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Perceptions of Teachers Using Social Stories for Children with Autism at Special Schools in Saudi Arabia

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Abstract
Social Stories™ have been found to be an effective intervention in supporting the improvement of social capabilities for children with autism. However, there are no studies that discuss the possible cultural implications in their implementation and classroom use. For instance, there has been little discussion on the cultural connotations presented by the selected images or topics. Furthermore, no studies have explicitly studied the implications of employing Social Stories in countries which have a distinctive character due to the influence of religion, such as Saudi Arabia. In other words, no studies have reviewed how a person in Saudi Arabia may perceive a commercially purchased Social Stories in contrast to a person in, say, the United Kingdom.This study focuses on investigating the adoption of Social Stories as an intervention to improve the social skills of children with autism in the Saudi Arabia context. The study explores the perceptions of fifteen teachers from two special schools in Riyadh who work with children with autism and employ Social Stories with their children. The teachers were interviewed using semi-structured interviews and their views of the various factors that affect the use of Social Stories in social skills interventions were explored. Findings from this study indicate that the teachers were aware of what constituted Social Stories (that is, the concept) and of where they could be obtained in Saudi Arabia. Furthermore, they recognised the different barriers and factors contributing to the effective use of Social Stories. Culture, in particular, was highlighted as a significant potential barrier to the use of Social Stories. For instance, the depiction of dress code or items which are not permissible according to the Islamic laws of Saudi Arabia in the imagery used in Social Stories. Opportunities for further research were also provided.
Keywords: Social Stories; Autism; Teachers and Social Skills; Culture; Saudi Arabia.

1. Introduction

Autism is a persistent impairment in reciprocal social communication and social interaction, and is frequently characterised by restricted, repetitive patterns of behaviour, interests or activities (American Psychiatric Association [APA], 2013). Studies have, therefore, found that the diagnosis of children with autism is more challenging to achieve than merely describing them (Murshid, 2011). The recorded number of individuals with autism across the world has increased from 1 in 10,000 in the 1980s to 1 in 2500 in the 1990s and subsequently to 1 in 1000, again in the 1990s (Autism Science Foundation [ASF], 2016). It must be noted that this increase in prevalence could be attributed to the revisions in the diagnostic criteria for autism over the years (ASF, 2016). Accordingly, numerous studies have endeavoured to measure the global extent of the incidence of autism. For instance, as per the United States Centres for Disease Control and Prevention [CDC] (2014), 1 in 68 children aged 8 years across 11 monitored sites in the United States were found to be autistic in 2010, an increase over the reported statistics from a study performed in 2008, by the same agency, of 1 in 88 children (CDC, 2012). On the other hand, in the United Kingdom, the annual rates of incidence of autism in children aged 8 years were observed to have remained fairly constant between 2004 and 2010 and was in the region of 3.8/1000 boys and 0.8/1000 girls (Taylor, Jick, & MacLaughlin, 2013). In Saudi Arabia, the setting of the current study, an inquiry involving 57,110 children aged less than 16 years revealed 333 cases (0.6% prevalence) (Naqvi, 2012). Another study in Saudi Arabia of 22,950 children aged 7–12 years in the primary schools of Taif district, by Al-Zahrani (2013), reported that 35 children out of every 1000 were found to be autistic. These changing numbers may also represent, to an extent, the higher awareness and hence acceptance of communities towards disabilities in general and autism in particular (Thompson, Fisher, Purcal, Deeming, & Sawrikar, 2012). From the perspective of Saudi Arabia, in particular, finding accurate statistics is not easy, as the perceived, culturally influenced, stigma associated with disabilities, refusal of families to acknowledge disability and the inadequate diagnosis services all influence the efficacy of statistical surveys performed in the country (Almasoud, 2013). Aspects of autism include limited social awareness that can affect the quality of life of children both during and after their

education (Fleury et al., 2014; Test, Smith, & Carter, 2014).

Güral, Sezer, Güven, and Azkeskin (2013, p. 53) examined the various aspects influencing the social skills of young children and found that these include the "child's age, gender, number of siblings, status of continuation to preschool, peer relations, parents' ages and levels of education, family's socioeconomic level, academic status, etc." They also concluded that, regardless of the reasons, it is crucial to enable a child to develop social skills without delay because of the adverse consequences that the absence of social skills can have in the child's future. Stichter, Randolph, Gage, and Schmidt (2007, p. 219) summarised the findings of Eaves and Ho (1997) and Weiss and Harris (2001) when they observed that there is a higher probability of children with autism behaving awkwardly in social situations and becoming progressively socially isolated in the absence of focused interventions intended to deal with social requirements in the ordinary context.

