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Investigation of Early Intervention Teachers' Perspective about Services in the Mecca Region of
the Kingdom of Saudi Arabia

A Dissertation

Submitted to the Graduate Faculty of
The University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
In
Special Education

By

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DEDICATION

To my Mom and Dad, I love and miss both of you. To my lovely wife and my kids who were with me in the United State of America while I am doing this research. It was their support that helped me to achieve more than I ever thought was possible.

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ABSTRACT

This survey-based, quantitative research investigated Early Intervention teachers' perception about Early Intervention services in Mecca Region in The Kingdom of Saudi Arabia. This research focused on three dimensions of Early Intervention including attitude toward Early Intervention services, the cultural influences in the provision of services, and the recommended practices that were used by professionals. Two options were offered to subjects to complete the survey: 1) an online survey and 2) a hard copy of the survey which was distributed to teachers in Early Intervention Centers. The majority of the participants completed the online survey. Data was collected and analyzed. The results showed that the teachers in Mecca Region in Saudi Arabia did not follow recommended practices. However, they had positive attitudes about Early Intervention services and indicated that they considered culture of the children and families when determining curriculum and services in their programs.

Keywords: Early Intervention, IEP, special education, early childhood, children with disabilities, young children with disabilities.

CHAPTER ONE

INTRODUCTION

Overview of Special Education in Saudi Arabia

Saudi Arabia's educational system has drastically evolved since its foundation in

1953. At first, education was regarded as a privilege to children who only lived in big

cities. Then, the expansion of educational facilities in Saudi occurred. An estimation of

over twenty-seven thousand schools have been built to ensure that all children attend

school (Al-Salloom, 1995). As a result, education is free to all social classes of the

society since the government funds public schools from first grade through undergraduate

study. In Saudi Arabia, the Ministry of Education is committed to the provision of free

and suitable education for all citizens, including individuals with exceptionalities.

Individuals with disabilities received minimal special schooling services prior to

1958, which was when 'scientific institutions' were established to serve individuals with

blindness. Before that, guardians and parents of individuals with disabilities were solely

responsible for taking care of their children (Alquraini, 2011). In 1962, the Special

Education Department was established by the Ministry of Education in Saudi Arabia,

which was aimed at developing and improving the learning and rehabilitation services in

three broad categories of deafness, intellectual disabilities, and blindness (Al-Salloom,

1995; Aldabas, 2015). Following this legislative movement, institutes for learners with

disabilities were established in almost every region of the country, including Mecca

Region, which is one of the largest regions in Saudi Arabia.

Special Education Laws in Arab Countries Including Saudi Arabia

Arab countries consist of 22 countries including Saudi Arabia, Algeria, Bahrain,

the Comoros Islands, Djibouti, Mauritania, Egypt, Iraq, Somalia, Jordan, Kuwait, Libya, Morocco, Oman, Palestine, Sudan, Qatar, Syria, Tunisia, Lebanon, the United Arab Emirates, and Yemen. In all of these countries, Section 4 of the Jordanian Law addresses the Welfare of Disabled Persons which was enacted in 1993 (Al-Zyoudi, 2006) and states that an individual with a disability must be provided with a suitable education according to his/her needs. The major area that this law covers is students with learning disabilities in reading, math, and writing as well as students with speech problems and language issues (Al-Zyoudi, 2006; Munyi, 2012).

In Saudi Arabia, additional legislation protects the rights of individuals with exceptionalities (Al-Jadid, 2013). The laws passed in 1987 include (1) Legislation of Disability which guarantees people with physical disabilities equal rights as Saudi Arabian citizens, (2) Disability Code which guarantees that people with psychological disabilities get free medical, educational, psychological, and rehabilitation services through public institutions, and (3) Role Regulations of Special Education Programs and Institutes (RRSEPI) which guarantees that individuals with exceptionalities have access to free special education services including Early Intervention birth-to-six programs, transition services, and individual education programs (Alquraini, 2011). All children with special needs have the right to facilities which are offered by governmental organizations. The laws include modifying public areas to be accessible for individuals with disabilities (Al-Jadid, 2013). Legislation has been the driving force for the establishment of services for individuals with disabilities.

Special Education Services in Saudi Arabia: Public vs. Private Institutions

When Special Education services began in Saudi Arabia in 1958, the students

attended special education institutions in segregated settings to get the services they required. Currently, there are three types of special education settings in Saudi Arabia. First, there are resource rooms in the public schools for students with mild disabilities. Students with learning disabilities such as delays in reading, writing, and math, usually get services in resource rooms in public schools. Second, segregated public institutions are available for students with moderate or intellectual disabilities, autism and severe disabilities. Lastly, private institutions owned by people, not the government, provide services for Saudi students with a variety of special needs. Thus, Saudi students with moderate and severe disabilities get their services in separate institutions, some of which are public facilities that are supported by the government and the others that are private institutions (Hussain, 2010), sometimes partially supported by the government.

Students with disabilities in Saudi Arabia need specialized services in order to attain adequate academic achievement. Because the number of students with special needs increases every year (Al-Jadid, 2013), available seats are limited in the public institutions. The number of both male and female students with disabilities in Saudi Arabia increased from 7,725 in 1994 to 61,986 in 2006 (Al-Mousa, 2010). That is why many of the families tend to get services from private institutions. However, the government partially supports those families financially but does not cover all tuition fees. The severity of the disabilities, as well as availability of space, plays a big role in deciding which facility the student attends.

Related Services. Alquraini (2011) examined related services provided in private and public schools for students with intellectual disabilities in Saudi Arabia. In private schools, it was found that speech-language specialists, social advisors, and school

counselors are readily available. Occupational and physical therapy services are also common in private institutions. However, private institutions do not focus on developing skills after graduating or employment opportunities for their enrolled students, but public schools do.

Within public schools, Alquraini (2011) revealed that the most available related services for students with exceptionalities are speech and language therapy, transportation, psychological services, school counseling, and health services. Medical services are available in abundance to students with exceptionalities who attended public schools, typically due to the needs of the students and the number of hired staff.

Disability Categories. Al-Fahad, (2009) indicated that there are two categories of special educational services in Saudi Arabia. The first category is for individuals with mild and moderate disabilities. These individuals who attend private schools receive their education in general education classrooms and are supported by special education teachers when necessary. They are taught the same materials that are taught in the general education curriculum. The professionals implement modifications and accommodations appropriate for students' needs. In public schools, individuals with mild and moderate disabilities receive all instruction in inclusive settings similar to private schools. (Parasuram, 2006). However, their curriculum is different from the general education curriculum. They also attend resource rooms in elementary schools from 6 years old to 12 years old and then go to middle schools until the age of 18 years (Mission, 2006).

The other category of disabilities is for severe disabilities. The Ministry of Education in Saudi Arabia reported that about 96% of the students with severe and multiple disabilities obtain educational services in government approved institutions in

the 2007-2008 academic year (Alquraini, 2011). In the public institutions students attend school daily and go home to their families every night. The private institutions function as boarding schools that provide food, residence, and education. Students remain in the school throughout the week and go home on the weekends. There are several reasons why some students with disabilities in Saudi Arabia receive their education in a segregated setting, including the relative newness of special education programs (Safi, 2009), lack of public awareness, and inadequate special education teacher training for both general and special education teachers (Haimour, 2013). Overall, segregation is the primary practice utilized for the majority of students with significant needs. Currently in Saudi Arabia, in spite of demands in recent years to involve students with special needs in inclusive programs in public schools, segregation still exists.

The History of Early Intervention Birth-to-Six Services in Saudi Arabia

Originally in 1960, Early Intervention (EI) services were provided for young children with special needs in hospitals where they only received medical services (Al-Mousa, 2007). Both public and private hospitals who provided EI medical services were (and still are) funded by the government. From 1960 to 1989, parents were responsible for locating any additional Early Intervention services beyond medical services for their young child with special needs (Alharbi, & Tamim AL-Dar, 2013). Some of the families went to nearby countries, such as Jordan, to get services for their young children with disabilities. The EI services in Saudi Arabia were slow to spread across the country.

In most cases, the health sector took on the role of Early Intervention services in Saudi Arabia, due to the limited number of Early Intervention centers. Thus, after a child with disabilities was born, the hospitals provided the health services for them. In fact, the

hospitals have experienced a most noticeable improvement in health-related Early

Intervention services in Saudi Arabia, where the infant mortality rate and under-five

deaths have declined because of the health sector intervention. In the last few years, a

steady rise in the number of children enrolled in EI programs in hospitals went from

10.47% in 2005 to 16.33% in 2014 (UNESCO, 2010). This report identifies the

significant improvement of the role of EI health services in Saudi Arabia in the last ten

years.

The Current Early Intervention Services in Saudi Arabia

Early Intervention centers in Saudi Arabia provide services for young children

with exceptionalities from birth-to-six years old (Merza, 2012). There are no public Early

Intervention centers that are funded by the government. Early Intervention centers in

Saudi Arabia are owned by the private sector, but they receive some government

financial support to provide the services. In Jeddah city, the second largest city in Saudi

Arabia and biggest city in Mecca Region, there are only a few centers that provide EI

services for young children with disabilities. In cities of Makkah and Taif (two smaller

cities in the Mecca Region) only two or three EI centers exist. All of the centers are

private and cost the families a significant amount of money to get the services. Most of

the children who receive services in those centers are young children from birth-to-six

years old with motor disabilities. Thus, a limited number of programs are available for

young children with disabilities and their families.

While initiated in 1989, Early Intervention services, such as educational services,

in Saudi Arabia are still in the early stages of development. A few private institutions

provide EI educational programs for young children with disabilities. The public health

sector only focuses on providing medical services at the centers through the Ministry of Health. One of the Early Intervention centers in Jeddah city is called the Help Center. It provides information about EI programs and services for young children with special needs (Alharbi & AL-Dar, 2013). During the 25 years of its existence, the Help Center has provided a variety of services such as the home services program, home and center services program, and external services for families who live outside the city of Jeddah (Alharbi & AL-Dar, 2013). The home services program provides EI services for young children with disabilities in the home of the child. The home and center program provides services for the young child with special needs between home and the EI center for morning classes in the center and home visiting in the evening. The external service is a program for young children with disabilities who live in the suburban areas and have difficulty reaching the EI center every day. All cities in Mecca provide similar services.

The centers of Early Intervention have helped young children with disabilities by providing multiple services for them and their families, depending upon the severity of the disability and the age of the child with a disability. Home services program, home and center program, and the external service for families are examples of the types of programs that EI centers provide for children with disabilities from birth-to-six years in Mecca Region (Alharbi, & AL-Dar, 2013). All three of the programs include a diagnosis via an informal assessment, an identification of the strengths and weaknesses, and an intervention plan for the child to facilitate the child's learning (Merza, 2012).

Cultural Diversity in Arab Countries

Hadidi and AlKhateeb (2015) noted that diversity is important to address in Arab countries because of the vast differences in cultures, religions, and geographic

environments. Many factors represent diversity in Arab societies such as variations in the accents, ethnic affiliation, socioeconomic factors, and sectarians. Arab countries differ in regards to immigration, social integration, citizens' rights, religion, culture, civil conflict, and social norms. Hadidi and AlKhateeb (2015) indicated that the differences among Arab nations affect social equity and disability rights in education, health, and employment.

Mainly, the roots of the people in Arab countries are dictated by their ethnicity and religion. For instance, in middle eastern countries, people have different beliefs or religious affiliations which include Sunnies, Armenians, Assyrians, Baha'is, Chaldeans, Copts, Druzes, Ismailis, Jews, Kurds, Sahrawis, Turkmen, Yazidis and Zaidis (Arab Cultural Awareness, 1989). These differences in ethnicity, culture, and religion help to form educational services in the Arab countries including special education services, the type of curriculum and instruction, and the protocol of assessments.

Most of the people in Arab countries speak the same language (which is Arabic) but in different dialects (Nagata, 2014). As an example, people in the north of Saudi Arabia speak the Arabic language with different dialects than the people who live in the south of Saudi Arabia. One of the challenges related to the linguistic diversity in special education is the assessment process. Students are typically not assessed in their native dialect which can distort the results of assessment.

Cultural Diversity in Saudi Arabia

Saudi Arabia is one of the most economically powerful countries in the world. Also, Saudi Arabia is an important Islamic country for all Muslims in the world because the holy cities of Mecca and Madinah are located in the country. Those cities are

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important for Muslims because they are required by their religious belief to embark on a pilgrimage to Mecca at least once in their life time. The last statistic of the population in 2010 showed that of the 30 million Saudi Arabian people nearly 30% of the population were laborers who came to the country looking for work. They came from around the world, for instance, India, Pakistan, and other Arab countries. They have different languages, cultures, and beliefs and they represent one-third of the Saudi society. Thus, according to the United Nations (2013), nearly 2 million illegal immigrants came from nearby poor countries to Saudi Arabia looking for a better life. Thus, all of these aspects create diversity in Saudi Arabia in language, culture, and ethnicity.

The diversity of languages and cultures in Saudi Arabia helped to establish international schools for various ethnic groups. English is the standard language for all ethnicities in international schools. As a result, the English language became a second language in Saudi Arabia. Special education services in Saudi Arabia are still in the developmental stage, thus, a real challenge exists for the delivery of special education services to students with disabilities from different races or those who do not speak Arabic or English. Also, with the limited Early Intervention services in Saudi Arabia, the challenges of delivering special education services to young children with a disability from different cultures or languages is a major concern.

Appropriate steps need to be put in place when determining which language or dialect to use during the assessment process to ensure that the assessment tools and procedures are suitable for that particular child. The same is true when providing services (Banerjee & Guiberson, 2012). The EI and special education teachers should consider the cultural and language differences among the students in the learning process. Teachers

must take into account the differences in cultures and beliefs when dealing with students with disabilities including developing their curriculum and choosing appropriate educational strategies to use (Cobb, 2001). Teachers need to be very sensitive to the cultural, religious, ethnic, and linguistics differences.

