

University of Southampton
Doctoral Programme in Educational Psychology

Title: Academic Critique: PATHS Pre-school

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Date submitted: June 2012

Introduction to the case

The Head of X Early Years Centre referred Amy (name changed to protect confidentiality) to the Educational Psychology Service as they were concerned about Amy's level of anxiety and her communication difficulties. The Early Years centre requested an assessment of Amy's needs with a view to applying for a statutory statement of special educational needs (SEN) in the near future.

We agreed the priorities for my work with Amy were to assess her educational, social and emotional strengths and needs in consideration of her transition to school.

I initially held a meeting with Amy's nursery keyworker and her Speech and Language therapist. I also met with Amy's parents during which I completed the Parental Involvement Project (PIP) developmental assessment charts. In addition, I completed an observation in the nursery setting and administered a "Let's Play" assessment (Walters, 1999).

At nursery, Amy presented as an anxious child who was reluctant to explore her surroundings. She needed her keyworker to be physically close at all times and had limited interactions with her peers. Although she was at nursery for some full days, she also seemed too anxious to use the nursery toilet. Amy was reluctant to eat snacks from the nursery snack bowl or drink from any cup other than her own from home. In addition, she appeared to find it difficult to express her needs or emotions in an appropriate way; I observed her on a few occasions screaming or laughing hysterically. Although she could vocalise her excitement or distress in this way, Amy used few intelligible words during nursery time. Furthermore, in one-to-one sessions, the Speech and Language therapist experienced difficulty in encouraging Amy to use individual words or sounds, although she would point at pictures using a puppet.

These behaviours were partially in contrast with home where Amy's mum reported that Amy used up to 50 clear words and displayed few anxiety behaviours.

Following the assessments, it was clear that Amy had relative strengths in her cognitive ability, play skills and understanding of language, achieving age-appropriate (and above) outcomes in the "Let's Play" and PIP assessments. I concluded that Amy displayed severely anxious behaviours away from home, and expressive language difficulties.

Consequently, I suggested some strategies and recommended interventions to the pre-school staff for use with Amy. I also recommended that Amy was included in the pre-school Promoting Alternative Thinking Strategies (PATHS pre-school) intervention (Domitrovich, Greenberg, Kusche & Cortes, 2004) to address her social-emotional difficulties.

During a review meeting held six months after the initial report, staff reported that Amy had made some progress. She was much more confident in exploring the nursery surroundings without her keyworker, and had established two close friendships. Staff also reported that she was able to eat nursery snacks and drink from a nursery cup, reflecting a decrease in her anxiety levels. Amy had been included in a PATHS pre-school group twice a week. Although she was willing to go to the sessions and listen to the teacher input, staff commented that she was yet to contribute, either verbally or by pointing to pictures. Despite a help card being put in place, Amy was still unlikely to request help appropriately from an adult or go to the toilet at nursery. She also continued to find it difficult to regulate her emotions at nursery and would still cry loudly to communicate her distress. An application for a statement of SEN had been made, with a preference for Amy to transfer to a specialist language provision setting.

Literature Review

The PATHS pre-school intervention (Domitrovich et al., 2004), developed from PATHS (Kusche & Greenberg, 1994), is a social-emotional curriculum designed to improve children's social-emotional competence and reduce problem behaviour. My recommendation that Amy became involved in a PATHS pre-school group was based on positive impressions from an observation of a session at the Early Years centre. However, to further determine the appropriateness of my recommendation, I needed to review the literature regarding social-emotional learning (SEL) interventions, and specifically the PATHS and PATHS pre-school programmes. Therefore, I reviewed the literature regarding the rationale for SEL interventions; the goals, organisation and features of PATHS pre-school, the theoretical base; and the evidence of the effectiveness of the intervention in practice.

