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Whole-School Nurturing Approaches: A Systematic Analysis of Impact

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Aims: This systematic analysis aims to address the research question - do whole-school nurturing approaches show any impact in the short or long term on (1) emotional/behavioural, (2) cognitive/educational or (3) teacher/school variables?

Rationale: Trauma or Adverse Childhood Experiences can have long-term consequences though causing problems in attachment, which nurturing approaches seek to ameliorate. Whilst there is a good deal of international research evidence on the impact of Nurture Groups in schools, less is known about the impact of whole school nurturing approaches on pupils and schools. This paper aims to address that gap.

Findings: A total of 146 papers were retrieved from four databases and thirteen from other sources. After excluding 61 duplicate papers, 98 papers were screened in relation to inclusion and exclusion criteria, and only 13 papers were finally selected. Results suggest that nurturing approaches can have a positive impact on pupils' social, emotional and behavioural needs, academic progress, other pupils in the mainstream class/school, parents and home life, and the whole school. Additionally, the length of time a nurturing approach is in place in a school contributes to its effectiveness.

Limitations: Limitations include the quality of research available, lack of papers focusing on universal whole-school nurturing approaches and lack of international studies.

Conclusions: The paper highlights the need for more robust research focusing on universal whole-school nurturing approaches to be carried out.

Key words: whole-school, nurture, nurturing, systematic analysis, impact

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Abstract

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Whole-School Nurturing Approaches: A Systematic Analysis of Impact

Introduction

The American Academy of Paediatrics (2014) note that trauma can have long-term consequences - negative adult physical and mental health outcomes - and affect more than half of the population. They have grouped types of trauma under the term Adverse Childhood Experiences (ACEs). Five types are personal — physical abuse, verbal abuse, sexual abuse, physical neglect, and emotional neglect. Five relate to other family members: an alcoholic parent, a mother who is a domestic violence victim, a family member in jail, a family member with a mental illness, and the disappearance of a parent through divorce, death or abandonment. Any ACE can cause difficulties in attachment, and of course many children suffer more than one. The resulting disruption of attachment is what nurturing approaches seek to ameliorate.

In the current pandemic climate, there is general agreement that more children at risk of ACEs are staying longer at home, likely to be less engaged in academic work sent from school, and more at risk – with consequent adverse effects on their attachment. There is some evidence that Nurture Groups (NGs) can help. But what is the evidence for whole-school approaches to nurture? This systematic analysis offers a first response to this question.

Policy and legislation emphasise the importance of improving children's wellbeing (e.g. UNICEF, 2013), but a report by The Children's Society (Pople, Rees, Main & Bradshaw, 2015) yielded the widely reported headline that English children ranked 14 out of the 15 surveyed countries for wellbeing in school. 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, Nash &

Glover, 2014; Weare, 2015). These sources claim that the school environment is well placed to develop pupils' social and emotional wellbeing, but clearly this is not always happening.

Interventions to improve children's social and emotional wellbeing take various forms.

Goleman (1966) is famous for the idea of Emotional Intelligence. Topping, Bremner and Holmes (2000a, 2000b) debated the concept of social competence and reviewed interventions intended to promote it. Luthar (2003) edited a volume on resilience and vulnerability, introducing the notion of children's ability to adapt in the face of adversity. Weare (2004) placed this in a whole-school context by introducing the idea of "emotional literacy". The Collaborative for Academic, Social and Emotional Learning in the US and the European Network for Social and Emotional Competence have perpetuated the cause, striving to incorporate academic with social and emotional learning in all schools (CASEL, 2020; ENSEC, 2020). Khanlou and Wray (2014) expanded this to the whole community.

Beyond general social and emotional wellbeing, childhood exposure to trauma in particular can be associated with adverse outcomes, including negative behavioural, cognitive and academic effects (American Academy of Paediatrics, 2014; Maynard, Farina, Dell, & Kelly, 2019). Due to the increasing body of research on trauma and its potential impact on the outcomes for children and young people, many school systems are developing trauma-informed practices (Maynard et al. 2019). In this context, one intervention is NGs - and their influence on whole school approaches to "nurture". Supporting the development of children and young people and fostering their well-being (in particular those who have experienced trauma) is core to nurturing approaches (Education Scotland, 2018a).

Nurturing approaches (including NGs) and trauma-informed practices share several key components, including: an emphasis on early intervention, an understanding that there are reasons behind behaviour, the importance of relationships to mitigate adverse early

experiences, and a recognition that poor outcomes are not inevitable and can be reduced with appropriate support (Education Scotland, 2018b). There are now many NGs operating in primary schools in all regions of the UK, as well as appearing in different guises overseas, and some in secondary schools.