Inadequate Teacher Preparation

A lack of special education teachers exists in Saudi Arabia. Based on numbers from the Ministry of Education in 2013, there are about 83,414 students with disabilities who receive special education services in Saudi Arabia, despite the more than 720,000 individuals with disabilities according to the Ministry of Health statistics. The main reason for the lack of services is the limited number of special education teachers in Saudi Arabia. According to the last statistical analysis of the Ministry of Education, there are only about 9,428 special education teachers who provide services to individuals with disabilities. Due to the significant needs, the government is forced to hire general education teachers who only earn a one-year diploma after college (when they studied specializations other than special education) to teach students with disabilities in the country.

To date, Early Intervention teacher preparation has been initiated at universities, but due to the newness of the program, no one has yet graduated. An urgent need exists for this kind of service. Thus, an inadequate number of teacher preparation programs are available to prepare Early Intervention teachers in Saudi Arabia. Most of the EI teachers who work in the field of Early Intervention programs have not specialized in EI but most of them hold a degree or one-year diploma in special education.

Attitude Toward Disability

Attitude refers to a proportionally enduring set of beliefs and feelings towards certain groups, objects, events or symbols that are socially significant (Wang, 2007). In other words, McLeod (2009) indicates that attitude refers to a psychological tendency which is usually expressed through making an evaluation on a particular entity at the same time holding some degree of favor or disfavor.

In Saudi Arabia, there are still remnants of the effects of a negative attitude in society towards children with disabilities (Hall, 2013). EI programs are affected by the cultures and beliefs of the families of young children with special needs as well as by societal beliefs. Special education is relatively new in Saudi Arabia and, thus, some families, and society as a whole, may not accept individuals with disabilities and may have a negative attitude toward them.

The teachers' attitudes toward children having special needs in Saudi Arabia have been recently a controversial issue. Al-Ahmadi (2008) insisted that one of the biggest challenges in including learners with disabilities with their peers is the view of some teachers who still do not believe in the ability of these students to learn. The attitude of teachers toward disability may be affected by factors such as teaching experience and level and type of education. A study conducted by Al-Zyoudi, (2006) found that new teachers, compared to those with only a few years with teaching experiences and those with a Master's degree, had a more positive attitude toward special education services in Saudi Arabia and students with disabilities. Within gender of teachers, the views were diverse. Male and female teachers' attitudes toward special education services were found to be different in Saudi Arabia. Specifically, Al-Ahmadi (2009) explored the

perspectives of teachers who work with students with learning disabilities (LD) in Saudi public schools. The results revealed that the male teachers showed more positive attitudes than the female teachers toward students with LD.

Importance of Teachers' Attitudes

Saudi Arabia is one of many countries in the world that lacks adequate research on the main issues that affect the disciplines of Special Education and Early Intervention. Teachers' attitudes are particularly significant since the teachers are responsible for teaching students with exceptionalities and preparing them for their future life. Therefore, teachers' attitudes can significantly influence the future lives of students with disabilities.

Cassady (2011) undertook research to test special education teachers' attitudes toward pupils with autism and emotional, behavioral disorders. He found that the attitude of teachers toward their students with disabilities strongly influenced their effectiveness and also the success of their instruction based on the particular severity of the disability (Al-Ahmadi, 2009). People had a more positive attitude toward children with mild disabilities. Campbell, Gilmore & Cuskelly (2003) stressed the importance of attitudes toward disability in Early Intervention programs. They found that there were more positive attitudes towards people with Down syndrome and mild disabilities. Teachers' attitudes toward EI services are an important variable in implementing services.

More research in a psychometrically adequate fashion is demanded by educators, counselors, and psychologists to evaluate the significance of teachers' attitudes about students with disabilities. Since teachers, currently working in the field of Early Intervention can greatly influence children's academic and social success, their attitudes and perceptions toward Early Intervention services are crucial.

Alignment with Division for Early Childhood Recommended Practices

The Division of Early Childhood (DEC) created Recommended Practices for teachers of young children with disabilities in 1991 which have since been revised (2014) and improved. The seven EI topic areas include assessment, environment, interaction, family involvement, teaming and collaboration, transition and instruction. The best practices were determined through expert opinions, state-level consensus, professional consensus, and national validation (Sandall, McLean, & Smith, 2014). According to DEC (2014), assessment is gathering data and other information about the individual with disabilities to make an informed decision. Family participation refers to the involvement of families of the students with special needs in all aspects of the educational programs. Teaming and collaboration are how adults communicate and interact to determine and deliver services for children with disabilities. Transition is the transfer of young children with disabilities from the one set of services and support to another. Interaction is communicating and working with professionals and families to promote the children's outcomes. Instruction is how to use the best curriculum and instruction with young children of all different levels of abilities. Finally, the environment is the natural place where young children live and play.

Those topic areas that are particularly relevant for Saudi Arabia are assessment, family involvement, and instruction. This was determined through the results of a pilot study that was conducted by the researcher. The researcher interviewed five special education teachers about the challenges facing special education services in Saudi Arabia. The results showed that further development was needed in the areas of assessment, family involvement, and instruction in the field of special education in Saudi Arabia.

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<center>**Pilot Study**</center>

A pilot study is an essential stage of research. It refers to a small study that tests the concept used in research, strategies of data collection, and validation of the research topic and issues that will relate to a larger study (Zailinawati, Schattner & Mazza, 2006). A pilot study was conducted by this researcher in summer 2014. The study consisted of interviewing five teachers about special education services in Jeddah City, Saudi Arabia. The results from that study inspired the researcher to investigate the challenges of Early Intervention services in Saudi Arabia.

The Interviews Process

Interviews provide the researcher with qualitative data that enhances the understanding and knowledge of a given topic (Rubin, & Rubin, 2011). For this pilot study, special education teachers were interviewed about the services and curriculum they provided to their students. The researcher prepared a set of questions and interviewed five special education teachers to gather their perspectives (see Table 1). The following questions were asked:

1- Tell me about yourself, (e.g. education, experience, and current position at the school).

2- Tell me about your program. How many students? What are their disability conditions? Do you have an assistant in your classroom?

3- What special education strategies and techniques have you used to help your students?

4- What materials have you found most effective when teaching students with special needs?

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5- How do you regularly assess the progress of your students?

6- What do you believe are the major challenges facing special education in Saudi

Arabia today?

7- Do you have any suggestions to deal with these challenges?

Table 1.

Demographics of the Special Education Teachers who Participated in the Study

	Teacher 1	**Teacher 2**	**Teacher 3**	**Teacher 4**	**Teacher 5**
Years of Experience	9	12	7	13	11
Level of Education	Bachelor's Degree+ One-Year Diploma	Bachelor's Degree	Bachelor's Degree	Master's Degree	Bachelor's Degree
Ages	32	37	29	41	35
Gender of Students in Classroom	Male	Male	Male	Male	Male
Gender of Teachers	Male	Male	Male	Male	Male
Type of Students' Disability	Learning Disability	Learning Disability	Autism	Learning Disability	Intellectual Disability

The interview process began with translating questions from English into Arabic.

Then, the questions were given to teachers. This gave them ample time to think and

formulate an opinion. Following this, the researcher and the interviewees met and were

asked to give verbal responses in Arabic. During the interviews, the researcher recorded

the responses using an audio recorder. Then, the researcher reviewed and translated the

responses into English. Afterward, the researcher and the interviewees met again to review their responses in Arabic and English. These answers were rewritten in English and they all agreed on the new English version of their answers. Also, they signed the interview sheets to show their approval (See Appendix A).

Interview Results

The results of the interviews were thematized and are found in Table 2.

Table 2.

The Major Challenges Facing Special Education Teachers in Jeddah City, Saudi Arabia

Themes	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Total
No Assistant	×	×	×	×	×	5
No Formal Assessment	×	×	×	×	×	5
A Lot of Paperwork	×	×	×	×	×	5
Lack of Guidance From Administration	×		×	×	×	4
Lack of Family Participation	×		×		×	3
No Standards for Teaching Materials and Methods	×		×	×		3
Lack of Sufficient Training		×		×	×	3

Analysis of Interviews

The field of special education in Saudi Arabia is a new field which started in 1962 by establishing a new department called the Department of Special Education. During

these past fifty-five years, the Ministry of Education has attempted to improve the scope of disability services within the country. Nevertheless, a lack of a sufficient numbers of teachers in special education is one of the major challenges facing the mission of the Ministry of Education in Saudi Arabia. For example, the Ministry of Education in Saudi Arabia doesn't provide an assistant for Special Education teachers due to the limited availability of both assistants and teachers of Special Education in the country. 100% of the teachers interviewed agreed that having no assistant in the special education classrooms was problematic.

Another area identified by the teachers was the lack of a formal assessment to diagnose students with disabilities in Saudi Arabia. Teachers create their own assessment by looking at the age-level skills of the students they are teaching. This is one of the most difficult issues in the field of Special Education in Saudi Arabia these days. After a student is referred to a teacher, the first step is to diagnose the student using an assessment. The teachers who were interviewed mentioned that the assessment they used was not formal. It was developed by the teachers themselves. They all agreed that no formal assessment is conducted in Saudi Arabia. The Ministry of Education has not yet provided a formal assessment process to diagnose the students with special needs in Saudi Arabia. When the researcher asked the teachers about this issue, they mentioned the lack of research in the country in this particular area which might have influenced the absence of a formal assessment. The teacher of students with autism said that the students with autism who were referred to him were already diagnosed by specialists from the education board in the city. A separate assessment is used to diagnose students with

autism because the education board believes that teachers are not qualified to diagnose those students.

Teachers have a significant amount of paperwork to complete before starting each class each day. Moreover, the teachers said that conducting the Individualized Educational Plan (IEP) for each student was too time-consuming. All of the teachers interviewed said that doing the lesson plan before the class each day takes at least 15 minutes of the class time. The reason for this is that teachers have to conduct a small test before starting a new lesson to make sure that the students understand the previous lesson before starting a new one. If the student does not understand the lesson, the teacher cannot teach a new lesson to the student until he or she successfully completes the previous lesson.

Teachers work individually and there is no guidance to standardize the work. Most of the forms being used by special education teachers differ from one teacher to another. When the researcher interviewed the teachers, 80% of them mentioned that they could change or modify the IEP form in any way they wanted. For example, the teachers could add a family section on the IEP to talk about family involvement in working with students without permission to do so. Teachers also mentioned that moving a student from one institute to another one (perhaps due to family personal reasons) could be challenging because the form that was used in the old school may be different in the new school. This becomes confusing for the family, child, and the new teacher. Also, teachers said that it could be time-consuming when the new teacher uses a different curricula and strategies with the child. They felt like they had to start from the beginning to learn about the child and gather information.

The connection between the families of the student with special needs and the Special Education teachers is very important, but in Saudi Arabia that connection is weak. 60% of the teachers mentioned several common reasons for the lack of the families' participation and sometimes their refusal to send their child to the special education program:

- The families thought the Learning Disability (LD) program was for students with mental challenges (and not their child). They did not understand the definition of learning disability.

- They thought the program was not free and they would have to pay for the services.

- They thought they had to move their child to a different school for this service.

- Parents did not want their child to spend time outside of the regular education classroom and into a resource room.

The families need to gain more awareness about Special Education services and the importance of these services for their child. When the families understand the importance of these services, they may be more willing to collaborate with the schools and the teachers in Special Education.

The lack of an updated curriculum and instructional strategies in the field of Special Education in Saudi Arabia makes the teachers feel less creative and competent. 60% of the teachers of Special Education said that they have updated types of equipment, such as smart boards in their classroom, but they do not have an updated and relevant curriculum to use with the smart board in the classroom. Teachers are forced to make up their own teaching content and strategies. The availability of technology in the classroom is a real advantage for the students with special needs as it has the potential to help them

understand the lessons and actively engage. Teachers said that the lack of an updated curriculum prevents the use of research-based practices in the field of Special Education. More research in the field of Special Education in Saudi Arabia needs to be conducted to ensure the use of state-of-the art practices with the infusion of technology.

After these teachers graduated from the College of Education, Special Education department, they immediately started their work as Special Education teachers. These teachers believed that additional training for the Special Education teachers after they start working in the field would be helpful. The education board offers some courses for the teachers, but it is usually optional for them to take the courses, and they are typically offered after the school day. One of the teachers interviewed said that it is difficult to take courses after school due to his life circumstances. Also, Saudi Arabian teachers don't have a mandate that requires them to take classes before renewing their license. The only way for the general education teachers to become special education teachers is to complete a one-year diploma in Special Education. During that diploma course, teachers take about four classes in special education which is not sufficient. When the researcher talked with the teachers about the idea of a teaching certification in Saudi Arabia, three of them (60%) agreed that a teaching license would be beneficial and should be a goal of the Special Education system in the next few years. A teaching certification would encourage teachers to develop skills and update their knowledge.

