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## Does social stories intervention improve social skills among children with ASD?: A Systematic Review of the Literature

هل يؤدي تدخل القصص الاجتماعية إلى تحسين المهارات الاجتماعية لدى الأطفال ذوي اضطراب التوحد؟: مراجعة منهجية للأدبيات

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### Abstract

The aim of this review was to provide up-to-date information about Social Store research, focusing on its effectiveness on social skills. Electronic databases were searched. These mainly included: ERIC, Google Scholar, WoS, and PubMed, and Scopus indexed journals. The author extracted the data needed. He made a data form with the following information to be extracted: authors' names, year of publication, type of children, number of participants, gender, age, country, study design, and findings. The participants were all children with ASD. They were of both sexes (men and women). All were of young age (> 13 years old). They were from different countries, and hence from different cultures. Most research studies (four studies: 66.6%) used pre- post design. While two studies (33.3%) used multiple baseline design across subjects. Findings indicated the effectiveness of the social stories intervention employed in improving the target skills and behaviours.

**Keywords:** social stories intervention, social skills, children with ASD, Systematic Review.

### Introduction

Several authors documented that children with disabilities need a special assistance in their way to lead a normal life when overcoming delays in attaining some social skills (Baczala, 2016; Ebrahim, 2019; Gawad, 2015). Among those with disabilities are children with adolescents with ASD (Bleszyński, 2019; Mohammed, 2016).

### المستخلص

هدفت هذه المراجعة إلى تقديم معلومات محدثة حول أبحاث القصص الاجتماعية، مع التركيز على فعاليتها في المهارات الاجتماعية. تم البحث في قواعد البيانات الإلكترونية. وشملت هذه بشكل أساسي: المجلات المفهرسة ERIC و Google Scholar و WoS و PubMed و Scopus. استخرج المؤلف البيانات المطلوبة. قام بعمل نموذج بيانات بالمعلومات التالية ليتم استخراجها: أسماء المؤلفين، سنة النشر، نوع الأطفال، عدد المشاركين، الجنس، العمر، الدولة، تصميم الدراسة، والنتائج. كان المشاركون جميعهم من الأطفال ذوي اضطراب التوحد. كانوا من كلا الجنسين (ذكور وإناث). كانوا جميعاً في سن مبكرة (< 13 سنوات). كانوا من بلدان مختلفة، ومن ثم من ثقافات مختلفة. استخدمت معظم الدراسات البحثية (أربع دراسات: 66.6%) التصميم القبلي، والبعدى. بينما استخدمت دراستان (33.3%) تصميمًا أساسيًا متعددًا عبر المشاركين الأطفال. دلت النتائج على فاعلية تدخل القصص الاجتماعية المستخدمة في تحسين المهارات والسلوكيات المستهدفة.

الكلمات المفتاحية: تدخل القصص الاجتماعية، المهارات الاجتماعية، الأطفال ذوي اضطراب التوحد، المراجعة المنهجية

Those children and adolescents find it difficult to communicate on one hand, and socially interact and engage with peers on the other hand. There are a combination of inhibiting factors, such as language delays, emotional disturbance, delays in learning and intellectual advancement (Alnaggar and Ekram, 2014; Eissa, 2017; Eissa and Beata, 2019).

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In order to change those group of children and adolescents' behaviours to be better, several interventions have been put forth (Nabei, Al Sayed and Waleed, 2014). Recently, social stories have gained much popularity, as a techniques aimed to change autistic children and adolescents' behaviours (Al Atyya, 2014; Crozier and Tincani, 2007). In addition to being an important tool that help children with ASD to learn about themselves, their world, their surroundings, their culture and their way of living, stories are useful in helping them develop relationships with others within a social group (Eissa, 2016).

Evidence on the effectiveness of social stories is inconsistent. Some suggested that social stories can improve social skills and problem behavior (e.g. Al Atyya, 2014 Crozier and Tincani, 2007; Golzari, Alamdarloo and Moradi, 2015). Others (e.g. Daub & Huber, 2020) found inconsistent results.

This review examined whether social stories interventions produced gains in social skills among people with ASD.

The aim of this review was to provide up-to-date information about SS research, focusing on its effectiveness on social skills. Outcomes of these findings could contribute further to the effectiveness on social skills among children with ASD.

