



# **The Effectiveness of Social Stories among Children and Adolescents with Autism Spectrum Disorders: Meta- Analysis**

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## **Abstract**

*Social Stories are individualized short stories used to assist children and adolescents with autism spectrum disorders in understanding social situations by describing and explaining appropriate behavior and providing examples of appropriate responses. The purpose of this paper is to explore Social Stories when used with children and adolescence with Autism Spectrum Disorders .This behavioral intervention is frequently used within the ASD population to address their difficulty with Theory of Mind or understanding and interpretation of situations, or others thoughts, feelings, or emotions. Results suggest that Social Stories have been utilized to improve many types of behaviours including prosocial behavior, social communication, conversational skills, on-task behavior, out-of-seat behavior, reciprocal interactions, decreasing "socially inappropriate and undesirable behaviors, acceptable verbal greeting initiations, self-regulation, and overall social skills among children and adolescents with autism spectrum disorders.social stories seem to be a promising practice that warrants future research. Results will be discussed and future directions for research will be addressed.*

**Keywords.** Social Stories , children and adolescents with autism spectrum disorders multimedia social stories, video modeling, musically adapted social stories, written social stories, picture , meta- analysis.

## **Introduction**

Autism is a complex neurological disability that is diagnosed in increasingly large numbers of children. Children with autism spectrum disorders (ASDs) are less able to learn social rules, conventions and behaviours by intuition compared with their typically developing peers. This may impact upon social interaction, social integration, learning and mental health and on occasions may lead to high levels of anxiety and or challenging behaviours(Barry Wright et al., 2016).

It is estimated that 1 in 88 children have some form of autism, with the most obvious signs and symptoms emerging between 2 and 3 years of age. Boys are four times as likely to have the disorder than girls. (National Institute of Neurological Disorders and Stroke, 2014). Children with ASD often exhibit social deficits including decreased eye contact, poor play skills and an inability to interact with peers and form friendships, poor appreciation of social cues, and socially inappropriate behaviour (Wright and McCathren,2012). Unfortunately, ASD is a disorder people have to live with their entire lives (Johnson, 2015). As of now there is no cure for autism, however there are several behavioral interventions and therapies that are helpful in treating different symptoms of autism (National Institute of Neurological Disorders and Stroke, 2014). Therapy is needed for life, but when a good regimen is found people with autism are able to be successful, as well as work and live independently (National Institute of Neurological Disorders and Stroke, 2014). A teaching intervention of increasing popularity used to increase prosocial behavior and decrease problem behavior in young children with autism is Social Stories (Wright and McCathren,2012).

Social Stories are individualized short stories used to assist children with ASD in understanding social situations by describing and explaining appropriate behavior and providing examples of appropriate responses. These short stories outline specific steps for implementing the appropriate social skill and include short text and pictorial cues. The Social Story assists the child's accurate understanding of specific social information in a given setting or circumstance(Wright and McCathren,2012).The social stories used under Gray's (1998, 2000, 2004) approach contain the following types of sentences:

1. *Descriptive sentences*: These sentences appear at the beginning of the social stories. They describe situations and the people involved in them, what is going to happen, and the causes of events. They also address the following questions: Where? Who? What is going to happen?
2. *Perspective sentences*: These sentences describe internal feelings—the sensations, wishes, emotions, attitudes, thoughts, and beliefs of people in the situations depicted. These sentences are very important because they contain information that is not available to children with ASD.
3. *Directive sentences*: These sentences present social cues within situations and indicate the expected responses of individuals. Such responses may begin with “I will try” or “I will attempt.”
4. *Control sentences*: These sentences are added to the story by the storyteller and describe more general observations and thoughts to reinforce the information presented in the story.
5. *Affirmative sentences*: These sentences emphasize the importance of directive sentences; they begin with “It is good that . . .”
6. *Cooperative sentences*: These sentences describe others’ actions, and show who these actions can help and how.

The ratio of the sentences is one directive sentence for every two to five descriptive, perspective, affirmative, and cooperative sentences. Based on Gray’s rules, when care providers utilize control and cooperative sentences in a story, a control sentence must be used with a directive sentence, and cooperative sentences must be used with descriptive and affirmative sentences (Gray, 2004).

#### *Purpose.*

The purpose of this literature review was to look at the effectiveness of Social Stories on children and adolescents with autism spectrum disorders.