Conceptual Framework

The following figure depicts the conceptual framework of the proposed study. It highlights the three major influences on the delivery of services to young children (birth-to-six years old) and their families: cultural influences, teachers' attitudes, and

recommended practices. The recommended practices include family involvement, instruction, and assessment.
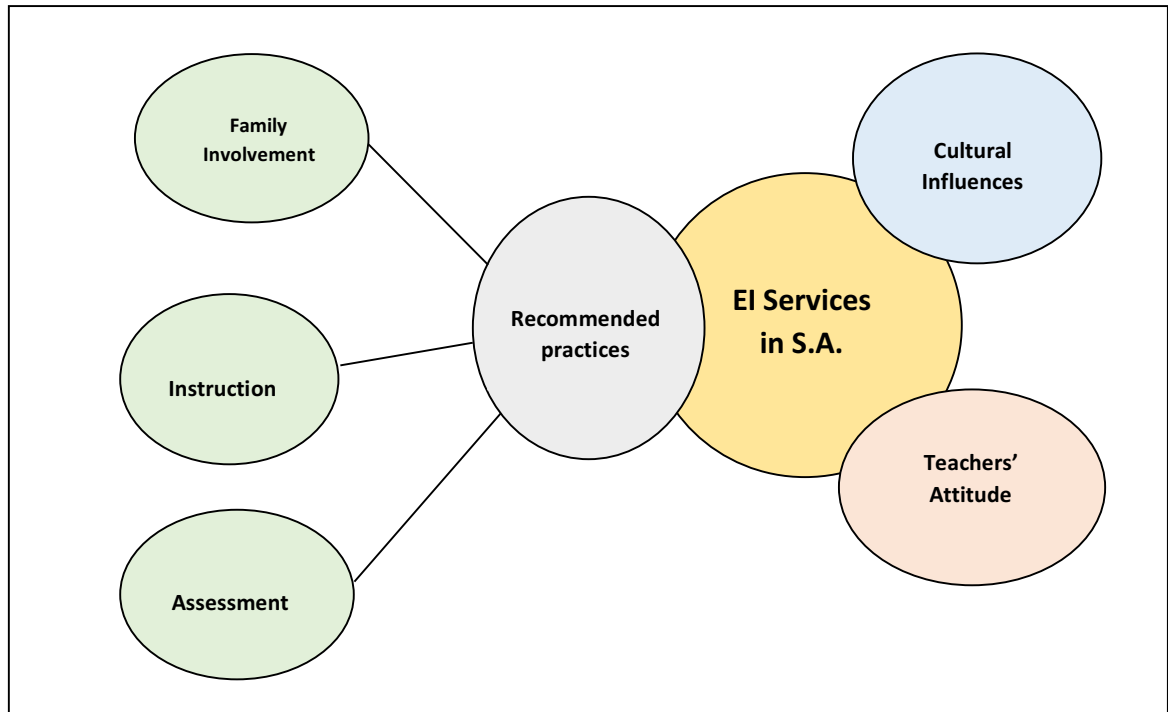
Figure 1. Conceptual framework.

Statement of Problem

Early Intervention services started in Saudi Arabia in 1989 (Alharbi, & AL-Dar, 2013). Since that time, there are only a few Early Intervention centers in Mecca Region which is one of the biggest regions in Saudi Arabia. According to the latest statistics (2010) about seven million people resided in Mecca Region. The capacity of the Early Intervention programs is minimal with approximately 5% of young children with special needs in the Region of Mecca receiving services. Also, there are no public institutions that provid services for young children with special needs for free (Alharbi, & AL-Dar, 2013). The families have to pay for their young children with disabilities to attend private centers to get the EI services. Since EI is a relatively new program, it is not clear that

teachers are knowledgeable about Recommended Practices in EI. Also, the variety of cultural influences which impact the provision of services to young children needs to be clarified as does the teachers' attitudes toward the children and educational practices.

Purpose of the Study

The goal of this study is to examine Early Intervention professionals' perceptions of Early Intervention services in three cities (Jeddah, Makkah, Taif) in Mecca Region, Saudi Arabia. This study has four primary purposes:

1. Learn about the variables that impact EI programs that offer services for young children with disabilities (birth-to-six years old) in Saudi Arabia.

2. Discover the effect of the diverse cultures on EI programs.

3. Evaluate the current EI teachers' attitudes toward EI services and programs.

4. Learn about the extent to which the DEC recommended practices are being used by the EI teachers in Saudi Arabia.

This study provides information about teachers' perceptions of Early Intervention services, the cultural influences on the EI services, the teachers' attitudes, and the recommended practices utilized in EI. This information provides a starting point for addressing issues in Early Intervention in Saudi Arabia. Results of this study will facilitate the ability of professionals to create improvements in the delivery of services to young children with disabilities by revealing improvements that need to be made. The study provides up-to-date findings which can be used to develop Early Intervention programs that have already been established as well as new ones that will be established in the future.

Research Questions

The purpose of the study will be directly linked to the research questions. The research questions are as follows:

1. To what extent are the recommended practices in Early Intervention (birth-to-six years old) programs being implemented by Early Intervention teachers in Mecca Region?

2. What are the attitudes of EI teachers about the children with disabilities in their classrooms and the services that are provided?

3. To what extent does culture influence the delivering of Early Intervention services for young children with disabilities?

Research Hypotheses

The purpose of this study is to examine the perceptions of Early Intervention teachers toward Early Intervention services in Mecca Region, Saudi Arabia. Therefore, the researcher formulated the following research hypotheses to speculate the results of the study. These hypotheses include:

1. Recommended practices for Early Intervention programs are not followed by EI teachers in Mecca Region.

2. The attitudes of Early Intervention teachers in Saudi Arabia overall are positive about the EI services provided.

3. Teachers incorporate culture components into their EI curriculum and instruction.

In summary, this study will either prove or disprove these hypotheses by investigating the perceptions of Early Intervention teachers about Early Intervention services in three cities in the Mecca Region, Saudi Arabia.

Summary

Special education services began in 1958 in Saudi Arabia. The laws that were created supported the development of programs and services for children with disabilities. Both public and private institutions exist and most of the services are provided in segregated settings. The attitudes, perceptions, and beliefs of special education, Early Intervention (birth-to-six years old) teachers are important to explore as are the cultural influences related to how teachers implement the curriculum and instruction. In addition, DEC Recommended Practices are available to guide teachers of young children with disabilities. A pilot study was conducted which assisted in determining the three areas of the recommended practices to explore: assessment, family involvement, and instruction. DEC Recommended Practices, cultural influences, and teachers attitude are the major components of the study.

CHAPTER TWO

LITERATURE REVIEW

Overview

El-Fetouh & Omar (2014) defined Early Intervention (EI) as the environment where young children with exceptionalities and their parents receive several types of services and supports that facilitate the child's success. Thus, EI is a system that assists infants, toddlers, and young children from birth-to-six years old with development delays or disabilities in the areas of physical, cognition, communication, self-help, and social/emotional development.

Special education institutions in Saudi Arabia were established to offer specialized education to the students who have exceptional educational needs resulting from physical challenges, learning difficulties, developmental delays, and behavioral problems. Many Arab countries have been affected by external and internal political problems that decreased chances for children with special needs to attain adequate education to become productive members of society (Hosp & Reschly, 2004). Arab nations such as Saudi Arabia have pursued measures to develop special education programs and specialized services over the past 50 years (Hadidi & Khateeb, 2015). However, significant challenges exist that have persisted regarding the expansion of these services and programs.

Evolution of Special Education in Saudi Arabia

Saudi Arabia is situated in the middle of three continents namely; Europe, Africa and Asia. The Saudi Arabia Kingdom covers an estimated area of 2,240,000 square kilometers. It holds the majority (80%) of land in the Arabian Peninsula (Powers,

Ramirez, Redmond & Elberg, 1966). The Kingdom of Saudi Arabia is bordered by the Red Sea to the west; United Arab Emirates (UAE), Qatar and Arabian Gulf to the east; Kuwait, Iraq and Jordan to the north; and Yemen and Oman to the south (Al-Hamli, 2008). The population in Saudi Arabia was 26,090,555 in 2014 (Salam, Elsegaey, Khraif, & Al-Mutairi, 2014).

The Saudi Arabian Kingdom was founded in 1932 and the initial step for special education in the nation started when the Ministry of Education was established in 1953 (Alamri, 2011). In Saudi Arabia, special education services began in 1958 and offered services to adults with disabilities in the country (Al-Hamli, 2008). Special education began as a non-profit training program that focused on techniques of reading Braille for people with blindness only. No children were initially involved in the program because only targeted adult men were who were blind or had low vision received training (Alquraini, 2011). No other disabilities were included in this program.

In 1960, a special day school for blind boys was started. In 1962, the administration of Special Education was established by the Ministry of Education to extend the services for people with special needs (Aldabas, 2015). The Education Ministry sponsored a school called Al-Noor Institute which accommodated male learners of several ages. Additionally, the Ministry of Education provided a special girl's school for blind students of various ages. Later in the same year, the Ministry of Education also established the Al-Amal Institute for students with deafness of various ages, first starting with the boys, and later accepting girls (Aldabas, 2015; Al-Mousa, 2007).

In 1971, children with intellectual disabilities also received services. A residential school was built by the government through the Ministry of Education to house and

facilitate learning for children with intellectual disabilities (Al-Kheraigi, 1989). Between 1987 and 1990, fifty-four daily schools and residential schools were built to house children with blindness, deafness and the intellectually disabilities (Al-Mousa, 2007). Between 1990 and 2000, some children with moderate hearing impairments, intellectual disabilities, and autism were integrated into primary schools for children from 6 to 12 years old, while others remained in segregated settings.

Across the country, an estimated seven hundred and forty-seven public institutions provide special education classes and services for students with mild to moderate intellectual and multiple disabilities (Al-Mousa, 2007). Furthermore, forty-seven programs for students with mild to moderate autism were established. The provision for special education services has progressed and made significant steps over the past fifty years.

A recent study by Aldabas, (2015) indicated that currently in Saudi Arabia, a significant number of children with mild disabilities have been integrated into general education facilities while also receiving services in special education. Additionally, schools for children with physical disabilities have been built and are jointly funded by the Ministries of Social Affairs and Education. Garni (2012), Aldabas (2015), Al-Mousa (2007), and Alquraini (2011) concluded and agreed that Saudi Arabia has mastered many milestones in providing free, meaningful, and appropriate education to students with disabilities, but many challenges remain in both the public and private sector of education. In particular, a focus on Early Intervention programs is relatively new and needs to be a priority of the Ministry of Education.

History of Early Intervention in Saudi Arabia

In 1974 the Ministry of Education opened a Special Education Directorate (Al-Mousa, 2010). The Directorate was tasked with planning and enhancing programs for special education in Saudi Arabia which included Early Intervention (EI) programs for children from birth-to-six years old. In Saudi Arabia, EI underwent further developments from 1987 to 2000. Even with improvement, EI services are still in the early stages of development (Aldabas, 2015). Today, only a few centers have been established in Jeddah City, Taif, and city of Makkah in Mecca Region.

Early childhood special education for children between birth and six years old were created in Arab nations in the 1980s (Khattab, 1995). The Portage Project, a broadly known early childhood special education program, was used in Gaza Strip, Palestine in 1984. Saudi Arabia adopted the Portage Project in 1989, which was the first model of EI services available within the country. In the early 1990s, several other Arab nations (for example, Kuwait, Morocco, Bahrain, Qatar, Oman, United Arab Emirates, Jordan, Lebanon, Saudi Arabia, Yemen and Egypt) started the implementation of the Portage Project (Khattab, 1995). More recently, additional EI models (for example, the Early Start Denver Model which uses evidence-based strategies for students with autism) have been established in the Arab region, specifically the Arab Gulf nations such as Bahrain, United Arab Emirates, Saudi Arabia, Oman, Kuwait and Qatar (Hadidi, & Al- Khateeb, 2015). However, not all the teachers use these models in their programs and no government mandate exists to ensure that they do.

Al-Mousa (2007), states that even with the significant rise in services offered to children with various disabilities in recent years, there still exists a large number of

young individuals with disabilities who cannot access adequate or appropriate educational services. This is especially true for those with intellectual disabilities.

Importance of EI. Many studies reveal the importance associated with EI programs designed for young children with disabilities. Walker et al. (2005) noted that about a third of children below the age of six in developing countries such as Arab countries did not receive services due to the slow growth of programs and centers. Nave, Nishioka & Burke (2009) noted that children with disabilities who take part in EI services tend to excel in educational settings as well as have better family outcomes later in life. Children with intellectual disabilities who received EI services showed sustained educational and cognitive benefits when tested at 17–18 years of age (Walker et al., 2005). Nores & Barnett, (2010) confirmed that children from Arab countries acquired significant behavioral, cognitive, health, and academic benefits during and after early childhood interventions. These benefits were sustained over an extended period.

EI has been highlighted as very critical for young children with special needs, especially in the first six years of their life (Shore, 1997). Several studies (Martin et al., 1996; Walker, Chang, Powell, & McGregor, 2005; Nores & Barnettfind, 2010; Shonkoff, & Hauser-Cram, 1987) mentioned that EI should not be overlooked because it offers children significant opportunities for developmental growth. Therefore, evaluating EI services helps decision makers identify valuable data that empowers them to determine the types of programs that can adequately support students with special needs. Such decisions will affect program personnel, government funding agencies, and school administrators' actions, given that the most critical developmental stage for children's brain is in first five years of their life (Shore, 1997; Zeanah et al., 2003). Thus, EI is

imperative because it supports the development of the young children at their early stages. Equally, social benefits attributed to EI services may lead to improved educational outcomes and mental health, as well as decreased behavioral challenges.

Training of Special Education and Early Intervention Teachers in Saudi Arabia

Special educators work with learners who have exceptional physical, emotional, and academic needs. They utilize accommodations or modifications within the curriculum to address each student's individual needs and assist children in developing essential skills that enable them to function independently both within and outside of the classroom. There are unique training requirements to become a special education teacher in Saudi Arabia. The academic qualifications to work in special education and Early Intervention include a bachelor's degree, a diploma, or a master's degree.

Bachelor's Degree. Special education bachelor's degree programs help to prepare individuals for careers as teachers and to provide services to individuals with disabilities. Because of the differences in the curricula of special and general education, special education teachers are taught to use different instructional and curriculum methods based on the students' disability. For example, a special education bachelor's degree focuses on how to modify the curriculum and instruction to be appropriate when educating learners with disabilities. The general education curriculum focuses on all students within the classroom.

Also, every university student completing an undergraduate program in special education has coursework in classroom management, strategies for instruction, assessments, and social and emotional learning (Alquraini, 2012). Some programs offer practicum experiences during specific coursework to apply what they learned. The Saudi

Arabian government also insists that special education teachers be educated on how to use specialized software programs and assistive technologies in teaching children with special needs. Al-Mousa (2006) stated that the Saudi Arabian Ministry of Education emphasizes training teachers in content knowledge and pedagogy. Special educators who graduate from a bachelor's degree program are trained to teach different areas of special education (Alharbi & AL-Dar, 2013). Those areas include learning disabilities, autism, blindness, deafness, intellectual disability, multiple disabilities, orthopedic impairment, disability in a particular area of learning, speech or language impairment, and motor impairment (Al-Mousa, 2007). They have to choose one of those areas to be specialized in.

