

Parents' Perceptions of Early Interventions and Related Services for Children with Autism Spectrum Disorder in Saudi Arabia

Faihan Alotaibi¹ & Nabil Almalki¹

¹ Department of Special Education, School of Education, King Saud University, Riyadh, Saudi Arabia

Correspondence: Faihan Alotaibi, Department of special education, School of Education, King Saud University, Riyadh, Saudi Arabia. E-mail: faihan-ksu@hotmail.com; nalmalki@ksu.edu.sa

Received: February 9, 2016

Accepted: March 12, 2016

Online Published: September 28, 2016

doi:10.5539/ies.v9n10p128

URL: <http://dx.doi.org/10.5539/ies.v9n10p128>

Abstract

The present study sought to examine parents' perceptions of early interventions and related services for children with autism spectrum disorder (ASD) in Saudi Arabia. In this study a survey was distributed to a sample of 80 parents with children who have ASD. Parents also were asked open-ended questions to enable them to provide suggestions. The findings indicate that parents have varying perceptions of early interventions and related services. However, they seem to agree that these services are important in assisting their children. Accordingly, parents have suggested that the government needs to increase these services by providing more centers for children with ASD in Saudi Arabia, providing more specialists to deal with children with ASD, promoting inclusion in regular schools and providing more information on early intervention.

Keywords: early interventions, perceptions, Autism Spectrum Disorder

1. Introduction

According to the American Psychiatric Association (2000), autism spectrum disorder (ASD) belongs to a group of disorders that were in the past classified as "pervasive developmental disorders". The Centers for Disease Control and Prevention (CDC) (2014) emphasizes that, in the USA, 1 out of 68 children has autism or disorders closely associated with ASD. Though there is no reliable data on the number of children with ASD in Saudi Arabia, the above data gives some indication of the global figures. SD symptoms consist of abnormalities and difficulties in social and communicative interactions. Other symptoms include limited engagement in activities and hobbies, and children's moods, thought patterns and behaviour are also affected (Rogers & Ozonoff, 2005; Jordan, 1999). However, it has been noted that the severity of the disorder differs among children, and therefore the severity of the symptoms also will differ. Tunali and Power (2002) explain that, when not well managed, ASD results in stress and anxiety for the child, the family and the support network. Lukas et al. (1995) note that family dynamics and the way family's function also change. According to Lukas et al. (1995), several studies have asserted that family members are all affected when ASD is present.

1.1 Significance of the Study

Parents are forced to seek suitable services for their children. However, a lot of parents do not fully understand how to deal with ASD. In addition, the services obtainable for children with ASD may be inadequate for, or unsuited to, the special and exceptional needs and requirements of these children. Few studies have been carried out to examine services for children with ASD in Saudi Arabia and therefore there is a serious lack of knowledge and understanding in this field. Accordingly, those interested in provision of early interventions and related services for children with ASD in Saudi Arabia have difficulties accessing this information (Spann et al., 2003). Given this, interested people are compelled to refer to Western literature as their main source of information in order to comprehend issues relating to ASD in Saudi Arabia. Accordingly, there is a pressing need to know what services young children with ASD can access in Saudi. Bearing in mind that parents remain the main caretakers of children who have ASD, it is important to examine parents' perceptions of early interventions and related services offered to children with ASD. The present paper is important because it is among the few studies that have examined parents' perceptions regarding services for young children with ASD in Saudi Arabia.

1.2 Purpose of the Study

This study had three main purposes. The first was to establish the perceptions and needs of parents with children

diagnosed with ASD in relation to early interventions and related services in Saudi Arabia. The second was to establish how parents' perceptions and needs relating to early intervention services for their children with ASD vary across parents and children's characteristics. The third purpose was to determine parents' recommendations for improving early interventions and related services for children with ASD.

1.3 Research Objectives

The primary research objective for the present study is to investigate parents' perceptions of early interventions and related services for children with autism spectrum disorder in Saudi Arabia. However, to support this primary objective the following secondary objectives:

- a) To establish the parents' perceptions of early interventions and related services for their children with ASD
- b) To establish the parents' needs regarding early interventions and related services for their young children with ASD
- c) To establish the best practices the best practices in early intervention services for children with autism spectrum disorder
- d) To establish the improvements recommended by parents for early interventions and related services so that their young children with ASD can be served more effectively

1.4 Research Questions

The following research questions were used to guide this investigation:

- 1) What are parents' perceptions of early interventions and related services for their children with ASD?
- 2) What are parents' needs regarding early interventions and related services for their young children with ASD?
- 3) What improvements do parents recommend for early interventions and related services so that their young children with ASD can be served more effectively?

2. Literature Review

2.1 Early Intervention Services Overview

The early years of the life of a child are significant in determining the behaviour of the child in later stages of life. As Beals (2004) states, during the toddler and infant years, children grow quickly and learn extensively. However, as noted by Guthrie et al. (2013), children with disabilities such as ASD need early intervention so that they are not left behind. Moreover, According to Patterson and Smith (2011), early intervention is important in ensuring that children with special needs acquire extra help during the appropriate stages of life. Programmes should be designed to provide intervention services to children with disabilities and their families. Applequist and Bailey (2000) agree that early intervention services can help parents of children with disabilities learn the best ways to provide care for their children promote and support the development of their children, and ensure that their children are fully included in community and family life. In addition, Rogers and Vismara (2008) and Turnbull et al. (2007) stress that the best programmes of early intervention ensure that services are provided wherever they are required within the community, such as in family homes, day-care centres, childcare centres and schools. Furthermore, the parents of children with disabilities should assist in deciding what early intervention services their children need, as well as in determining the desired outcomes of the intervention. This is highly important in ensuring the success of early intervention services, because parents understand their children better than anyone else (Turnbull et al., 2007).

