Liddle and Carter (2015) suggest that most researchers consider

wellbeing to be multi-dimensional and a combination of both approaches, and this is the approach adopted here. Thus, Weare (2015, p.3) suggests wellbeing "involves a sense of optimism, confidence, happiness, clarity, vitality, self-worth, achievement, having a meaning and purpose, engagement, having supportive and satisfying relationships with others and understanding oneself, and responding effectively to one's own emotions.".

Given the important contribution of children's wellbeing to a range of outcomes, the school environment is well placed to provide children with opportunities to promote their social and emotional wellbeing (Cheney at al., 2014; Weare, 2015). A number of approaches have been utilised in schools, including Nurture Groups.

Nurture Groups

"Nurture Groups" (NGs) were introduced in the 1970s in London by Marjorie Boxall in response to large numbers of vulnerable children starting school with emotional and behavioural needs (Reynolds et al., 2009). They aimed to close the attainment gap for children who had not had essential early learning experiences to allow them to operate at an age-appropriate level either socially or emotionally (Doyle, 2003). NGs are rooted in attachment theory (Bowlby, 1969; 1973; 1980), with a strong emphasis on the relationship between the adult and child. The traditional nurture group model involves 10-12 children of a similar age/stage, a trained teacher, and teaching assistant (Boxall, 2002), with emphasis placed on social and emotional development as well as academic progress (nurtureuk, 2019). Children spend 2-4 terms in the NG while continuing to link with their mainstream class (Scott & Lee, 2009).

In two systematic reviews, Hughes and Schlosser (2014) and Cheney, Schlosser, Nash and Glover (2014) found that NGs were effective in improving children's social and emotional wellbeing. There have been five non-randomised controlled studies, which compared social and emotional functioning and academic progress in children with Social Emotional and Behavioural Disorders (SEBD) in NGs and mainstream classrooms (Cooper et al., 2001; Cooper & Whitebread, 2007, Reynolds et al., 2009; Scott et al., 2009, Seth-Smith et al., 2010). These studies found that attendance at NGs either full time and part time for at least two terms was significantly likely to improve academic achievement and social and emotional functioning. Cooper and Whitebread (2007) found that NGs of longer standing (more than two years) had a greater impact on children than newer ones, with statistically significant differences in pupils' rate of improvement.

Limitations included the short time frame between pre- and post-measures, use of teacher measures only (Reynolds et al., 2009; Scott & Lee, 2009; Seth-Smith et al., 2010), stating that teacher and parent interviews were carried out but not reporting on them (Cooper & Whitebread, 2007), and not providing enough detail about teacher interviews to allow replication (Cooper et al., 2001). Other researchers have commented on the wider limitations of the NG approach. O'Connor and Colwell (2002) noted that some children relapsed in their social and emotional functioning and advocated continuing nurturance in the mainstream class. Cooper and Tiknaz (2005) and Cooper and Whitebread (2007) highlighted concerns about withdrawing children from their mainstream classes, echoing concerns about "remedial" withdrawal groups which disappeared decades ago, and raising issues about children becoming socially detached due to periods of ongoing separation from their mainstream class.

A Whole-School Nurturing Approach

To address these problems, Cooper and Whitebread (2007) advocated the integration of NG practices into all mainstream classes across the school. Similarly, MacKay (2015) stressed the need for nurture to be applied at both targeted and universal levels. Weare (2015) also suggested that schools could promote social and emotional wellbeing through whole-school approaches. Thus whole-school nurturing approaches have begun to develop, as advocated by several other authors (Doyle, 2001; Doyle 2003; Doyle 2004; Lucas, 1999). However, there is limited evidence on the effectiveness of whole-school nurturing approaches (Kearney & Nowek, 2019; MacKay, 2015; McNicol & Reilly, 2018; Reynolds et al. 2009), and hence a gap between practice and research.

McNicol and Reilly (2018) focused on the use of a framework to evaluate implementation, but findings emphasised implementation factors rather than effectiveness. Kearney and Nowek (2019) reported on the perceived benefits of a nurturing approach, including: a happier, calmer, safer ethos and a school culture which had an impact on pupil's learning and wellbeing; staff understanding and supporting pupils' needs better; and consistency in the approach and language staff used with pupils. Challenges included getting all school staff on board, consistency in staff training, developing uniformity in terms of understanding and practice in supporting pupils, and evaluating the impact of nurturing approaches. However, there were limi-

tations in this study, including: not providing adequate information on the questions in questionnaires and interviews; transcribing interviews verbatim in vivo; not providing details of thematic maps and restricting data gathering to education staff.