Obtaining a Teaching License Through a One-Year Diploma. Currently, the Saudi Arabian Ministry of Education doesn't require a separate teaching certificate in EI in addition to a degree in special education. To instruct kindergarten children (3-6 year olds), teachers are required to have a four-year professional degree in special education or obtain a one-year diploma if the bachelor's degree is not in special education. However, Early Intervention programs can employ educators with a special educational degree in any specialty area (UNESCO, 2010).

Since EI is so new in Saudi Arabia, universities have just begun to add birth-to-six special education as an area of study. Currently, no EI students have graduated from a bachelor's or master's degree program.

Master's Degree Program in Special Education. In Saudi Arabia, a Master's degree is optional, but a bachelor degree is required to teach in classrooms and institutions for children with disabilities. Therefore, some individuals pursue a Master's

degree to support their employment choices. The Master's program in special education usually involves disability specificity or general special education (Alamri, 2011). Some institutions of higher learning offer both a M.Ed. (Masters of Education) and M.S. (Master of Science) degree. M.Ed. programs prepare individuals to be teachers while M.S programs enable students to be researchers (Alamri, 2011). Both programs offer advanced instruction and training for special educators (Alharbi & AL-Dar, 2013). These degrees also enhance graduate students' skills in teaching and educating students with special needs.

Teachers can attain a Master's degree in special education in Saudi Arabian universities and specialize in teaching students with speech and language disorders, Early Intervention, learning disabilities, blindness, autism, and intellectual disorders. Specialized professions such as special education are in higher demand in Saudi Arabia more than non-specialized occupations. Alquirani (2011) professes that specialized professional growth for special education teachers is crucial because it enhances their teaching skills. Currently, many of the researchers in this field, not only in Saudi Arabia but around the world, are concerned about special education and students with disabilities being included in general education. Agaliotis & Kalyva (2011) interviewed 499 special education teachers in Saudi Arabia. They suggested that it is essential for each school to have a fully committed special education teacher or coordinator. These educators should have expertise in teaching students in both general and special education.

Cultural Influences on Special Education, Early Intervention Services

Throughout history, cultural beliefs about disabilities have been explained in a variety of ways. The causes of disability are discussed and examined through biological,

cultural perspectives. There are still many societies in developing countries who may

think of disability as punishment for their actions or shame. In Saudi Arabia, in spite of

the movement toward inclusive education for students with special needs, segregation is

still utilized in the educational settings. People with disabilities may be segregated from

school and employment opportunities. Also, when there is a cultural mismatch between

parents and teachers, it may be more difficult to effectively collaborate.

Teachers, Families and Cultures

All families have cultural values that influence their own personal belief and

behaviors. Differences in perspectives and beliefs may occur among people assumed to

have the same culture (Flynn, French, & Buswell, 2000). These differences in cultures

may affect the educational system and how teachers and families interact with one

another. When educators understand the cultural influences on the teaching and the

learning of children with special needs, they are better able to facilitate collaboration

between school and home (García & Ortiz, 2006). For example, teaching tools such as

stories, videos, dolls, and the slang language should be matched with the culture of the

students. Also, teachers should incorporate the values of families into their curricula so

that a cultural mismatch does not occur.

Lamorey & Suzanne (2002) established that EI requires active collaboration

among parents, medical care staff, and society to facilitate the social-cultural

development of young children with disabilities. Also, when school personnel and

families have a shared philosophy about teaching and learning, the success of students is

more likely. The types of educational early childhood programs that children attend may

be related to their race and culture. For example, in Saudi Arabia, it is essential that there

is agreement in religious and social beliefs between school and home. Without agreement, conflict in beliefs and cultures could lead to unsuccessful EI services. It may also result in fewer parents' participation in the EI program. Parents try to send their children to programs that value the same culture and beliefs that they do.

It is important for educators to receive both pre-and in-service training to ensure they are culturally competent. The findings of a study conducted by Xu & Drame (2008) supported the importance of cultures and beliefs in Early Intervention programs. They found that educators who were not aware of cultural differences were challenged to provide appropriate services and support to diverse students who struggled behaviorally and academically. If professional development opportunities for teachers are limited, they may not have adequate preparation to implement effective practices for socially, linguistically and culturally diverse students (García & Ortiz, 2006).

Recommended Practices in Early Intervention

The Division for Early Childhood (DEC) of Council for Exceptional Children (CEC) is a public corporation that established guidelines to support children with disabilities of all racial and cultural backgrounds who are birth through six years of age and their families. This organization was established in 1973, and is devoted to promoting practices and policies which support families and improve children's development. Sandall, McLean, & Smith (2014) collected and outlined effective research-based Early Intervention practices. These recommended practices were divided into content areas and include assessment, family involvement, environment, interaction, collaboration and teaming, transition, and instruction. Most of the recommended practices can be applied in educational settings whether they are segregated or inclusive

(Sandall et al., 2014). Three of the recommended practices are particularly relevant to the issues in Saudi Arabia and they are family involvement, assessment, and instruction.

Family Involvement. Family participation in Early Intervention programs is usually linked to better outcomes for young children with special needs. Early Intervention professionals should build a trusting relationship with the parents of young children with disabilities (Sandall, et al., 2014). Ongoing communication is critical to the establishment of a trusting relationship. EI professionals work with the families to create short and long-term goals for the child's educational plan based on the parents' concerns and priorities (Sandall et al., 2014).

When services are home-based, EI teachers work with families to include learning goals within the child's daily routine. When parents of children receiving EI services are involved, the growth and development of the child is facilitated (Miedel & Reynolds, 2000).

One role of EI teachers is to ensure that parents understand their rights and responsibilities (Sandall et al., 2014). For example, when a child is a dual language learner, parents need to know that the assessment and intervention services should be in the family's native language. Teachers need to provide information to the family about the benefit of learning in multiple languages if appropriate for the child. The willingness of the parents to work with the teachers plays a significant factor in the effectiveness of practices implemented in their program. Fantuzzo, McWayne, Perry, & Childs (2004) showed how family engagement leads to higher levels of motivation in children with disabilities to learn, to be persistence when handling a task, and to behave well.

Family Involvement in Saudi Arabia. An investigation by Alquraini (2010)

found a lack of collaboration with families within special education programs in Saudi Arabia. Caspe, Lopez, & Wolos, (2007) emphasized that there is a relationship between family involvement and the child's achievements. The families of students with disabilities may not be aware of the importance of their role in Early Intervention programs.

In Saudi Arabia, families may not be included when determining the strengths and concerns of the child and in the development of the Individuals Educational Plans (IEP). The IEP process starts after the teachers conduct the diagnostic assessment and determine the short and long-term goals based on the strengths and weaknesses of the child with a disability. Also, families need to be encouraged to participate in the schools' conferences, the special education program meetings, and other activities within the classroom or centers.

Instruction. As described previously, when EI teachers and families of young children with special needs work together to identify the strengths and weaknesses of the child, the creation of agreed-upon goals for the IEP is more likely. The use of an early childhood curriculum can assist teachers in determining instruction. When teachers in homes and classrooms embed teaching strategies within the child's daily routine, and include appropriate accommodations and adaptations, the child is more likely be successful.

It is recommended that EI teachers engage young children through play (Sandall et al., 2014). Also, using positive reinforcement with the children can help to increase the children's motivation to learn and progress. Teachers should gather data to evaluate child progress and use intervention strategies to prevent and address challenging behaviors.

Instruction in Saudi Arabia. Policies in Saudi Arabia created an amendment, which requires the special education and Early Intervention systems to design suitable curricula and instructional strategies that empower children with special needs to learn and to maintain their progress (Al-Ahmadi, 2008). In Saudi Arabia, Arabic is the language used by the vast majority of the people. For the young children with dual languages, they are taught the Arabic language due to the limited available of EI teachers who are bilingual.

Usually, in Saudi Arabia, teachers of children with disabilities create the IEP plan for each child in their classroom without including family input. The type of the instruction and the curricula used by the special education teachers in Saudi Arabia may need to be updated to address recommended practices for young children and their families. Tillery et al. (2010) found that Early Intervention teachers in Saudi Arabia believed that they had an impact on the development of young children and they identified utilizing effective strategies as a critical factor in children's development.

Assessment. Early assessment and diagnosis allows services to begin early in the child's life and has a long-term positive impact. Recommended practices suggest that EI teachers involve families in the entire assessment process. The presence of parents during the evaluation process of children with disabilities helps teachers to learn about the history of the child and to get the parents' perspective on the strengths and concerns of the child. When assessing children and collecting data, different methods must be employed such as observation, parent interviews, and direct testing. Assessment instruments need to be age and developmentally appropriate for the child. According to Sandall and others (2014), the teachers, families, and other significant individuals in the

child's life should work together as a team to collect information about the child to ensure an accurate assessment.

It is important to use an assessment that covers all developmental domains. Recommended practices require the evaluation to be conducted in the child's dominant language (Sandall et al., 2014). Also, for young children, medical records may assist in determining the child's level of development (McWilliam, 2010). Evaluation results should be shared with the family so that they understand the child's abilities and can more easily participate in the development and implementation of an intervention plan.

Assessment in Saudi Arabia. The lack of a formal assessment process in Saudi Arabia for children with disabilities is one of the major challenges in the field of special education. Also, Saudi families participate minimally in the assessment of their child which causes missing data about the history and current functioning of the child.

In many cases in Saudi Arabia, special education teachers conduct an assessment independently and do not collaborate with other professionals or families. However, teachers frequently use observation and direct testing to assess the children. Teachers are allowed to use whatever assessment tool or process they desire. Over the years, teachers have made improvement in the assessment process, but recommended practices still need to be more thoroughly addressed.

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Teacher Attitudes

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Teachers' Attitudes Toward Early Intervention Services

Teachers' attitudes have an impact on the outcomes for young children. Teachers must be fully equipped and motivated to work with young children with disabilities and their families. Tillery, Varjas, Meyers & Collins (2010) examined kindergarten and first-

grade teachers' attitudes toward children with disabilities. They found that when teachers were unfamiliar with behavioral intervention strategies due to lack of training, they had a less positive attitude toward students with disabilities.

Colak, Tomris, Diken, Arikan, Aksoy, & Çelik (2015) stated that teachers' positive and negative perceptions toward EI were based on their university preparation. Therefore, at the university level, instruction and course content can help pre-service EI teachers have positive attitudes toward EI services. For example, teachers with more knowledge about Early Intervention may have a more positive attitude about the delivery of services.

EI teachers may respond differently to the type of disability. Early Intervention teachers may react in a more positive way to children with mild and physical disabilities than those with other more significant disabilities (Huang & Diamond, 2009). Similarly, Stahmer & Aarons (2009) found that teachers of young children with disabilities have a more positive attitude toward students with mild and moderate disabilities than those with severe disabilities.

When teachers receive specific training, their attitudes toward young children with special needs are more positive (Al-Abdulghafour, 1999). When teachers have more experience with educating young children with disabilities, they have better attitudes (Al-Hamli, 2008). According to Gal, Schreur, & Engel-Yeger (2010), young children with disabilities encounter many challenges, one of which is the teacher's negative attitude.

EI teachers' beliefs are of particular importance because they are responsible for educating young children who need special support. Al-Hamil (2008) stated that EI teachers' attitudes toward teaching young children with special needs directly affects the

quality of their practices. Thus, the attitude of teachers should be an important

consideration in an Early Intervention program when hiring and working with educators,

families, and other professionals.

Teachers' Attitudes Toward Early Intervention Services in Saudi Arabia.

Cagney (2009) examined EI educators' perception using three variables: teachers'

educational level, gender, and experience in teaching young children with disabilities.

The findings from her research showed that EI teachers in Saudi Arabia who had a

Bachelor's degree had more positive attitudes toward children with special needs than

other teachers who had only a one-year diploma in special education. The teachers who

had a specialized college degree in Special Education took more classes in special

education and felt more prepared to work with young students with disabilities, and thus,

may have had a more positive attitude.

Alquraini (2011) emphasized that some EI teachers feel uneasy about working

with young people with special needs because they might sometimes feel anger,

frustrations, or have a negative attitude toward young children with disabilities. Aldabas

(2015) stated that EI teachers' attitudes toward young children with special needs need to

be considered when working to improve Early Intervention services.

The Saudi Arabian government and the Ministry of Education seek to provide

early identification and intervention services to young students with disabilities

throughout the country. In Saudi Arabia, insufficient preparation of teachers who work in

Early Intervention programs causes some challenges which may create a negative

attitude. Alquraini (2011) insisted that providing EI teachers with professional

development would enable them to implement services and equip them with the

knowledge and skills required to effectively teach and educate young people within Saudi Arabia. There appears to be a relationship between teachers' perceptions and attitudes toward learners with special needs and their experience, education, and training. For example, teachers with more experience teaching in EI centers have more positive attitudes toward young children with disabilities (Al-Abdulghafour, 1999).

Summary

In 1962, the Ministry of Educations in Saudi Arabia established the Department of Special Education with the aim to enhance the special education and the rehabilitation services for students with disabilities. In 1974, Early Intervention services were planned and later implemented. EI services in Saudi Arabia are still in the early stages of development. Services are impacted by cultural norms and teachers' attitudes. University programs have evolved over time and continue to improve. The use of recommended practices in family involvement, assessment, and instruction are critical to the improvement of Early Intervention services.

CHAPTER THREE

METHODOLOGY

Introduction

The perspective of Early Intervention specialists about Early Intervention services

is critical since they are tasked to deal with young children with special needs. There is

limited research about the perspectives of teachers related to the quality of education in

many countries (Nebeker, Simon, Kalichman, Bracken, & Neelamegan 2006), and Saudi

Arabia is among them. Thus, this study investigated EI teachers' attitude toward Early

Intervention services in three cities in the Mecca Region in Saudi Arabia. In addition,

DEC recommended practices in Early Intervention are an important factor when

evaluating EI practices used by Early Intervention teachers in the Mecca Region. The

effect of culture on the Early Intervention services is a critical component in the delivery

of services in Saudi Arabia.

Participants

According to Mugo (2002), a population can be described as a group of people,

items or objects from which representative samples can are obtained such as a group of

teachers. The representative samples from this study is comprised of both male and

female teachers from the Early Intervention institutions in Mecca Region. This survey

research project conducted in Mecca Region including Jeddah, Mecca, and Taif city in

Saudi Arabia.