2.2 Intervention and Education Services for Children with Disabilities Including Children with Autism in Saudi Arabia

In Saudi Arabia, intervention services were not provided until 1958 (Al-Ajmi, 2006). Over the last decade, there has been considerable improvement in provision of early interventions and education for children with disabilities in the country. Al-Faiz (2006) states that children with disabilities, including those with autism, currently receive high-quality intervention and education services in Saudi Arabia within the least restrictive environment (LRE). However, Al-Mousa et al. (2006) state that, although the efforts that have been directed towards these services within the country are noticeable, more initiatives need to be put in place to raise service quality, with the aim of matching the quality of services provided to children in European countries.

According to Al-Mousa (1999), the associated educational services in Saudi Arabia are divided into two categories: intervention services for students with moderate and mild disabilities, and intervention services for students with severe disabilities. Students who have mild disabilities are taught in typical classrooms, although

they are provided with relevant support from special education services such as resource rooms. The students also take part fully in the country's general education curriculum, though special accommodations and modifications are made to enable proper intervention (Al-Mousa et al., 2006). Moreover, Al-Ajmi (2006) clarifies that students with moderate and mild disabilities have the chance to attend primary schools once they reach the age of 6, and middle school until they reach the age of 18 and after this they have no further educational opportunities save for attending specific vocational training. The Ministry of Health (2010) clarifies that centres for vocational training are meant to provide the students with employment skills that enable them to support themselves and live independently.

Students with severe disabilities, on the other hand, are provided with special intervention and education programmes within separate institutes in the country (Ministry of Education, 2008). Al-Herz (2008) states that preventing the students from attending regular schools could hinder their social development. Additionally, the education programmes for the students in the institutions are referred to as individual education programmes (IEPs) and are designed to suit the specific needs of each student. Al-Ajmi (2006) expresses great concern at the lack of suitable physical therapists, occupational therapists and speech and language pathologists in the institutions. This undermines the degree to which students benefit from the IEPs, as they are not accurately evaluated in terms of physical, communication and other necessary skills.

2.3 Current Approaches in Early Intervention for Children with Autism Spectrum Disorder

Zwaigenbaum et al. (2009) state that screening and early detection are significant in achieving the goals of early intervention services among children with ASD. The final goal of screening and early detection is to ensure that children with ASD can access evidence-based interventions in order to achieve optimal development as well as the desired outcomes. Guthrie et al. (2013) state that ASD could be accurately diagnosed even before a child reaches 2 years of age. Chawarska et al. (2007) further argue that two-year-old children with ASD are at the critical period of development of the disorder, as their brains are in a dynamic period of growth, when the volume of the brain and its connectivity increase rapidly. It is during the same period that the disorder can easily be altered in children (Courchesne, Campbell, & Solso, 2011); as research has revealed that it is during the first 2 years of life that a change in behaviour begins in children with ASD, it is important to screen and detect the disorder in good time, and to address it before much damage is caused.

Another significant aspect of modern approaches ensuring that early interventions are developmentally appropriate. It is evident that intervention programmes suitable for older children are not necessarily suitable for infants, as younger children differ with regard to social relationships as well as communication and cognitive processes. Lewis et al. (2014) state that developmentally appropriate interventions among young children are often able to correct a disorder and ensure that they go on to demonstrate behaviour similar to that of children without ASD in later stages of life.

2.4 Best Practices in Early Intervention Services for Children with Autism Spectrum Disorder

Current practices in early intervention for children with autism spectrum disorder (ASD) have concentrated extensively on the role that parents should play, and on incorporating learning opportunities in the day-to-day activities of children, as well as facilitating the generalization of skills beyond the home setting. Rogers and Vismara (2008) state that current best practices for early interventions for children with ASD who are younger than 3 years old combine behavioural and developmental approaches. Interventions should begin as early as possible to ensure that the desired results are achieved. Interventions for this group should target specific deficits in children with ASD, such as joint attention, language skills and emotional reciprocity. The behavioural approaches recommended for interventions are the techniques that should be based on the analysis of the antecedents of specific behaviours as well as their consequences. Developmental approaches, on the other hand, should take into consideration issues such as community service as well as school programmes recommended by specialists and language and speech pathologists.

Another important aspect of early interventions among children with suspected or confirmed ASD is the active involvement of caregivers or families within the intervention initiatives. Studies have revealed that the relationship between mother or caregivers and children significantly influences children's behaviour (Myers & Johnson, 2007; Harris & Handleman, 2000). This implies that best results can be achieved in early interventions in cases where parents are incorporated into the intervention programmes. Parents are expected to assist therapists in the development of the intervention goals and related priorities, provide the required support and help in reinforcing the new skills of the child at home (Kasari et al., 2012).