#### **Method**

This paper seeks to better understand the effectiveness of Social Stories when used with children and adolescents with autism spectrum disorders. Article search procedures will be conducted using (a) electronic academic databases including EBSCOHOST, ProQuest Research Library, PsychInfo, and Psychology & Behavioral Science Collections. Search terms included will be: Gray’s social stories, social stories, adolescent, children, and autism. articles were included if they were peer reviewed, scholarly articles. Only children or adolescents diagnosed with autism spectrum disorders will be targeted within this review. In addition, the search will include papers published from 1999 to 2015.

#### **Results.**

Social Stories have been utilized to improve many types of behaviours including prosocial behavior, social communication, conversational skills, on-task behavior, out-of-seat behavior, reciprocal interactions, decreasing "socially inappropriate and undesirable behaviors, acceptable verbal greeting initiations, self-regulation, and overall social skills among children and adolescents with autism spectrum disorders.

**Multimedia Social Stories.** Ozdemir (2008) examined the effectiveness of the multimedia social stories on the duration of appropriate social engagement of 3 young children with autism. Using a multiple-baseline-across-participants design, the multimedia

social stories were implemented, and observations of 10-min play sessions were conducted three times per week. Study results showed an increase in the duration of appropriate social engagement for all participants and two participants also showed generalization to a classroom setting. The results from the study provided support for the use of the multimedia social stories without additional behavioral management techniques in increasing the social engagement of children with autism.

Daniella (2014) evaluated Social Stories™ (SS) with three at-risk preschool children in a high-need public elementary school. Specifically, this study examined the use of a multimedia SS designed to decrease problem behavior and increase prosocial behavior. A multiple baseline design across participants with an ABC sequence was used to assess the impact of the standard SS and multimedia SS on the children's target behaviors. The results of the study indicated that the standard SS was successful in reducing problem behavior and increasing prosocial behavior for all three participating children. The results also indicated that the multimedia SS had positive effects on the children, further increasing prosocial behavior during intervention. Although the problem behavior did not further decrease when the multimedia SS was introduced, the low levels of problem behavior were maintained at a 3-week follow-up for all three children. All three children demonstrated maintenance of improved prosocial behavior during follow-up.

**Video Modeling.** Several researchers have explored the use of video modelling in combination with Social Stories. Hagiwara and Myles (1999) combined electronically presented Social Stories with peer modelling vignettes presented in a computer-based format to teach hand washing and on-task behaviors to three children with autism. Thiemann and Goldstein (2001) investigated the combined effects of written text and pictorial cuing with supplemental video feedback on the social communication of five children with autism.

Sansosti and Powell-Smith (2008) employed a computer-based format to present video modelled Social Stories to increase the social communicative skills of three high-functioning children with autism. Presented as a self-advancing slide show using a computer program, content of the personalised Social Stories was read out by a voice over and then modelled by a similar aged peer. Children viewed their video modelled Social Story once a day in their school setting, immediately before the targeted event occurred (e.g., recess). Overall video modelled Social Stories were effective in improving rates of social communication of participants, though additional social reinforcement and teacher prompting were needed in two cases, and generalization of skills was only observed for one participant. In summary, the VSM/Social Story package may be an effective strategy for teaching social skills to children with autism, one which capitalises on the strengths of both these techniques.

Scattone (2008) evaluated the use of video modeling in improving eye contact, smiling, and conversation initiations with a nine-year-old boy with his peers at school. Three different Social Stories™ were developed and implemented in a staggered fashion, beginning with the first to address strictly eye contact, then to address eye contact and smiling with the second, and the final, the implementation of eye contact, smiling, and initiation. The wording of each story was first shown on the video and narrated by adults, who then modeled the target skill(s) during a 5-minute video taped conversation. Presenting the child with the Social Story™ as well as video modeling proved to be an effective way to improve his conversational skills.

Stacey, Dennis and Angelika (2010) investigated the effectiveness of combining Social Stories and Video Self-Modelling (VSM) to teach social skills to a three-year-old child with autism. A multiple-baseline across behaviors design revealed that video self-modelled Social Stories were effective at improving all three target behaviors: greeting, inviting to play,

and contingent responding. In addition, these behaviors successfully generalized across settings, toys, and communication partners. Concomitant behavior changes, namely, increased levels of communicative behavior and levels of social engagement were also observed.