NGs were introduced in the 1970s in London (Bennathan & Boxall, 2000), in response to large numbers of vulnerable children starting school with emotional/behavioural needs (Reynolds, MacKay, & Kearney, 2009). They are a special unit of 6-12 children in a mainstream school delivering a short-term, focused intervention for children with social, emotional and behavioural difficulties. Two staff provide a nurturing and supportive environment and a positive role model for the children. NGs aim to help children who have not had essential early learning experiences, hopefully allowing them to subsequently operate successfully both socially and emotionally (Doyle, 2003).

There is evidence of the benefits of NGs (e.g. Binnie & Allen, 2008; Cheney et al., 2014; Lyon 2017; Reynolds et al., 2009), including in three reviews of the area (Bennett, 2015; Seth-Smith, Levi, Pratt, Fonagy & Jaffey, 2010; Sloan, Winter, Lynn, Gildea & Connolly, 2016). Gains are noted in the following areas: emotional/behavioural, cognitive/educational, teacher/school and support needs/school placements.

However, there is contraindicative evidence. O'Connor and Colwell (2002) reported social and emotional relapse for some pupils who had attended NGs. They suggested that pupils who attended NGs needed to continue to be nurtured in their mainstream class. Other research has highlighted concerns about withdrawing pupils from mainstream classes to attend NGs. For example, Cooper and Tiknaz (2005) reported teachers' worries about pupils' social detachment due to periods of separation from mainstream class. Consequently, some

authors have advocated the integration of nurturing principles and practices into the whole school (e.g. Cooper & Whitebread, 2007; Doyle, 2003; Weare, 2015).

Definition of a Whole-School Nurturing Approach

The definition of nurture is something like: caring and helping someone to grow, develop, or succeed. But what exactly is a “whole-school nurturing approach”? Definitions emphasise:

1. A positive role model from teachers
2. positive relationships in school which are reliable, predictable and consistent
3. inclusive, respectful relationships across the whole school community, including learners, staff and parents/carers
4. an understanding of attachment theory
5. a balance of care and challenge
6. incorporation of attunement, warmth and connection
7. alongside structure, high expectations and a focus on achievement and attainment
8. a particular focus on those pupils with missing early nurturing experiences
9. the development of resilience and capacity to deal more confidently with life.

(e.g., Education Scotland, 2018b, p.13; nurtureuk, 2020).

In general terms this sounds acceptable, even self-evident, but the difficulty of actually delivering it consistently in a school in an advantaged Western country should not be underestimated. Delivering it in less favourable circumstances (for example in the favelas of Brazil or in an African village where obtaining food and water is the principal imperative of everyday life), is an even larger problem. On the other hand, although such communities have little access to the resources for establishing NGOs, they may be able to take some steps towards establishing whole-school nurturing.

Although there is considerable research on NGs and their impact (albeit little on long term follow-up), there appears to be far less research on the impact of whole school nurturing approaches - a gap this paper seeks to fill.

Research Question (RQ)

Do whole-school nurturing approaches show any impact in the short or long term on (1) emotional/behavioural, (2) cognitive/educational or (3) teacher/school variables?

Methodology

Search terms used were (“nurtur* practice*” OR “nurtur* principle*” OR “nurtur* approach*” OR “nurtur* group*”) AND (well-being OR wellbeing OR social OR emotion* OR behavior* OR behaviour*) AND (school* OR pupil* OR child* OR young person OR young people). These included terms previous reviews found useful.

Four databases were searched: British Education Index, ERIC, Scopus and Web of Science.

The following criteria were applied:

Inclusion criteria:

- Peer reviewed journal article
- Papers referring to ‘nurture’ and ‘whole school’ in the title, abstract or keywords
- Papers written in any year
- Papers in English
- Giving outcome data in one or more of the RQ domains
- Data from qualitative, quantitative, or mixed methods
- On school-age children

Exclusion criteria:

- Grey literature, including research reports, doctoral theses and unpublished studies

- Papers not referring to the wider school
- Papers not referring to impact/outcomes.

A total of 146 items were retrieved from the databases. An additional 13 were retrieved from manual searches of the references in those papers and from manual searches of the nurture**uk** journal, the International Journal of Nurture in Education. Of these 159, 61 were duplicates and were removed. The 98 remaining items were screened at abstract level in relation to the inclusion and exclusion criteria. Thirteen papers were finally selected (see PRISMA diagram Figure 1).

<Insert Figure 1 here>

Selected studies were then coded. The EPPI-Centre's Weight of Evidence (WoE) Framework was used to critically appraise the studies for quality and relevance (Gough, 2007). To this was added the Manchester Framework (Woods, Bond, Humphrey, Symes & Green, 2011) to give more detailed criteria for discrimination, supplemented by procedures used by Davis, Jindal-Snape, Collier, Digby, Hay and Howe (2013). The relationship between WoE, the Manchester Framework and the Davies, et al. (2013) criteria is explicated in Table 1.