Several methods, such as ABA (Applied Behavioural Analysis), DTT (Discrete Trial Training), PRT (Pivotal Response Treatment), LEAP (Learning Experiences: An Alternative Program for Preschoolers and Parents), PECS (The Picture Exchange Communication System), Incidental teaching, TEACCH (The Treatment and Education of Autistic and Related Communication Handicapped Children), and so on (Skokut, Robinson, Openden, & Jimerson, 2008, p. 95-96) have been designed to provide social skills interventions in school for autistic children. Furthermore, Skokut and colleagues (2008) encouraged authorities in schools, who seek to implement a specific method of intervention, to acquire supplementary training and resources to reliably apply the chosen method. Moreover, it has been observed that the use of selected elements (or an 'eclectic' mix) from multiple social skills intervention approaches can be less effective in improving the social capabilities of autistic children than employing a single approach to support the social skills of children with autism (Howard, Sparkman, Cohen, Green, & Stanislaw, 2005). However, it must be also noted that no single social skills intervention has been found to deal with all the social shortcomings of all children with autism (Lord & McGee, 2001; Stichter et al., 2007).

A total of 79 investigations on skills treatments between 1997 and 2007 were examined by Matson, Matson, and Rivet (2007). They identified five classes of approaches to social skills improvement:

- Modelling and reinforcement
- Peer-mediated interventions;
- Reinforcement schedules and activities;
- Scripts and stories; and
- Miscellaneous approaches (such as DTT and PRT).

A sixth approach, inclusion, can also be considered (Engbrecht, 2013). These different approaches aiming at the improvement of social skills utilise varied techniques such as the use of non-autistic peers to model behaviour and reinforcement systems encourage the autistic child to remain engaged in the intervention. Reinforcement implies the offering of rewards such as edible treats, verbal commendation, stickers, and so on, to children each time they demonstrated a desired behaviour. However, these approaches were not found to be adequate for coaching autistic children in behaviour where varied reactions (in succession or otherwise) were necessary (Steege, Mace, Perry, & Longenecker, 2007) This could be due to the fact that children with autism resist unanticipated changes and prefer to do things in a self-defined sequential or almost "ritualistic" manner (Cashin & Barker, 2009). Changes to their routines or the introduction of new routines therefore can lead to anxiety and cause the child to resist attempts to teach it new behaviour.

In the present day, there is widespread understanding with regard to the criteria for diagnosing autism. However, in actual medical practice, diagnosis can be challenging and complex as it is founded on behaviour and not a trigger or process (Murshid, 2011). The present day diagnosis of autism is chiefly founded on the criteria established by the Diagnostic and Statistical Manual of Mental Disorders (DSM, the current edition is DSM-5; APA, 2013) criteria augmented by information acquired from parent (and child, if applicable) interviews, and rating scales, such as CARS (Childhood Autism Rating Scale, developed by Schopler, Reichler, & Renner (2002)). Furthermore, differences in culture significantly affect actual diagnosis and the stage of detecting abnormality and commencing intervention, and so on. Thus, culture also substantially affects the methods of studying and dealing with autism (Zaroff & Uhm, 2012). In Saudi Arabia, the diagnosis of autism is hindered by the lack of clarity with regard to diagnosis services for individuals with autism (Almasoud, 2011). Also, the cultural view of individuals with disabilities in Saudi Arabia can impede families from seeking assistance or indeed acknowledging that their child requires external assistance (Almasoud, 2013). Hence, several cases remain undiagnosed. Moreover, in some instances, teachers in schools fail to recognise the symptoms of autism in children (Zeina, Al-Ayadhi, & Bashir, 2014). Elsedfy & Abdelraheem (2014) suggested that the recommendations of the American Academy of Pediatrics (AAP) could be utilised in Saudi Arabia to reduce the average age at diagnosis. Interventions for individuals with autism in Saudi Arabia include TEACCH, ABA, EIBI (Early Intensive Behavioral Intervention), HELP (Hawaii Early Learning Profile), PEP-3 (Psycho educational Profile: Third Edition), PECS, and one to one support (Zeina et al., 2014).

2. Defining Social Stories

The use of stories to influence the behaviour of an individual in society (or society itself as a whole) is an approach that has been employed for centuries. However, developing or modifying stories with the intention of assisting individuals with autism to control their conduct is a concept that is comparatively novel. Autism spectrum disorder (ASD) is a collection of growth-related conditions typified chiefly by repetitive behaviour, and difficulties with conversation and other societal interactions (Crozier & Tincani, 2007; Hume, Boyd, Hamm, & Kucharczyk, 2014; Karkhaneh et al., 2010).

Social Stories is one method of intervention used to facilitate the social integration of children with autism. They were developed by Carol Gray in 1991 (Gray & Garand, 1993; Gray, 1994) and their key objective is to impart precise and truthful information about social situations in "a patient and reassuring manner" so that it can be recognised without difficulty by individuals with autism (Gray, 2010). A Social Story is a brief, usually personalised, narrative developed specifically for an individual with autism that deals with one or more social capabilities that the individual needs to develop or to assist the person with adapting to unfamiliar or problematic circumstances (Gray & Garand, 1993; Sansosti, Powell-Smith, & Kincaid, 2004; Crozier & Tincani, 2007). For instance, if a child with autism is unable to share toys, a teacher could develop or modify a Social Story that demonstrates approaches to sharing and the value in sharing toys. The principal actor in the story could possess similar physical characteristics as or otherwise resemble the individual with autism for whom the Social Story is being developed. Sometimes, a photograph of the individual with autism is placed over that of the story's central character. This aids autistic individuals to more easily associate themselves with the story and acquire techniques to alter or control their conduct.