Vandermeer, Beamish, Milford, Lang (2015) investigated the effectiveness of iPad-presented social stories in increasing the on-task behaviour of three young children with autism. A single-subject with multiple baseline across participants design was employed with three 4-year-old children to assess intervention effectiveness during structured table top activities. Observational data were digitally recorded, scored, graphed, and interpreted using 10-second interval measures over 5-min periods across baseline, intervention, and withdrawal phases. The combination of the social story together with the iPad proved to be an effective intervention for one of the three child participants. These findings confirm that the intervention may be effective with some children, but not others.

**Musically adapted social stories.** Brownell (2002) studied the effect of musical social stories on four boys with autism, ages six to seven. In this single subject design study, a traditional social story and a social story set to music were the respective treatment conditions in the time series. Brownell used social stories set to original compositions for the musical version. In this study, both conditions showed a positive effect and a return to baseline following their removal. Additionally, the musical social story proved significantly more effective for one of the participants. There was no statistically significant difference in effectiveness between the two types of social stories for the other three participants.

Pasiali (2004) studied the effects of social stories set to music on problem behaviors in one girl and two boys with autism, ages seven to nine. In this study, the social story was set to the tune of a song that the child knew and for which he or she had a particular affinity. The study showed that there was an immediate treatment effect of the musical social stories in reducing problem behaviors. In two of the three cases, the behavior did not rebound when the intervention was removed. In other words, for these participants, across all phases of the single subject design study, the targeted behavior continued to decline, indicating that the treatment resulted in a learned behavior change.

Liff (2011) explored the effects of using social stories set to music on the classroom behavior of two elementary age children with severe autism. A single subject design was used to measure the effectiveness of three treatment conditions: a no treatment control condition, traditional verbal social stories, and social stories set to a familiar tune. Results for the first participant were assessed on a percentage of audible attempts to communicate. Results for the second student were assessed on the frequency of out-of-seat behavior. The results showed the verbal social story to be a moderately effective intervention, while the musical story did not prove to be effective.

**Written social stories.** Thiemann and Goldstein (2001) investigated the effects of written text and pictorial cuing with supplemental video feedback on the social communication of 5 students with autism and social deficits. Two peers without disabilities participated as social partners with each child with autism to form five triads. Treatment was implemented twice per week and consisted of 10 min of systematic instruction using visual stimuli, 10 min of social interaction, and 10 min of self-evaluation using video feedback. Results showed increases in targeted social communication skills when the treatment was implemented. Some generalized treatment effects were observed across untrained social behaviors, and 1 participant generalized improvements within the classroom. In addition, naive judges reported perceived improvements in the quality of reciprocal interactions.

Kuoch and Mirenda (2003) used an ACABA design, with a children's storybook in the C phase and a Social Story in the B phase, to determine whether the content of Social Stories

contributed improved social behaviors or increased adult attention following reading a Social Story with adults. Results suggested that the content of the story, rather than increased adult attention, contributed to improving children's adaptive behaviors.

Adams, Gouvouis, VanLue, & Waldron (2004) studied the effectiveness of social stories in decreasing "socially inappropriate and undesirable behaviors" in an elementary school student with autism (p. 88). Researchers identified four target behaviors, which included crying, falling, hitting, and screaming. The participating child displayed these behaviors with the greatest frequency and these inappropriate behaviors were addressed with a social story. The researchers wrote a social story for the student that described the target behavior in the context of homework completion; positive alternative behaviors were also included in the story. With the introduction of this social story, the student experienced decreases in each of the four identified problem behaviors. For example, the number of crying episodes decreased by 48 percent and screaming decreased by 61 percent. The student experienced similar decreases in falling (74 percent) and hitting (60 percent). The social story helped the child see that inappropriate behaviors during homework time could be replaced with more appropriate behaviors such as asking for help. The results of the Adams et al. (2004) study support the effectiveness of social stories, but are limited because only one child experienced the intervention.