<insert Table 1 about here>

A random sample of four papers were used for assessment of inter-rater reliability in relation to this coding framework of high, medium and low-quality research. The second reviewer was a senior researcher familiar with the field. There was one small disagreement, resolved by discussion. The subsequent WoE judgements can be found in table 2.

<insert Table 2 about here>

None of the papers was judged as being high quality in methodological terms. Some were low in some respects but higher for other aspects, such as relevance. One paper was judged as high/medium, three papers as medium/high, six as medium, and three papers as medium/low. The range of quality between the thirteen papers was not large.

A number of moderator variables were identified, including: the foci of the paper; the sector and context of the study; the nurturing approaches employed; methods for measuring impact; social, emotional and behavioural gains; academic progress; impact on pupils in mainstream; impact of nurturing approaches on home life/parents; length of time the nurturing approach had been in place; and features of a nurturing school.

Ten papers focused on effects, two papers on the features of a nurturing school and one paper on an external service's contribution to developing nurturing approaches. The majority of the research had been conducted in primary schools, and all papers were located in the UK. However, there are schools that describe themselves as nurture schools in other countries, such as the Chikmagalur and the Kanpur Nurture Schools in India, the Nurture International School in Pakistan, and the Nurture School in Jonesboro, Arkansas (Nurture International School 2012; 2017; 2020; Nurture School Jonesboro, 2020).

Results

Many of the papers referred to NGs as well as a whole-school approach. Doyle (2003) explained how setting up a NG had an effect on the development of the whole school, and Doyle (2001) used an "Evolution of Readiness" scale for assessment of readiness to re-integrate into mainstream class. Further, Doyle (2004) described a social development curriculum to support class teachers to apply NG principles and practices within the mainstream classroom. Lucas (1999) provided a description of the features of a nurturing school. All of these papers were categorised as medium/low or medium quality.

Perceptions

Gathering teacher perceptions through questionnaires and interviews was found in eight papers (Binnie & Allen, 2008; Cooper & Lovey, 1999; Cooper & Tiknaz, 2005; Cooper & Whitebread, 2007; March & Kearney, 2017; Sanders, 2007; Shaver & McClatchey, 2013; Spalding, 2000). However, only three detailed the questions used, so replication is a problem (Binnie & Allen, 2008; Cooper & Lovey, 1999; Shaver & McClatchey, 2013). Five papers used a parent questionnaire or interview (Binnie & Allen, 2008; Cooper, Arnold & Boyd, 2001; Cooper & Whitebread, 2007; Sanders, 2007; Spalding, 2000), but in only two cases were details provided of the themes covered (Binnie & Allen, 2008; Spalding, 2000).

Pupils' perceptions, using questionnaires and/or interviews, were reported in three papers (Cooper et al. 2001; Sanders, 2007; Shaver & McClatchey, 2013). Although some authors provided partial information on specific questions (Shaver & McClatchey, 2013) or areas explored in pupil interviews (Sanders, 2007), again this was insufficient to allow replication. Methodological issues associated with the use of questionnaires and interviews to investigate pupils' perceptions (such as the social desirability effect) were noted by Cooper et al. (2001). Four papers used unvalidated measures (Doyle, 2001, 2003, 2004; Lucas, 1999). These four papers were judged as low quality.

Developmental Measures

The Boxall Profile (Bennathan & Boxall, 2000) was used in seven papers (Binnie & Allen, 2008; Cooper et al. 2001; Cooper & Tiknaz, 2005; Cooper & Whitebread, 2007; Sanders, 2007; Shaver & McClatchey, 2013; Spalding, 2000). Couture, Cooper and Royer (2011) noted the Boxall Profile is reliable, with good concurrent validity in relation to the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 2001). Good internal consistency was found for three strands of the Boxall Profile (unsupported development: Cronbach $\alpha = .83$,

internalisation of controls: $\alpha = .83$, organisation of experience: $\alpha = .87$). Four papers used Goodman's Strengths and Difficulties Questionnaire (SDQ) (Binnie & Allen, 2008; Cooper et al. 2001; Cooper & Tiknaz, 2005; Cooper & Whitebread, 2007). Goodman (1999) asserts the SDQ has good construct validity and aligns with other established scales such as Rutter's 'Child Behaviour Rating Scale' and Achenbach's 'Child Behaviour Checklist' (Cooper et al., 2001). Goodman (2001) notes adequate internal consistency (mean Cronbach $\alpha = 0.73$) and test-retest stability after 4-6 months (mean $\alpha = 0.62$). Binnie and Allen (2008) used the 'Behavioural Indicators of Self-esteem Scale' to measure teacher perceptions of self-esteem (Burnett, 1998). Internal consistency coefficients for three data collection time points were high, test-retest correlations ($r = 0.82, 0.73, 0.76$) were acceptable, and correlations between BIOSS and self-reported scores on self-concept and self-esteem scales indicated concurrent validity (Burnett, 1998).