The number of these EI centers in the Region of Mecca is not prolific. There are

five Early Intervention centers that provide the EI services for young children with

disabilities in Mecca Region. Thus, the criterion for the participants is an individual who teachers in an Early Intervention center in the Mecca Region.

Sample

Sampling is the process of selecting a suitable representative sample from a given population. The representative samples contain all the features that are present in the original population from where it was selected. Participants were asked to volunteer to complete a survey.

The researcher made sure that the participants received the entire disclosure of the nature of the research, any risks, and the benefits of such a study. Also, the participants were aware of the purpose of the data collection. Teachers told that their personal information would be anonymous and only used for research purposes. Also, the teachers understood that there were no direct benefits from their participation in the survey and their participation was optional and they had the right to refuse participation.

The survey was sent to the participants in two ways. First, an online link was sent to the EI teachers via email and/or Twitter. Second, the survey was given to the participants in person by a relative of the researcher who is a Special Education teacher in Jeddah city. However, due to the relative newness and small number of EI centers in Mecca Region, the sample size was 52 individuals and it is statistically fine according to G power 3.1 software. The number of participants in G power software was 47 with 0.4 effect size and 0.75 power.

Research Design

This study used a researcher-designed survey (See Appendix B) to gather data. The content of the survey includes items related to culture, attitudes and recommended

practices in Early Intervention. The items were created through the review of the literature and the personal experiences of the researcher.

Social Validation

Social validation requires recognizing the most important beneficiaries and getting information about their opinions (Gresham & Lopez, 1996; Hurley, Wehby, & Feurer, 2010; Turan, & Meadan, 2011). The survey was sent via email to three Arabic-speaking EI professionals from Saudi Arabia, five Early Intervention professionals in U.S., and one statistical professor at the University of New Orleans to review contents and provide comments. The EI professionals reviewed the survey to determine its readability, appropriateness of content, and relevance to Early Intervention. The statistics professor reviewed the survey to make sure it was statistically correct. After receiving the comments, the survey was edited according to the reviews.

This study was conducted in an Arabic community, and thus, the surveys were translated from English to Arabic before being distributed. The translation was completed by a translation agency called Almutarjum in Jeddah city. Once the translation was completed, the researcher and a Saudi Arabia colleague reviewed the survey to ensure that the content about disability was accurate. Then, the translated surveys were sent to the Early Intervention teachers in Mecca Region to start gathering data.

Reliability. Reliability ensures that the research tool is free of statistical errors (Muijs, 2010). The instrument used in this study was a survey of the perceptions of teachers of Early Intervention services in Mecca Region in Saudi Arabia. To confirm the reliability of the survey used in this study, a reliability analysis was conducted using SPSS software. Cronbach's alpha measurement's score was utilized. According to Cronbach's alpha,

approximately 10% of entire sample should be tested for reliability, thus, 14 subjects were tested and number was .925 which is the score of internal consistency of the correlation between the items in the survey numbers 1-4, 5-10, and 11-14. The reliability score was above 0.70 which made the survey reliable. Table 3 summarizes the reliability statistics.

Table 3.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized	N of Items
.925	.927	14

Reliability Statistics using SPSS

Instrumentation

The most direct way of knowing about a person's perspective is by asking them. Al-Hamli (2008) suggested that questions about perspective should be accurately expressed using various words which are understandable to the participants so as to obtain the exact belief measurement. Thus, a set of statements were provided in the survey to get the most accurate perspective of teachers in Early Intervention centers. A Likert scale is one of the most straightforward methods to gather this type of data and was used in this study. Many researchers utilize this method in their studies due to its simplicity, stability, and ability to show the degree of perspective of a person (Bryman, 2003). The individuals choose their responses to statements utilizing the following Likert scale: never (0), rarely (1), frequently (2) and always (3). The online survey was created using survey monkey.

Surveys are intended to supply the answers for the problem at hand (Siniscalco & Auriat, 2005). For the purpose of this study, the survey statements were divided into four sections. One section included demographic data and the other three were survey questions that included teachers' attitudes about Early Intervention services, the cultural influences on EI services, and the recommended practices in Early Intervention. The four sections are described below:

1. Teachers' demographic information: this section collected the participants' personal data including sex, current teaching position, level of education, age, and area of specialization. The purpose of this section was to describe the subjects and to determine if personal information may affect their perspective toward children with special needs. This section contained 7 items.

2. The cultural influences on EI services: this section collected information about teachers' beliefs in Saudi Arabia in the delivery of Early Intervention services for young children with disabilities. When educators understand the cultural influences of their teaching of children with disabilities, they are better able to facilitate collaboration between school and home (García & Ortiz, 2006). Cultural influences were statements 1-4. The questions are as follows:

   - I select teaching materials that are relevant to Saudi culture (examples: dolls, books, clothing, cooking utensils, household articles, furniture).
   - I received training during or after my teaching career in how to be competent with students who are socially, linguistically, and culturally diverse.

- I include culturally-relevant practices into how I teach (examples: prayer, wodoa, values, stories).
- I modify my curriculum to ensure that the cultural and religious values of families are included in my teaching.

3. The DEC recommended practices in Early Intervention: this section gathered data about the participants' perception of the practices utilized in their centers. The recommended practices in Early Intervention are the basis of good EI programs for all young children with disabilities and their families (Copple & Bredekamp, 2009). Recommended practices were statements 5-10. The questions are as follows:

- I need help in selecting the appropriate instructional strategies for my students based on their needs.
- I collect information from parents about their child.
- I ask the families to attend a meeting to develop goals for their child.
- I have conversations with parents to discuss their child's progress.
- I typically create goals independently rather than including parents or other professionals/specialists.
- I teach families ways to teach their child skills needed during the daily routine.

4. Teachers' attitudes toward Early Intervention services: this section gathered data about the participants' beliefs and feelings toward Early Intervention services in

their center. Al-Ahmadi (2008) insisted that one of the biggest challenges in special education and Early Intervention is the current view of some teachers who still do not believe in the ability of students to learn. Teachers' attitudes were statements 10-14. The questions are as follows:

- I think that teachers who work in Early Intervention programs need more training.
- I believe that children with disabilities cannot learn to function well independently.
- I think that Early Intervention programs should be mandatory for all children with special needs.
- Overall, I am satisfied with the services of the Early Intervention program in Mecca Region.

The role of the survey methodology is to provide a standardized process with all the subjects to gather data (Brace, 2004). According to Al-Hamli, (2008) several factors affect the respondents' willingness to complete a survey such as the type of participants, length of the questions and the survey, and the protocol used to identify participants. For the purpose of obtaining a maximum number of participants, the researcher sent a follow-up email two weeks after the original survey was sent to potential subjects, reminding them to complete the survey. For those individuals who were approached face-to-face, the researcher's assistant gathered the emails of those individuals who agreed to complete the survey. They were included in the follow-up process.

Data Analysis Procedures

The data received from the surveys were analyzed using descriptive statistics such as standard deviations and means. It was accomplished by coding the data into a Statistical Package for Social Sciences (SPSS) software. The investigator used analysis of variance (ANOVA) to determine the differences between the independent variables (gender, teaching experience, and the level of education) and the dependent variables (the attitude of the teachers about Early Intervention services in Mecca Region, cultural influences on services, and the recommended practices in EI). Analysis of variance (ANOVA) is used to show the differences between the mean of three or more variables (Tabachnick, & Fidell, 2007). Also, ANOVA can be computed to determine the differences between two variables within the small sample size. ANOVA was used to tabulate to (or "intending to") determine if significant variances existed in teaching staff perception of the Early Intervention services. The Statistical significant difference was calculated at <.05 (2-tail test).

Participants sometimes may be unwilling to reveal all the information, especially the private information, or they may forget to answer. However, missing data is a problem since most standard statistical techniques assume comprehensive data for all the variables that are comprised in a study (Bori, 2013). Thus, following the measures presented by Donald and Roderick, (2002) any missing data was omitted from the tabulation.

For this study, the measure of standard deviation, mean, and analysis of variance (ANOVA) were tabulated to measure the perception of the Early Intervention teachers towards Early Intervention services in Mecca Region.

Summary

This study offered insights about Early Intervention teachers' perceptions of young children with disabilities in Mecca Region of Saudi Arabia. The data was collected from three cities in the Mecca region of Saudi Arabia. Early Intervention teachers were the target sample for this study. The instrument that used in the study was a survey. The survey was sent to the potential participants in two ways: online survey monkey and in person with hard copy. After receiving data, SPSS was used to analysis the data through computing ANOVA and the mean score. There were some limitations for this study such as generalizability of results and small sample size in Mecca Region of Saudi Arabia.

CHAPTER FOUR

RESULTS

The goal of this study was to examine Early Intervention (EI) professionals'

perceptions of Early Intervention services in Mecca Region, Saudi Arabia. This study had

four primary purposes:

1. Learn about the variables that impact EI programs that offer services for

   young children with disabilities (birth-to-six years old) in Saudi Arabia.

2. Discover the effect of the diverse cultures on EI programs.

3. Evaluate the current EI teachers' attitudes toward EI services and

   programs.

4. Learn about the extent to which the DEC recommended practices are

   being used by the EI teachers in Saudi Arabia.

To accomplish these purposes, the researcher asked the following three research

questions:

1. To what extent are the recommended practices in Early Intervention

   (birth-to-six years old) programs being implemented by Early Intervention

   teachers in Mecca Region?

2. What are the attitudes of EI teachers about the children with disabilities in

   their classrooms and the services that are provided?

3. To what extent does culture influence the delivering of Early Intervention

   services for young children with disabilities?

Descriptive Statistics

Descriptive statistics were utilized to characterize the research sample and the dataset. The first subsection of the survey deals with statistics characterizing the sample. The second subsection describes the results for each of the individual variables measured in the survey instrument.

Sample Descriptive Statistics

In total, there were 58 responses to the survey. However, six of the respondents did not respond to the perspective scale, so the researcher excluded them from analysis. Therefore, the final sample size was 52. Table 4 summarizes the demographic characteristics of the sample.

Table 4.

Sample Demographics

Variable	n	%ᵃ
Gender *n* = 52		
Male	16	30.8%
Female	36	69.2%
Age, *n* = 51		
Less than 30 years	17	33.3%
31-40 years	25	49.0%
41-50 years	9	17.7%
City where work, *n* = 51		
Jeddah	19	37.3%
Mecca	19	37.3%
Taif	13	25.4%
Educational level, *n* = 52		
1-yr diploma	3	5.8%
Bachelor's degree	34	65.4%
Graduate	15	28.8%
Specialization, n = 52		
Special education	37	71.1%
General education	15	28.9%
Experience, n = 52		
Less than 1 year	7	13.5%
1-5 years	19	36.5%
6-10 years	20	38.5%
More than 10 years	6	11.5%
Attended training program after joining EI program, n = 52		
Yes	11	21.2%
No	41	78.8%
Country where received university training, n = 52		
Saudi Arabia	39	85.0%
Egypt	4	7.7%
Jordan	9	17.3%

ᵃ Percentages represent proportions of respondents who answered the question.

The majority of participants (69.2%) were female. With respect to age, the highest

percentages were between 31 and 40 years old (49.0%), followed by those who were less

than 30 years old (33.3%). The smallest group consisted of participants 41-50 years old

(17.7%). None of the respondents were over 50 years old. With respect to the city in

which they worked, participants were quite evenly distributed; 19 (37.3%) worked in

Jeddah, and another 19 (37.3%) in Mecca. A smaller parentage worked in Taif ($n = 13$; 25.4%). The majority of participants held a Bachelor's degree ($n = 34$; 65.4%); just under a third had graduate degrees ($n = 15$; 28.8%). Only three (5.8%) had are a one-year certificate. Those individuals with a one-year certificate took specific graduate courses in special education. Since so few indicated having a one-year certificate, for analysis purposes the researcher combined the 1-year certificate holders with the Bachelor's degree holders because both are initial training programs in special education. The majority received their university training in Saudi Arabia ($n = 39$; 85.0%); smaller groups attended university in Jordan ($n = 9$; 17.3%) or Egypt ($n = 4$; 7.7%).

The majority of participants ($n = 37$, 71.1%) indicated that their specialization was special education; the remainder specialized in general education. The majority of participants had 1-5 years of experience ($n = 19$; 36.5%) or 6-10 years of experience ($n = 20$; 38.5%). Smaller percentages had less than one year of experience ($n = 7$; 13.5%) or more than 10 years of experience ($n = 11$; 11.5%). A large majority of participants ($n = 41$; 78.8%) indicated that they had not received training since they began working in the EI program.

Variable Descriptive Statistics

The 14-item survey instrument collected data on three variables: culture influence, recommended practices, and attitude. Descriptive statistics for each of these variables, including the standard deviation, the overall mean score, the possible score range, the median score, and the mean score for the three components are presented. Table 5 summarizes the variable descriptive statistics.

Table 5.

Dependent Variable Descriptive Statistics, n = 52

Scale	*M*	SD	Med	OMS
Culture influence	8.0	1.6	8.0	2.0
Recommended practices	9.7	3.3	10.0	1.6
Attitude	9.1	1.6	9.0	2.3

M= Mean, SD= Standard Deviation, Med= Median, OMS= Overall Mean Score

Culture influence. Items 1-4 asked respondents about the influence of Saudi Arabian cultural beliefs on the delivery of the curriculum and instruction with young children with disabilities. The response scale for each item was: $0 =$ never, $1 =$ rarely, $2 =$ frequently, and $3 =$ always. The researcher calculated a total cultural influence score by summing the responses of items 1-4 with a possible score range of 0 to 12. Among this sample, the mean score was 8.0 (SD $= 1.6$). Thus, mean overall response is 2 (score of 8 divided by 4 items), indicating that participants tended to answer "frequently" to the cultural influence items.

