Effect of Social Stories on a Preschool Child with Autism Action Research

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Abstract

Children living with autism have a deficient in communication and social interaction requiring special methods to learn and acquire new skills and appropriate behavior. Using a social story intervention in a child in a preschool, this action research seeks to assess the usefulness of the intervention in improving communication and reducing inappropriate behavior. The study found that with stories repeatedly shared with a child with autism, they can improve their communication and several behavioral actions such as sharing toys and eating food at the appropriate time. The findings are useful in pedagogical improvement targeting learners with special needs.

Keywords: autism, autism training, children with ASD, preschool.

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"تأثير القصص الاجتماعية على الأطفال المصابين باضطرابات طيف التوحد في مرحلة ما قبل المدرسة"

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الملخـــص باللغـــة العـــربيـــة

هدف هذه الدراسة هو التعرف على آثار القصص الاجتماعية على الاطفال المصابين باضطرابات طيف التوحد. طيف التوحد هي مجموعة من الاضطرابات التنموية التي تتميز بمشاكل في التفاعلات الاجتماعية والتواصل، حيث يعتبر التوحد أكثر الحالات شيوعًا التي يتم تحديدها على أنها اضطراب طيف التوحد. تتسم خصائص الطلاب المصابين بالتوحد ارتباطًا وثيقًا بالتنمية الاجتماعية الضعيفة للمهارات، مما يؤثر بدوره على التحصيل الأكاديمي. فكرة إنشاء وتطويع القصص المصممة خصيصًا لمساعدة الأطفال الذين يعانون من اضطراب السلوك المعدي المعوي على السلوكيات أمرًا جديدًا نسبيًا في التعليم. لهذا السبب، من الضروري تحديد تأثيرات القصص الاجتماعية على طالب ما قبل المدرسة مع اضطراب طيف التوحد. أكملت سلسلة من الملاحظات لجمع بيانات خط الأساس لتحديد سلوك تحدي محدد، ثم إنشاء تدخل اجتماعي مماثل للقصة. تشير النتائج إلى أن القصص الاجتماعية يمكن أن تكون مفيدة لهذه الفئة في البيئات الصحيحة.

الكلمات المفتاحية: التوحد، تدريب التوحد الأطفال ذوي اضطراب التوحد، مرحلة ما قبل المدرسة (التمهيدي).

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Introduction

The early years of a child's learning are very critical. Children learn socially appropriate skills at the early stages of their lives (Cramer, 2016). The early childhood curriculum has been customized in the education sector to meet the needs of different categories of children. Children with disabilities have been documented to require special assistance to overcome delays in attaining some social skills (Balakrishnan and Alias, 2017). Among disabled children, children with autistic spectrum disorder (ASD) will be given attention in this study. ASDs comprises of a group of disorders. Children with ASD find it difficult to learn and socially engage with peers due to a combination of inhibiting factors. They may present with language delays, emotional disturbance, delays in learning and intellectual advancement (Papacek, Chai and Green, 2015). Scientists have suggested special education services that focus on behavioral interventions as a panacea to difficult experienced among children with ASD.

Several interventions have been put forth to cause behavior change among young people with ASD (Wright and Mccathren, 2012; Kuttler, Myles and Carlson, 2015; Wright, 2017). In the recent past, social stories have gained prominence as an effective intervention program especially in pedagogical reviews (Vandermeer *et al.*, 2013). However, there is a need to generate more concrete evidence of the effectiveness of the approach for learners in different contexts. Social stories encompass a variety of learning modes to convey social instruction. Social stories are characteristically shorter, simple and are written from the learner's point of view (More, 2010). Social stories allow learners to personalize learning because of the relation between stories and their most immediate environment of home,

school and community which brings on board not just teachers but parents, siblings, friends, and peers into the learning sphere of a child.