Social Emotional Behavioural Functioning

Seven out of 13 papers suggested that the existence of NGs had a significant impact on pupils' social, emotional and behavioural functioning in the whole school (Binnie & Allen, 2008; Cooper et al. 2001; Cooper & Lovey, 1999; Cooper & Tiknaz, 2005; Cooper & Whitebread, 2007; Sanders, 2007; Shaver & McClatchey, 2013). The judgements for these papers were medium or medium/high. Nine papers referred to the impact of NGs on academic progress. Some papers clearly described the measures used to gather data on academic progress, but others did not.

Attainment

Five papers provided information on measures assessing academic progress in the whole school. Cooper et al. (2001) gathered data on educational progress using the National Curriculum and teacher perception data for maths, English and science. Doyle (2001) used key stage SATs and Doyle (2004) used national tests. Sanders (2007) used pupil assessment forms to gather information on academic gains. Academic progress data were also gathered by Cooper and Whitebread (2007). In the latter two papers reporting was very limited. Other papers reported impact on pupils' academic progress but did not provide details of the measures used.

Inspection data was used as a measure of impact in two studies. Doyle (2003) describes how a school went from 'special measures' to a 'good school' as judged by Ofsted (the English school inspection agency). The reliability and validity of inspection feedback is uncertain, although studies by Ofsted have been relatively reassuring (Ofsted, 2017). These papers had a medium/low and medium quality respectively. Similarly, March and Kearney (2017) use Validated Self-Evaluation (VSE) data as one of their impact measures (schools and local authorities evaluating their own performance).

Five other papers commented on academic progress, but did not provide enough information on data gathering or analysis to enable replication. For example, teachers in Binnie and Allen's (2008) study said 67% of pupils made some academic progress. In Shaver and McClatchey's (2013) study, staff reported that NGs had a positive impact on whole school life - pupils were more confident and progressing academically. However, no concrete data were offered. March and Kearney (2017) reported an increase in attainment, achievement and attendance and decrease in exclusions. All of these papers were judged as medium quality.

These findings were not completely echoed by Cooper and Tiknaz (2005), who found that mainstream teachers did not generally perceive NGs as improving academic performance, but did in social and behavioural functioning. Only four teachers out of nine reported improvements in literacy and numeracy, but the remaining five felt academic progress was minimal. The majority of mainstream teachers perceived NGs as an intervention for lower ability pupils. This paper was judged as medium/high quality.

Whole School Effect

Five papers reported the impact of nurturing approaches on pupils in the mainstream school. Doyle (2003) suggested that a nurturing school had an impact on mainstream pupils, but no details are given. Similarly, Doyle (2004) describes a social development curriculum but no details are given. Cooper and Tiknaz (2005) reported that the majority of mainstream teachers perceived NGs as leading to calmer classrooms as problem pupils were removed - this provided an opportunity for more support for the middle group of children. Cooper and Whitebread (2007) found pupils with behaviour problems in the mainstream classroom demonstrated significant improvements in behavioural functioning in schools where there was a NG, compared to schools where there was not. March and Kearney (2017) suggested that developing nurture across one city had contributed to improved outcomes, but the evidence for this is unclear.

Home Effect

Five papers commented on the impact of nurturing approaches on families and home life. Four papers reported that NGs had a positive impact on parents and home life (Binnie & Allen, 2008; Cooper et al. 2001; Sanders, 2007; Shaver & McClatchey, 2013). Spalding (2000) reported that all parents in the interviews rated the effectiveness of the intervention as very positive (N=11) or slightly positive (N=5). Additionally, Lucas (1999) stressed that a

necessary feature of the nurturing school is the involvement of parents, advocating a home-school contract with joint aims and objectives, as well as systems for ongoing home-school contact and regular target reviews.

Duration

Cooper and Whitebread (2007) suggested that NGs existing for more than two years had a greater impact on pupils than NGs in place for less than two years, with a statistically significant difference in the rate of improvement. The authors also suggested that the greatest social, emotional and behavioural gains for pupils were made over the first two terms. However, improvements in engagement in learning were found to continue in terms three and four. Overall, this paper had a medium/high quality.

Features of a Nurturing School

Both Doyle (2003) and Lucas (1999) describe the features of a nurturing school. Lucas (1999) emphasised the importance of a whole school nurturing curriculum where relationships are key. It was suggested that education for personal relationships be taught explicitly, pupils be actively involved in their learning and the curriculum interpreted developmentally. Having clear aims and objectives and clear school systems were part of the nurturing school (Doyle 2003; Lucas, 1999), shared with all staff and pupils and publicised in all school documents. Furthermore, decisions taken should link to these aims and objectives, and be consistent.