Recommended practices. Items 5-10 asked respondents about their practices related to family involvement, instruction, and assessment. The same response scale was used for each item: $0 =$ never, $1 =$ rarely, $2 =$ frequently, $3 =$ always. The researcher calculated a total score by summing the responses to items 5-10. The possible score range was 0 to 18. The mean score was 9.7 (SD $= 3.3$). Therefore, the mean overall response was 1.6 (score of 9.7 divided by 6 items). The mean response of 1.6 indicates that, on average, the teachers answered between "rarely" and "frequently" in response to the recommended practices items.

Attitude. Items 11-14 asked respondents about their attitudes toward Early Intervention programs. The same response scale was used for each item. The researcher calculated a total attitudinal score by summing the responses to items 11-14. The possible score range was 0 to 12. For the scale, the mean score was 9.1 (SD = 1.6). The mean response was therefore 2.3 (score of 9.1 divided by 4 items), indicating that, on average participants rated Early Intervention programs frequently and always, meaning they generally had a positive attitude.

Assumptions

To analyze data, the researcher conducted analysis of variance (ANOVA) tests. This type of test is founded on several statistical assumptions about the dataset. Therefore, before conducting analysis, the researcher tested for the accuracy of the assumptions. The first assumption was that there are no outliers. By generating boxplots, the researcher was able to determine whether there were any outliers for each survey scale (see Dawson, 2011). There were no outliers for any of the scales (Figure 2), as demonstrated by the absence of data points outside the boxplot range. Therefore, the assumption of no outliers was supported.
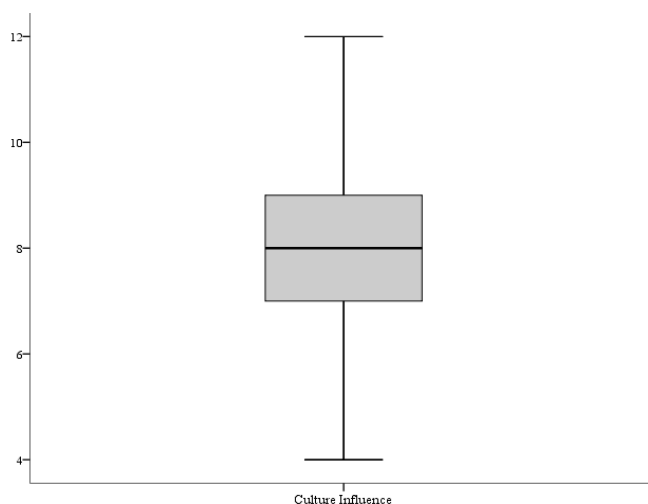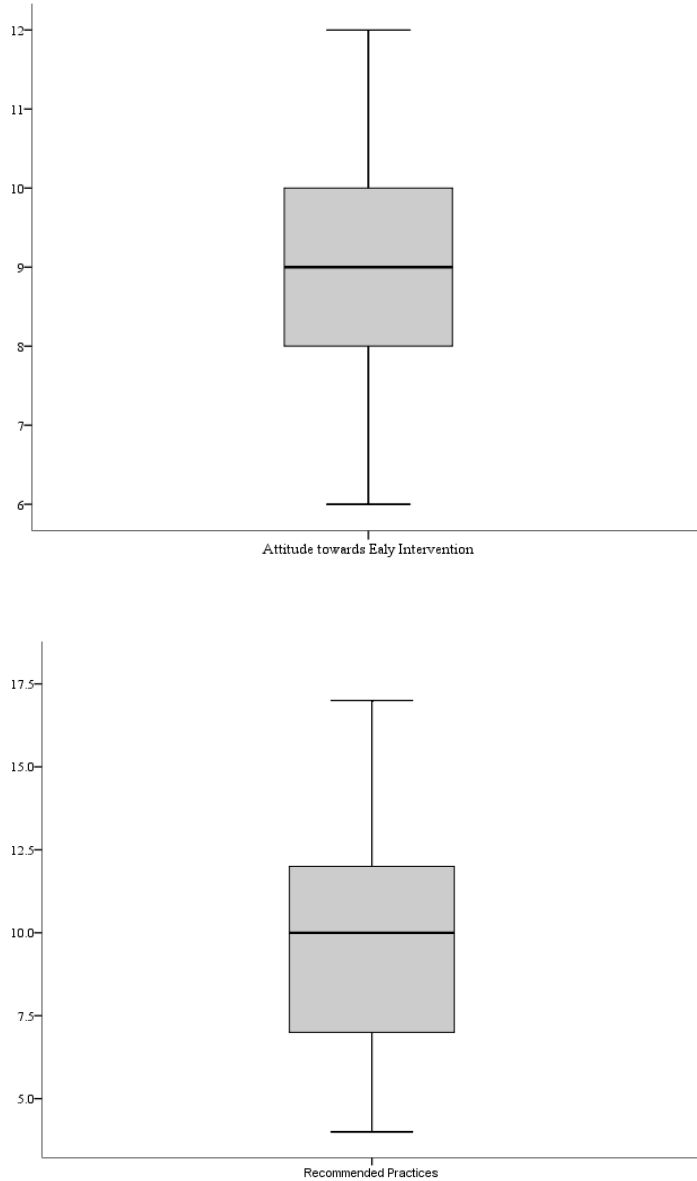
Figure 2. Boxplots of the survey scales to demonstrate lack of outliers.

The second section of assumption for ANOVA analysis is that the dataset is normally distributed. To test for normality, the researcher used the skewness statistic. If the statistic has an absolute value less than 1, the distribution is considered to be approximately normal. All the variables' skewness statistics were within the range for normality (Table 6). Therefore, the assumption of approximate normality was supported for all survey scales.

Table 6

Skewness and Kurtosis for the Total Forgiveness Scales, n = 52

Variable	Skewness	Kurtosis
Cultural influence	-.137	.412
Recommended practices	.463	-.441
Attitude	-.076	-.529

Finally, the ANOVA test assumes that independent variables have equal variances. The researcher used Levine's test to test this assumption. The null hypothesis for this test was that the variances are equal for the groups. The p values were less than .05 when testing inequality of variance in several scenarios. Variances were unequal among genders with respect to recommended practices; among training history with respect to culture influence; among specializations with respect to recommended practices; and among experience levels with respect to cultural influence. Table 7 summarizes these result.

Table 7

Tests for Equal Variances for the Survey Scales, n=52

Variable	Levine	*p*
Gender		
Cultural influence	.615	.436
Recommended practices	4.870	.032
Attitude	.434	.513
Training		
Cultural influence	3.618	.063
Recommended practices	.122	.729
Attitude	.043	.836
Specialization		
Cultural influence	.380	.541
Recommended practices	4.211	.045
Attitude	1.156	.287
Experience		
Cultural influence	3.029	.038
Recommended practices	1.085	.364
Attitude	.603	.616
Education		
Cultural influence	.809	.439
Recommended practices	3.738	.058
Attitude	.184	.669

Because the *p* value was greater than .05, in some scenarios, the researcher had to

reject the null hypothesis for two of the three scales, indicating that the variances were

not equal for the independent variable groups for all the survey scales. For the three

scales with unequal variances (recommended practices by gender and specialization and

culture influence by experience), the researcher opted to use the Welch test instead of

ANOVA. The Welch test is applicable when the assumption of homogeneity of variances is not supported. In the other words, when subjects are different, rather than the same, the Welch test is more appropriate.

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Results of Research Questions

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In this section, the researcher presents the results of the hypothesis tests. Each subsection pertains to one of the three research questions.

Research Question 1

The first research question asked, "To what extent are the recommended practices in Early Intervention (birth-to-six years old) programs being implemented by Early Intervention teachers in Mecca Region?" The hypothesis corresponding to this research question was: H1: Recommended practices for Early Intervention programs are not followed by EI teachers in Mecca Region.

To test the hypothesis, the researcher used ANOVA to determine whether there were differences in recommended practices due to the independent variables. The dependent variable was recommended practices. The independent variables were gender (male, female), training (yes, no), specialization (general education, special education), experience (< 1 year, 1-5 years, 6-10 years, > 10 years), and education (Bachelor's, graduate). Table 8 summarizes the results. The following paragraphs contain a detailed description of results for each independent variable.

Table 8

ANOVA Results and Descriptive Statistics for Recommended Practices, n=52

Variable[a]					F	p
Gender	Male	Female			9.38[a]**	.004
n	16	36				
M (SD)	8.1 (2.1)	10.4 (3.4)				
Average score	1.3	1.7				
Training	Yes	No			22.54***	.000
n	11	41				
M (SD)	13.2 (2.8)	8.8 (2.7)				
Average score	2.2	1.5				
Specialization	General Ed	Special Ed			.27[a]	.606
n	15	37				
M (SD)	9.4 (2.3)	9.8 (3.6)				
Average score	1.5	1.5				
Education	Bachelor's	Graduate			.004	.950
n	37	15				
M (SD)	9.7 (3.5)	9.8 (2.5)				
Average score	1.6	1.6				
Experience	<1 yr	1-5 yrs	6-10 yrs	>10 yrs	3.92**	.014
n	7	19	20	6		
M (SD)	13.1 (3.6)	8.6 (3.0)	9.5 (2.5)	10.0 (4.0)		
Average score	2.2	1.5	1.5	1.7		

[a]Welch statistic used in lieu of ANOVA because the assumption of homogeneity of variance was not supported, $p < .10$ **$p < .05$; ***$p < .01$, F= F statistic, P= P Value (Probability).

Gender. Because the Levine test revealed that the variances between the genders groups were not equal (Table 6), the researcher used the Welch statistic to test for differences in recommended practices between the genders. The results were significant ($F [1, 44.5] = 9.38$; $p = .004$). The females scored higher (M = 10.4, SD = 3.4) than the

males (M = 8.1, SD = 2.1). For the females, the average response was 1.7 (between rarely and frequently), and, for the males, the average response was 1.3 (between rarely and frequently). This indicates that males are less likely than females to use the recommended practices.

Training. The researcher used ANOVA to analyze the differences in use of recommended practices when comparing participants who had received additional training since joining the EI program with those who had not received additional training. The results were significant (F [1, 50] = 22.54; p = .000). Those who received training scored higher (M = 13.2, SD = 2.8) than those who had not received training (M = 8.8, SD = 2.7). For those who received training, the average response was 2.2 (between frequently and always), and, for those who had not received training, the average response was 1.5 (between rarely and frequently). This indicates that those who received additional training were more likely to use the recommended practices than those who had not received training.

Specialization. Because the Levine test revealed that the variances between the two specializations were not equal (Table 4), the researcher used the Welch statistic to test for differences in recommended practices between the specializations. The results were not significant (F [1, 39.7] = .27; p = .606). Those whose specialization was general education did not differ in their mean scores for recommended practices from special educators. Both groups scored around 9. The average response for both groups would be 1.5, between rarely and frequently. This indicates that teachers with special education specialization were neither more nor less likely than those with general education specialization to use the recommended practices.

Education. The results of the analysis for education level were not significant (F [1, 50] = .004; *p* = .950). Those whose educational level was Bachelors' degree did not differ in their mean scores for recommended practices from those who held graduate degrees. Both groups scored around 9.7. The average response for both groups would be 1.6, between rarely and frequently. Education did not make a difference with respect to likelihood of using the recommended practices.

Experience. There was a significant difference with respect to experience level (F [3, 14.2] = 3.92; *p* = .014). The group with less than one year of experience scored higher (M = 13.1, SD = 3.6) than the other three experience groups who scored around 9 and 10. The average response for the less than one-year group was 2.2 (between frequently and always). The mean response for the other groups was between 1.5 and 1.7 (between rarely and frequently). This interesting finding suggests that less experienced teachers were more likely to use the recommended practices those with more experience.

Summary

After analyzing the different groups with respect to use of recommended practices, it is possible to answer the first research question. For gender, training, specialization, education, and experience, the average response for all groups was below 2 (frequently). This indicates that, on the whole, the participant group did not use the recommended practices frequently and rated the frequency with which they involved assessment, family involvement, and instruction low on the scale. Only the first-year teachers responded above 2 (frequently). Therefore, Hypothesis 1(Recommended practices are not utilized by EI teachers I the Mecca Region) is **accepted**.

Research Question 2

The second research question asked, "What are the attitudes of EI teachers about the children with disabilities in their classrooms and the services that are provided?" The hypothesis corresponding to this research question was: H2: The attitudes of Early Intervention teachers in Saudi Arabia overall are positive about the EI services provided.

To test the hypothesis, the researcher used ANOVA to determine whether there were differences in attitudes toward EI due to the independent variables. The dependent variable was attitudes toward EI, as measured by the survey instrument. The independent variables were gender (male, female), training (yes, no), specialization (general education, special education), experience (less than one year, 1-5 years, 6-10 years, more than 10 years), and education (Bachelor's degree, graduate degree). Table 9 summarizes the results. The following paragraphs contain a detailed description of results for each independent variable.

Table 9

ANOVA Results and Descriptive Statistics for Attitude toward EI, n = 52

Variable[a]					F	P
Gender	Male	Female			.53	.471
N	16	36				
M (SD)	9.4 (1.5)	9.0 (1.6)				
Average score	2.2	2.2				
Training	Yes	No			3.46*	.069
n	11	41				
M (SD)	8.4 (1.6)	9.3(1.5)				
Average score	2.1	2.3				
Specialization	General Ed	Special Ed			.33	.570
n	15	37				
M (SD)	9.3 (1.8)	9.1 (1.5)				
Average score	2.2	2.2				
Education	Bachelor's	Graduate			3.93*	.053
n	37	15				
M (SD)	8.9 (1.5)	9.8 (1.7)				
Average score	2.2	2.5				
Experience	<1 yr	1-5 yrs	6-10 yrs	>10 yrs	.62	.607
n	7	19	20	6		
M (SD)	8.7 (1.8)	9.5 (1.5)	9.1 (1.6)	8.7 (2.0)		
Average score	2.2	2.2	2.2	2.2		

* $p < .10$, F= F statistic, P= P Value (Probability).

Gender. Between the genders, there was no significant difference with respect to attitudes toward EI (F [1, 50] = .53; p = .471). Both the males and females scored about 9.0 on the attitude scale. The average response for both males and females was 2.2, between frequently and always.