Child development literature has consistently highlighted an association between the development of social and emotional skills and behavioural and academic outcomes for children (Bornstein, Hahn, & Haynes 2010; Trentacosta & Izard, 2007). By the end of early childhood, many children have mastered the ability to regulate their own emotions and are beginning to recognise and encode others' emotions (Denham et al., 2003). This results in emotional and social competence and consequential readiness for school. To ensure children are given the support to foster the development of social-emotional skills at this time of rapid development, there is widespread recognition that early SEL interventions are needed (Allen, 2011). Furthermore, the literature suggests that prevention interventions aimed at pre-schoolers are successful in establishing positive academic and social outcomes into adolescence (Manning, Homel, & Smith, 2010). These SEL interventions vary in type, including centre-based childcare, home visitation programmes, parental education, and structured pre-school interventions. All emphasise a wide array of behavioural objectives for developing social-emotional competence.

Many child development researchers agree that social-emotional competence involves emotional knowledge, emotional regulation, emotional expression, and social problem-solving skills (e.g., Denham, 2006). However, most traditional interventions only address one or two of these aspects (Zeidner, Roberts & Matthews, 2002). In contrast to an SEL intervention such as “Fun Friends” (Pahl & Barrett, 2007), which specifically aims to reduce anxiety related to socialisation, PATHS pre-school focuses on social-emotional competence as a multidimensional construct. Moreover, researchers have found multimodal programmes to be more effective than models based on single skills (Elias & Weissberg, 2000).

The PATHS pre-school intervention adopts a whole-school approach to teach the component skills of social-emotional competence. In support, research has identified the adoption of a holistic approach as a key feature of successful SEL interventions (Weare & Gray, 2003). Moreover, a meta-analytic review of 213 studies of school-based SEL programmes found that universal interventions demonstrated consistently positive benefits, including increases in prosocial behaviours and academic achievement, and decreases in conduct and internalising behaviour problems (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Conversely, Zeidner et al. (2002) argued that if an aim of an SEL intervention is to achieve a *norm* of social-emotional behaviour, then teaching should be aimed at the specific skill deficits of individuals. Indeed, interventions aimed at select individuals such as the “Dino Dinosaur” curriculum, which teaches problem-solving skills to children identified with early-onset conduct difficulties, have been confirmed empirically as effective (Webster-Stratton & Reid, 2004). However, an advantage of the universal nature of PATHS pre-school is its consequential focus on integrated learning throughout the school.

Based on the bioecological model of development (Bronfenbrenner, 1989), PATHS pre-school assumes that increasing social competence is not limited to teaching knowledge and skills to children, but includes changing the ecology and the interactions between the child

and the environment. This integration of learning ensures quality implementation, identified by the Conduct Problems Prevention Research Group (1999) as a key determinant of the success of PATHS. Suggestions for parents also encourages generalisation of skills at home. Curtis and Norgate (2007) found that this was important for the effectiveness of the intervention. However, it is worth noting that, unlike “The Incredible Years Parenting Program” (Webster-Stratton, Reid, & Hammond, 2001), the PATHS curricula do not contain a teaching element for parents. This may reduce the potential for the generalization of PATHS skills.

The universal PATHS pre-school programme has other features identified as beneficial for the development of social-emotional competence. The programme consists of a series of 44 interactive lessons teaching explicit skills following a step-by-step approach and using photographs, puppets and role play. In support, research has shown that young children benefit most from explicit and direct instructional practice contained in formal SEL interventions (Ashdown & Bernard, 2012). Furthermore, Durlak et al. (2011) identified successful SEL interventions as being SAFE (sequenced, active, focused and explicit).

PATHS and PATHS pre-school are primarily based on the ABCD (Affective-Behavioral-Cognitive-Dynamic) model (Kusche & Greenberg, 1994). This determines that the integration of feelings, behaviour and cognitive understanding has critical implications for social and emotional competence. Domitrovich et al. (2004) also claimed that PATHS pre-school improves behaviour because of its impact on the neuropsychological functioning of *vertical* and *horizontal* control. To promote vertical control (regulation of emotion by the frontal lobes over the limbic system), the intervention teaches children strategies for self-control, e.g., the turtle technique and self-talk. In support, Riggs, Greenberg, Kusche, and Pentz (2006) found that PATHS was effective in promoting inhibitory control of children aged 7 to 9 years. In addition to vertical control, the authors of PATHS claimed that the

verbal identification and labelling of feelings enhanced the integration of receptive and expressive language skills from the left hemisphere with the processing of emotion in the right hemisphere (horizontal control).