In a nurturing school the Senior Management Team should view the school organically, have clear lines of delegation and accountability, and ensure all pupils and staff had the opportunity to express their views. A nurturing school will have systems in place for induction of new pupils/families/school staff and parental involvement. Similarly, Doyle (2003) suggests a clear system for behaviour management aligned to the nurturing approach,

and describes clear playtime and lunchtime routines. These include: a smaller lunchtime environment facilitated by an adult for pupils who are overwhelmed by the unstructured playground, teaching children playground games during PE and rewards for good manners and helping others.

Inclusion is described as a feature of the nurturing school. Lucas (1999) advocated an inclusive approach to additional support needs and Doyle (2003) suggested that a pastoral role be undertaken by all school staff. Doyle (2003) places emphasis on the importance of NG staff promoting their work in the wider school and mainstream staff getting the opportunity to do observation in the NG. Physical changes to the classroom should include attractive areas for children to go to, in order to develop feelings of security (Doyle, 2003). However, no papers provide information on the methodology or design or evidence which supports these suggestions. Both of these papers have a medium/low quality.

Additionally, many of the above could be seen as features which any school would target amongst its objectives. Perhaps it is not so much a question of what principles underpin the school's ethos and development, but the degree to which they are developed and espoused.

Impact of Whole-School Nurturing Approaches

All papers suggested that the nurturing approach had a positive impact on the whole school, but evidence was often lacking. For example, Binnie and Allen (2008) claimed gains for NG pupils when they returned to the mainstream class, enhanced support across the school, a more proactive approach to support, staff becoming more aware of child needs, more inclusive practices and improved ethos. Similarly, Cooper et al. (2001) suggest that NGs lead to: changes in the way staff think and talk about pupils, more nurturing practices and attitudes across the school, nurture principles influencing whole school policies, increased staff

capacity in supporting challenging pupils, and increased staff awareness of the links between social/emotional factors and learning.

Cooper and Lovey (1999) also suggested increased teacher capacity, helping school staff deal constructively with tricky situations. Similarly, Cooper and Tiknaz (2005) suggested more nurturing practices were introduced into the mainstream, interactions became more meaningful, and adults developed more positive relationships with pupils across the school. New ways of understanding and approaching pupils developed.

Cooper and Whitebread (2007) also found that NGs had a positive impact on mainstream teachers' capacity, suggesting mainstream staff developed more nurturing practice due to interactions with NG staff. Additionally, schools with NGs appeared to work more successfully with pupils with social-emotional and behavioural problems than those without NGs. Social, emotional and behavioural gains were found using the SDQ for pupils in schools with NGs who did not attend the NG (Cooper & Whitebread, 2007).

Doyle's (2001) readiness scale for integrating pupils from NGs back into their mainstream class led to increased awareness and application of nurture principles in mainstream classrooms, staff adapting teaching methods and intervening before behaviour spiralled, increased staff empathy, development of nurture principles throughout the school, the inception of a social development curriculum, more co-operative working and the school becoming more inclusive and nurturing.

Doyle (2003) also described how physical changes were made to classrooms, playtime and lunchtime routines were adapted, success was celebrated through whole school assemblies, and peer observation was utilised to build the capacity of mainstream staff. Doyle (2004) found that there was a change in staff thought processes, an increase in professional dialogue and teachers adapted teaching strategies and worked towards supporting all pupils effectively.

Lucas (1999) described the features of a nurturing school and that relationships were key, with emphasis placed on shared aims and objectives, consistency, good leadership, induction systems for new pupils/families/staff, a nurturing curriculum, parental involvement and inclusion (although these might be found in any school). March and Kearney's (2017) findings were similar. They noted that in 50 schools using a How Nurturing is Our School self-evaluation framework there was an increase in attainment, achievement and school attendance, a decrease in exclusion, school staff demonstrated good understanding of nurture and attachment and vulnerable pupils were better included.

Sanders (2007) also reported on the impact NGs had on schools. Staff reported a calmer atmosphere, the whole school benefited, new teaching strategies were adapted, staff felt more empowered and there were fewer behavioural incidents. There was also a positive impact on parental engagement, breaking the negative cycle of feedback.

Shaver and McClatchey (2013) similarly reported that NGs had a positive impact on school ethos and culture and parental engagement, impacting on parents' perceptions, allowing parents to see the positives, feel supported by the school and develop more positive relationships with their children and the school. Additionally, they had an impact on classroom life and school experience, allowing pupils to achieve academic progress.