Scattone, Wilczynski, Edwards, & Rabian (2002) propose Social Stories as a useful, unobtrusive and conveniently achievable mediation for use with autistic children at school. However, it must be highlighted that Social Stories are not a means to increase the ease with which a teacher deals with the behaviour of autistic children in classroom but, rather, a means to enhance the children's comprehension of their environment (Gray, 2004) and accordingly modify their social responses in social situations as a result.

The use of Social Stories in schools, homes and society has been advocated compellingly by various researchers (Scattone, Tingstrom, & Wilczynski, 2006; Chapman & Trowbridge, 2000; Reynhout & Carter, 2006; Rust & Smith, 2006; Sansosti et al., 2004). However, the efficacy of Social Stories has received mixed reactions. A number of studies acknowledge the effectiveness of Social Stories in decreasing troublesome conduct in classrooms (Scattone et al., 2002), lessening outbursts and monotonous recurring conduct (Lorimer, Simpson, Myles, & Ganz, 2002; Kuttler, Myles, & Carlson, 1998; Reynhout & Carter, 2006), improving on-task conduct (Hagiwara & Myles, 1999), prompting appropriate conduct during recreation (Barry & Burlew, 2004) and producing improved societal communication (Sansosti & Powell-Smith, 2006; Thiemann & Goldstein, 2001). However, critique around Social Stories focuses around methodological weaknesses in the research design offered by Gray and Garand (1993), lack of evidence around long-term results as well as lack of adequate description of a participant's baseline communicative and cognitive skills (Reynhout & Carter, 2006). While there is also a lack of wide evidence on the effectiveness of Social Stories as a single intervention (Staley, 2002), Watts (2008) acknowledges that some of the existing research using Social Stories deviates from recommended Social Stories sentence ratios (Reynhout & Carter, 2006) or does not conform to Social Stories guidelines (Kuoch & Mirenda, 2003). In addition, the origin of the Social Stories, the method used to create or apply them and, more specifically, cultural implications regarding their use and their appropriateness for specific contexts have not been the focus of extensive research.

Social Stories may originate from various sources, and studies claim that social stories can be created by any person familiar with an autistic individual and with the organisation of a social story, for example, teachers, parents, social workers, etc. (Gray, 2010). Social stories are also available widely on the Internet either free or for commercial purchase. They are also available through shops in books such as Gray's *My Social Stories Book* (Gray & White, 2002), and *The New Social Story Book* (Gray, 2010).

Studies by Scattone et al. (2006) and Thiemann and Goldstein (2001) highlighted the fact that many practitioners experience apprehensions regarding the influence of the sources of Social Stories on their effectiveness. The ready-made social stories widely available from public sources (bookshops, the Internet) are intended for general use, and therefore they are created to deal with typical social situations. However, as they are intended for common use they may not consider the finer nuances of individual religious or ethnic perspectives. Furthermore, they may not satisfy the precise needs of a particular individual with autism. Hence, it is recommended that practitioners working with individuals with autism devise their own Social Stories tailored to each individual's specific social needs. For example, Rota (2011) reported that she designed the Social Stories used in her study and therefore obtained noteworthy and favourable outcomes. Richard (2000) observed that children's understanding of the content and presentation of a Social Story must be sensitively assessed and the story modified suitably prior to use, as applicable. In other words, Social Stories required careful evaluation and personalisation to be successful when utilised with children with autism.

Guidelines to develop a Social Story have been provided by Gray (1998). First, the subject of the social story is determined. This can be a specific behaviour or incident where the autistic child has demonstrated difficulties. The Social Story could also be used to prepare a child for an imminent social event. Second, details (location, actors involved, duration, situation prompts) are gathered about the chosen subject. These details can be gathered by observing the child and/or from conversations with teachers, parents, peers, etc. Finally, the attitude of the autistic child to the intended capability or situation must also be considered. Gray (1993, 1998) emphasised that taking the autistic child's opinion or outlook into account is the most vital factor in creating an effective Social Story. Therefore, the more thoroughly an author understands an autistic child's opinions and emotions, the more likely they will be to offer information in the Social Story that is relevant and beneficial to that specific child.

In its original form (Gray & Garand, 1993), a Social Story was a simple set of sentences printed on a sheet (or sheets) of paper, sometimes accompanied by suitable illustrations. The story would then be read to an autistic child. The different sentence types are descriptive, perspective, cooperative, directive, affirmative and control (Gray, 2010; Reynhout & Carter, 2006). Furthermore, Gray (2010) also provided a Social Story Formula to help assess whether a Social Story was more descriptive than directive. Subsequent research has found that modifying a Social Story —that is, by using video models, computer-generated multimedia Social Stories, apron storytelling and Comic Strip Conversations—can also be beneficial (Haggerty, Black, & Smith, 2005; Sansosti & Powell-Smith, 2006; Hagiwara & Myles, 1999; Rogers & Myles, 2001; Glaeser, Pierson, & Fritschmann, 2003). These modifications do not affect the sentence construction, structure or format of a Social Story but are limited to its execution or delivery. Changes in modern technology have furthermore provided different options for displaying a Social Story to a child for example, computers, iPad®, etc., where earlier interventions were restricted to physical material such as printed sheets of paper (Ploog, Scharf, Nelson, & Brooks, 2012; Sansosti & Powell-Smith, 2008; Chan, 2009; Machalicek et al., 2009).