2.5 Parents' Perceptions of Early Intervention Services for Children with Disabilities

Several studies have shown that early intervention services have high potential for raising the quality of life of children with disabilities through the enhancement of their development and prevention of any further developmental delays or other disabling conditions (Patterson & Smith, 2011; Bruder, 2005). Studies have also shown that early intervention is likely to be more effective when it occurs within the context of the family and is based on the activities and routines of the family (Epley, Summers, & Turnbull, 2011; Grindle et al., 2009). This ensures that family-centred services are achieved and family strengths are maximized. The services provided for children with disabilities are thus perceived by parents to be highly beneficial. Campbell, Sawyer, and Muhlenhaupt (2009) and Dunst et al. (2000) explain that, if parents lack skills in caring for children with disabilities, rectifying this is a major benefit of the services provided.

Families of children with disabilities have reported positive experiences of early intervention services centered on families. These relate to delivery of the services within the home setting, involvement of family members in early intervention programmes, and resources and social support that meet the needs of families (Beals, 2004). In a number of studies, families have shown preferences for sincere, non-judgmental, caring, creative, responsive and supportive early intervention service providers (Turnbull et al., 2007; Shannon, 2004; Epley, Summers, & Turnbull, 2011). Jackel, Wilson, and Hartmann (2010) state that families have also indicated that the positive results from early intervention for children, and the personal skills of their service providers, improve the quality of life of the families as well as the relationships that family members have with the children.

Applequist and Bailey (2000), on the other hand, reported that some families have shown dissatisfaction with certain aspects of early intervention services, such as the absence of opportunities for involvement in the process, and have expressed the desire to become more involved, to gain better understanding of the information that the professionals share, and to be given additional information. Uncertainty has been reported by some families about the role they play in the creation of the Individual Family Service Plan (IFSP); they have also shown dissatisfaction regarding the absence of service options and social support (Jackson et al., 2008), and have been frustrated with long waiting times to access services (Wade et al., 2007).

Some studies also have reported that families with young children who have ASD report some negative experiences with the early intervention services. Grindle et al. (2009) state that the major concern of these families is the costs they incur by accessing the services, as well as long waiting times between early intervention referral and assessment, and between determination of eligibility and delivery of service. At times, parents may report a lack of consistency among the early intervention professionals in determining the most effective approach to intervention, and may also report that other service providers appear disorganized, inflexible, unreliable, unresponsive and unknowledgeable about individual families' need for emotional and informational support (Meaden, Halle, & Ebata, 2010; Patterson & Smith, 2011). Generally, families are delighted with early intervention services as they ensure that problems are addressed. The challenges that may lead to negative perceptions include service costs as well as delivery of services in a non-individualized and unsupportive manner.

3. Theoretical Framework: Theory of Mind

Children with autism face difficulties in social attribution, and they as well struggle to understand the intentions of other people (Happe, 1994). Theory of Mind (ToM) is a concept that was initially applied by Simon Baron-Cohen, which is used to refer to the skills required to interpret someone else's viewpoint (Baron-Cohen, Frith & Leslie, 1985). Researchers argue that multiple of deficits seen in children with autism come from significant impairment in the ability to mind read. This theory was developed from observing that children with autism failed to spontaneously participate in pretend play. It was observed by Leslie (1987) that normal children aged 18 months could laugh when a grown up engaged the child in funny games. Accordingly, Leslie (1987) concluded that that normal children have the ability to pretend, but children with autism may not have the meta-representation skills (used to pretend) and addition skills like representing a different mental state. Leslie (1987) noted that with lack of meta-representation, these children are mind-blind. Happe (1994) and Leslie (1987) explain that mind blindness is the lack of ability to deduce the thoughts and feelings of others.

To assess this theory of mind blindness, studies on theory of mind has applied the "False Belief" test where a child is given a short story and a simple plot. In this story, one character is away and an object (of this character) is moved. The child is then asked to establish where that character would search for the item when he comes. A normal child aged 4 years correctly deduces that the character would first look the place where the item was left. However, children with autism failed this assessment by stating that the character would seek the item where it has been placed, and not at the initial place.

Happe (1994) has noted that theory of mind deficits among children with autism are assumed to underline challenges they have in understanding and interpreting conceptual social information. These children face challenges in perspective-taking, social rules, and social reciprocity. As noted by Baron-Cohen & Swettenham (1997) theory of mind skills enables people to deduce feelings and predict the behavior of another individual. More so, theory of mind underlines the ability to understand nonverbal cues to assist recognize emotions. Similarly, Dapretto et al. (2006) asserts that children with autism struggle to comprehend complex causes of emotions are unable to recognize eye signs and the face to understand what a person is thinking or want. Accordingly, children with autism have difficulties in social skills due to ToM. From this explanation, it clear that theory of Mind offers a suitable theoretical framework to understand parents' perceptions of early interventions and related services for children with autism spectrum disorder.

4. Methods

4.1 Participants

The participants in the study were 80 parents from Saudi Arabia with children aged between 2 and 6 years who ASD. These children were undergoing early intervention from either public or private organizations (or both) that offered early interventions and related services for this group of children suffering from ASD.

4.2 Survey Instrument

On October 2015, The Parental Perceptions Questionnaire (PPQ) and Parental Needs Questionnaire (PNQ) were used to measure parents' perceptions and needs. The researcher formulated these questionnaires on the basis of (i) a broad literature review, (ii) adaptations from other surveys carried out on the perceptions of parents with children with disabilities, (iii) past experiences of experts working with children suffering from ASD and their parents, and (iv) the views of parents with children suffering from ASD.