Similarly, Spalding (2000) reported a positive impact on the life of the school, for example through a reduction in difficult playground behaviour. Teachers felt increased self-esteem. However, it was noted that children who did not receive the intervention got jealous at times and the intervention had an impact on a few children rather than all. The intervention showed impact on parents, who saw positive changes (such as children being calmer) and they valued the support.

Discussion

Summary

The majority of papers focused on NGs based in the primary sector (n=8; n=3 focused on primary and secondary). There was little research focusing on whole school nurturing approaches. Two papers describe features of a nurturing school, but did not provide clear evidence (e.g., Doyle 2003) and appeared anecdotal and over-assertive.

NGs had a positive impact on pupils in terms of social, emotional and behavioural gains. Instruments utilised to gather quantitative data had good reliability and validity (e.g. Binnie & Allen, 2008; Shaver & McClatchey, 2013). There was some evidence that nurturing approaches impacted on pupils in the mainstream class (e.g. Doyle, 2004; March & Kearney, 2017), but this was far less reliable. March and Kearney (2017) was based on general large-scale data and did not take into account other potentially contributory factors such as other initiatives in place.

Cooper and Tiknaz (2005) suggested that NGs have an impact on mainstream pupils because challenging pupils are removed, affording the rest of the class more adult attention, but this was based on teacher perceptions. Cooper and Whitebread (2007) found that pupils with social or behaviour problems in the mainstream classroom showed significant improvements in behavioural functioning in schools where there was a NG, compared to schools where there was no NG. This is a strong finding and worthy of replication.

There is some evidence that nurturing approaches impact on pupils' academic progress. However, although nine papers commented upon academic progress, only four described measures used to gather this data (Cooper et al. 2001; Doyle, 2001, 2004; Sanders 2007). Measures of academic progress were predominantly based on national assessments /

curriculum (Cooper et al. 2001; Doyle, 2001, 2004). Additionally, Cooper, et al. (2001) triangulated data using teachers' perceptions.

Five papers commented upon the positive impact of nurturing approaches on parents and home life (Binnie & Allen, 2008; Cooper et al. 2001; Sanders, 2007; Shaver & McClatchey, 2013; Spalding, 2000). Three papers provided information on how data were gathered enabling replication (Binnie & Allen, 2008; Shaver & McClatchey, 2013; Spalding, 2000). Binnie and Allen (2008) and Spalding (2000) gathered parents' views. Shaver and McClatchey (2013) gathered teachers' perceptions about parental effects.

The length of time a NG was in place was found to have an impact on pupils. NGs of more than two years standing had a greater impact than those in place for less than two years (Cooper & Whitebread, 2007), in a high-quality paper.

Limitations

The potential for researcher bias in assessing paper quality is acknowledged, but in general these papers were not of the highest quality, although it is accepted that this is a difficult area to research. The relevance of the papers is also an issue. Few papers primarily focused on whole school nurture; the majority focused on NGs. Several papers had methodological weaknesses, including not enough detail given to replicate the studies and making claims which were not backed up by clear evidence. All measures needed to be more robust and more clearly reported. The fact that all studies were in the UK is also a limitation, and we do not know how context-dependent these findings are.

Further, the available research treated all schools and NGs as if they were equal, yet we know that there is often great variety between schools and between special units in schools, as well as variety in individual schools owing to changes in personnel and other factors. Worryingly,

there seems to be no mention of implementation integrity or fidelity in any of these studies. When we get beyond the functioning of NGOs to the impact of nurturing approaches on the whole school, we find that the evidence is very limited and many studies become very anecdotal, making assertions which are not readily substantiated. Additionally, there are no long-term follow-up studies.

Implications for Research, Practice and Policy

Research

Future research should clearly state the research question(s), employ more rigorous methodologies, provide information on measures used and data analysis, report enough detail to enable studies to be replicated, and ensure any claims are evidence based. Future research could investigate the impact of nurturing approaches on academic progress further, using clearly described measures and triangulation. Measures of implementation integrity and long-term follow-up are particularly needed, although it is acknowledged that these take time and are therefore expensive.

Future research describing the nature of a nurturing school should provide detailed information regarding how evidence was collected. More evidence from secondary schools is needed. The effectiveness of a nurturing approach existing for more than two years could be evaluated, or the journey of a school over such a period be described, since clearly it will take some time to establish a nurturing school, although this could be blighted by staff turnover. Future research regarding the impact of nurturing approaches on parents and home life should consider obtaining parents' perceptions directly rather than relying on teachers' perceptions, and go beyond perceptions if possible.

Practice

Individual schools should seek to evaluate their whole school approach more intensively, although it is acknowledged that time spent on this will mean less time to spend on other priorities (i.e. there is an opportunity cost). This may require additional planning due to COVID-19 restrictions. The 'Applying Nurture as a Whole School Approach' framework from the Scottish Office (Education Scotland, 2018b) is useful in this respect, and includes readiness checklists for the whole school and for individuals, observation profiles for the classroom, playroom and the whole school environment, discussion points for Focus Groups for children, and questionnaires for non-teaching staff, as well as questionnaires for teachers and parents.