3. The influence of culture

Chun and Fisher (2014) observed that culture significantly influences the manner in which parents of autistic individuals interpret their children's social responses. Consequently, culture affects both parental expectancies (Matson et al., 2012) and the alternatives they choose with regard to assistance and facilities (Ku & Bryce, 2011). As a result, the extent to which Social Stories are used can be determined by how well they are recognised in a specific ethnic background and/or faith. For example, Jegathesan, Miller, and Fowler (2010) observed that Muslim populations supposed that a child with autism was a bequest from Allah, uncorrupted and sinless, and granted to a family in recognition of their devotion, conscientiousness, self-respect and capacity to rear the child. Therefore, these families declined to concentrate on the child's shortfalls or adverse features of conduct and instead focused on the capabilities of the child and on integrating them into their adult society. It was also supposed that Allah would assist Muslim families to acquire a profounder understanding and acceptance of autistic children. Therefore, it can be observed that autistic children in Muslim homes are raised in obedience to Islamic principles and equipped to conform to the typical communal, spiritual and verbal habits of their households and societies (Ennis-Cole, Durodoye, & Harris, 2013; Jegathesan et al., 2010).

As a result, it can be seen that thematic priorities need to be considered in the content of Social Stories. As such the applicability or appropriateness of the stories for particular behavioural requirements (Guldberg et al., 2011) can be culturally mediated. Some examples of general behaviour for which Social Stories have been reported to have been used effectively include accomplishing activity selection, playing suitably with toys and playmates (Dodd, Hupp, Jewell, & Krohn, 2008), speaking suitably to peers (Crozier & Tincani, 2007), drawing attention, and introducing responses to specific prompts, etc. (Dodd et al., 2008). Social Stories can also be utilised to help with certain functional capabilities such as washing hands (Hagiwara & Myles, 1999) and eating (Bledsoe, Myles, & Simpson, 2003).

When creating a Social Story it is, therefore, essential to consider carefully the specific requirements of the individual for whom it is proposed and the behaviour or activity to be dealt with before it can be deemed suitable for use. The appropriateness of the story for the child's age and gender must also be considered. Other elements to be considered include the socio-economic status and cultural background of the child. For instance, using a Social Story that depicts a child asking an apparently wealthy parent to take him/her for an outing in an expensive car would not be appropriate for use in the case of a child from a poorer background whose family does not own a vehicle; nor would it be appropriate to use a social story with pictures of girls in sleeveless attire in a culturally conservative environment such as Saudi Arabia. Even a Social Story that deals with a simple topic such as speaking suitably with peers in school in a Muslim country can cause unanticipated repercussions if the story uses forms of greeting that are not conventionally used in the country or depicts gender mingling, which is forbidden by law. Families in such Muslim countries are characterised by a high degree of parental engagement. For example, a child may be accompanied by their mother to school till they are safely delivered into a teacher's care, or parents may pay random visits to the school to ensure that proper attention is being devoted to their child

(Jegathesan et al., 2010). Moreover, a high level of community support for people with disabilities can be seen as the community is required to "to assess, assist, respect and give equal opportunity to people with intellectual disabilities" (Morad, Nasri, & Merrick, 2001).

A different viewpoint of the cultural perspective was provided by Ogata, Sheehey and Noonan (2006) who observed that children find it difficult to respond to grownups whose appearance, conversation and conduct is distinct from the personal knowledge of the children. Other studies have supported this observation by finding that children acquire knowledge best when they can connect to the person and their and when the teacher utilises responsive approaches that are culturally appropriate (Baca, 2004; Correa, Hudson, & Hayes, 2004; Cummings, Atkins, Allison, & Cole, 2008; Gallegos & McCarty, 2000; Obiakor, 2007; Tepper & Tepper, 2004). For example, it can be expected that child with autism of Saudi origin in Saudi Arabia would respond best to a teacher who is also of Saudi origin (and of the same gender). This is because the teacher is already conversant with the cultural context and language of the child and hence will be able to communicate with the child in a comfortable and natural manner. Baca (2004) further observed that one of the fundamental premises of a successful inclusive option for special education is for teachers to study the cultural background of their children.