The objective of the questionnaire was to establish parents' perceptions of early interventions and related services provided to children with ASD. The researcher used six subscales on the Parental Perceptions Questionnaire to determine parents' perceptions; they included:

- 1) Earliest possible start to intervention
- 2) Individualization of services for children and families
- 3) Systematic plan of teaching
- 4) Specialized curriculum
- 5) Intensity of engagement
- 6) Family involvement.

Similarly, the Parental Needs Questionnaire used four subscales to determine parents' needs: information, community services, support and, lastly, financial support. In addition, the last section of the survey contained four open-ended questions to enable parents to add further responses. The first two questions asked the parents to state what services they needed and to which intervention methods they would like their children with ASD to have access. The remaining two questions asked parents to offer comments and recommendations on what improvements could be made to early intervention services.

4.3 Instrument Validity

Content validity: To ensure content validity, the contents were reviewed by a professional from the Department of Special Education at King Saud University. The professional was an expert in the field of early intervention services for children with ASD. The expert ascertained that the content was validity because of the methodology used to collect data and how it was presented.

4.4 Instrument Reliability

The survey consisted of a pilot study of 20 parents in a situation and surrounding similar to the final survey that would be carried out. All the participants in the pilot study responded, and thereby a response rate of 100% was achieved. The researcher ensured that internal reliability was maintained using SPSS 14.0, which resulted in a Cronbach's alpha reliability coefficient of .90 (parental perception), and .89 reliability for the parental need subscales.

4.5 Data Collection Procedures

Data was collected from eight selected organizations that provide early interventions and related services for children identified with ASD in Riyadh city. The parents that satisfied the conditions set for the study were

invited to take part during the data collection process. All the parents had the same probability of being picked for the study. The parents included mothers and fathers. The director of each of the selected eight organizations assisted in selecting the most suitable contact person for the study. Each contact person met with the researcher and was instructed on how to distribute the questionnaire used in the survey. Accordingly, questionnaires and envelopes were posted to each contact person. Each contact person thereafter distributed the questionnaires to the parents. No parent was forced to take part in the study and each indicated their consent to the process when returning the questionnaires. To increase the rate of return, the contact people from selected organizations called parents and reminded them to return the questionnaires within two weeks. The researcher collected the filled questionnaires from the organizations after a period of one month.

5. Findings

The data collected from the survey was later analyzed using SPSS and interpreted in relation to parents' perceptions and the need for early interventions and related services for children with ASD. The following section will discuss the background information on participants with children diagnosed with ASD. The analysis of data was carried out in response to the present research questions. Accordingly, statistics relating to background information on the participants were presented. Similarly, standard deviations and means were calculated to establish parents' perceptions and needs relating to early interventions and related services for children with ASD.

Of a total of 100 parents of children with ASD, 80 parents fully completed the survey, meaning the response rate was 80%. The findings of the study are presented in four parts:

- Background information on the parents and children with ASD.
- Parents' perceptions of early interventions and related services for children with ASD.
- Parents' needs regarding early interventions and related services for children with ASD.
- Parents' recommendations for improvement of early interventions and related services for children with ASD.

These parts are discussed below.

5.1 Background Information on Parents and their Children with Autism

From Table 1, it can be noted that the number of males (fathers) was 35, while the number of females (mothers) was 45, meaning that more mothers took part in the study than fathers. Similarly, the majority of the parents were between 20 and 30 years old, meaning that most of them were young parents. Most of these parents were married: as shown in the table, 60 participating parents were married and only 20 were single. However, we cannot establish how many of the single participants were male and how many were female. The results show that the majority of parents had more than one child. Indeed, only 21 parents out of 80 had only one child. The participants were also asked about their education level. The data collected shows that all parents have attained at least high school education. A slight majority (41) has a degree-level education, while 39 parents had only had high school education. The majority of parents (48) had a monthly income of less than 10,000 SR, while a good number of them (28) reported that their monthly income was between 10,000 and 15,000 SR. Only four parents reported that their monthly income was over 15,000 SR.

Table 1. Background information on parents

Characteristics	Count N= 80	Per cent (%)
Gender		
Male	35	43.75
Female	45	56.25
Age		
20–30 Years	47	58.75
More than 30 Years	33	41.25
Marital status		

Married	60	75.00
Other statuses	20	25.00
Number of children in each family		
One	21	26.25
Two or more	59	73.75
Educational level		
High school	39	48.75
Undergraduate degree	41	51.25
Monthly income		
Less than 10,000 SR	48	60.00
10,000 to 15,000 SR	28	35.00
More than 15,000 SR	4	5.00

The findings regarding the background information on the children (Table 2) show that a total of 80 children participated in the study. This number is the same as that of the parents since the parent also represented each child. Of these, 49 children were male, while 31 were female. There were 38 children aged between 2 and 4 years, and 32 aged between 5 and 6. In relation to diagnosis, 63 children were diagnosed with autism spectrum disorder, while the remaining 17 were diagnosed with Disorders other than ASD. Similarly, age of diagnosis differed: 18 children were diagnosed before the age of 2, while 48 were diagnosed when they were between 2 and 3 years of age. Regarding the type of school: 20 attended mainstream schools, 35 attended special institutes for children with disabilities, and the remaining 15 went to private organizations. Therefore, most children attended special institutes for children with disabilities. The researcher also enquired about the types of class attended by these children and the data shows that 43 children of the total of 80 attended inclusive classrooms, 20 attended self-contained classrooms, and 15 did not attend school.