A recent systematic review (Nolan et al., 2021) noted that there was limited research into the impact of whole-school nurturing approaches and the available research was of poor quality, with no control groups and no follow-up. This study seeks to address those gaps. This led to the research questions for the present study:

Research Questions

1. Does a whole-school approach to nurturing in primary schools have positive or negative social, emotional and behavioural effects from the teachers' perspective?
2. Does a whole-school approach to nurturing in primary schools have positive or negative social, emotional and behavioural effects from the parents' perspective?
3. Does a whole-school approach to nurturing in primary schools have positive or negative social, emotional and behavioural effects from the children's perspective?

Naturally, our hope was that the positive effects would outweigh any negative effects, and this was the underlying hyypothesis.

Method

Participants

Initially, all primary schools in one local authority were invited to complete a survey to audit their needs and readiness in relation to nurturing approaches and express an interest in participating if they wished. Three responding primary schools selected as the most ready and prepared to develop nurturing approaches were invited to participate and were termed Pathfinder Schools. Matched comparison schools for each of the Pathfinder schools were then identified. They were: situated in a similar geographical area to an intervention school, had similar deprivation levels (i.e., were of the same socioeconomic status), were similarly urban or rural, had a similar school roll size, were similarly denominational or non-denominational, and had similar proportions of genders and ethnic minorities. Comparison schools acted as a waitlist and were offered the intervention subsequent to the research. Thus, three intervention primary schools and three comparison primary schools participated.

All pupils in Years/Grades 1, 3 and 4 (aged 6, 8 and 9), their parents and teachers were invited to participate (Table 1). These stages were selected to ensure a spread of age. It was not possible to include all years owing to lack of staff time. The three Pathfinder schools had three, two or one classes respectively in Year 1, and two classes in Year 3 and 4. The three Comparison schools had three, two and two classes respectively in Year 1 and Year 3, with three, two and one class respectively in Year 4. Reception classes (before Year 1) were not selected as parents would not have been able to comment on changes over the previous year. Final school year (Year 5) pupils were not selected as the comparison schools were a waitlist, and comparison pupils needed the opportunity to be exposed to the intervention once the research was complete.

Table 1. *Participant numbers*

	Intervention Schools	Comparison Schools
Pupils Invited Secondary	373	578
Pupils Particpating Secndary	218	352
Pupiuls Invited Primary	363	431
Pupils Particpating Primary	149	173
Parent completion of measure on children	136	161
Teacher completion of measure on children	149	173
Child completion of measure on themselves (excluding Year 1 pupils)	99	112

Data from Pathfinder and Comparison school pupils, parents/guardians and teachers was gathered over two academic years from October to June two years later. In the intervention condition 363 pupils were invited, and 149 (41%) actually took part in the research. In the comparison condition 431 pupils were invited to take part in the research, and 173 pupils (40%) actually took part, with their teachers and parents completing measures on them. Parental consent proved difficult to obtain, and many parental consent forms were never returned, despite

numerous reminders. Data was not gathered from pupils if their parents did not provide informed consent. Table 1 illustrates the breakdown of participant numbers yielding pre-post data.

Instrument

The following measures were used:

- Goodman Strengths and Difficulties Questionnaire (SDQ) – a measure of a child's social, emotional, and behavioural functioning, with Teacher and Parent versions (Goodman, 2001).
- Stirling Children's Wellbeing Scale (SCWS) – a measure of emotional wellbeing by child self-report (Liddle & Carter, 2015).

The SDQ is an emotional and behavioural screening measure completed by teachers or parents said to measure prosocial behaviour and psychopathology in 3-16-year-olds. It is a 25-item questionnaire using a three-point response scale (not true, somewhat true, certainly true). It contains two subscales: Total Difficulties and Prosocial Behaviour. A lower Total Difficulties scores indicates fewer difficulties, and a higher Prosocial Behaviour score indicates more positive prosocial behaviour. Goodman (2001) noted internal consistency reliability of 0.73 (Cronbach α) and test-retest reliability after 4-6 months of 0.62. These figures are very modest, but the SDQ has been widely used in other research. Validity has been found to be good, e.g., Hall, Guo, Valentine, Groom, Daley and Sayal, et al. (2019) found SDQ was a valid outcome measure with ADHD participants. However, this study's data were not analysed for reliability or validity. The questionnaire is available freely online for readers interested in the individual questions.

