A research synthesis of Social Story interventions for children with autism spectrum disorders

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CRD summary
This review attempted to assess the effectiveness of social stories for educating children with autism spectrum disorders. The authors concluded that current evidence supports the use of social story interventions for children with autism spectrum disorders. Poorly defined inclusion criteria, a limited search strategy and a small evidence base limit the reliability of these findings.

Authors' objectives
To determine the effectiveness of social stories for educating children with autism spectrum disorders (ASDs).

Searching
PsycINFO and ERIC were searched for relevant papers; the search dates and search terms were not reported.

Study selection
Study designs of evaluations included in the review
No inclusion criteria for study design were specified. AB, ABAB/reversal and multiple baseline single-subject study designs were included in the review.

Specific interventions included in the review
Studies of the effectiveness of social story interventions were eligible for inclusion. The interventions included traditional and musical social stories, computer-based social stories and social stories with video feedback. Some studies used cointerventions such as behavioural social-skills training, verbal prompts, reinforcers and video feedback.

Participants included in the review
Studies of children with ASD were eligible for inclusion. Where reported, the age of the children ranged from 5 to 15 years old.

Outcomes assessed in the review
Studies reporting specific behavioural outcomes were included in the review. A variety of behavioural outcomes were targeted: chair tipping, staring, shouting, precursors to tantrums, delayed echolalia, following directions, social communication skills, obsessive behaviours, self-help skills, compliance, social interactions, hand washing, sharing and aggression. One or more observers rated the frequency of targeted behaviours.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
Although a formal assessment of validity does not appear to have been performed, aspects of methodological quality (such as treatment integrity, generalisation and social validity) were noted in individual study descriptions.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. The percentage change or absolute change in frequency of targeted behaviours was presented for each study.
Methods of synthesis
How were the studies combined?
The studies were combined in a narrative, grouped by study design.

How were differences between studies investigated?
Differences between the studies were highlighted in the individual descriptions of each study.

Results of the review
Eight studies (n=21) were included in the review; two were AB designs (n=4), three were ABAB/reversal type designs (n=6) and three were multiple-baseline designs (n=11).

AB designs.
A positive effect of social story intervention was reported in both studies. A reduction in aggressive behaviour, increase in appropriate social greetings and sharing behaviours was reported for the 3 participants in the first study, whilst a decrease in inappropriate social interactions but no change in appropriate social interactions was reported for the single child in the second study.

ABAB/reversal type designs.
A positive effect of social story intervention was reported in all three studies. An improvement in target behaviours was shown in all 6 participants (reduction in tantrum behaviour, increase in appropriate classroom behaviour, reduction in loud vocalisations, movie/tv verbalisations and instructional repetition).

Multiple-baseline designs.
A positive effect of social story intervention was reported in all three studies. A small reduction in time spent on task was reported for 2 of the 3 participants in the first study, an increase in social communication skills was reported in all 5 children in the second study, and a reduction in targeted behaviours (chair tipping, shouting and staring) was reported for all 3 children in the third study.

Authors' conclusions
Current evidence supports the use of social story interventions for children with ASD, but little existing research examines the effectiveness of such interventions in children with ASD.

CRD commentary
The review question was not supported by clear inclusion criteria and details of the included studies were limited. The search strategy involved only two electronic databases and no details of the search terms or dates were reported, making it difficult to assess the likelihood of relevant data being missed. The methodology of the review process was not reported and there was no attempt to assess the methodological quality of the included studies. It was therefore not possible to assess the likelihood of error or bias being introduced during the review process or as a result of the methodological quality of the included studies. The narrative synthesis seemed appropriate given the variation in the included participants, target behaviour, and duration and intensity of the intervention. The results were presented simply as being positive or negative, thus limiting the readers’ interpretation. The results should be interpreted with caution.

Implications of the review for practice and research
Practice: The authors stated that social stories should not be the only social skills intervention for children with ASD.

Research: The authors stated that there is a need for more rigorous experimental control, and that future studies should examine the critical components for the development of social stories, and factors related to fidelity of implementation or treatment integrity. In addition, the authors suggested that studies should assess the maintenance and generalisation of social story effects and the effects of social story interventions in mainstreamed children, as well as compare
treatment effects with typical peers. Studies should assess inter-observer agreement and outcome assessors should be blinded to the intervention.

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