This implies data collection not just by survey but also by observations and focus groups. Observations in class could be done as part of mutual peer observation already practised by many schools, with or without video recording. Observations outside of class would of course take more time, as would focus groups. Should these observations and focus groups take place on a pre-post basis, i.e. at the beginning and end of an academic year? If the intention is to measure change, then the answer is probably yes. Questionnaires are less good used on a pre-post basis as participants have difficulty bench-marking their initial responses. Finally, is it possible to compare a school implementing a whole-school approach to nurturing with another school which is not, by way of a control or comparison group?

Policy

In terms of cost-effectiveness, whole-school approaches seem considerably cheaper than NGs (which have the cost of staff, accommodation and utilities). They do however have an opportunity cost, in that time devoted to establishing a whole-school nurturing approach is time not spent on other priorities. Additionally, the cost of evaluating a whole school approach rigorously might be bigger than the cost of evaluating a nurture group. Such

research on a whole-school approach would be expensive, but not in relation to the amount already invested in NGs, so local and national governments should consider whether to make such an investment.

Wider Issues

Turning back to the wider context of trauma, to what extent might whole-school interventions not only have long-term impact on attachment (given that attachment disruptions are predominantly engendered by home life), but also have a generalised effect on the ten different types of trauma identified by the American Academy of Pediatrics (2014)? It is acknowledged that this is an ambitious ask. Improving functioning in school is a positive step forward, but will any improvement both sustain and generalise to the home or community environments? At the moment we do not have the research to answer this question, but future research may wish to consider this. Additionally whole-school nurturing approaches should consider ways to involve parents, carers and the community to support children and young people who have experienced trauma and build those secure attachments.

Conclusion

We return to our research question: Do whole-school nurturing approaches show any impact in the short or long term on emotional/behavioural, cognitive/educational or teacher/school variables? Results suggest that nurturing approaches can have a positive impact on pupils' social, emotional and behavioural needs, academic progress, other pupils in the mainstream class/school, parents and home life, and the whole school. The length of time a nurturing approach is in place in a school contributes to its effectiveness. It is acknowledged that most research focused on NGs (which appear to work reasonably well) rather than universal whole-school approaches. What research there was about whole-school approaches was generally poor in quality, lacking clear evidence and tending to the anecdotal. Additionally,

there was no research from outside the UK, and no evidence of implementation integrity or longer-term follow-up. More robust research focusing on whole-school nurturing approaches is needed.

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Table 1: WoE Framework with Manchester Framework and Davies et al. (2013) criteria

Manchester Framework Criteria	Davies et al. (2013) criteria			
Level of the Quality of Research	Level/criterion	Methodological quality	Methodological relevance	Topic relevance
High - a high level of confidence may be placed in their findings.	1. Excellent	Excellent research design justifying all decisions taken, e.g. sample, instruments, analysis. Clear evidence of measures taken to maximise validity and reliability.	Research questions clearly stated. Methodology is highly relevant to RQs and answers them in detail.	Study is very closely aligned to one of the key review questions and provides very strong evidence upon which to base future policy/action.
Medium - a reasonable level of confidence may be placed in their findings	2. Good	Research design clearly stated with evidence of sensible decisions taken to provide valid and reliable findings.	Research questions are explicit or can be deducted from the text. Findings address RQs.	Study is broadly in line with one of the key review questions and provides useful evidence.
	3. Satisfactory	Research design may be implicit but appears sensible and likely to yield useful data.	RQs implicit but appear to be broadly matched by research design and findings.	At least part of the study findings is relevant to one of the key review questions.
Low - a low level of confidence may be placed in their findings	4. Inadequate	Research design not stated and contains flaws.	RQs not stated or matched by design.	Study does not address key questions.

Table 2: Weight of Evidence Judgements

Study	A Methodological Quality	B Methodological Relevance	C Topic Relevance	D Overall Weight of Evidence in answering the review question
1 Binne & Allen (2008)	Medium	Medium (Good)	Medium (Satisfactory)	Medium
2 Cooper, Arnold & Boyd (2001)	High	High (Excellent)	Medium (Good)	High/Medium
3 Cooper & Lovey (1999)	Medium	Medium (Good)	Medium (Satisfactory)	Medium
4 Cooper & Tiknaz (2005)	Medium	High (Excellent)	Medium (Satisfactory)	Medium/High
5 Cooper & Whitebread (2007)	Medium	High (Excellent)	Medium (Satisfactory)	Medium/High
6 Doyle (2004)	Low	Medium (Satisfactory)	Medium (Satisfactory)	Medium/Low
7 Doyle (2003)	Low	Medium (Satisfactory)	Medium (Good)	Medium/Low
8 Doyle (2001)	Low	Medium (Satisfactory)	High (Excellent)	Medium
9 Lucas (1999)	Low	Medium (Satisfactory)	Medium (Good)	Medium/Low
10 March and Kearney (2017)	Medium	Medium (Good)	Medium (Good)	Medium
11 Sanders (2007)	Medium	High (Excellent)	Medium (Good)	Medium/High