The SCWS is a positively worded scale of 15 questions which measures emotional and psychological wellbeing for 8-15-year-olds (Liddle & Carter, 2015). The higher the score, the better the child's performance. It has better test-retest reliability than the SDQ at 0.85 (Cronbach α). However, extreme scores below three or above 14 indicate that the participant's overall wellbeing score should be treated with caution. It includes a three-item social desirability sub-scale. The SCWS had a significant correlation with both the WHO Five ($r > 0.7$) and Dubois Self-esteem scale ($r=0.7$), suggesting good construct validity (Liddle & Carter, 2015). The SCWS was not used with the youngest group of children as it was not recommended for such young children and no suitable alternative was available. However, this study's data were not

analysed for reliability or validity. The questionnaire is available freely online for readers interested in the individual questions.

Measures were taken from participants at two different time points; October and June 21 months later, approximately the beginning and end of the school year over two school years. Measures were taken in October rather than earlier to give the pupils time to settle into school and the teachers time to get to know the pupils. In summary, the following measures were used:

- Year/Grade 1 - SDQ teacher, SDQ parent
- Year/Grade 3 - SDQ teacher, SDQ parent, SCWS pupils
- Year/Grade 4 - SDQ teacher, SDQ parent, SCWS pupils

Completion of the SCWS took place in groups of approximately five pupils facilitated by a research assistant, to provide help for pupils to read the questions if required. Pupils were instructed to bring a ruler to place it under the question they were answering to ensure they ticked the box that corresponded to the correct question.

Ethics

Ethical approval for this research was granted by the University Ethics Committee (code E2016-2017) and the Local Authority (School District). Participants were free to withdraw from the research at any time without a reason.

Design

This was a study with a control group, with three distal schools serving as comparison for the three intervention schools. The control schools were carefully matched with the intervention schools. It was also a longitudinal study with data gathered over two school years. It was also multi-perspective, with the views of teachers, parents and children gathered and compared.

The Intervention

A team of Educational Psychologists (EPs) developed a Nurturing Relationships Approach (NRA) intervention - a whole-school approach to nurture (Renfrewshire Educational Psychology Service, 2020). The NRA intervention involved delivering an initial half day training to all school staff in intervention schools, which focused on attachment theory and nurturing

approaches. EPs later delivered two days of in-depth training on attachment theory and nurturing approaches for members of staff who were leading NRA in intervention schools. Each intervention school was allocated two places on this two-day training. Further yearly training sessions of 1.5 hours in duration were then provided to school staff on the nurturing approaches that the establishment was focusing on developing and embedding in their school. Over time these covered the six main nurturing principles. The training was the same for all grades and there was no training for parents or pupils.

A nurturing approach entails making available positive role models from adults and positive, inclusive, and respectful relationships across the whole school community (including pupils, teaching and other staff, and parents/carers), which were reliable, predictable and consistent, and these were demonstrated and practiced in the training. This required an understanding of attachment theory, the incorporation of attunement, warmth and connection, and a balance of care and challenge, and these were the key elements of the training. Alongside structure, high expectations and a focus on achievement and attainment, there was a particular focus on those pupils with missing early nurturing experiences and the development of resilience and capacity to deal more confidently with life (e.g., McNicol & Reilly, 2018; Nurtureuk, 2019). EPs supported schools to develop an action plan detailing and evaluating the nurturing practice they were implementating. By contrast, the control group proceeded with regulalr classroom instruction. The control schools were not aware of the nature of the intervention in the intervention schools and care was taken to ensure there was no cross-contamination.

The intervention used an Implementation Science framework (Meyers et al., 2012) and Coach Consult model (Balchin et al., 2006). Implementation Science seeks to bridge the gap between science and practice (Meyers et al., 2012), focusing on how to implement practices to make them work effectively (Fixsen et al., 2009). Outcomes are heavily influenced by implementation and Meyers et al. (2012) advocate four implementation stages and fourteen critical steps, ten of which should be addressed prior to implementation. Joyce and Showers (2002) found that traditional in-service training (or continuing professional development) resulted in only 5% of teachers transferring that learning into practice. However, when training was accompanied with coaching, 95% of teachers transferred new skills learnt into their practice. Balchin et al. (2006) suggest that a Coach Consult model mixes aspects of in-service training and project work, allowing teachers to manage their own interventions and thereby ensuring change is sustainable and embedded in a whole-school system. Thus, a Coach Consult model

promotes ownership of interventions and ensures that interventions meet the needs of the school.