Evaluative research into the effectiveness of PATHS has demonstrated positive outcomes for typically developing children (Greenberg, Kusche, Cooke & Quamma, 1995; Curtis & Norgate, 2007), deaf children (Greenberg & Kusche, 1998) and SEN children (Kelly, Longbottom, Potts, & Williamson, 2004). More recently, a randomised clinical control study by Bierman et al. (2010) examined the effects of PATHS within the context of the US Fast Track Programme, aimed at reducing aggression. They found decreases in teacher and peer reported aggression, and increases in teacher reported social competence and academic achievement over the first three years of school.

To date, in the UK, there have been few evaluative studies examining the impact of PATHS or PATHS pre-school. Curtis and Norgate (2007) measured the social-emotional outcomes for 287 primary-aged children in England, using the strengths and difficulties questionnaire (SDQ; Goodman, 1997). The findings were positive indicating a significant improvement on all five dimensions of the SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems and consideration) for a PATHS intervention group, but not a control group. However, the SDQ measured some dimensions that did not directly map onto the skill goals of the PATHS intervention (e.g., hyperactivity). Also, the study had limitations due to its non-random allocation of group and the use of a control group with considerably lower levels of emotional and behavioural problems from the onset. Despite these limitations, additional information from semi-structured interviews with teachers supplemented the encouraging findings that PATHS may make a difference to social and behavioural outcomes for UK pupils. In accordance, Kelly et al. (2004) explored the impact of PATHS on seven Scottish primary pupils who displayed emotional and behavioural

difficulties. Although the sample size was small and there was no control group, findings indicated that the children's emotional understanding and problem-solving were significantly improved after the intervention. Further UK studies are needed, particularly for pre-schoolers, to prevent an over-reliance on US evidence.

With reference to PATHS pre-school, an evaluation study examined the effect of an adapted form of the intervention on the social-emotional competence of typically developing US children (Domitrovich, Cortes, & Greenberg, 2007). The researchers used multiple measures of child assessments, interviews, observations and teacher and peer ratings. Findings from post-intervention teacher and pupil reported measures indicated that the intervention group had higher levels of emotional awareness and social skills than the control group. However, teacher ratings showed that only the intervention group pupils with a higher mean level of verbal ability were rated as more co-operative than the control group. Furthermore, the study found no significant differences between the intervention and control pupils on the measures of inhibitory control, attention or problem solving. The authors claimed that it may be unrealistic to expect significant impacts on these measures as they are in low intensity in the programme compared to domains like self-control. This appears to be contrary to the multiple goals outlined in PATHS pre-school but arguably, significant changes in problem-solving may be dependent on the ability of teachers to generalize teaching to real-life situations.

Critical Appraisal of the Literature in relation to Amy

In relation to the literature review, I debated the appropriateness of recommending an SEL universal intervention and specifically PATHS pre-school at X Early Years centre for Amy. I also considered the extent to which Amy's progress could be validated by the research.

The priority for my work with Amy was to assess her needs, and make subsequent recommendations that would ultimately ease her transition to school. The literature review confirmed the need for an SEL programme to foster the development of the social-emotional skills that I believed Amy found difficult, but which are essential for developing readiness for school (Denham, 2006).

In the Early Years centre, I had observed children in the *turtle* position and staff modelling the use of emotion vocabulary. The staff's willingness and ability to do this confirmed my initial thoughts that the programme would be integrated throughout this centre and implemented with fidelity, both identified as key features of effective SEL interventions (Durlak et al., 2011).

