University of Southampton

Doctoral Programme in Educational Psychology

Title: Implementing Social Stories with a preschooler without ASD

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Introduction to Case

3-year-old Ted was referred to the Educational Psychology Service by the nursery he had been attending for 18 months. Concerns centred on his "aggressive behaviour, refusal to follow instructions and poor concentration". His mother was also having difficulty managing his behaviour at home.

I gathered information through consultations with Ted's mother, the nursery manager, SENCo and Ted's keyworker and observed Ted on two days, also using the Let's Play materials and the PIP Developmental Chart. I established that he was an able little boy, 6 to 12 months ahead of age-related expectations in all areas of development (including expressive and receptive language) with the exception of aspects of his social interaction. He was friendly and often appropriately engaged those around him, showing sensitivity when others were upset. However during play he often took a physical approach to communicating his wants and needs, forgetting his turn-taking and sharing skills. This was a particular issue in the garden at playtime when he was regularly hurting others in his single-minded attempts to access play equipment of interest. He appeared unaware of the distress that he was causing.

Ted seemed bored at nursery because activities were not differentiated to offer him challenge, but when we worked together he showed remarkable levels of focus and an ability to work calmly for extended periods. I observed adults trying to redirect him to tasks that he had already completed. This proved to be the source of complaints that he would not comply with instructions and could not concentrate.

Ted's mum explained that he had no boundaries at home and that she felt she "spoiled" him. Ted was frequently placed on 'time out' at nursery. There was no reward system in place for any of the children. The nursery manager explained that she felt rewards were inconsistent with the High Scope approach that they espoused and they relied entirely on verbal praise to reinforce desirable behaviour. Ted had started telling his mum that he did not like nursery because the staff were always "cross" with him.

Intervention

I discussed a number of recommendations with nursery staff and Ted's mother. Mum was keen to take up the offer of parenting support and I immediately provided the nursery manager with information and referral forms for them to complete together. Staff also agreed to ensure that more challenging activities were available to Ted. I thought that Ted would benefit from small group work around social skills, using materials such as PALS (Cooper, Goodfellow, Muhlheim, Pasle, & Pearson, 2003). The nursery manager felt that this was unrealistic due to staffing restrictions; however, the SENCo agreed to ensure that she and other staff would consciously model turn-taking and sharing with Ted and increase their use of specific praise with him. While staff could recognise the likely benefits of a personalised reward system for Ted, the nursery manager saw this as being in conflict with the HighScope approach.

I was frustrated by this unwillingness. I recalled having read that social stories had been used to teach desirable behaviours with children who were not on the autistic spectrum and determined to investigate this possibility further. I had some reservations about this intervention since, as described below, the evidence for the effectiveness of Social Stories is open to much criticism and their use with neurotypically developing children is under-researched. However, I was struggling to find a way to work proactively with the nursery. After discussion with my supervisor and some reading, I resolved to support the nursery to implement Social Stories with Ted. We all felt that his love of books and stories would make the strategy appealing to him and the SENCo was keen to learn about the intervention and put it into practice. I therefore spent two hours with her exploring the principles behind social stories and practising writing them with Ted in mind. We decided to begin with his behaviour in the garden, since this was the time at which he was experiencing the greatest level of difficulty. I asked her to keep an ABC chart of all Ted's behaviours so that we could learn more about the situations that he found most difficult and assess the impact of the Social Stories.

Outcome

When I reviewed Ted 8 weeks later, his behaviour had reportedly become even more challenging. The SENCo had been away for several weeks and his mother had a new job during the

evenings which had reportedly upset and confused him. Ted's keyworker had tried to share the social story written by the SENCo with him, but reported that while he had wanted to look at the photograph at the beginning of the story, he was not interested in the text.

I suggested that we made Ted's story more like a book, with a picture and line of text on each page. The SENCo was keen to try again. Four weeks later, she reported that Ted had enjoyed reading his story with her each morning before going outside and his behaviour log showed that he was playing cooperatively outside for most sessions. He was not, however, generalising this behaviour to the classroom. We agreed to move on to a new story to target Ted's play in the home-corner, following the book format. A recent telephone call to the SENCo revealed that she had been persevering with Ted's new social story and felt she had seen an improvement.

Literature Review

Social Stories were originally designed as an intervention for children with high functioning autism who lacked the knowledge and social understanding to behave appropriately in a range of situations (Gray, 1994; Gray & Garand, 1993). In more recent years, they have been used with individuals with a range of disabilities and difficulties (Test, Richter, Knight, & Spooner, 2010). Social stories are personalised and aim to highlight the child's own and others' perspectives in certain situations, giving them a guideline of appropriate behaviour under those circumstances (Kuoch & Mirenda, 2003; Scattone, Wilczynski, Edwards, & Rabian, 2002). Stories can take a range of formats, from plain text (Agosta, Graetz, Mastropieri, & Scruggs, 2004), to illustrated text (Ozdemir, 2008), to multimedia (Hagiwara & Myles, 1999) The aim is not to change the child's behaviour, but to increase their understanding and likelihood of appropriate responses to the environment (The Gray Center, 2011).