There is evidence of the use of stories in teaching independent play skills among elementary school children while Tavakoli, Hosseini, and Karimi (2018) applied stories to increase engagement preschoolers with their peers. Among children with ASD, Papacek, Chai, and Green (2015) used social stories to counteract disruptive behavior among elementary and high school-aged learners. At home, bedtime stories have been used on a routine basis with children slightly older than 4 years to held decrease sleep disturbance.

Statement of Problem

There is little consensus on the design and application of social stories that are age, gender, and context-appropriate. Although a link has been established between social stories and improvements in outcomes outlined above, this study posits that due to the interrelated nature of life outcomes, it is possible to design the intervention to achieve multiple outcomes that are interrelated. There is a close relationship between communication, engagement with peers and attention-seeking behavior (Kuttler, Myles and Carlson, 2015). This study will involve the social story as an independent variable and each outcome examined for their effects in the overall model for the strength of the relationship.

Purpose of the Study

Social stories have shown to be promising through its scientific basis has been put to question. More research will be helpful to determine the usefulness of the approach, especially among pupils with learning

difficulties. The purpose of this study is to examine the use of social stories with children with ASD attending a preschool program. To advance the purpose of the study, the following research questions will be addressed:

Research Questions

1- How do social stories affect behavior change among pre-school children with ASDs?
2- How do children respond to a variation in the design and delivery of social stories?
3- What can be done to enhance the effect of stories on child learning?

Significance of the Study

To give children with a disability an equitable chance in life, more needs to be done to support them to grow and develop. There is a dearth in several people and institutions that can meet the needs of children with ASD. Given that in preschool the curriculum involves a lot of storytelling, it makes this approach best suited to address the needs of children in general. Learning an approach such as social stories that can easily be integrated into learning is a promising innovation. Social skills are a prime indicator of learner success there should be deliberate and concerted efforts to deal with the deficits.

Limitation of the Study

Like most studies of their kind, this study adopted a single subject case study approach. While it gives the researcher time to examine the subject in-depth, children with ASD have diverse characteristics and one case may be very different from another. The findings of the study may

therefore not be generalizable but only adds knowledge on the understanding of the use of social stories among learners with special needs.

Definition of terms

Autism Spectrum Disorder is defined as a developmental disorder that inhibits communication, behavior and social interaction (Tavakoli, Hosseini and Karimi, 2018). The disorder is linked to the central nervous system and may present as seizure and motor disorders.

Social stories have been defined by Alotaibi et al. (2016) as a facilitation method aimed to impart information about social situations in a manner that is patient and reassuring so that it can be recognized without difficulty by individuals with autism.

Pre-school is understood to be an early childhood program that happens before children formally join a school where they combine learning and play facilitated by trained adult professionals (Cramer, 2016).

Literature Review

In this section, the researcher adopts a population, intervention, comparison and outcome (PICO) based approach to consider the literature on social stories for learners among those with ASD at preschool. This approach is considered in systematic literature reviews to be very consistent and devoid of biases (Booth, 2016). Studies that did not respond to the research questions were not included in the review. This included studies on autism among older children, those that used the social stories methods with learners who had no disability and those that relied more on other methods besides social stories. Literature was reviewed both for content and methods that could explain differences in results.

It is important that as children grow up, they can develop skills in problem-solving, communication and interaction with peers (Cramer, 2016). This allows them to grow independently and not depend so much on adults for guidance on every aspect of daily living. The importance of early skill development is related to future abilities to work within teams, excel in school and career (More, 2010). Failure to support children may not only lead them to be too dependent on a few adults they have a close relation with by may also inhibit them from developing relations with peers (Bozkurt and Vuran, 2014). For a healthy relationship to exist between children, they must adhere to some friendship code of conduct that involves a mutual benefit engagement embedded with a conflict resolution mechanism. The ability of children to understand complex situations and respond appropriately increases their confidence to deal with similar cases in the future.