The PIP and "Let's Play" assessments showed that Amy was at an age and developmental level similar to the intervention pupils who made significant improvements in their prosocial skills in the Domitrovich et al. (2007) study. Indeed, in accordance with these findings and those of Curtis and Norgate (2007), Amy made progress in the development of her friendships. Furthermore, staff reported that over the 6 months, her confidence levels increased which may have been due to an enhanced ability to read situations and others' emotions. However, the continuation of some behaviours (e.g. reluctance to use the toilet) indicated that the decrease in Amy's anxiety was limited. Consequently, it is worth considering whether her anxiety levels were impacting on her ability to engage with the intervention in a group. Although the literature showed positive outcomes for universal programmes (Durlak et al., 2011), an individual cognitive-behavioural intervention to focus on Amy's anxiety may have been more effective.

Despite the reports of positive emotional outcomes in the PATHS pre-school evaluation studies (Domitiovich et al., 2007), Amy continued to find emotional expression

and regulation difficult. As the self-regulation skills included in the PATHS pre-school programme depended upon verbal ability for the turtle and self-talk strategies, her lack of progress was probably due to her expressive language difficulties. This mirrored the finding by Domitrovich et al. (2007) that only pupils with higher verbal ability showed more cooperation (requiring an ability to express emotions appropriately) post-intervention. The neuropsychological research underpinning PATHS also emphasised the integration of expressive language skills with emotion processing (Riggs et al. 2006). This is problematic for children with severely disordered expressive language ability like Amy. In addition, the limited evaluation research on SEN pupils was primarily with pupils who had behavioural difficulties (e.g., Kelly et al, 2004), but not language impairments. Therefore, Amy's expressive language difficulties, combined with her anxiety, may have made PATHS pre-school a less suitable intervention for her at this time.

Implications for Future Practice

Based on the literature review, I would recommend the PATHS pre-school to early years settings, as it is founded on the reasonable assumption that being able to understand their own and others' emotions is related to children's behaviour. The evidence is clear that early social and emotional skill development will lead to later behaviour and academic outcomes for children. In addition, pre-school seems the ideal time to remedy any social-emotional delays as there is relatively less pressure to meet educational goals than in primary school, and potentially more time at home to generalise skills.

From the literature, I feel that PATHS pre-school would benefit most children in an early years setting as a universal programme. However, the literature has led me to consider carefully the use of the intervention for any pre-school pupils with a developmental delay. The ABCD theoretical underpinning assumes that pupils have developed the full range of

emotional signals before they learn the verbalisation of emotions included within the PATHS pre-school teaching. Moreover, the positive evaluation research findings have been primarily with typically developing children.

In addition, the recommendation for Amy to become involved in PATHS pre-school was made as she seemed unable to regulate her emotions and had difficulties establishing peer relationships. On reflection, it was clear that her expressive language difficulty impacted significantly on these skills. From my literature review of positive PATHS evaluations based on children without speech and language needs; it seemed that PATHS pre-school may not be as effective for children with language difficulties. In any similar future cases, I would focus more on fostering the development of expressive language as a precursor to self-regulation, potentially using a programme such as “Nursery Narrative” (Shanks, 2002) that incorporates the teaching of language skills within a social skills group.

The success of the PATHS pre-school programme is mediated by quality implementation and full integration of the curriculum throughout the setting. Therefore, as an EP, I would be unlikely to recommend PATHS pre-school without the full support of the setting’s senior management. The pre-school would also need to be aware that the programme was written for average US children, and be prepared to make adaptations for UK pupils, e.g. in the use of the language in the teachers’ scripts. It may also be useful to share some of the evaluative studies with staff to emphasise the positive impact the programme can have on pupils’ outcomes. This may then increase motivation of the staff for the PATHS pre-school intervention.

Overall, writing this critique has led me to consider PATHS pre-school as an effective universal SEL intervention for Early Years centres, if it can be integrated fully. Any costs in

setting up the intervention, staff training and resources would be far outweighed by the benefits to pupils in fostering the development of their social-emotional competence.

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