4. Rationale for the current study

After parents, teachers are the primary caregivers for children with autism; hence, their role in selecting methods of intervention to improve the behaviour of autistic children is significant. It is also, therefore, imperative to understand their perceptions with regard to the success or failure of a particular mode of intervention, in this case Social Stories. Several earlier studies dealt with behavioural skills interventions for children with autism through Social Stories (Crozier & Tincani, 2007; Sansosti & Powell-Smith, 2008; Reichow & Sabornie, 2009). These studies make references to interviews with teachers during the course of the intervention. However, the focus of these interviews was to understand the target behaviour to be addressed or to gather teachers' observations with regard to the consequent changes (increase in instances of appropriate behaviour or reduction in instances of inappropriate behaviour), rather than to examine their opinions of Social Stories. A study by Dev (2014) attempted to examine teachers' perceptions of the impact of Social Stories on children with autism. This study, however, was limited to teachers' understanding of social stories and was designed to ascertain the abilities and resources they had used to create the stories. The implications of the sources of Social Stories, methods of displaying them, and barriers or factors that affected their use were not explored. The current study, therefore, proposes to explore the perceptions of teachers who work with children with autism in schools in Saudi Arabia with regard to the use of Social Stories as an intervention to develop the social skills of children with autism. The teachers' perspectives on the impact of the sources of Social Stories, methods of displaying them, and barriers or factors that affected their use were gathered and analysed. Teachers from two special schools in Riyadh, Saudi Arabia, participated in the study.

5. Methodology

5.1 Research approach

This study used a qualitative approach to gather data with regard to teachers' perceptions. Semi-structured interviews were selected as the most appropriate method for this study as they are flexible thus allowing for the acquisition of more comprehensive data information. Furthermore, interviews can be more perceptive to contextual differences in implication Semi-structured interviews are interviews that are "scheduled" and "standardised" to a degree. The interviewer can thus focus on a group of subjects or themes that must be explored. However, the sequence and/or phrasing of questions are not inflexible (Phellas, Bloch, & Seale, 2011). Another rationale for using semi-structured interviews was the size of the study, as these are recommended for smaller studies (Drever, 1995).

The interview questions focused on teachers' perceptions of Social Stories, sources of Social Stories, methods of displaying Social Stories in classrooms, benefits and drawbacks of Social Stories, barriers to using Social Stories for children with autism, and factors that contributed to the best use of Social Stories to develop social skills. The interview questions were created by the researcher based on information from earlier publications about using Social Stories for children with autism. Earlier studies provided insights with regard to the various considerations with regard to Social Story use, such as practical methods of utilising Social Stories, factors that affected the use of Social Stories, and so on (Adams, Gouvousis, VanLue, & Waldron, 2004; Agosta, Graetz, Mastropieri, & Scruggs, 2004; Ali & Frederickson, 2006; Barry & Burlew, 2004). The cultural perspective was added by the researcher as this is the first study of this kind.

5.2 Participants

Interviews were conducted with 15 male teachers between the ages of 27–40 years who were teaching at two special schools in Riyadh, Saudi Arabia, and were either currently working or had previously worked extensively with children with autism. Eight were from the East School, Riyadh and the remainder from the West School,

Riyadh, both of which are special schools. 9 out of 15 possessed Bachelor's degrees in autism while the rest possessed Master's degrees in autism or special needs. The teachers had between 3 and 13 years of experience of teaching children with autism and between 2 and 9 years of experience in using Social Stories. Furthermore, at the time of the interviews, some were using Social Stories every day, while others used social stories at least twice per week.All the teachers were interviewed face to face and had allowed audio-recording of their interviews.

5.3 Procedures and analysis

All interviews were transcribed using thematic analysis. Thematic analysis is "a method for identifying, analysing and reporting patterns within data" (Braun & Clarke, 2006, p.79). It was chosen for its flexibility and capacity for searching across a data set (Braun & Clarke, 2006). In the context of the current study, the researcher followed these steps:

1. Created initial codes
2. Revisited initial coding
3. Developed an initial list of categories
4. Modified the initial list based on additional reading
5. Revisited categories and subcategories
6. Moved from categories to themes.

6. Results

The interview responses were categorised based on the following emerging themes: concept of Social Stories, sources of Social Stories, methods of displaying Social Stories in classrooms, benefits and drawbacks of Social Stories, barriers to using Social Stories for children with autism, and factors contributing to the best use of Social Stories to develop social skills. A summary of the findings accompanied by participants' quotes to illustrate each of the themes follows.

6.1 *Concept of social stories*

This theme examined the understanding of the concept of Social Stories among the teachers. In other words, the teachers' responses to questions related to their understanding of Social Stories or their understanding of the structure of Social Stories and Gray's formula were reviewed under this theme.

The researcher found that the opinions of the teachers as stated in the interviews were found to vary; their responses, however, clearly indicated that they understood not only the significance but also the concept of Social Stories. Their responses also dealt with the construction and practical aspects of Social Stories. For instance, three teachers (T1, T2 and T3) regarded the essential content of a Social Story to be brief, meaningful sentences that were simple enough to be understood by children with autism. Two other teachers (T7 and T8) shared comparable opinions. They concurred that social stories were concise stories intended to aid children with autism. For example, T7 stated that *"it uses descriptive words and pictures to refer to feelings, ideas and beliefs to teach others"*. In a similar fashion, T13 and T14 also described Social Stories in terms of their structure and incorporated their visual aspects. T14 described a Social Story as a *"written narrative accompanied by visual diagrams and meant to explain a given behaviour or circumstance"*. T15, instead, perceived a Social Story to be a ***"short written story containing illustrations and they are written at the attention span and the level of reading of the*** *child* ***who it has been created for".***

6.2 *Sources of social stories*

The second theme concerned the sources of Social Stories utilised by the teachers. The teachers' responses shed light on the various sources they used to obtain social stories. For instance, some teachers created their own stories, while others procured theirs from bookshops. The findings under this theme were categorised into two sub-themes to provide more detail namely, shops and the Internet, and teachers and schools.