Quirnbach, Lincoln, Feinberg-Gizz, Ingersol, Andrews (2008) compared two formats of a social story targeting the improvement of social skills during game play using a pretest posttest repeated measures randomized control group design. A total of 45 children diagnosed with Autism Spectrum Disorder (ASD) ages 7-14 were randomly assigned to standard, directive, or control story conditions. Results demonstrated that the standard and directive story formats were equally as effective in eliciting, generalizing and maintaining the targeted social skills in participants who had prior game play experience and Verbal Comprehension Index (VCI) scores from the WISC-IV intelligence test in the borderline range or above.

In their study, Reichow and Sabornie (2009) used a Social Story intervention to increase acceptable verbal greeting initiations with an 11-year-old boy who had a diagnosis of high functioning autism. A withdrawal design with a comparison condition examined the frequency of acceptable verbal greeting initiations during 5 min observation periods. Results showed no acceptable verbal greeting initiations during both baseline conditions, increased frequency of acceptable verbal greeting initiations during both intervention conditions, and maintenance of intervention levels of behavior with visual supports during the comparison condition.

Samuels, and Stansfield (2012). examined the use of Social Stories with four adults with learning disabilities and social communication impairments characteristic of ASD. This study employed an N = 1 multiple-baseline, across-participant, AB design with fade and maintenance probe stages. Each participant was involved in two Social Story interventions. The intervention and data collection was carried out by support staff who knew the participants. Results found that all target behaviours showed positive change during at least one phase of the study, although data indicated a return towards baseline levels across all behaviours into the probe phase.

A multiple baseline across participants design was used to evaluate the effects of Social Stories to help preschool-aged children with characteristics of Autism Spectrum Disorders (ASD) increase their engagement in functional behaviors and use sensory integrative-based strategies to promote self-regulation. Three children, 3-5 years old, from a self-contained preschool classroom were selected to participate in the study. The intervention package included reading individualized Social Stories that discussed desired behaviors and

self-regulation strategies. The researchers measured the percentage of intervals in which participants engaged in desired behaviors. The frequency of desired behaviors increased for all participants. The use of self-regulation strategies varied across participants. These findings suggested that the intervention was successful in increasing desired behaviors of the three children (Thompson and Johnston, 2013).

Hala Ahmed (2014) explored whether or not Social Stories intervention strategy has positive effects on the social skills of children with autism. Participants were ten children between the ages of five and seven who attended a school for children with developmental disabilities (Tarbya Fekrya ). A pre- post design was used to examine the effectiveness of the social stories Intervention Strategy on the social skills of the target children. Findings from this study indicated the effectiveness of the social stories intervention employed in teaching the target children social skills.

Asmaa Abdullah (2014) explored whether or not Social Stories intervention strategy has positive effects decreasing problem behaviour of children with autism. Participants were ten children between the ages of seven and nine who attended a center for autism. A pre- post design was used to examine the effectiveness of the social stories intervention strategy on decreasing problem behaviour of the target children. Findings from this study indicated the effectiveness of the social stories intervention employed in teaching the target children problem behaviour.

Fatemeh,Ghorban ,and Shahram (2015) aimed to investigate the effect of a social stories intervention on the social skills of male students with autistic spectrum disorder (ASD). The sample included 30 male students with ASD who were selected through convenience sampling and randomly assigned to an experimental group (n = 15) or a control group (n = 15). The social skills of both groups were assessed pre- and post-test using Stone and colleagues' Social Skills Scale (which included subscales for understanding/ perspective-taking, initiating interactions, responding to interactions, and maintaining interactions). The experimental group participated in 16 sessions of social stories training, while the control group did not. Overall, the results showed that the social stories intervention improved the social skills of the children with ASD in the experimental group compared with the control group. The effects of the social stories intervention were mostly evident in the subscales for understanding/ perspective-taking, initiating interactions, and maintaining interactions with others.

**Picture.** Adel Abdulla Mohammed and Amaal Ahmed Mostafa (2012) explored whether or not Social Stories intervention strategy have positive effects on the eating behavior of a girl child with autism. A girl child diagnosed as having autism disorder participated in the study. A pre- post- follow up design was used to examine the effectiveness of the social stories Intervention Strategy on the eating behavior of the target child. Findings from this study indicated the effectiveness of the social stories intervention employed in teaching the target child self management of eating.