The underlying mechanism of a social story intervention is not understood. It has been suggested that the perspective taking in the stories supports development of Theory of Mind, an area of difficulty for individuals with ASD (Reynhout & Carter, 2006). Myles and Simpson (2001) argued that successful interaction requires knowledge of a "hidden curriculum" which is typically

inaccessible to people with Asperger's syndrome, but can be revealed through social stories. Alternatively, Rowe (1999) has posited that individuals may lack schemata to deal with particular situations and social stories can provide the foundations for developing these essential mental representations. While the underlying rationale for the intervention should remain of interest, an even more pressing question is whether there is empirical evidence for its effectiveness.

Social stories have been reportedly used with some success to help children with a wide range of personally problematic situations such as making choices (Barry & Burlew, 2004), "tantrum" behaviours (Kuttler, Myles, & Carlson, 1998), toileting (Okada, Ohtake, & Yanagihara, 2008), social play (Delano & Snell, 2006) and aggressive behaviours (Scattone et al., 2002). Several groups of authors have undertaken reviews or meta-analyses of the social stories literature (Ali & Frederickson, 2006; Kokina & Kern, 2010; Reynhout & Carter, 2006; Sansosti, Powell-Smith, & Kincaid, 2004; Styles, 2011), raising challenges to the methodology of existing studies and the evidence-base for the intervention, though noting widely reported successes. One difficulty facing the research community is that since Gray issued her initial guidelines for using social stories, she has made a number of revisions (More, Sileo, Higgins, Tandy, & Tannock, 2012). This means that approaches taken across studies, over time, will not be consistent and therefore comparable. Further, in their meta-analysis, Reynhout and Carter (2006) reported that many social stories did not adhere to Gray's 2003 recommendations.

A scan of the literature reveals that many studies reported single-case designs and this may be seen as a weakness of the body of research, since it prevents generalisation of findings. However, Ali and Frederickson (2006) have argued that this is an appropriate approach since it "allow[s] individual uniqueness and complexity to be addressed, rather than averaged out across a group" (p. 359) and allows EPs to integrate research with their practice. While some have questioned the value of descriptive case studies, Ali and Frederickson (2006) contended that such a design often facilitates collection and reporting of additional qualitative information about a child and their context that might be lost in a larger-scale study. However, they expressed concerns that the data collected is anecdotal and there may be a temptation to tell a consistent story, rather than reporting difficulties and

anomalies. Single case experiments in the area have mostly employed repeated measures designs (e.g. Delano & Snell, 2006; Ozdemir, 2008; Scattone et al., 2002; Thiemann & Goldstein, 2001), boosting experimental rigour, however, some such as Norris and Dattilo (1999) and Swaggart et al. (1995) employed an AB design, leaving the reader with doubts as to the intervention was the cause of observed behaviour changes.

Test, Richter, Knight and Spooner (2010) ascertained that much of the literature considers cases in which social stories were not a stand-alone intervention, but part of a package of support. They found that there was no difference in effect between social stories alone and treatment packages of which they were a component. This could suggest that while it is difficult to separate out the influence of Gray's intervention in many cases, the social stories could have been the critical, effective component. More research is needed to support or disprove this argument. Styles (2011) noted that despite criticisms by previous reviewers, researchers have continued to fail to treat social stories as the single independent variable in their designs. Various commentators have also highlighted the variation with which the intervention has been implemented across studies (Ali & Frederickson, 2006; More et al., 2012; Styles, 2011). Some reports describe sharing stories immediately before the situation in which the target behaviour is likely to arise (e.g. Scattone et al., 2002), while many others had no reported schedule for implementation.

Analyses suggest that intervention length and the number of stories read with each child may be important mediators of effectiveness (Kokina & Kern, 2010). Brief interventions of 1-10 sessions are argued to be more effective than medium or long programmes (over 20 sessions). Studies in which children were exposed to multiple stories (Delano & Snell, 2006; Lorimer, Simpson, Myles, & Ganz, 2002) also yielded greater positive changes in behaviour, leading Kokina and Kern (2010) to suggest that "higher treatment intensity is associated with improved participant outcomes" (p.823) and to wonder if children gain skill in accessing social stories with experience.

Of particular interest were the limited studies involving typically developing children. Whitehead (2007) undertook a case-study of eight, typically developing Year-4 pupils in a primary

school, using social stories to target a range of behaviours. Disappointingly while she reported positive feedback from pupils and teachers involved, she stated: "assessing behaviour change was not an aim of this study". Toplis and Hadwin (2006) used social stories to support five Year-2 children with difficulties around school lunchtime routines. Their ABAB design yielded results suggesting that the intervention was effective for three participants. They speculated that the intervention was effective only for those pupils who had deficits in ability to perspective-take, a trait shared with the pupils with ASD participating in the majority of studies.