Table 2. Background information on children

Characteristics	Count	Per cent
	N= 80	(%)
Gender		
Male	49	61.25
Female	31	38.75
Age		
2–4 years	38	47.5
5–6 years	42	52.5
Diagnosis		
Autistic	63	78.75
Disorders other than ASD	17	21.25
Age at diagnosis		
Less than 2 years	18	22.5
2–3 years	48	60.0
More than 3 years	14	17.5
Type of school		
Mainstream school	20	25.0
Special institute for children with disabilities	35	43.75

Private organization	15	18.75
Type of class attending		
Inclusive classroom	43	53.75
Self-contained classroom	20	25.0
Not attending a school	15	18.75

5.2 Research Question 1: What Are Parents' Perceptions of Early Interventions and Related Services for Their Children with ASD?

The researcher analysed the findings on parents' perceptions of early intervention services for their young children with ASD, to establish the means and the standard deviations. That entailed six variables, as shown in the table above. The analysis shows that the highest-ranking perception of the parent concerns a systematic plan of teaching, at a mean score of 4.30. This was followed by parent involvement at 4.26, and the third-ranking variable was specialized curriculum, at 4.17—parents perceived these variables as the most important. At the same time, parents perceived the variable concerning earliest possible start to intervention as fairly important, since it has a mean score of 4.10. Also, intensity of engagement scored a mean of 3.90. The last perception variable was individualization of services and it had the lowest mean at 3.50. Of these variables, intensity of engagement had the highest standard deviation at 0.64, while family involvement had the specialized curriculum deviation of 0.51. See Table 3.

Table 3. Means and standard deviations of parents' perceptions of early intervention services for their young children with ASD (n = 442)

Variable	M	SD
Earliest possible start to intervention	4.10	0.58
Individualization of services	3.50	0.60
Systematic plan of teaching	4.30	0.55
Specialized curriculum	4.17	0.51
Intensity of engagement	3.90	0.64
Family involvement	4.26	0.53

5.3 Research Question 2: What Are Parents' Needs Regarding Early Interventions and Related Services for Their Young Children with ASD?

The second research question sought to understand parents' needs for early interventions and related services for their children with ASD. Four variables were investigated and the results analysed and presented in Table 4. From the results it can be seen that parents' greatest need relating to early intervention was for information, which had a mean score of 4.88. This was followed by need for support at 4.80, while need for community services had a mean score of 4.40. Lastly, need for financial support recorded a mean of 4.23. From the mean scores, it can be noted that all four variables hold nearly equal importance for parents, since the difference in mean scores is less than 0.4. Regarding standard deviation, it can be noted that need for information had the lowest standard deviation at 0.33, while need for financial support had the highest standard deviation at 0.80.

Table 4. Means and standard deviations of parents' needs regarding early intervention services for their young children with ASD (n = 442)

Variable	M	SD
Need for information	4.88	0.33
Need for support	4.80	0.37
Need for community services	4.40	0.52
Need for financial support	4.23	0.80

5.4 Research Question 3: What Improvements Do Parents Recommend for Early Interventions and Related Services So That Their Young Children with ASD Can Be Served More Effectively?

The research applied content analysis to the responses provided by parents concerning the four open-ended questions. Parents were asked to provide their recommendation on how best to improve early interventions and related services offered to children suffering from ASD. Six themes were obtained from the analysis: professional development, service centres, inclusion, information, service systems and funding.

5.4.1 Professional Development

Parents held the view that the following should be undertaken to improve professional development. Parents asserted that professional development remained a crucial requirement in provision of services for their children with ASD, particularly in early interventions. Presently, the number of qualified personnel providing early interventions is small, as pointed out by parents. Examples of statements to this effect included *“few personnel”*, *“there is a need to increase specialists offering services to children with ASD”*, *“need for more teachers to teach our children”* and *“specialist shortage for dealing with ASD”*. Parents also complained about regular schools declining to admit children with ASD since these schools stated that they lacked enough qualified personnel to handle these children.

5.4.2 Inclusion

Parents suggested that regular schools should include children with ASD in regular classrooms. Nevertheless, parents noted that it was a considerable challenge to find regular schools that admit children with ASD. Their views were expressed in statements such as *“children with ASD should be given a chance in regular schools”*, *“children with ASD need more opportunities”*, *“all regular schools should have space for children with autism”* and *“my child ought to learn with others who have no disabilities”*. Similarly, parents stated that the government ought to initiate changes in the public sector, particularly regarding school management, for successful inclusion to take place.

5.4.3 Service Centres

The views of parents on service centres were that the numbers of these centres should be increased to provide early intervention services so that each city/town has at least one service centre. Parents found it difficult to get to centres outside their local town. Examples of statements include *“need additional early intervention centres to be built for our children with ASD”*, *“The government should set up early intervention centres in each town in Saudi”*, *“the public preschools are far away and more should be constructed”*, and *“we have few early intervention centres”*. At the same time, some parents suggested that early intervention services should be offered at home where possible.

5.4.4 Service Systems

Parents stated their needs in relation to service systems for their children with ASD. Parents restated that they need their children to be able to access special teaching techniques (for example, PECS and music therapy). Examples of statement given by parents included *“more hours of intervention should be offered to my child”*, *“need early intervention services to be offered to my child as soon as possible”* and *“need to be trained on early intervention”*. Similarly, parents also highlighted the need for better transition services as the child joins preschool. Lastly, parents suggested that the effectiveness of child find system should be enhanced please explain what this means.