At the stage of preschool, children show a lot of eagerness to learn new things and it is the responsibility of teachers to support them to learn essential skills. Learners with ASD need not only patience from the teachers but also singular attention. This may pose a challenge for ASD learners in an integrated school environment even though research has shown the benefits of special needs learners being integrated (More, 2010; Papacek, Chai and Green, 2015). Innovative approaches such as social stories may free some time for teachers but also act as a framework through which structured engagements with learners with special needs are done. Furthermore, there is evidence that suggests that the participation of children in solving their problems in calculates in their skills for handling more advanced problems. It is therefore upon teachers to ensure that they create activities where children participate as much as possible.

Social stories are a desired method for preschoolers given that it allows child participation in learning problem-solving skills. Social stories take the form of brief passages developed by a teacher to instruct learners on what behavior or action they need to take in a particular scenario (Kuttler, Myles and Carlson, 2015). They are created with the student in mind using first-person language (Bozkurt and Vuran, 2014). Care is taken in designing the stories to ensure that the instruction is clear and written in simple language. For preschoolers, embedding pictures in the stories may enhance interest as well as comprehension (Wright, 2017).

In literature, there has been consensus on the form of sentence structure used in social stories.

Social stories help children to transition into the classroom environment. Social stories have been proven to help children develop high-level emotions such as empathy (Cramer, 2016). Social stories can be designed to achieve empathy by focusing on other children's point of view. The cooperative nature in some social stories has been linked to improved behavior among preschoolers especially where stories teach them how to share play tools and how to wait their turn (Kuttler, Myles, and Carlson, 2015; Wright, 2017).

Summary of literature

The presented evidence points to the conclusion that social stories are interventions that operate in diverse ways based on the content of stories mode of delivery and frequency of application (More, 2010; Kuttler, Myles and Carlson, 2015; Khantreejitranon, 2018). The flexible nature of storytelling makes the approach amenable to change. While this attribute aids in faster adoption, it inhibits universal standards of practice. Some

studies combine stories with other interventions that make attribution of any changes in target behavior to stories complicated (Karal and Wolfe, 2018). Although this study will also use a single case in the study, future research is recommended to adopt a larger sample that can help in the generation of findings to the wider population.

Theoretical framework

This study is based on the Theory of Mind (ToM). People with autism have a problem understanding perspectives different from their own. ToM is a broad-based terminology that refers to "knowledge that guides propositional attitude attribution and explanation and prediction of behavior employing inner states and processes" (Karal and Wolfe, 2018 pg. 45). Autistic children find it challenging to follow the thought processes of other people when interacting in society. Social clues and physical action utilize integrated information from other people that is useful in predicting further action.

Social story guidelines have been stipulated in Gray (2010) to consist of individualized stories that consist of various sentence structures. There are four types of sentences: descriptive, perspective, affirmative, directive, control and cooperative (Bozkurt and Vuran, 2014). There are variations in the listing of types of sentences from other researchers who only focus on four encompassing sentence structures: descriptive, perspective, directive and affirmative (Kuttler, Myles, and Carlson, 2015; Balakrishnan and Alias, 2017; Wright, 2017). According to Bozkurt and Vuran (2014) descriptive sentence provides information about social setting such as who is involved; perspective informs of the internal states of others; affirmative express commonly shared views; directive provides information on what to

do in a situation; control strategies to remember the story; and cooperative which is about what others will do to support the student. Gray stipulates that for more effective results, the number of descriptive, affirmative and perspective sentences should be twice as more compared to sentences that coach, partial and direct (Karal and Wolfe, 2018).

Study design and methods

This study will adopt the use of single-subject research design to focus the use of social stories on improving communication and appropriate behavior in autistic preschoolers (Ozuna, Mavridis and Hott, 2015; Karal and Wolfe, 2018). The child will be observed and customized social stories generated to their particular challenging situations. The child was also observed during play and eating for changes in behavior and action. The social stories followed guidelines stipulated in Gray (2010) for validity and reliability. Data was recorded seven times before social stories were read to constitute baseline. After the intervention, data was also collected seven times as an endline. The intervention was done in a school setting involving preschoolers with autism. The interventions were done to increase communication and appropriate behavior during eating or social interaction (Wright and Mccathren, 2012; Papacek, Chai and Green, 2015). Research has shown that training in communication and self-help skills is important for children with autistic spectrum disorder (Tavakoli, Hosseini and Karimi, 2018).