Highly pertinent to my case was Benish and Bramlett's (2011) ABC, counterbalanced, multiple baseline design intervention to assess the efficacy of social stories in reducing aggression and promoting successful peer interactions amongst three 4-year olds. Two children showed marked decreases in aggressive behaviours, with maintenance, but for two of them, there was also a decrease when they were read a neutral story. All showed increases in positive peer interactions, one had continued to make gains at follow up, but one did not show maintenance. The authors did acknowledge significant limitations to the study. However, they conclude that the study offers promise for the use of social stories with typically developing preschoolers.

While powerful empirical evidence for the effectiveness of social stories is lacking (Elder, 2002; Styles, 2011), the approach is still widely recommended by Educational Psychologists (EPs) across the UK working with pupils on the autistic spectrum (Ali & Frederickson, 2006) and has had backing from government (Department for Education and Skills, 2002). In a recent review Styles (2011) argued that shortcomings in the existing research literature should be addressed before social stories should be recommended by EPs as evidence-based practice. More evidence is required to understand whether typically developing children can benefit from social stories and how perspective-taking skills might be relevant. However, Ali and Frederickson (2006) argued that a lack of alternative evidence-based approaches means the use of social stories is likely to continue to increase.

Relevance of the literature to this case and future practice

Conducting this literature review was thought provoking and raised many questions for me about my practice. I am conflicted about the appropriateness of a social stories intervention for Ted. It was not what I considered appropriate for nurturing his pro-social behaviours and I reached for social stories in the absence of alternative ideas that would be acceptable to his nursery. The literature on this intervention for typically developing children is extremely limited and therefore did not make this an evidence-based recommendation, though Benish and Bramlett's (2011) study provided a little support for the use of the intervention with Ted. I felt that it was preferable to implement something, however imperfect, rather than fail to act. I am unsure that this was the right choice. I will certainly be unlikely to recommend this strategy for other typically developing children as a first recourse. I feel the braver decision would be to present the nursery with the appropriate options for intervention, with due discussion and explanation and then stick to my guns!

My reading raised more questions than it answered. The literature did not provide a clear framework for implementing social stories to the best effect. However, it has reinforced the need to plan and evaluate rigorously, paying attention to issues such as maintenance. I will be interested to see whether Ted has maintained his more considerate behaviour in the garden when I next visit.

In common with many of the pupils described in the literature, social stories seemed to work well for Ted once we had provided a suitable format. However, I fell into the same trap as many researchers, since I am unable to say whether it was this intervention that helped Ted behave more appropriately at playtime, or the result of the use of specific praise, mum's access to parenting support, or simply, time spent with a preferred adult or Ted's growing maturity and social experience. This will often be a difficulty in casework, where the EP suggests a range of interventions to maximise the chance of improved outcomes for a pupil, but in future I will be more mindful of which changes I expect to see as a result of each intervention I recommend.

My reading has alerted me to the need to think about treatment intensity. In future I would recommend 10 sessions for each story before moving on to a new one due to Kokina and Kern's

(2010) findings. I had advised the SENCo to continue the story until Ted was coping better outside and then maintain if for a few more days. Specific advice would have been much more valuable. Despite the wide variation in the literature in time at which stories are shared, I will continue to recommend that practitioners read with a pupil directly before the target situation is likely to arise, since this gives them an immediate chance to put the hoped-for learning into practice. I do not believe that Ted has the perspective-taking deficits that Toplis and Hadwin (2006) noted were characteristic of the children who benefited from social stories in their study. While their observation seems an intuitively valid explanation for the variation in impact of social stories, a single small-scale study carries little weight.

Social stories were acceptable to the nursery as an intervention. My reading highlighted that practitioners generally share this view, for example, Reynhout and Carter (2009) reported that all 45 teachers of autistic children in their study found social stories to be an acceptable intervention. This is an important consideration, since making recommendations that are unlikely to be implemented by professionals in nurseries and schools is unlikely to lead to improved outcomes. However, I need to avoid confusing treatment acceptability with effectiveness.

I will certainly give serious consideration to recommending a social stories approach for pupils with social communication difficulties in future. Methodological flaws of existing research do not mean that the intervention itself is worthless. Using social stories may not be based on a rigorous evidence base, but it is providing practice-based evidence (Margison et al., 2000), which has reassured me. I am wondering whether it is good practice to convey to school/nursery staff that the evidence base for social stories is not strong. This is something that I will explore in supervision. I will watch research developments in the area with interest and am motivated to consider whether there might be opportunities for me to report on my experience of using social stories in future, learning from the criticisms that have been made of other researchers.

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