5.4.5 Information

Parents considered that more should be done to provide additional information on ASD, for example on intervention and etiology. The lack of information on ASD meant that parents had to depend on the Internet, which is mainly in English, to get this information; the majority of these parents are unable to access this information, and they suggested that the government should provide more information. Similarly, parents suggested that the Saudi government and other scholars should carry more studies on ASD in Saudi.

5.4.6 Funding

Parents felt that early intervention services ought to be offered to children with ASD as well as their families at no cost. Parents suggested that the government should offer additional financial support to families who have children with disabilities (including ASD). Examples of statements given by parents include *“the government should provide free education to children with ASD”*, *“the government should fund early intervention services for children with ASD”* and *“government support for children with ASD is wanting”*. In addition, parents pointed out that the government should support quality services for children with ASD.

6. Discussion

The study has agreed with the theory of mind that children with autism have challenges in behavioral and social aspects. Accordingly, the survey carried out has established that parents understand that there is need for early intervention in order to address these difficulties. Early intervention services have been shown to have the potential to improve the lives of children with disabilities as they enhance how such children develop in addition to preventing other conditions that may hinder their development (Patterson & Smith, 2011). For early intervention strategies to succeed there is a need to incorporate family members, particularly parents, as this assists development of services centred on the family such as principles and emotional strength (Epley, Summers, & Turnbull, 2011). The survey showed that parents have different perceptions of early intervention services; indeed, as noted by Meaden, Halle, and Ebata (2010), parents differ in their views on what are the best early intervention services they could receive. The survey results show that parents consider that any early intervention should have a systematic plan of teaching and that parents should be involved. In addition, parents felt that development of a specialized teaching curriculum for their children with ASD was of importance; also, most parents perceived an early start to intervention to be another important aspect. Parents also perceived intensity of engagement and creating individualized intervention as significant. Indeed, past studies agree with these findings; for example, Epley and Turnbull (2011) noted that early intervention is likely to be more effective when the family is involved and it is based on the activities and routines of the family.

Considering the perceptions of parents is important because early interventions with children with ASD include actively involving their parents and other caregivers in developing the intervention programme. The way parents and their children with disabilities relate greatly influences the development of the children and how they behave; this is based on findings from Myers and Johnson (2007) and Harris and Handleman (2000). Thus, to get the best results from early intervention efforts, it is necessary to have parents on board so that they can give their views on what should happen during the intervention activities. Incorporating parents helps to educate them on how to enhance their relationship with their children and what to do to improve the behaviour and social interaction of their children. Parents have a number of needs when it comes to early interventions with their children with ASD. Among the main needs, as shown by the study findings, are information, support, community services and, lastly, financial support. The survey has underlined that the benefits of early interventions include positive experiences reported by parents of children with disabilities. This is because they facilitate the delivery of a number of services at home, in the process providing social support and saving parents financial resources that may be scarce (Beals, 2004). According to Jackel, Wilson, and Hartmann (2010), most parents have reported positive outcomes from early interventions; in addition, the skills the service providers possess help to improve how families live and how parents relate to their children with disability.

Provision of early intervention services comes with challenges. Schools that provide early intervention services face a number of challenges, as demonstrated in Al-Ajmi (2006), among which is a lack of occupational therapists, language pathologists and physical therapists. These challenges result in children with ASD needing more support than they can access in the special schools. The issue of resources has been shown by a number of studies to be among the main challenges that parents face when it comes to early intervention services, as demonstrated in Grindle et al. (2009). The main concern that parents have to grapple with is the issue of cost, and early intervention services are at times very costly. A concern other than cost is the time taken from the point a child receives early intervention to the point the child is assessed to ascertain the progress of the intervention. Parents made a number of recommendations of ways to improve early intervention services to make them more effective in serving children with ASD. The recommendations covered six main themes: professional development, service centres, inclusion, funding, information and service systems. Parents perceived that professional development was key for successful early childhood intervention with children with ASD. The limited number of professionals and other early intervention personnel is hindering the development of professional services for children with autism; more specialists are needed if children with disabilities are to effectively benefit from early intervention practices. Also raised was the issue of schools denying children with autism spaces in their classes; it has been shown that being incorporated into the normal education curriculum gives students with disabilities the chance to develop alongside students without disabilities and also the opportunity to socialize with other students (Al-Ajmi, 2006).

Inclusion is among the reasons that most parents want to have their children included in regular classes. Most parents want schools to stop discriminating against students with autism and to look for ways of incorporating them into the education curriculum. It is hoped this will facilitate integration of children with autism into the fabric of society. Lastly, the issue of resources is of great importance; most of the early intervention services provided are usually charged for and at times they are well beyond the financial reach of most families. More

help from the government is needed when it comes to children with disabilities, especially in reducing the financial burden on families, so that they can access better early intervention services.

7. Conclusion

The present study set out to establish parents' perceptions of early interventions and related services for children with autism spectrum disorder in Saudi Arabia. As noted, ASD is a complex disorder that affects young children, and it is characterized by abnormalities and difficulties in social and communicative interactions. Children with ASD have limited activities and hobbies, and their moods, thought patterns and behaviour are affected. Parents with children with ASD have to look for suitable services for their children. But some parents do not fully know how to deal with ASD. In addition, the early intervention services offered may be inadequate for, or unsuited to, the special and exceptional needs of these children. Saudi Arabian parents of children with ASD, like parents in other countries, seek early intervention services for their children. However, they have varying views on the early intervention services offered in Saudi. Studies have shown that taking care of children with ASD is challenging to parents and parents expect the government to provide early intervention services.