### Literature review

Children with autism spectrum disorder (ASD) are regarded as a heterogeneous group with a neurodevelopmental condition. They are often impaired in reciprocal social interaction and communication. They also have repetitive and restrictive behaviors (Al Sayed, 2014; Eissa, 2016; Soliman, 2014).

Also, children suffering from this disorder are constantly increasing, causing concern to individuals and peoples, and prompting them to search for effective intervention programs to reduce this disorder, contribute to improving the quality of psychological life for them, reduce the problems they suffer from, and relieve the families of these children (Eissa, 2015).

The method of Social Stories developed by Gray (1994), is a method that provides the individual with accurate information about the situation he is facing. The SS describes one situation and fits the understanding of autistic children. In the case of children who are unable to read, pictures and

sounds are used (Camilleri, Maras and Brosnan, 2022a).

SS aim to provide a child with autism with desirable and accurate behaviors about the situation he or she is facing. This method also aims to explain the reasons for doing a behavior to others, teach specific social skills in a particular situation, and help teach new academic skills (Camilleri et al., 2022a).

SS follows the basic components of the story, it contains the introduction that clearly presents the topic, then the body that adds more details, then the end, and the title must reflect the content of the story, meaning that it serves the basic idea in the story, and appropriate phrases are used to think of a child with autism (Camilleri, Maras and Brosnan, 2022b).

The form of a story includes descriptive sentences, which include the place of the event, the people involved in the event, what they do, and perspective sentences; It describes the feelings and responses expected from others. As for the directive sentences, they provide a solution, which are more directive and not just giving orders, and help the child to form sentences such as "I will try to..." and Control Sentences and are used to recall information in the story. Social, to reassure the child himself or determine his response (Smith et al., 2021).

Gray stated that there are three types of information provided by social stories, the first type is the news, the second is the ways of understanding this news, and the third is the way to link this news to what the autistic child knows, and there is a stage for each information according to the goal of the story. Therefore, it is necessary to distinguish between these types of information. News is objective information that describes a specific event, concept or skill, and this news presents the subject of the story. For example, a birthday invitation story can be as follows: "I am invited to Sally's birthday party, she will be her age." six years (Youn Kang and Kim, 2020).

As for ways of understanding this news, it is information that describes how to deal with the news, and includes cognitive processes, problem-solving methods, and conflict-resolution strategies, and to complement the example of a birthday party, the child is asked to guess what he will eat at the party, and is linked to a previous party that had a cake And some games, while reminding the child of other experiences, and this type of information helps calm the child and

makes him more controllable and more able to face challenges. As for the third type of information, it describes the relationship between the past, present and future, and the child is helped to anticipate what will happen at the future party (Youn Kang and Kim, 2020).

**Methodology**

*Criteria of inclusion*

Study type: as the aim indicates, only intervention studies were included.

Types of participants: Children with ASD

Outcome measures: social skills

Study design: Multiple Baseline, pre-post-follow up design, experimental-control group design, and case studies design.

*Data collection and analysis*

Data extraction: The author extracted the data needed. He made a data form with the following information to be extracted: authors' names, year of publication, type of children, number of participants, gender, age, country, study design, and findings.

*Search strategy*

Electronic databases were searched. These mainly included: ERIC, Google Scholar, WoS,

**Table 1.**

*Demographic characteristics of children with ASD*

Authors	Years	Type of children	Number of participants	Gender	Age	Country
Mohammed and Mostafa	2012	ASD	1	female	7	Egypt
Soliman	2014	ASD	10	Both sexes	5-7	Egypt
Al Atyya	2014	ASD	10	Both sexes	7-9	Kuwait
Golzari, Alamdarloo and Moradi	2015	ASD	30	males	6-12	Turkey
Youn Kang, and Kim	2020	ASD	3 and their mothers	boys	7	United States
Kwon et al.	2022	Deaf and Hard of Hearing Students with Autism Spectrum Disorder	3	boys	11	USA

and PubMed, and Scopus indexed journals. Studies that include only children with ASD were included, with regard of different countries, and both sexes. Only studies published in English were eligible to be included. These studies should depend on social Story intervention in addition to other intervention in individuals with ASD.

**Study questions**

1. What are the demographic characteristics of children with ASD who participated in the reviewed studies?
2. What experimental designs were used? And How effective SS technique was?