Sampling

The researcher selected the ACE Learning Center that had several children with disabilities. The selection of the child to participate in the

study was purposive given that in single case studies the intention is not to generalize the study findings to the population (Ozuna, Mavridis and Hott, 2015). The selected child had mild autism, so they could be considered to be average in terms of severity of the condition in the center.

Study instrument

The study instrument was designed to collect data mainly on verbal progress made by the study subject as well as the observation of appropriate behavior during eating. After several instances when a story is read, a child was asked a question that elicited more than a yes and no answer. A tally sheet was used to mark instances of each response. They were then scored on the type of response they give as well as the action they take.

Data collection procedures

Data was collected from the ACE learning center from one child with autism who was observed over four weeks. Consent was sought from the parents of the child. The first step involved studying the child to determine the learning and social challenges they encounter. Several social stories were then designed to target each of the challenges. To ensure that the stories were valid, they were piloted on course mates with interest in the subject. Data was collected from the child through a questionnaire and also through observation. The observation was systematically done after the story at lunchtime and during playtime. The stories were repeated on three other days just before similar activities for the scores to be taken (Balakrishnan and Alias, 2017).

Data analysis, results, and Discussion

The data will be analyzed descriptively with the aid of an Excel spreadsheet. The analysis process started with a coding exercise with 0 was for no response, 1 for a yes answer, 2 represented a no answer, 3 indicated a sound only while 4 indicated a full-sentence utterance. On appropriate behavior, the child was scored a 0 for inappropriate behavior and a 1 for proper behavior. The data was visualized in graphical format with the aid of an Excel Spreadsheet.

The findings of the study were that at baseline, the child recorded a yes response 2 out of 7 times with similar scores for a no response. A sound only response was recorded 3 times. The child at baseline was not able to utter a full sentence or two words together. The child did not ask for permission to eat their lunch and quarreled with others on the play toys. However, after the social story intervention, the child was able to utter a sentence on two occasions, a yes and no response on two more occasions each and a sound only response once. The child also sought the attention of the teacher before having their food on four out of seven occasions and waited for their turn to play with toys on 5 out of the 7 occasions.

The purpose of this study was to assess the effectiveness of using social stories to improve communication and reduce undesired behavior among children in preschool. The results are consistent with similar findings on studies that were done on autistic children that are about the same age (Adams *et al.*, 2004; Papacek, Chai and Green, 2015; Balakrishnan and Alias, 2017; Khantreejitranon, 2018). Khantreejitranon (2018) illustrates very similar cases that involve the inability of children to share toys and behave appropriately while eating. The studies show that

some social stories had more pronounced effects on some children compared to others. It is, therefore, possible to get the maximum impact from a story by studying a child to identify the problem and design or select a story that best suits there a type of behavior. Some studies have found that the severity of the autistic condition affects the response of learners to the stories. Children with severe ASD need more exposure to the stories to achieve behavior change (Ozuna, Mavridis and Hott, 2015; Papacek, Chai and Green, 2015; Karal and Wolfe, 2018).

Conclusion and recommendation

Social stories have shown a promise for use among preschoolers with autism to encourage communication and enhance positive behavior. The researcher recommends teachers to adopt the use of stories to teach appropriate responses in a conversation as well as acceptable behavior in each situation. Future studies should focus on assessing the ASD among preschoolers as a pool rather than single cases. Even in literature, there is a dearth in population-based studies for preschoolers with autism. Further studies could also determine the retention ability for positive behavior once the social stories intervention is stopped. The findings have wider implications in pedagogical improvements even beyond learners with autism.

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