Data Analysis

Ten pupils withdrew from the research as they moved schools. There were no missing teacher post SDQs and pupil post SCWSs. From each data set (one class group from one primary school) there was an average of two missing parent post SDQs, despite the sending of several reminders by various methods. In these cases, both pre- and post-data were excluded. The data were checked for outliers, but there were none. The data met parametric assumprions including: interval level of measurement, use of random sampling (stratified random sampling), independence of observations, large sample size, and homogeneity of varience (Levene's test) (Pallant, 2006). Effect sizes were also calculated. ANCOVA was the preferred test as it controls for differences in pre-test means and aims to reduce within group error variance. This was carried out using SPSS for all data sets that met ANCOVA assumptions. A mixed ANOVA was carried out for the Parent SDQ total difficulties data as this did not meet ANCOVA assumptions.

Results

Allowing for pre-test variation by ANCOVA, there was a significant difference between the Pathfinder and Comparison groups on post-test Teacher SDQ Total Difficulties scores, $F (1, 319) = 14.98$, $p = .00$, *partial eta squared* $= .05$ (medium or typical effect size; Vaske, Gliner, & Morgan, 2002). While the Pathfinder score had declined substantially (i.e., greatly improved), the Comparison group showed a small increase (Table 2 gives descriptive statistics).

Table 2. *Teacher SDQ total difficulties score for pathfinder and comparison conditions*

	Pathfinder			Comparison		
	N	*M*	*SD*	*N*	*M*	*SD*
Pre-test	149	6.54	6.14	173	4.02	4.17
Post-test	149	4.06	4.86	173	4.46	4.83

As well as the Total Difficulties Score, the Prosocial Subscale Score was inspected. Allowing for pre-test variation by ANCOVA, there was a significant difference between the Pathfinder and Comparison groups on post-test Teacher SDQ Pro-social scores, $F(1, 319) = 4.26$, $p = .04$, *partial eta squared* $= .01$ (small effect size). The Pathfinder Prosocial score had increased substantially (i.e., greatly improved), while the Comparison group showed a much smaller increase (Table 3 gives descriptive statistics).

Table 3. *Teacher SDQ pro-social score for pathfinder and comparison conditions*

	Pathfinder			Comparison		
	N	*M*	*SD*	*N*	*M*	*SD*
Pre-test	149	8.20	2.09	173	8.69	1,80
Post-test	149	8.97	1.70	173	8.78	1.79

Regarding the parents, a mixed between and within subjects ANOVA was conducted. The main effect comparing Parent SDQ Total Difficulties scores between Pathfinder and Comparison conditions was not significant, $F(1, 295) = .027$, $p=.87$, *partial eta squared* $= .000$. There was no significant interaction between conditions and time (*Wilks' Lambda*=.998, $F(1, 295) = .5$, $p = .48$, *partial eta squared* $= .002$, indicating a negligible effect size). There was a significant effect for time (*Wilks' Lambda* $= .93$, $F(1, 295) = 23.49$, $p < .001$, *partial eta squared* $= .07$, indicating a medium effect size), with both groups showing a similar reduction in total difficulties over time (see Table 4). Similarly, there was no significant difference between the Pathfinder and Comparison groups on Parent SDQ Prosocial scores ($F(1, 294) = 0.82$, $p = .37$, *partial eta squared* $= .003$, a negligible effect size), both groups showing a small increase.

Table 4. *Parent SDQ total difficulties score for pathfinder and comparison conditions*

	Pathfinder			Comparison		
	N	*M*	*SD*	*N*	*M*	*SD*
Pre-test	149	7.64	5.75	173	7.39	4.9
Post-test	149	6.35	5.4	173	6.43	4.4

Turning to the pupils, allowing for pre-test variation by ANCOVA, there was no significant difference between the Pathfinder and Comparison groups on post-test SCWS scores (F (1, 208) = .07, p = .79, partial eta squared = 0.000). Both conditions showed a small increase (Table 5).

Table 5. *Child SCWS score for pathfinder and comparison conditions*

	Pathfinder			Comparison		
	N	*M*	*SD*	*N*	*M*	*SD*
Pre-test	149	45.68	9.02	173	46.39	7.97
Post-test	149	46.37	7.64	173	46.94	8.25

In the Pathfinder condition, 21% of pupils scored 14/15 on the social desirability scale pre intervention, and 11% of pupils scored 14/15 on the social desirability scale post intervention. In the Comparison condition, 12% of pupils scored 14/15 on the social desirability scale pre intervention and 6% of pupils scored 14/15 on the social desirability scale post intervention. Pre scores were more socially desirable than post scores, and a greater percentage of socially desirable scores were given in the intervention condition than the comparison condition.