Training. Between teachers who had received training since joining the EI

program and those who had not, there was no significant difference with respect to attitudes toward EI (F [1, 50] = 3.46; p = .069). Those who received training scored lower (M = 8.4. SD = 1.6) than those who did not receive training (M = 9.3, SD = 1.5). The average response for those who did not receive training was 2.3 (between frequently and always), and, for those who did receive training, the average response was 2.1 (between frequently and always). This result suggests that those who received training had a slightly lower opinion of EI than those who did not; however, both groups had an overall positive opinion of EI.

Specialization. There was no significant difference in attitude toward EI between the specializations. (F [1, 50] = .33; p = .570). Those whose specialization was general education did not differ in their mean scores for attitudes towards EI from those whose specialization was special education. Both groups scored around 9. The average response for both groups was 2.2 (between frequently and always). This indicates that both specializations had a positive opinion of EI.

Education. The difference between education levels was significant at the .10 level (F [1, 50] = 3.93; p = .053). When conducting exploratory research, the significance cutoff for p may be set at .10 in order to catch any possible relationships (Morgan, Leech, & Barrett, 2013). Those who held a Bachelor's degree scored lower (M = 8.9, SD = 1.5) than those who held a graduate degree (M = 9.8, SD = 1.7). The average response for those who have a Bachelor's degree was 2.2 (between frequently and always) and for those who held graduate degrees the average response was 2.5 (between frequently and always). Therefore, although both groups had a positive attitude toward EI, more highly educated respondents' attitudes were slightly more positive.

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Experience. Among experience levels, there was no significant difference with respect to attitudes toward EI (F [3, 48] = .62; *p* = .67). Attitudes toward EI did not differ among the four experience groups. The four groups all scored around 9. The average response for all the experience groups was 2.2 (between frequently and always), indicating that, regardless of level of experience, participants had an overall positive attitude toward EI.

Summary

It is possible to answer the second research question on the basis of the foregoing analysis. For gender, training, specialization, education, and experience, the average response for all groups was above 2 (frequently). This indicates that, on average, the teachers had positive attitudes toward Early Intervention. Therefore, Hypothesis 2 (The attitude of EI teachers in Saudi Arabia overall are positive about the services provided) is **accepted**.

Research Question 3

The third research question asked, "To what extent does culture influence the delivering of Early Intervention services for young children with disabilities?" The hypothesis corresponding to this research question was: Hypothesis 3: Teachers incorporate culture components into their EI curriculum and instruction.

To test the hypothesis, the researcher used ANOVA to determine whether there were differences in cultural influence due to the independent variables. The dependent variable was cultural influence, as measured by the survey instrument. The independent variables were gender (male, female), training (yes, no), specialization (general education, special education), experience (less than one year, 1-5 years, 6-10 years, more

than 10 years), and education (Bachelor's degree, graduate degree). Table 10 summarizes the results. The following paragraphs contain a detailed description of results for each independent variable.

Table 10.

ANOVA Results and Descriptive Statistics for the Cultural Influences , n=52

Variable[a]					F	p
Gender	Male	Female			.09	.768
n	16	36				
M (SD)	8.1(1.4)[a]	7.9(1.7)				
Average score	2	2				
Training	Yes	No			.09	.769
n	11	41				
M (SD)	8.1(2.3)	7.9(1.4)				
Average score	2	2				
Specialization	General Ed	Special Ed			.69	.409
n	15	37				
M (SD)	7.7(1.6)	8.1(1.6)				
Average score	2	2				
Education	Bachelors	Graduate			1.49	.229
n	37	15				
M (SD)	8.1(1.6)	7.5(1.7)				
Average score	2	2				
Experience	<1 yr	1-5 yrs	6-10 yrs	>10 yes	2.68[a]	.087
n	7	19	20	6		
M (SD)	7.7 (2.6)	7.9 (1.6)	7.9 (1.1)	8.7 (2.0)		
Average score	1.9	1.9	1.9	2.2		

[a] Welch statistic used in lieu of ANOVA because the assumption of homogeneity of variance was not supported.

Gender. There was no significant difference between the genders with respect to cultural influence (F [1,50] = .09, p = .768). Both the males and females scored about 8.0 on the cultural influence scale. The average response for both males and females was 2, or frequently. This indicates that both males and females included cultural components in their EI programs.

Training. As with gender, there was no difference with respect to cultural influence when comparing teachers who had received training since entering the EI program with those who had not (F [1,50] = .09; p = .769). Those who received training and those who did not receive training all scored about 8.0 on the cultural influence scale. The average response for both groups was 2, or frequently.

Specialization. Again, there was no significant difference between specializations (F [1,50] = .69; p = .409). Those whose specialization was general education did not differ in their mean scores for cultural influence. Both groups scored around 8. The average response for both groups was 2, or frequently.

Education. The difference was not significant between Bachelor's degree and graduate degree holders (F [1,50] = 1.49; p = .229). Those whose educational level was Bachelor's degree did not differ in their mean scores for cultural influence from those who hold graduate degrees. Both groups scored around 8. The average response for both groups was 2, or frequently.

Experience. Because the Levine test revealed that the variances among the four age groups were not equal, the researchers used the Welch statistic to test for differences among the experience groups. The result was significant at the .10 level (F [3,48] = 2.68; p = .087). The three less experienced groups had means between 7.7 and 7.9. The average

responses for these groups was about 1.9, or between rarely and frequently. The group

with more experience (more than 10 years) had a higher mean of 8.7. The average

response for this group was 2.2 or between frequently and always. This indicates that,

compared with less experienced teachers, more experienced were more likely to modify

their EI instruction and services to include cultural components.

Summary

For gender, training, specialization, and education, the average response for all

groups was above 2 (frequently), indicating that, on average, the participants rated culture

as being included in Early Intervention services. The only difference observed was with

respect to experience, where more experienced teachers reported noticing such influence

more frequently. Therefore, Hypothesis 3 (Teachers incorporate culture components into

their EI curriculum and instruction) is **supported**.

Summary

This research study, the sample consisted of a majority (69.2%) of females, but

was fairly evenly distributed with respect to other demographic variables. Only a few

participants reported holding 1-year certificates and were grouped with Bachelor's degree

holders for the analysis. Most (85.0%) attended university in Saudi Araba, and a majority

(78.8%) had not received any additional training since joining the EI program.

Variable descriptive statistics revealed that, overall, participants scored high on

each of the three scales measuring recommended practices, attitude toward EI, and

cultural influence. The mean score for recommended practices was lowest, suggesting

that many participants were not using the recommended practices, despite having a

positive attitude toward EI and incorporating cultural components into their curriculum

and instruction.

To test the hypotheses associated with the three research questions for this study, ANOVA was conducted to identify differences in the dependent variables caused by the independent variables. In a few cases, the researcher used Welch's test instead of ANOVA, because the assumption of homogeneity of variances was not met in all scenarios. The results supported all three research hypotheses. In addition, results revealed a few interesting differences between independent variable groups. Males were significantly less likely than females to use the recommended practices, as were those who had not received training since joining the EI program. Additionally, experience was significantly positively associated with recommended practices score. For attitude toward EI, possessing a graduate degree was (albeit at a lower level of significance) associated with more positive attitudes toward EI. Finally, for cultural influence, more experienced teachers were more likely to allow culture to influence their EI curriculum and instruction. The result indicate that EI teachers are not following recommended practices, but they include cultural components into their curriculum and instruction, and they have a positive attitude about EI services in Mecca Region.

CHAPTER FIVE

DISCUSSION

The purpose of this quantitative, survey study was to examine Early Intervention professionals' perceptions of Early Intervention (EI) services in Mecca Region, Saudi Arabia. In particular, the goals of the study were to determine the extent to which EI teachers use recommended practices, the attitudes of EI teachers toward EI curricula and services, and the tendency for EI teachers to consider cultural differences in the delivery of curriculum and instruction. In the previous chapter, the researcher presented the results of the study. Briefly, the results of the hypothesis tests were as follows.

Hypothesis one (H1) stated, "Recommended practices for Early Intervention programs are not followed by EI teachers in Mecca Region." The data supported this hypothesis. Hypothesis two (H2) stated, "The attitudes of Special Education teachers in Saudi Arabia overall are positive about the EI services provided." Again, the data supported this hypothesis. Hypothesis three (H3) stated, "Teachers incorporate culture components into their EI curriculum and instruction." As with the previous two hypothesizes, the data supported this hypothesis.

Research Question 1

The results for the first research question revealed that EI teachers in the Mecca Region of Saudi Arabia do not frequently follow the birth-to-six-years-old recommended practices for EI. In this study, these recommended practices included family involvement, assessment, and instruction. These practices have been a part of EI guidelines since the mid-1970s, and have been repeatedly emphasized in existing literature and policy documentation (Sandall et al., 2014). Nevertheless, as the results of this study show, they

are still not utilized to a sufficient degree among EI teachers in Saudi Arabia.

This result conforms to findings in previous studies, regarding family involvement. For example, Alquraini (2010) found that, in Saudi special education programs, there is a lack of collaboration with families, despite research linking such collaboration with students' activities and outcomes (Caspe et al., 2007). Families in Saudi Arabia may respect the fact that the teachers are the experts when dealing with their young children with disabilities. As a result, the families' input in the EI programs are less likely to be sought after or included.

With respect to the other two recommended practices, assessment and instruction, existing research was less clear prior to this study. Very little previous research exists examining the extent to which EI teachers in Saudi Arabia use effective assessment processes, but the research on the lack of collaboration suggested that teachers did not involve families in the assessment process (Alquraina, 2010). Therefore, the present research supports a lack of effective assessment among this population. The rationale for lack of the families' involvement in the assessment may be similar to general lack of family involvement in the education of their child. Families may believe that the teachers are the experts to conduct the assessment without involving them. Teachers may feel the same way and may not understand or value the knowledge of parents about their child.

Tillery et al. (2010) found that EI teachers in Saudi Arabia believed that they were utilizing effective instructional strategies to promote children's development. However, the finding of the present study calls this into question by suggesting that EI teachers may not be using recommended instructional practices to a sufficient degree. The reason may be the lack of professional Early Intervention training. Also, all of EI programs are within

the private sector and there are no standardized instructions for all centers due to the newness of EI programs in Saudi Arabia and reduced government involvement.

These findings are important because a growing body of research has linked recommended EI practices to positive outcomes for students (McWilliam, 2010; Miedel & Reynolds, 2000; Sandall et al. 2014). Based on the results of this research, it will be important to identify ways to increase the use of recommended practices among EI teachers in Saudi Arabia. One of the most important ways of doing this is to implement specific training for newly hired EI teachers. Indeed, the results of this study showed that teachers who did not receive additional training upon joining the EI program were less likely to use the recommended practices when compared with teachers who had received additional training. It appears, therefore, that specialized training is essential to ensuring that EI teachers are providing the highest quality of EI service. Currently, Saudi Arabian universities have included Early Intervention content such as assessment, curriculum and instruction in teaching young children thus, the students' preparation which will help them to provide quality of EI services and follow the recommended practices.

Finally, this research revealed a significant gap between males and females with respect to how frequently they implemented recommended EI procedures. Little or no research exists regarding gender differences in teachers. In U.S., very few men are EI teachers, so no comparative research is available. Since Saudi Arabia is a male dominated culture, perhaps they are less likely to follow prescriptions for practice received in training. If this is the case, it will be important for training to impress upon all teachers the importance of the recommended procedures. However, it is also possible that the males in this study were less subject to over-report bias and therefore more likely to

accurately report the extent to which they used to recommended procedures. Not enough information is available to select among these different possible interpretations, and there is not enough research to help to understand how gender influences EI instruction practices in Saudi Arabia.

Research Question 2

The second research question focused on EI teachers' attitude toward the EI programs and instruction. On the whole, teachers in this study proved to have a positive attitude toward EI programs. Most previous research supports this finding. Colak et al. (2015) linked university preparation to positive attitude toward EI, and Cagney (2009) found that more educated teachers had more positive attitudes. In the last half-decade, improved training and education in EI might have led to an overall increase in positive attitudes among the teaching population. Indeed, education seems to be linked with attitude toward EI on some level. The results of this study found that those who possessed graduate degrees had more positive attitudes than those with only Bachelor's degrees or one-year certificates. However, some previous research suggested that special education teachers do not view EI in a positive light regardless of their university preparation (Gal et al., 2010; Tillery et al., 2010).

The result of this study failed to support other connections between teacher demographics and attitude toward EI. According to Al-Hamli (2008) and Al-Abdulghafour (1999), more experienced teachers tended to have more positive attitudes toward EI. This study, however, did not support their contention. Rather, there was no significant difference in attitudes among any of the experience levels tested. One reason for this contrast might be that this study grouped all participants with more than 10 years

of experience. A more granular definition of experience levels might have yielded a different result. However, it is also possible that the positive result for experience level in previous studies was subject to a confounding effect from variables that those studies did or did not examine. The present study has the benefit of including many teacher variables found to be relevant to attitude toward EI.

Similar to years of experience, previous research found that specific training was associated with more positive attitudes toward EI (Al-Abdulghafour, 1999). However, neither training since joining the EI program nor specialization proved related to attitudes toward EI. This difference could be attributable to differences in the training context or difference from 1999 to the present. This study did not examine the specific contents of teachers' training programs or the characteristics of their specializations. To fully understand the relationship between specific training and attitude toward EI, more detailed research will be needed.

Research Question 3

Turning to the third research question which focused on the extent to which, in participants' perception, culture was a consideration in EI services for young children with disabilities, the findings of this study enable the conclusion that culture is a factor in developing and implementing EI services. This supports previous findings (e.g., García & Ortiz, 2006). Notably, Xu and Drame (2008) found that educators provided more appropriate services and supports to diverse students when they had more awareness of cultural differences.

