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# Social stories: an intervention technique for children with Autism

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## Abstract

The importance of social competence and acquisition of social skills in various domains is not in question. While typically developing children may intuitively recognize what is appropriate behaviour in different social situations, children with autism often find social situations confusing and appear isolated and oblivious to the outside world. A Social Story is a concise narrative about a situation, concept, behaviour, or social skill that is written and implemented according to specific guidelines. The purpose of this study was to provide information on how to write and implement Social Stories as an intervention technique and examine theoretical background of the intervention. Information on the research evidence of the effectiveness of Social Stories will be examined in the study as well.

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## 1. Introduction

Social Stories are short stories intended for children with autism to understand social situations. These stories are used to help children with autism predict and anticipate specific situations as well as teaching appropriate behavior within situation. The goals of Social Stories are to share accurate social information and to promote social understanding. These short, individualized stories provide support in new and sometimes confusing social experiences (Gray, 1995). A Social Story also helps ensure a child's accurate understanding of social information for a given setting (Gray, 1998) and gives instruction regarding the who, what, when, where, and why of a social situation (Atwoord, 1998; Lorimer, Simpson, Myles, & Ganz, 2002). In general, Social Stories can be accepted as a priming strategy identifying potentially difficult situations for a child with autism, prior to the child's being involved in the activity and preparing the child to understand or manage the situation.

According to Wing (1988), the social interaction difficulties of individuals with autism can be categorized into three groups: (a) social recognition, which is described as a lack of interest in others; (b) social communication, which includes trouble expressing one's self and having a limited understanding of body language; and (c) social imitation and understanding, which includes an inability to understand the thoughts or feelings of others or to engage in imaginative play. Furthermore, research has demonstrated that individuals with autism display significant deficits in social skills (Njardvik, Matson, & Cherry, 1999), understanding facial expression (Celani, Battacchi, & Arcidiacona, 1999; Klin, Sparrow, De Bildt, Cicchetti, Cohn, & Volkmar, 1999), empathy (Dyck, Ferguson, & Shocher, 2001; Yirmiya, Sigman, & Zacks, 1994), imitation (Hobson & Lee, 1999), and social initiation with peers

(Hauck, Fein, Waterhouse, & Feinstein, 1995). Unless appropriate social behaviors become part of the child's repertoire, the long-term goal of functioning independently in the community may never be realized.

According to the Theory of Mind hypothesis individuals with autism have profound difficulty interpreting a person's actions within a mentalistic framework and, therefore; their learning style is qualitatively different from typically developing peers (Power & Jordan, 1997). Theory of Mind is the ability of an individual to understand the mental states of themselves and others (Yun Chin & Bernard-Opitz, 2000). Garfield, Peterson, & Perry (2001, pp. 495) define ToM as describing "...whatever knowledge guides propositional attitude attribution and the explanation and prediction of behavior by means of inner states and processes". Due to the lacking ToM, individuals with autism have difficulty understanding that others have perspectives different from their own (Leslie, 1987), and are unable to appreciate other people's intentions, needs and desires (Greenway, 2000). Consistent with the Theory of Mind (Baron-Cohen, 1995), Gray (2003) puts an emphasis upon the reciprocal nature of the social impairment and advocates that all authors of Social Stories need to develop an acute understanding and empathy towards the perspectives held by the person with autism.

The construction of a Social Story uses concrete, easy to understand text enhanced by visual supports. Since children with autism have many problems with auditory processing (Gillberg & Coleman, 2000), they may find it easier to elicit information from a visual format as opposed to auditory input. Indeed, research suggests that children with autism tend to be visual learners, and responds best when things are predictable in nature. By reducing the ambiguity of social settings, the child is more able to understand what is expected from him. Thus, given the unique learning needs of individuals with autism, Social Stories may provide an effective strategy to improve social competence. In addition, computers have been successfully used in Social Story interventions. Gray (1995) suggests allowing individuals with autism to read Social Stories from the computer screen to increase their interest in reading the story independently.

Gray (2003) states that a Social Story should be individualized and it should consist of four basic types of sentences; (a) descriptive, (b) directive, (c) perspective, and (d) affirmative. Descriptive sentences define who is involved, where the situation takes place, what is happening, what is expected, and why. Directive sentences explain to the child what is expected of and how to respond to the situation, by using "I will try..." statements. Perspective sentences describe what others may be feeling or thinking. Finally, affirmative sentences are used to help the child define or remember the story better. These four basic sentence types and a ratio that defines their frequency are the most important components of the Social Story. Gray (2003) suggests that a Social Story should have a ratio of 2 to 5 descriptive, perspective, and/or affirmative sentences for every 0 to 1 directive sentence. This means that for every directive sentence in the Story there will be two to five other sentences in the story. This ratio should be maintained regardless of the length of a Social Story and applies to the story as a whole. The ratio exists because it emphasizes one expected behavior at a time. Whereas the first three sentences establish the setting, people's perspectives, and a particular command, the single remaining directive sentence highlights the main lesson-the appropriate behavior for the child.

The text and illustrations should reflect the student's reading skills, attention span, and cognitive ability. The child's needs determine the topic of the story, while the child's perspective determines the focus of the story. The title of a Social Story should include the general idea of the story, and there has to be an introductory body and conclusion. The story is written in the first person, as if the child is telling the story. When talking about a negative behavior, the third-person perspective is recommended in order to sound less threatening. In addition, the story must use flexible language such as the words "usually" and "sometimes", rather than "always" or "never". In addition, it is useful to check comprehend of a Social Story material by having the student answer comprehension questions (Gary & Garand, 1993).

Social Stories has been implemented for a variety of purposes such as (a) reducing aggressive behavior (e.g. Adams et al., 2004; Cullain, 2000; Kuoch & Mirenda, 2003), (b) teaching adaptive skills (Barry & Burlew, 2004; Brownell, 2002), and c) teaching social skills (Feinberg, 2001; Ozdemir, 2008a; Tierman & Goldstein, 2004), (d) increasing appropriate behaviors (Agosta, Graetz, Mastropieri, & Scruggs, 2004; Cullain, 2000; Graetz, 2003; Kuoch & Mirenda, 2003, Smith, 2001), (e) increasing the use of appropriate social skills (Barry & Burley 2004; Hagiwara & Myles, 1999; Pettigrew, 1998), (f) increasing greeting behavior and initiation of play activities (Feinberg, 2001), (g) increasing on-task behavior (Brownell, 2002), (h) increasing appropriate meal-eating behavior (Staley, 2001), and (i) decreasing precursors of tantrum behaviors (Simpson & Myles, 2002).

Overall, research supports that properly constructed and visually presented Social Stories may decrease the problem behaviors of children with autism and increase the children's adaptive behaviors (Ozdemir, 2008b). Although an increasing amount of literature suggests that Social Stories can be effective for individuals diagnosed with autism, many lack rigorous methodological standards and use the Social Stories intervention in conjunction with other treatments, making it difficult to identify the source of the behavioral change. Thus, the Social Stories intervention is a relatively new with only a handful of empirical studies to validate its use as an effective behavioral intervention. Additional empirical Social Stories research is essential to further develop this promising intervention in the field of autism. As a very promising intervention, educating professionals and teachers on how to use this effective intervention will add one more piece to the difficult puzzle of remediating social and behavioral problems of children with autism.

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