The results from the survey showed that parents felt that the Saudi government has not provided adequate intervention services. For example, parents felt that the number of service centres was too low and this meant that their children could not access enough specialist attention. In addition, this meant that some parents had to travel long distances to access specialist services for their children. The overriding needs of parents related to inclusion and financial support. Many parents considered that the government should do more to enhance the inclusion of children with disabilities in regular schools. Similarly, most parents underscored the need for financial support, which included meeting the costs of early interventions. However, all parents agreed on the need for early interventions and related services for their children. This study has contributed to the knowledge of early intervention in autism by reinforcing the perspectives held by parents over the perceptions of early interventions and related services for children autism. For example, through the study it has been established that any early intervention should have a systematic plan of teaching, and parents should be involved. In addition, the study has shed more light on effectiveness of early intervention.

8. Recommendations

From the study, a number of recommendations can be drawn:

- The Saudi government should build more service centres that offer early interventions to assist parents, children and the specialists in these centres.
- The Saudi government should increase public awareness and campaign on how the public should treat children with disabilities. The focus should be on regular schools changing their views on children with disabilities to encourage them to treat such children like any other child, through inclusion.
- The Saudi government and other researchers should carry out more studies on ASD and other disabilities in Saudi Arabia. This would provide much-needed information on early intervention strategies and other relevant information that will be useful to parents.

Acknowledgements

The authors thank Mr. Nawaf Alharabi, he helped me in data collection process in Riyadh city in Saudi Arabia.

References

- Al-Ajmi, N. S. (2006). *The kingdom of Saudi Arabia: Administrators' and special education teachers' perceptions regarding the use of functional behavior assessments for students with mental retardation* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database (UMI No. AAT 3222888).
- Al-Faiz, H. S. (2006). *Attitudes of elementary school teachers in Riyadh, Saudi Arabia, toward the inclusion of children with autism in public education* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI NO. AAT 3262967).
- Al-Herz, M. M. (2008). *Achievement of goals of the individualized education program (IEP) for students with mental retardation and related difficulties* (Master's thesis). Retrieved from <http://www.dr-banderlotaibi.com/new/admin/uploads/2/doc17-5.pdf>
- Al-Mousa, N. A. (1999). *Development process of special education in Saudi Arabia*. Riyadh: Directorate General of Special Education in Saudi Arabia.
- Al-Mousa, N. A., Al-Sartawi, Z. A., Al-Abduljbar, A. M., Al-Btal, Z, M., & Al-Husain, A. S. (2006). *The*

- national study to evaluate the experiment of the Kingdom of Saudi Arabia in mainstreaming children with special educational needs in public education schools*. Retrieved from the Directorate General of Special Education website: <http://www.se.gov.sa/Inclusion.aspx>
- Applequist, K., & Bailey, D. (2000). Navajo caregivers' perceptions of early intervention services. *Journal of Early Intervention, 23*(1), 47-61. <http://dx.doi.org/10.1177/10538151000230010901>
- Baron-Cohen, S., & Swettenham, J. (1997). Theory of mind in autism: Its relationship to executive function and central coherence. In D. Cohen, & F. Volkmar (Eds.), *Handbook of autism and pervasive developmental disorders. Second edition*. New Social Skills and Autism
- Baron-Cohen, S., Leslie, A., & Frith, U. (1985). Does the autistic child have a theory of mind? *Cognition, 21*, 37-46. [http://dx.doi.org/10.1016/0010-0277\(85\)90022-8](http://dx.doi.org/10.1016/0010-0277(85)90022-8)
- Beals, K. (2004). Early intervention in deafness and autism. *Infants and Young Children, 17*(4), 284-290. <http://dx.doi.org/10.1097/00001163-200410000-00002>
- Bruder, M. B. (2005). Service coordination and integration in a developmental systems approach to early intervention. In M. J. Guralnick (Ed.), *A developmental systems approach to early intervention: National and international perspectives* (pp. 29-58). Baltimore, MD: Paul H. Brookes.
- Campbell, R. H., Sawyer, L. B., & Muhlenhaupt, M. (2009). The meaning of natural environments for parents and professionals. *Infants and Young Children, 22*(4), 264-278. <http://dx.doi.org/10.1097/IYC.0b013e3181bc4dd4>
- Chawarska, K., Klin, A., Paul, R., & Volkmar F. (2007). Autism spectrum disorder in the second year: Stability and change in syndrome expression. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 48*:128-138. <http://dx.doi.org/10.1111/j.1469-7610.2006.01685.x>
- Courchesne, E., Campbell, K., & Solso, S. (2011). Brain growth across the life span in autism: Age-specific changes in anatomical pathology. *Brain Res, 1380*, 138-145. <http://dx.doi.org/10.1016/j.brainres.2010.09.101>
- Dapretto, M., Davies, M., Pfeifer, J., Scott, A., Sigman, M., Bookheimer, S., & Iacoboni, M. (2006). Understanding emotions in others: mirror neuron dysfunction in children with autism spectrum disorders. *Nature Neuroscience, 9*(1) 28-30. <http://dx.doi.org/10.1038/nn1611>
- Dunst, C. J., Hamby, D., Trivette, C. M., Raab, M., & Bruder, M. B. (2000). Everyday family and community life and children's naturally occurring learning opportunities. *Journal of Early Intervention, 23*, 151-164. <http://dx.doi.org/10.1177/10538151000230030501>
- Epley, P. H., Summers, J. A., & Turnbull, A. P. (2011). Family outcomes of early intervention: Families' perceptions of need, services, and outcomes. *Journal of Early Intervention, 33*(3), 201-219. <http://dx.doi.org/10.1177/1053815111425929>
- Grindle, C. F., Kovshoff, H., Hastings, R. P., & Remington, B. (2009). Parents' experiences of home-based applied behavior analysis programs for young children with autism. *Journal of Autism and Developmental Disorders, 39*(1), 42-56. <http://dx.doi.org/10.1007/s10803-008-0597-z>
- Guthrie, W., Swineford, L. B., Nottke, C., & Wetherby, A. M. (2013). Early diagnosis of autism spectrum disorder: stability and change in clinical diagnosis and symptom presentation. *J Child Psychol Psychiatry, 54*(5), 582-590. <http://dx.doi.org/10.1111/jcpp.12008>
- Happé, F. (1994). *Autism: An introduction to psychological theory*. Cambridge, MA: Harvard University Press.
- Harris, S. L., & Handleman, J. S. (2000). Age and IQ at intake as predictors of placement for young children with autism: A four to six-year follow-up. *J Autism Dev Disord, 30*(2), 137-142. <http://dx.doi.org/10.1023/A:1005459606120>
- Jackel, B., Wilson, M., & Hartmann, E. (2010). A survey of parents of children with cortical or cerebral visual impairment. *Journal of Visual Impairment & Blindness, 104*(10), 613-623.
- Jackson, C. W., Traub, R. J., & Turnbull, A. P. (2008). Parents' experiences with childhood deafness: Implications for family-centered services. *Communication Disorders Quarterly, 29*(2), 82-98. <http://dx.doi.org/10.1177/1525740108314865>
- Kasari, C., Gulsrud, A., Freeman, S., Paparella, T., & Helleman, G. (2012). Longitudinal follow-up of children with autism receiving targeted interventions on joint attention and play. *J Am Acad Child Adolesc*