Study	A Methodological Quality	B Methodological Relevance	C Topic Relevance	D Overall Weight of Evidence in answering the review question
12 Shaver & McClatchey (2013)	Medium	Medium (Good)	Medium (Good)	Medium
13 Spalding (2000)	Medium	Medium (Good)	Medium (Good)	Medium

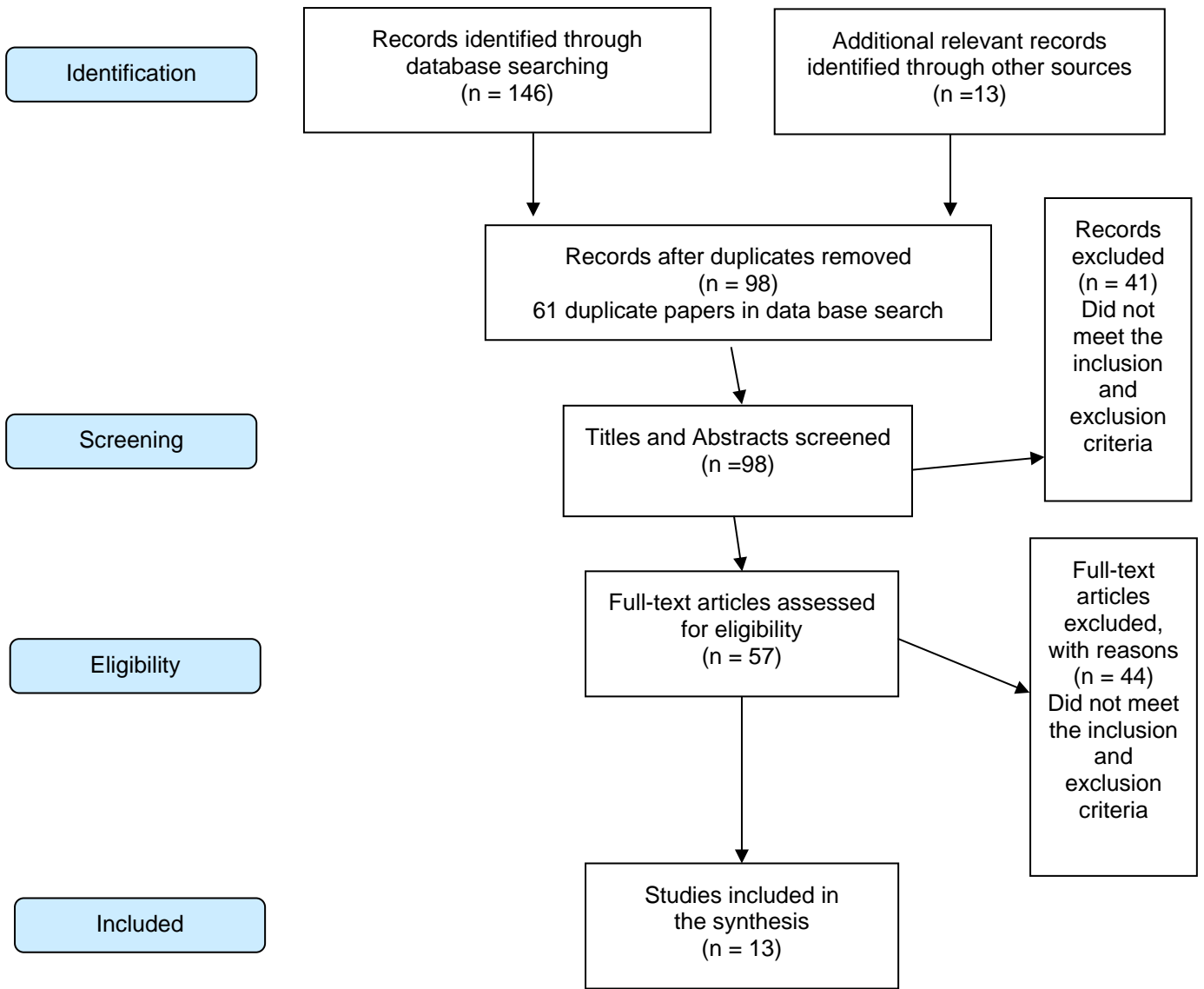


Figure 1: PRISMA chart