## Discussion

Children with autism spectrum disorders (ASDs) are less able to learn social rules, conventions and behaviours by intuition compared with their typically developing peers. This may impact upon social interaction, social integration, learning and mental health and on occasions may lead to high levels of anxiety and or challenging behaviours. Social Stories have been utilized to improve many types of behaviours including appropriate social engagement (Ozdemir, 2008; Stacey, et al.,2010; Samuels, and Stansfield, 2012) prosocial behavior (Daniella, 2014), social communication (Hagiwara and Myles,1999;Sansosti and

Powell-Smith, 2008), conversational skills (Scattone ,2008), on-task behavior (Vandermeer, et al. ,2015), out-of-seat behaviour (Liff,2011),reciprocal interactions (Thiemann and Goldstein,2001), reducing problem behaviors (Asmaa Abdullah, 2014; Pasiali,2004) ,adaptive behaviors (Kuoch and Mirenda ,2003), decreasing "socially inappropriate and undesirable behaviors (Adams, et al.,2004), acceptable verbal greeting initiations (Reichow and Sabornie, 2009), self-regulation (Thompson and Johnston, 2013), Self Management of Eating Behavior (Adel Abdulla Mohammed and Amaal Ahmed Mostafa,2012)and overall social skills (Hala Ahmed,2014);Quirnbach ,et al. ,2008) among children and adolescents with autism spectrum disorders.

Some limitations exist to the research synthesis presented here. First, the samples were relatively small. This is a typical limitation of studies with individuals diagnosed with autism spectrum disorders (ASDs). Second, the lack of classroom observations prior to the start of the interventions limited the researcher in acquiring a complete understanding of the external variables that may have impacted the results of this investigation. Specifically, a direct observation of each classroom's language and reading instruction may have provided a deeper understanding of the participants' background knowledge and learning characteristics. Most of the studies included did not include control groups or other forms of control that would enable one to attribute interventions received.

Although research is still emerging within the area of Social Stories, past and present studies offer encouraging insight to future intervention advancements when working with individuals diagnosed with autism spectrum disorders (ASDs)

#### *Future Directions.*

Although social stories were written specifically for Children with autism spectrum disorders (ASDs) , groups with a different diagnosis could be featured in studies on the use of social stories. For example, children with emotional and behavioral disorders (E/BD) have academic, behavioral , and social needs that may impact their ability to be successful in the classroom. Additionally , though social stories were for improving many types of behaviours including appropriate social engagement, prosocial behavior, social communication, conversational skills, interactions, reducing problem behaviors ,adaptive behaviors, decreasing "socially inappropriate and undesirable behaviors, acceptable verbal greeting initiations , self-regulation, Self Management of Eating Behavior and overall social skills among children and adolescents with autism spectrum disorders, there could be a focus on different social skills such as study skills to increase appropriate social skills.

Further research is still required to explore the potential benefits of social story intervention. Such research may include large scale studies, and a further exploration of the exact influence of student attendance, teacher training, classroom conditions and treatment duration and intensity.

## **References**

- Adams, L., Gouvousis, A., VanLue, M., & Waldron, C. (2004). Social story intervention: Improving communication skills in a child with an autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 19*, 87-94.
- Adel Abdulla Mohammed and Amaal Ahmed Mostafa (2012). The Effect of Social Stories intervention Technique on Self Management of Eating Behavior of a Child with Autism. *International Journal of Psycho-Educational Sciences ,1*(1),32-43.