**Results**

I relied on research questions in order to describe results of the review, as shown in tables 1-2.

**1. What are the demographic characteristics of children with ASD who participated in the reviewed studies?**

First of all, the participants were all children with ASD. They were of both sexes (males and females). All were of young age (> 10 years old). They were from different countries, and hence from different cultures (See table 1).

## 2. What experimental designs were used? And How effective SS technique was?

A shown in table 2., most research studies (four studies: 66.6%) used pre- post design. While two

studies (33.3%) used multiple baseline design across subjects. Findings indicated the effectiveness of the social stories intervention employed in improving the target skills and behaviours.

**Table 2.**  
*Experimental designs, Outcome measures and Findings.*

Authors	Design	Outcome measures	Findings
Mohammed and Mostafa	pre- post- follow up design	eating behavior	Findings indicated the effectiveness of the social stories intervention employed in teaching the target child self management of eating
Soliman	pre- post design	social skills	Findings indicated the effectiveness of the social stories intervention employed in teaching the target children social skills
Al Atyya	pre- post design	problem behaviour	Findings indicated the effectiveness of the social stories intervention employed in teaching the target children problem behaviour.
Golzari, Alamdarloo and Moradi	pre- and post-test	Social Skills	The study findings emphasize the effectiveness of the social stories intervention in improving the social skills of children with ASD, Reading a Social Story™
Youn Kang, and Kim	multiple baseline design across subjects	Social Play Behaviors	with self-modeling that is responsive to families' language and culture improved children's initiations, responses, and affect
Kwon et al.	multiple baseline design	social initiations and responses, social initiations and responses of their peers, and (c) social engagement	The results did not show an immediate effect across all participants

### Discussion

SS help a child with autism to be ready to face life, help him understand, form an appropriate response to daily events, and be ready for the sensory requirements provided by these events. The teacher can write a story in which he describes events in details that help the child anticipate what will happen, the role that he can play, and control the course of daily life.

Crozier and Tincani (2007) identified nine criteria for writing a social story, the most important of which is that the social story should include information that is of interest to the child, as well as include an introduction that defines the topic and a conclusion that reinforces and summarizes the information, as well as that the story provides answers to the child's questions, and be written in the language of Positive, and the story includes different sentence patterns in

addition to the title, and that the story fits the abilities and interests of the target child, as well as the story includes graphics that illustrate the meaning of the text.

Gray (2015) added criteria, including that the main goal of social stories is not to modify behavior, but to provide a child with autism with real information in a meaningful and safe manner and to provide a deeper understanding of events and expectations. A SS consists of a title and at least three sentences, and the social story has a clear structure and content and supports the child's understanding of meanings, and the structure here refers to individuality, organization and clarity.

SS work to provide solutions to many of the problems facing a child with autism in his daily life by acquiring appropriate behavior and imitating it from the content of the story. Various

behavioral patterns, including controlling different unpleasant emotions through listening and arousal, acquiring acceptable emotions such as pleasure, joy, emotional participation, and relieving tension and anxiety. It is also one of the most important goals agreed upon when giving the child the story is to understand the meaning of the story, develop his ability and form positive attitudes towards himself and others.

SS are a way to teach social skills to children with autism and those with autism-related disabilities, as they provide accurate information about social situations that he finds difficult and distracting. The goal of the story is to increase the child's understanding of the social situation through a simplified short story written from the child's perspective that provides him with certain information that helps him in his daily life.

The educational stories for children with autism and developmental disabilities are characterized by their reliance on visual learning through pictures, so that the pictures are sequenced in an organized and thoughtful manner, and communicate the main idea of the child, with the impression of a mental image of the subject in his memory, and the SS includes a description of social situations and the exchange of conversations and natural community symbols that revolve around. The social story can contribute to the development of attention and social communication in various areas and situations in daily life, and personal relationships. It also contributes to the definition of what is going on in each situation of conversations, compliments and cooperation, as well as in explaining the behavior of others.

### Conclusion

The story is a method of tutoring morals and behavior, through which it expresses aspects of life, and conveys ideas and experiences to others. Through the story, the child can learn what is in life of good and evil, and distinguish between ugly and beautiful, friend and enemy, right and wrong, contentment and greed, and miserliness. And generosity, so it possesses the mind of the child and controls his thoughts, and the story develops the ability to evoke feelings.

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