Nine out of the fifteen teachers interviewed reported using Social Stories procured from shops in Riyadh, which included bookshops specified by their school administrations, or from the Internet. However, some of these teachers also reported creating their own Social Stories on occasion to cater to the varied requirements of the children with autism in their classrooms. A few of the teachers, such as T5 and T15, used Social Stories downloaded from the Internet. Their rationale was that numerous stories were readily available online and they could choose a suitable story based on child needs or a situation/context. T15 stated: "*At first I downloaded most of the social stories I used to teach from the Internet"*. The Internet sources used by the teachers included various educational websites and e-books. Similar opinions were shared by teachers T4 and T15 with regard to the creation of Social Stories. They stated that they typically developed their own Social Stories and chose to develop each social story to meet children' needs and also to centre on the objectives to be accomplished by their children. Thus, it was clear from the interviews that some of the teachers preferred to

create Social Stories on their own. However, they also observed that creating Social Stories could be complicated and time-consuming, due to which they preferred to buy Social Stories and save time. In contrast, some schools were well supplied with Social Stories. These stories, however, required careful analysis prior to being used, as noted by T10: *"I get Social Story books from the library at school. However, at the school we do not have enough illustrated story books and it is a challenge"*. In general, it could be concluded from the teachers' observations that the Social Stories obtainable from the school libraries were inadequate both in number and quality, compelling the teachers to produce their own stories.

6.3 *Methods of displaying Social Stories in classrooms*

The opinions of the teachers with regard to how Social Stories could be displayed in the classroom were examined. The means used to display Social Stories can determine the effectiveness of an intervention as the right choice of medium can encourage or dampen a child's whole-hearted participation.

The teachers interviewed employed a variety of methods to display Social Stories, including computers, projectors and videos. Several teachers reported that they mainly made use of Microsoft PowerPoint presentations, multi-media computer programs that include video or audio. For instance, T10 stated that *"I use various methods, including video presentations, computer presentations, digital strategies, PowerPoint, and audio material incorporated with visual prompts"*.

The teachers' statements clearly demonstrated that using a single method to display Social Stories in classrooms was not adequate, and that using different display methods would be more likely to attract and retain the attention of the children. T1 and T2 demonstrated interest /in testing and developing different approaches to keep their children engaged.

6.4 *Barriers to using Social Stories for children with autism*

The study sought to understand if the teachers perceived any barriers to the use of Social Stories with their children with autism. The interviews with the teachers revealed that several practical aspects, such as supply of resources and technology, if any, and differences in culture, should be taken into consideration before using Social Stories with children with autism. The findings for this theme were organised under two sub-themes: Resources and technology and Differences in culture.

6.4.1 Resources and technology

As discussed in the previous theme, the teachers reported that the use of diverse methods of displaying Social Stories could be beneficial to the efficacy of an intervention that uses them with children with autism. As a corollary, the teachers identified that technology was a significant aid in teaching children with autism and that it can be utilised to present Social Stories to them. However, the teachers' comments also suggested that the required technology aids are not always accessible.

For instance, in T5's opinion the lack of amenities provided by schools was the most significant barrier to supporting children with autism in developing crucial capabilities required for social interaction and life in general. He said that *"if the school* does *not help effectively in providing materials and resources for teachers and classrooms, then teachers will be unable to utilise the relevant aids and behavioural interventions to assist children with autism and provide them with social stories"*.

6.4.2 Differences in culture

The culture underlying a society can affect Social Story usage as it may influence the outcome of their use in interventions for children with autism. The Saudi teachers interviewed during this study revealed that one of the most significant challenges they faced was the inadvertent use of Social Stories that have not taken the cultural context into consideration. A large proportion of the Social Stories available in Saudi Arabia were created in other countries for commercial purposes and hence were not, in general, appropriate for local use. Consequently, such stories served to confuse children instead of helping them, as they may be unable to interpret the context of the story. A common example of inappropriate representation in the Social Stories concerns the dress code in Saudi Arabia, where there are clear guidelines on how men and women, both natives (of Saudi or non-Saudi origin) and foreigners, should dress. Therefore, Social Stories which contained pictures of young girls wearing shorts like boys could confuse children with autism as their content conflicted with what they saw in the society around them. This sentiment was echoed by one of the respondents in the study: *"There was also the issue of the bookshops selling Social Stories that were not in line with the country's culture being another barrier to its effective usage"*. The teachers' concern about the non-availability of Social Stories that take Saudi culture into consideration was evident from T8's comment: *"Among the barriers I face is the lack of locally developed Social Stories online as most of the social stories online are tailored for children in western countries. There is a need to develop these, targeting local children"*.