- Asmaa Abdullah(2014). The Effectiveness of a Social Story Intervention in Decreasing Problem Behavior in Children With Autism Spectrum Disorder. *International Journal of Psycho-Educational Sciences* ,3(3),27-33.
- Barry , W. David ,M. Joy ,A. Hannah , A. Shehzad , A. Victoria ,A. Danielle ,C. Moore, E., Cook,P., Lisa , H. Dean , M. Dominic , T. and Chris ,W.(2016). Social Stories™ to alleviate challenging behaviour and social difficulties exhibited by children with autism spectrum disorder in mainstream schools: design of a manualised training toolkit and feasibility study for a cluster randomised controlled trial with nested qualitative and cost-effectiveness components. *Health Technology Assessment* , 20(6), 1-294.
- Brownell, M. D. (2002). Musically adapted social stories to modify behaviors in students with autism: Four case studies. *Journal of Music Therapy* , XXXIX (2), 117-144.
- Daniella N.(2014). *Using Multimedia Social Stories™ to Enhance Prosocial Behavior of At-Risk Preschoolers. Master of Arts in Applied Behavior Analysis.*
- Fatemeh , G. Ghorban ,H., and Shahram ,M. (2015). The Effect of a Social Stories Intervention on *the Social Skills of Male Students With Autism Spectrum Disorder. SAGE Open*, 1-8.
- Gray C. A.(1998). *Social stories and comic strip conversations with students with Asperger Syndrome and high-functioning autism. In Schopler G., Mesibov G., Kuncle L. J. (Eds.), Asperger syndrome or high-functioning autism? (pp. 167-198). New York, NY: Plenum Press.*
- Gray C. A. (2000). *The new social story book.* Arlington, TX: Future Horizons.
- Gray C. A. (2004). Social stories 10.0: The new defining criteria. *Jenison Autism Journal*, 15, 1-21.
- Hagiwara T, Myles BS. (1999). A multimedia social story intervention: teaching skills to children with autism. *Focus on Autism and Other Developmental Disabilities*. 14:82–95.
- Hala Ahmed(2014). The Effect Of Social Stories Intervention On Social Skills Of Children With Autism Spectrum Disorder. *International Journal of Psycho-Educational Sciences* ,3(2),32-40.
- Johnson, C.(2015). *The Effectiveness of Social Stories on Children with Autism Spectrum Disorder: A Literature Review.* Bachelor in Science of Nursing
- Kuoch, H., & Mirenda, P. (2003). Social Story interventions for young children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 18, 219–227.
- Liff,J.(2011). *The effects of verbal and musical social stories on classroom behavior in children with autism* . Master of Science in Education.
- National Institute of Neurological Disorders and Stroke. (2014). *Autism fact sheet.* Retrieved from [http://www.ninds.nih.gov/disorders/autism/detail\\_autism.htm](http://www.ninds.nih.gov/disorders/autism/detail_autism.htm)
- Ozdemir, S. (2008). Using Multimedia Social Stories to Increase Appropriate Social Engagement in Young Children with Autism. *The Turkish Online Journal of Educational Technology*. 7(3,) 1-9.

- Pasiali, V. (2004). The use of prescriptive therapeutic songs in a home-based environment to promote social skills acquisition by children with autism: Three case studies. *Music Therapy Perspectives*, 22(1), 11-22.
- Quirnbach LM1, Lincoln AJ, Feinberg-Gizzo MJ, Ingersoll BR, Andrews SM.(2008). Social stories: mechanisms of effectiveness in increasing game play skills in children diagnosed with autism spectrum disorder using a pretest posttest repeated measures randomized control group design. *Journal of Autism Developmental Disorder*; 39(2):299-321.
- Reichow B, Sabornie EJ. (2009). Brief report: Increasing verbal greeting initiations for a student with autism via a Social Story™ intervention. *Journal Of Autism and Developmental Disorders*, 39(12), 1740-1743.
- Samuels, R., & Stansfield, J. (2012). The effectiveness of social stories to develop social interactions with adults with characteristics of autism spectrum disorder. *British Journal Of Learning Disabilities*, 40(4), 272-285.
- Sansosti FJ, Powell-Smith KA. (2008).Using computer-presented social stories and video models to increase the social communication skills of children with high-functioning autism spectrum disorders. *Journal of Positive Behavior Interventions*. 10(3):162–178.
- Stacey, L. Dennis , W. and Angelika ,A. (2010). Using Video Self-Modelled Social Stories to Teach Social Skills to a Young Child with Autism. *Autism Research Treatment*. Online .
- Thiemann KS, Goldstein H.(2001). Social stories, written text cues, and video feedback: effects on social communication of children with autism. *Journal of Applied Behavior Analysis*. 34(4):425–446.
- Thompson, R. M., & Johnston, S. (2013). Use of social stories to improve self-regulation in children with autism spectrum disorders. *Physical & Occupational Therapy in Pediatrics*, 33(3), 271-284.
- Vandermeer J, Beamish W, Milford T, Lang W.(2015). iPad-presented social stories for young children with autism. *Developmental Neurorehabilitation* . 18(2):75-81.
- Wright , L. and McCathren,R.(2012). Utilizing Social Stories to Increase Prosocial Behavior and Reduce Problem Behavior in Young Children with Autism. *Child Development Research* , Article ID 357291, 13 pages.