The extent to which EI teachers in Saudi Arabia modify their EI services based on cultural differences has received little previous research attention. In the present study, all

teachers reported making modifications based on cultural differences of students. Interestingly, more experienced teachers proved more likely to make such modifications. This is especially interesting in light of the finding that years of experience is not related to implementation of recommended practices. One possible explanation is that, with experience, teachers tend to pay less attention to research recommendations and turn, instead, to their own personal experience as teachers to determine how to deliver EI services. Although more experienced teachers provide positive individualization by responding to cultural differences, they may be missing out on advances in the field if they are relying on personal experience rather than established evidenced-based recommendations to develop their EI curricula and teaching strategies.

Limitations

This research is subject to several limitations that should be taken into account when interpreting the results. First, as with any survey-based study, the results may be subject to certain response biases. In particular, respondents may have tended to over-report their use of recommended practices if they believed this was a socially desirable way of responding. To mitigate social desirability bias, the researcher ensured all participants that their responses were anonymous and that the results could in no way help or harm them in their employment or in any other way. Because respondents reported a fairly low rate of using recommended practices, it seems unlikely that social desirability bias was a significant problem in the dataset. However, it is not possible to rule out the possibility altogether.

A further potential response bias has to do with the selection strategy. Because participants were given the link to the survey via Twitter, email, or in person, the sample

is self-selected. Self-selected samples may tend to be highly motivated, and may therefore respond differently from the overall population. In this study, self-selection bias may be present, which limits the generalizability of results. Generalizability is also limited because of the small sample size. Conclusions drawn from this study may not, therefore, apply to other settings or other samples of EI teachers especially those in Saudi Arabia.

A limited number of studies have been conducted on this topic in Saudi Arabia. Bearing in mind that Early Intervention services and research in Saudi Arabia is still in its early stages, the relevant western literature was utilized to frame the study.

Second, the results suffer from certain limitations pertaining to the design of the study. Notably, this study did not take into account the type of disability among the young children under the teachers' tutelage. It is important to make note of this limitation in light of previous research, which has shown that childrens' characteristics have an effect on teachers' attitudes toward EI (Huang & Diamond, 2009; Stahmer & Aarons, 2009). This omission could limit the interpretability of the result that possessing a graduate degree was associated with more positive attitudes toward EI. If certain jobs among children with certain characteristics (more severe disability, for example) require graduate degrees whereas other jobs do not, there is a possible confounding effect. Therefore, to understand how higher education level impacts attitude, further research will need to be conducted.

Implications for Practice

The results of this study suggest several important directions for practice, both at the level of individual EI teachers and at the level of school systems that implement EI in

special education settings. Most importantly, it appears that EI teachers in Saudi Arabia are, on the whole, not receiving additional training after entering their EI teaching position. This is a significant issue that schools will need to address in order to ensure that children are receiving the highest possible quality of EI services. In particular, this study found a highly significant association between receiving additional training and utilization of recommended practices. One of the primary reasons for the low use of recommended practices in this study, therefore, is a potential lack of awareness and knowledge about EI practices. The researcher strongly encourages schools in the Mecca Region of Saudi Arabia to implement EI training for all EI teachers to ensure that teachers are aware of and can implement best practices in the field.

Second, the researcher recommends that EI teachers continue to take cultural differences into account and to modify their curricula and instructional strategies accordingly. Although the subjects in this study were, overall, including cultural differences within their practices, this was less common among less experienced teachers. Schools should encourage teachers who are just starting out to modify their curricula as needed. Less experienced teachers may lack the confidence to make modifications to standardized curricula, especially if they have not received specialized training on doing so. EI-specific training could include information on how to take cultural differences into account in the EI classroom. This is especially important for teachers with less experience.

Recommendations for Future Research

Several important directions for future research present themselves as a result of the findings of this study. Most importantly, researchers should continue to focus on the

issue of EI instruction in Saudi Arabia. Research from other areas has shown that recommended EI practices result in positive outcomes for students with disabilities. However, little research has been conducted to date on the nature of existing EI instruction in Saudi Arabia, nor is there a large body of evidence supporting the outcomes for children and families of Early Intervention programs. Therefore, more research is needed in Saudi Arabia to confirm the results of this study and the use of EI best practices.

More specifically, the researcher recommends that investigations focus on the effect of student characteristics on variables related to EI instruction in Saudi Arabia. Although a small body of research suggests that student characteristics are related to teachers' attitudes toward EI, these findings have not yet been explored in detail in Saudi Arabia. Additionally, whether or not student characteristics influence teachers' tendency to include cultural responsiveness in their teaching is still unknown. Other survey research or direct observation in the classroom would enable researchers to further examine these issues.

Additionally, the present research took a broad view of teachers' attitudes toward EI, examining attitudes with a few carefully selected survey items. Future research should explore these attitudes in more detail using qualitative research designs. The benefit of qualitative research into teachers' perception of EI would reveal additional obstacles and successes when implementing EI with effective strategies. By gaining a deeper understanding of how EI teachers in Saudi Arabia view the EI curriculum and the delivery of instruction, researchers could uncover more specific ways to improve their attitudes and empower them to implement the recommended practices.

Finally, the sample size of the present study is relatively small, owing in part to the newness of EI in the Mecca Region of Saudi Arabia. As EI instruction becomes more widespread in the Mecca Region, additional quantitative research will be needed to confirm the results of this study using larger sample sizes. A larger sample size would improve the generalizability of findings. Future research could also attempt to sample a broader range of teachers, avoiding the self-selection bias that could influence the results of the present study. In summary, the results of the present study show that EI is progressing in the right direction in the Mecca Region, but more research is needed to understand how to improve utilization of recommended procedures among EI teachers.

Conclusion

Despite a growing body of research supporting EI services for children with disabilities, EI services have been slow to spread in Saudi Arabia (Al-Mousa, 2007; Alharbi, & Tamim Al-Dar, 2013). Today, no EI services are funded by the Saudi Arabian government. All services are all provided in the private sector. In the Mecca Region, EI is growing in popularity, but researchers still know very little about how EI teachers are providing services and what might be the obstacles to effective EI instruction. Therefore, this study was conducted to examine Early Intervention professionals' perceptions of EI services in the region.

Using a survey design, the researcher gathered data on three dependent variables: use of recommended procedures (including assessment, instruction, and family involvement), attitudes toward EI, and cultural influence. The results showed that EI teachers have positive attitudes toward EI and frequently alter their curricula based on cultural differences. However, they have a low rate of utilization of the recommended

procedures. Importantly, teachers who had not received additional training after joining the EI program were less likely to implement recommended procedures when compared with those who received additional training. This strongly supports a need for specialized training among all EI teachers in the Mecca Region, regardless of experience level, training, or specialty. Additionally, the results showed that more experienced teachers were more likely to adapt their curricula to the cultural differences of their students, providing a second important direction for increased training in the EI context.

This study fills a gap in the literature by providing data related to EI teachers in the Mecca Region of Saudi Arabia. However, additional research will be required to confirm the findings of this study and to expand the understanding of EI teachers' methods and attitudes. In particular, this study did not take into account student and family differences. As EI continues to gain traction in Saudi Arabia, it is important to bear in mind that each student is an individual with individualized needs. The more we can empower teachers, through increased knowledge and skills to meet individual student and family needs, the better the outcomes of EI are likely to be.

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Appendix A

Interview Questions

1- **Tell me about yourself? Education, experience, and current career.**

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2- **Tell about your program? How many students do you have in your classroom? What are their conditions? Do you have an assistant in your classroom?**

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3- **What special education strategies and techniques have you used to help your students?**

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4- What materials have you found most effective when teaching students with special needs?

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5- How do you regularly assess the progress of your students?

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6- What do you believe are the major challenges facing special education in Saudi Arabia today?

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7- **Do you have any suggestions to deal with these challenges?**

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Thank you for your time.

Name……………………………………………………

Date………………………………………………..

The researcher: Sultan Alzahrani

Email: Salzahr1@uno.edu

Appendix B

SURVEY

I am a Ph.D. student under the supervision of Professor Linda Flynn, Ph. D. in the College of Education and Human Development at the University of New Orleans.

I am conducting a research study to examine Early Intervention teachers' perceptions of the Early Intervention services in Mecca Region in Saudi Arabia.

I am requesting your participation, which will involve filling out an online survey that will take approximately 10 minutes to complete. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. The results of the research study may be published, but your name will not be used. Although there may be no direct benefit to you, the possible benefit of your participation is the opportunity to give your opinion about educational services that could result in further research or potential service delivery for children from birth-to-six years old and their families.

PLEASE ONLY ANSWER THE SURVEY IF YOU AER TEACHING CHILDREN FROM BIRTH-TO-SIX YEARS OLD WITH SPECIAL NEEDS.

Thanks,

Sultan Alzahrani

Salzahr1@uno.edu

Please do not forget to complete section II which is the demographic information

Section I: Perspective Scale

Directions: Please place a check mark in the square that best describe your agreement or disagreement with the statement. There are no correct answers: the best answers are those that honestly reflect your attitudes. There is no time limit, but you should work as quickly as you can.

Please respond to every statement
KEY
0- **Never**
1- **Rarely**
2- **Frequently**
3- **Always**

NO.	Items	Never	Rarely	Frequently	Always
1.	I select teaching materials that are relevant to Saudi culture (examples: dolls, books, clothing, cooking utensils, household articles, furniture).	0	1	2	3
2.	I received training during or after my teaching career in how to be competent with students who are socially, linguistically, and culturally diverse.	0	1	2	3
3.	I include culturally-relevant practices into how I teach (examples: prayer, wodoa, values, stories).	0	1	2	3

4.	I modify my curriculum to ensure that the cultural and religious values of families are included in my teaching.	0	1	2	3
5.	I need help in selecting the appropriate instructional strategies for my students based on their needs.	0	1	2	3
6.	I collect information from parents about their child.	0	1	2	3
7.	I ask the families to attend a meeting to develop goals for their child.	0	1	2	3
8.	I have conversations with parents to discuss their child's progress.	0	1	2	3
9.	I typically create goals independently rather than including parents or other professionals/specialists.	0	1	2	3
10.	I teach families ways to teach their child skills needed during the daily routine.	0	1	2	3
11.	I think that teachers who work in Early Intervention programs need more training.	0	1	2	3
12.	I believe that children with disabilities cannot learn to function well independently.	0	1	2	3
13.	I think that Early Intervention programs should be mandatory for all children with special needs.	0	1	2	3
14.	Overall, I am satisfied with the services of the Early Intervention program in Mecca Region.	0	1	2	3

Section II: Demographic Information
Directions: The following information will be only used to describe the group of teachers completing the survey.
Please put x in the box to describe yourself.
Example: Gender
□ Male   X Female

1. Gender: □ Male   □ Female
2. In which city do you work? □ Jeddah   □ Mecca   □ Taif
3. Age: □ under 30 years   □ 31-40 years   □ 41-50 years   □ 51+ years
4.Educational level: □ Bachelor's degree   □Graduate degree   □ One-year diploma
5. Specialization: □Special education   □General education   □ other(specify)……….
6. Teaching experiences in Early Intervention: □ less than 1 year   □ 1-5 year   □ 6-10 year   □ more than 10 years
7. Did you attend any training program after you started working in the EI program? □ Yes   □ No
8. In which country did you receive your university training/diploma? …………………………………………………………………………………………………

Appendix C

University Committee for the Protection
of Human Subjects in Research
University of New Orleans

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Campus Correspondence

Principal Investigator: Linda Flynn-Wilson

Co-Investigators: Sultan Alzahrani

Date: January 3, 2017

Protocol Title: "Investigation of Early Intervention Teachers' Perspective about
                           Services in the Mecca Region of the Kingdom of Saudi Arabia"

IRB#:   07Dec16

The IRB has deemed that the research and procedures described in this protocol
application are exempt from federal regulations under 45 CFR 46.101category 2, due to
the fact that data will be collected anonymously.

Exempt protocols do not have an expiration date; however, if there are any changes
made to this protocol that may cause it to be no longer exempt from CFR 46, the IRB
requires another standard application from the investigator(s) which should provide the
same information that is in this application with changes that may have changed the
exempt status.

If an adverse, unforeseen event occurs (e.g., physical, social, or emotional harm), you
are required to inform the IRB as soon as possible after the event.

Best wishes on your project.
Sincerely,

Robert D. Laird, Ph.D., Chair
UNO Committee for the Protection of Human Subjects in Research

Appendix D

<u>استبانه عن وجهات نظر معلمي التدخل المبكر عن خدماته في منطقة مكه المكرمه بالمملكه</u>

<u>العربيه السعوديه</u>

السلام عليكم ورحمه الله وبركاته

أنا طالب الدكتوراه بجامعه نيواورليانز في قسم التربيه الخاصه بكلية التربيه قسم التربية الخاصة بالولايات المتحده الامريكيه .

اقوم حالياً بإجراء بحث عن وجهه نظر معلمي التدخل المبكر تجاه خدمات التدخل المبكر في منطقه مكه المكرمه في المملكه العربيه السعوديه .

الغرض من إجراء هذا البحث هو الحصول على توصيات من شأنها العمل على تطوير خدمات التدخل المبكر بالمملكه العربيه السعوديه .

لا توجد أي مخاطر محتمله من مشاركتكم في هذا الإستبيان .

يرجى تعبئه الإستبان الذي لن يستغرق أكثر من ١٠ دقائق . وتعتبر مشاركتكم طوعيه واختياريه وفي حالة نشر البحث لن يتم الإفصاح عن الأسماء ولا عن المعلومات الشخصية وسوف تستخدم المعلومات بسريه تامه وسوف تستخدم النتائج لأغراض بحثيه بحته .

رابط الاستبيان

https://www.surveymonkey.com/r/GQZ5KNF

وشكراً جزيلاً لتعاونكم

إذا كان لديكم اي استفسار الرجاء التواصل مع الباحث عبر الرد على هذا الايميل :

سلطان سعيد الزهراني

Vita

Vita

Sultan Saeed Alzahrani, received a B.A. in Special Education from the King Abdulaziz University in June 2005, and an M.Ed. in Special Education from Cleveland State University in 2014. He has worked as a Special Education teacher for children with learning disabilities for six years in Saudi Arabia.

He has also presented at state conferences. In addition, he has taught graduate level students. His current research interests include Early Intervention, Assessment, applied behavior analysis, and programs supports for families of children with disabilities.