In the teachers' opinion, Social Stories that had been created in other cultures posed a frequent problem. The crucial challenge they pondered was how to develop the Social Story market so as to incorporate the cultural and traditional context of Saudi Arabia into Social Stories. Any Social Stories utilised in schools

must also to some extent represent the lifestyle, customs and language of the country. T9, who had four years' experience of using Social Stories, observed that *"a key problem facing Social Stories is the culture and symbols used in these stories"*. In the opinion of T13, who had two years' experience using social stories, locally developed Social Stories would be more appropriate for use in Saudi Arabia as they would take cultural elements into consideration.

6.5 *Factors contributing to the best use of Social Stories to develop social skills*

The current study obtained the perceptions of teachers with regard to factors that improved the efficacy of the use of Social Stories with their children with autism. This theme collates the findings on the factors that lead to the best use of Social Stories in aiding the development of social and life skills of children with autism. The findings were further categorised into two sub-themes.

6.5.1 Diversification

Diversification in the use of Social Stories refers to the use of multiple media instead of just one medium or, also, to the use of other strategies alongside Social Stories. To support the development of social skills it is imperative that Social Stories be created to address specific situations or behaviours. Accordingly, 9 out of the 15 teachers (60%) believed that a Social Story should be oriented toward a targeted situation and/or behaviour. Although understanding the varied needs of each child can be a burdensome task for teachers, their experience of closely working with children can help them draw up personalised learning experience to suit the needs of each child with autism. In this regard, T3 observed that *"another important aspect is the type of children. Not all children with autism will respond to social stories ... It is incumbent upon the teacher to notice such children and apply appropriate interventions"*.

In a similar vein, T10 recorded several factors that facilitated the effective use of Social Stories: *"These include availability of resources, more so infrastructure and materials needed for effective teaching of Social Stories"*. Interviewee T15 considered that *"the most important factor in helping children with autism was to use Social Stories along with the use of other behavioural interventions and strategies"*.

6.5.2 Appropriateness

In the opinion of the teachers, another factor that can affect the success of a Social Story is the way it is formulated. Prior experience has demonstrated that a Social Story must be associated with specific targeted behaviour. Therefore, a Social Story that does not address specific behaviour is inappropriate for use with children with autism. Furthermore, the teacher will not comprehend its significance either. This explains why some Social Stories are ineffective. Therefore, teachers must select appropriate Social Stories that are linked to the targeted social behaviour, in order to modify the targeted behaviour among children with autism.

Two teachers, T11 and T12, suggested two different factors that could aid the use of the Social Stories with children with autism, namely the children' learning speed and the willingness of parents to help: *"The first thing to consider is the level of understanding of children. Children grasp concepts differently. Some may take a day while others may take a year. It is important to consider this so that as a teacher you know how to deal with slow learners"*. This observation underlines the fact that a range of Social Stories may have to be used to address the varying learning needs of children with autism.

7. Discussion

Research associated with teachers' perceptions of the use and effectiveness of Social Stories for children with autism, in general and within the Saudi Arabian context, in particular, is extremely limited. In general, studies associated with Social Stories focused on their use in an intervention to improve the social skills of one or more subjects with autism and the teachers' opinions gathered during these were more for the researcher to conclude on the effectiveness of an intervention rather than their opinions on the method itself. However, the current study seeks teachers' perceptions with regard to Social Stories in a non-intervention context. This study is, therefore, believed to be the first to qualitatively explore teachers' opinions of Social Story use for autistic children in Saudi Arabia. The outcomes of the study offer themes that can support further planning for behavioural skills interventions for children with autism using Social Stories. The teachers' comments during the interviews indicated that the teachers in Saudi private schools, in general, had favourable views on the use of Social Stories for children with autism. This is in line with the findings of Reynhout and Carter (2009) who observed that teachers recognised Social Stories to be of assistance in classroom settings. Other studies (Ali & Frederickson, 2006; Rust & Smith, 2006; Sansosti et al., 2004) also found that teachers on the whole reported Social Stories to be a useful method of intervention. Furthermore, though the teachers' varying opinions, their overall awareness of the concept of Social Stories was found to be quite good. By contrast, prior studies, in general, did not specifically address the concept of Social Stories, that is they did not evaluate if the participants were conversant with the background of social stories or how they can be developed, though several (Crozier & Tincani, 2007; Reichow & Sabornie, 2009) assessed the Social Stories used in interventions to evaluate if they had been created in conformance with the guidelines provided by Gray. Dev (2014) interviewed six teachers with the principal

objective of assessing their understanding of Social Stories.

This study also found that the use of Social Stories could be influenced by their source of origin. For instance, the study found that teachers were of the opinion that they would not recommend commercially obtained social stories for use with children with autism in Saudi Arabia but recommended creation of Social Stories by the instructor. However, the teachers advised caution if Social Stories were to be self-developed by a teacher, as Social Stories are time-consuming to produce and, if not written in conformance to Gray's guidelines, may not deliver the desired results, rather the reverse. Moreover, this study found that some teachers resorted to buying ready-made Social Stories in order to save time. Similarly, Rota (2011) also highlighted the excessive time taken to develop Social Stories in her dissertation. She mentioned that, in several instances, another strategy to help a child had been determined by the time the pictures and sentences were finalised. Another key finding from the current study was that, regardless of the sources of Social Stories, the stories had to be carefully evaluated and tailored to ensure high levels of effectiveness when used with children with autism which was in line with the recommendations from Gail Richard (2000). A future direction for the Social Story market would be to suitably modify itself so as to integrate the cultural and traditional context of the country of use (in this case, Saudi Arabia) into Social Stories.