Discussion and conclusion

Summary

- There was a significant difference in Teacher SDQ Total Difficulty scores between Pathfinder and Comparison schools, with a medium effect size. Mean scores decreased for Pathfinder schools and increased for Comparison schools.
- There was a significant difference in Teacher SDQ Prosocial scores between Pathfinder and Comparison schools. Mean scores increased for Pathfinder schools and decreased for Comparison schools, wth a small effect size.
- There was no significant difference between Pathfinder and Comparison schools in Parent SDQ total difficulties scores, both intervention and control groups improving (negligible effect size), although there was a greater reduction in the score for the Pathfinder group than there was in the Comparison group.

- There was no significant difference between Pathfinder and Comparison schools in Parent SDQ Prosocial scores, both intervention and control groups improving (negligible effect size), although there was a greater increase in the mean Parent SDQ pro-social score for the Pathfinder group than there was for the Comparsion group.

- There was no significant difference between Pathfinder and Comparison schools in pupil SCWS scores, both intervention and control groups improving (negligible effect size), although there was a greater increase in SCWS scores for the Pathfinder schools than there was for the Comparsion schools.

Thus, while teacher Total Difficulties and Prosocial Behaviour SDQ scores improved for the Pathfinder group, Parental and Child scores both improved, but not significantly differently between the intervention and control groups.

Relation to Previous Literature

The results show that school staff found significant improvements in pupils in the Pathfinder condition post intervention regarding their social, emotional and behavioural functioning compared to pupils in the comparison condition, as shown on the SDQ. This finding is in keeping with other research on nurturing groups which used the SDQ to demonstrate significant social, emotional and behavioural effects on pupils (Binnie & Allen, 2008; Cooper et al., 2001; Cooper and Whitebread, 2007).

No significant differences were found for Parent SDQ and SCWS. This is in line with the Reynolds et al. (2009) research that also used the SDQ, also reporting that although results were not statistically significant, teacher SDQ scores were going in a positive direction. Previous research seems to mainly gather parent/carer views using questionnaires or interviews rather than using quantitative measures (e.g. Sanders, 2007; Shaver & McClatchey, 2013). However, it should be noted that some research has found statistically significant differences using the Parent SDQ (e.g. Binnie & Allen, 2008). Kearney and Nowek (2019) note that a challenge when working with parents is the potential perception that nurture is "soft".

The SCWS is not a tool that is routinely used to evaluate the impact of nurturing approaches. It was used in the present research as it lends itself well to whole school and LA surveys due to its ease of administration and scoring, can be used to evaluate the effectiveness of educational interventions, and was developed in Scotland and is suitable for the Scottish

context (Liddle & Carter, 2015). Additionally, it is suggested that NGs in places for more than two years have a greater impact on pupils than NGs in place for less than two years (Cooper & Whitebread, 2007). Cooper and Whitebread (2007) found that the difference in pupils' gains between NG in place for more than two years and those in place for less than two years was statistically significant. NRA was in place for less than two years when the measures were taken for this research.

Overall, results from the current research on NRA aligns with previous research on NGs in finding positive social, emotional and behavioural effects for pupils. However, this study takes research a step further as the focus is on a whole school nurturing approach rather than NGs, and the population is universal rather than targeted.

Strengths and Limitations

The inclusion of comparison groups is a strength of the research design. It is acknowledged that it was not possible to ensure that comparison schools were not exposed to any continuing professional development related to nurture and attachment over the course of the research. Teaching staff may have been reading about nurture/attachment or sourced external training. Additionally, previous knowledge/practice was not accounted for in comparison schools. The teachers could have been influenced by an improvement expectation bias when they answered the questionnaire. If they were trained to be role models, it could be that they expected change, hence the significant differences. Within schools, it was not possible to randomly assign participants into groups since this would have involved considerable disruption to the schools involved. Unequal participant numbers in Pathfinder and Comparison groups is also acknowledged as a limitation, which increases the possibility of Type II error.