- Psychiatry*, 51(5), 487-495. <http://dx.doi.org/10.1016/j.jaac.2012.02.019>
- Leslie, A. (1987). Pretense and representation: The origins of "theory of mind." *Psychological Review*, 94(4) 412-426. <http://dx.doi.org/10.1038/tp.2014.24>
- Lewis, J. D., Evans, A. C., Pruett, J. R., Botteron, K., Zwaigenbaum, L., Estes, A., . . . Piven, J. (2014). Network inefficiencies in autism spectrum disorder at 24 months. *Transl. Psychiatry*, 4(5), e388.
- Meaden, H., Halle, J. W., & Ebata, A. T. (2010). Families with children who have autism spectrum disorders: Stress and support. *Exceptional Children*, 77(1), 7-36.
- Ministry of Education of Saudi Arabia. (2008). *Development of education in the Kingdom of Saudi Arabia*. Riyadh, Saudi Arabia: AlFrazdak Printing Press.
- Ministry of Health Care. (2010). *Care of people with disabilities*. Retrieved from the Ministry of Health Care website <http://mosa.gov.sa/portal/modules/smartsection/item.php?itemid=11>
- Myers, S. M., & Johnson, C. P. (2007). American Academy of Pediatrics Council on Children With Disabilities: Management of children with autism spectrum disorders. *Pediatrics*, 120(5), 1162-1182. <http://dx.doi.org/10.1542/peds.2007-2362>
- Patterson, S., & Smith, V. (2011). The experience of parents of toddlers diagnosed with autism spectrum disorder in The More Than Words parent education program. *Infants and Young Children*, 24(4), 329-342. <http://dx.doi.org/10.1097/IYC.0b013e31822c10e4>
- Rogers, S. J., & Ozonoff, S. (2005). Annotation: What do we know about sensory dysfunction in autism? A critical review of the empirical evidence. *Journal of Child Psychology and Psychiatry*, 46(12), 1255-1268. <http://dx.doi.org/10.1111/j.1469-7610.2005.01431.x>
- Rogers, S. J., & Vismara, L. A. (2008). Evidence-based comprehensive treatments for early autism. *J. Clin Child Adolesc Psychol*, 37(1), 8-38.
- Shannon, P. (2004). Barriers to family-centered services for infants and toddlers with developmental delays. *Social Work*, 49(2), 301-308. <http://dx.doi.org/10.1093/sw/49.2.301>
- Turnbull, A. P., Summers, J. A., Turnbull, R., Brotherson, M. J., Winton, P., & Roberts, R. (2007). Family supports and services in early intervention: A bold vision. *Journal of Early Intervention*, 29(3), 187-206. <http://dx.doi.org/10.1177/105381510702900301>
- Wade, C. M., Mildon, R. L., & Matthews, J. M. (2007). Service delivery to parents with an intellectual disability. Family-centered or professionally centered. *Journal of Applied Research in Intellectual Disabilities*, 20(2), 87-98. <http://dx.doi.org/10.1111/j.1468-3148.2005.00297.x>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).