Moreover, this study found that teachers needed to be open to using different methods of displaying Social Stories in the classroom based on the individual characteristics or requirements of the autistic children. This is in line with the three basic approaches for applying a Social Story that were suggested by Gray and Garand (1993, cited in *Teaching* Children *with Autism: A Guide for Educators*, Saskatchewan Education, 1998, p. 32). The approaches were suggested for children with autism who can read independently and for those who cannot. The first approach was oriented towards children who can read independently. For these, Gray and Garand (1993) suggested that the story be first read twice to the child by an adult following which the child could read it back. In following sessions, the child could read it independently. The second approach was for children who cannot read independently. In this case, Gray and Garand (1993) proposed that the story could be recorded (in an audio tape) and played back to the child. The recording could include an audio prompt (such as the ringing of a bell) indicating the end of a page. Hence, the child gradually learns to independently read the story and subsequently reads it every day. In the third, and final, approach, Gray and Garand (1993) advised creating a video recording of the Social Story by making use of video modelling (that is, the use of peers or actors of the same age to act out the social story). The Social Story is also displayed on the video, one page at a time, and read aloud.

The interviewed teachers also provided some insights with regard to the barriers they encountered when using Social Stories for children with autism. Hence, the current study found that technology and resources played a significant role in the use of Social Stories and it was imperative that these be provided in abundance to the teachers using Social Stories as they could otherwise prove to be a significant barrier to the use of Social Stories. This is consistent with findings from the studies by Sansosti and Powell-Smith (2008), Chan (2009), Machalicek et al. (2009), and Ploog et al. (2012). Furthermore, the findings from the interviews suggested that barriers due to differences in culture could be overcome by including parents in the planning of Social Stories for children with autism so that the individual needs of each child and the cultural factors can be taken into consideration. Ogata et al., (2006) observed that children learn best when they are able to relate to an individual and his/her know-how and when culturally suitable methods are used by a teacher (Baca, 2004; Correa et al., 2004; Cummings et al., 2008; Gallegos & McCarty, 2000; Obiakor, 2007; Tepper & Tepper, 2004). Furthermore, Baca (2004) pointed out that a basic principle for an inclusive special education option to be successful is for educators to familiarise themselves with their children' cultural circumstances. In a similar fashion, the current study highlighted the need to understand that the cultural environment of an autistic child can act as a barrier to the use of Social Stories.

The study was also able to identify some factors that contribute to the best use of Social Stories to develop social skills, namely diversification and appropriateness. In other words, the teachers recommended the use of multiple resources, such as different forms of media to display the Social Stories, and the use of Social Stories alongside other behavioural interventions. Similar findings were reported in studies by Hagiwara and Myles (1999), Sansosti and Powell-Smith (2008), Haggerty and colleagues (2005), and Glaeser and colleagues (2003). Furthermore, the study found that interventions using Social Stories were to be designed taking the individual requirements of an autistic child into consideration in order to be deemed appropriate for the child (Guldberg et al., 2011). Consequently, parents, teachers and other caregivers must choose the combination of interventions that will be most successful for the individual child.

8. Conclusion

The findings from the interviews with the teachers suggested that teachers of children with autism in Saudi Arabia were sufficiently aware of the concept of Social Stories and where they could be obtained. Furthermore, the teachers were cognisant of different barriers to the use of Social Stories and of factors that contributed to the

best use of Social Stories. The influence of culture on the use of Social Stories (for development and in interventions) was also highlighted. This study recommends that teachers and other caregivers who create Social Stories for use with children with autism be educated on the guidelines for creating Social Stories and also on how to assess the needs of an individual child in the context of his/her cultural setting in order to design a Social Story that will be of use to him/her. Additionally, this study recommends that the Social Story market be suitably modified to integrate the cultural and traditional context of the country of use into Social Stories. Furthermore, involving parents in the evaluation of a Social Story prior to use may be of some merit. Parents are aware of their child's individual needs and also the cultural and social context in which they live, hence can contribute to developing or reviewing a Social Story. For instance, in the current context of Saudi Arabia, parents can aid in checking if the Social Story contradicts any of the country's cultural or social guidelines as pertain to interactions between men and women, interactions with the disabled, religious protocol, and so on. In a more general context, parents can help creators of Social Stories by reviewing the stories in the context of the child's individual peculiarities, such as its fear of cats or rodents, for example. The qualitative nature of the study and the small number of participants limit the generalisability of the outcomes. Nevertheless as the primary intention was to gain an in-depth understanding of teachers' perceptions as well as the obstacles and catalysts regarding the use of Social Stories the outcomes of this study are worthy of consideration. Future studies could explore the creation and use of Social Stories in regional languages and also the impact of the involvement of parents in social skills interventions using Social Stories.

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