There are several limitations in relation to the completion of Teacher SDQs. Since this was a two-year study, different teachers completed the pre and post SDQs, and inter-rater reliability might be questioned. Similarly, limitations are acknowledged with the pupil questionnaires. The Pathfinder group had more extreme socially desirable responses, and this may have had an impact on the SCWS findings. Additionally, no self-report measures were taken from children in the Year/Grade 1 class as the SCWS was not suitable for that population. Perhaps another measure could be found. Previous research has suggested that it is essential to gather the child's voice and take this into account when measuring child wellbeing (Mashford-Scott, Church, & Tayler, 2012; UNCRC, 2010).

The timeframe for intervention operation and data gathering is both a strength and limitation of the research. The longitudinal nature of the research is a strength and a unique contribution of the research. However, the intervention was operating for less than two years when the data was gathered. Previous research suggests that having nurture groups in place for more than two years had a greater impact than those in place for less than two years (Cooper & Whitebread, 2007). This intervention may not have been embedded for a sufficient amount of time to fully measure its impact on staff and pupils.

Although the results for the Parent SDQ and SCWS were not statistically significant, the mean scores were more positive for the Pathfinder condition than they were for the Comparison condition. However, as some participants scored 14/15 on the social desirability scale, their overall wellbeing results should be treated with caution (Liddle & Carter, 2015). It is interesting to note that a higher percentage of participants scored 14/15 on social desirability scale in the Pathfinder condition, than the comparison condition. Higher percentages were found in the pre questionnaires than the post questionnaires. This indicates that the pre-pathfinder SCWS responses were more socially desirable than the post pathfinder SCWS, and the Pathfinder group gave more socially desirable responses than the Comparison group. This may have had an impact on the SCWS findings.

Finally, no data is offered on implementation fidelity or integrity. Pathfinder and Comparison schools were analysed as if they were homogeneous. However, the intervention may have had differential impact in different schools. While it would be possible to inspect the raw data from individual schools, the numbers would be so small as to prohibit statistical analysis.

Implications for Future Research

More research is required focusing explicitly on the direct impact of whole-school nurturing approaches on positive outcomes for pupils. Future research should seek to evaluate whole-school nurturing approaches once the intervention has been in place for two years, in order to embed it and hopefully secure greater consistency. Secondly, the potential lack of consistency between two different teachers over the two-year period is a problem, and it may be that each teacher needs to complete SDQs at the beginning and end of their involvement with the pupil, although of course this increases teacher workloads. Future research might use the SDQ coupled with other measures which are more targeted and discriminatory. Thirdly, the

lack of any difference in parent SDQs may indicate that in-school intervention does not have generalised effects out of school and into the home. If this was the case, the intervention would need to consciously incorporate a home component from the outset, in the hope of demonstrating generalised outcomes. Fourthly, the voice of the pupil needs to be captured, and more than one measure may be necessary to do this. A continuing search for suitable measures is necessary.

Future research should also consider gathering qualitative data as this may provide a more in-depth picture, and indeed this is in hand. It should also seek to ensure that measures of implementation fidelity/integrity are built into the research and related to outcomes. This implies that each school (and probably each class, as taught by two subsequent teachers) should be analysed separately as well as in combination. Finally, research into nurturing approaches in the secondary school sector should be considered as there appears to be little research in this area.

Implications for Practitioners

A whole-school approach to nurturing may have much to recommend it, and this study clearly demonstrates positive effects with regard to Teacher pre-post measures in relation to a control group, both in Total Difficulties and Prosocial Behaviour. Teachers may be encouraged to adopt such approaches, but will probably require continuing professional development and whole-school discussions and monitoring if this is to be successful.

Implications for Policy-Makers

As far as policy-makers are concerned, there is sufficient evidence here to support widespread development of whole-school nurturing approaches, leading to further replications of this research, which could benefit from government support. Much of the research has been undertaken in the UK, but there are nurturing schools in other countries such as the USA and India. An international study comparing outcomes in different countries would be extremely interesting.

Conclusions

In relation to the Research Questions, we conclude:

1. A whole-school approach to nurturing in primary schools has overall effects on Total Difficulties from the teachers' perspective in relation to comparison groups.

2. A whole-school approach to nurturing in primary schools has overall effects on Pro-social Behaviour from the teachers' perspective in relation to comparison groups.

3. A whole-school approach to nurturing in primary schools does not have statically significant effects from the parents' perspective in relation to control groups, as both intervention and comparison groups improved.

4. A whole-school approach to nurturing in primary schools does not have statically significant effects from the children's perspective in relation to control groups, as both intervention and comparison groups improved.

In the future in the light of subsequent research, these findings may be further elaborated.

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