



## Research Article

© 2022 May Alotaibi and Yousef Busaad.  
This is an open access article licensed under the Creative Commons  
Attribution-NonCommercial 4.0 International License  
(<https://creativecommons.org/licenses/by-nc/4.0/>)

Received: 10 February 2022 / Accepted: 13 April 2022 / Published: 5 May 2022

# Parents' Level of Knowledge of Early Childhood Developmental Learning Disorder Indicators

May Alotaibi

MA from Special Education Department,  
Imam Abdulrahman Bin Faisal University,  
Dammam, Saudi Arabia

Yousef Busaad

Assistant professor in Special Education Department,  
Imam Abdulrahman Bin Faisal University,  
Dammam, Saudi Arabia

DOI: <https://doi.org/10.36941/jesr-2022-0079>

## Abstract

The current study sought to reveal the level of parents' knowledge of developmental learning disorders in early childhood in the Eastern Province of Saudi Arabia. A questionnaire was designed comprising (35) questions that measure the parents' knowledge of indicators of developmental learning disorders. These were distributed among (5) the main areas related to basic psychological processes, namely attention, perception, memory, language, thinking and problem-solving. The questionnaire was electronically applied to a random sample of (462) parents in Khobar, Dhahran, Dammam and Jubail. The results demonstrated that parents have a moderate level of knowledge of indicators of developmental learning disorders among those in early childhood and that no statistically significant differences were attributed to their relationship with the child, educational qualifications and the level of the family income. One of the most significant recommendations is the development of educational and scientific resources associated with indicators of developmental learning disorders for children in early childhood and the provision of open seminars and discussion panels between parents to share experiences. The researchers also recommend performing additional studies focused on developing diagnostic criteria to detect symptoms of developmental learning difficulties which will assist educators in identifying children at risk of learning difficulties at an early age.

**Keywords:** Parents; developmental learning disorders; learning difficulties; early childhood

## 1. Introduction

Early childhood has attracted considerable global attention due to its effect on child lifelong learning (Segall et al., 2012/2014). The scholars' most pressing concern regarding the early childhood stage is the advanced detection of children at risk of learning difficulties to provide them with proper early intervention services such as preventive and therapeutic interventions (Khatab, 2014). As a matter of fact, some evidence of developmental learning disorders related to basic psychological processes such as attention, perception, remembering, language, thinking and problem-solving may be observed in

some children in their early childhood. These difficulties may later affect their academic achievements (Khatib and Hadidi, 2021). For example, when a child suffers attention deficit, he will be unable to acquire academic skills successfully, such as reading and comprehension. Hence, the study conducted by (Oshish, 2020) recommends early screening for children, particularly those who exhibit symptoms of developmental difficulties. Early intervention services can mitigate the effects of learning disabilities and prevent academic difficulties in the future. Therefore, educators bear a substantial portion of the responsibility for monitoring the child's development and observing the various manifestations of his growth.

A family typically represents the first nurturing environment in which a child grows up and which no educational institution can substitute. Parents are the caregivers and the teachers of their children from their early years (Najjar, 2017), and they are more able to identify the difficulties their children encounter. In fact, parental nurturing practices are regarded as the first stages of the early intervention process (Jaber, 2020; Zureikat, 2015). With regard to this, Alotaibi (2019) emphasized that effective early intervention depends on the family's awareness and their observation of their children's behavior at an early stage. The current study identifies the level of parents' knowledge of the indicators of developmental learning disorders among children at the early childhood stage.

### 1.1 Study Problem

Developmental learning disorder indicators are primary features that can be used to diagnose those at risk of learning difficulties in early childhood (Balawi & Alotaibi, 2019) provided that it is recognized. Regrettably, these symptoms usually develop in a child without being recognized as signs of developmental learning disorders, aggravating the severity and progression of the condition. These difficulties may also eventually influence the child's psychological and social aspects, limiting his healthy development and preventing him from positively interacting and managing life and educational experiences. Parents play a critical role in the early detection of developmental difficulties in early childhood (Khatib and Al-Hadidi, 2021). Therefore, they should be aware of the indicators of developmental learning difficulties that may develop in their children manifesting deficiencies in certain skills rather than ignoring such problems and depending on the school to provide proper intervention. As (Hunt et al., 2020) claim, some families of children with developmental disorders may notice a learning delay in their children but do not provide adequate intervention due to their insufficient awareness of it.

In view of the scarcity of studies in this subject, this research sought to identify the level of parents' knowledge of the signs of developmental learning disorders among children in early childhood in the Eastern Province by answering the following main question:

What is the level of parents' knowledge of the indicators of developmental learning disorders for children at the early childhood stage in the Eastern Province? The following sub-questions are derived from it:

- Are there statistically significant differences at the 0.05 significance level between the averages of participants' responses of their level of knowledge of the indicators of children learning disorders at the early childhood stage attributed to the parents' variable (father, mother, other guardians)?
- Are there statistically significant differences at the 0.05 significance level between the averages of parents' responses about their level of the acquaintance of the indicators of children learning disorders among children at the early childhood stage due to the educational qualification variable (below secondary, diploma, bachelor's, postgraduate studies)?
- Is there a statistically significant difference at the (0.05) significance level between the averages of the participants' responses on their knowledge of the signs of learning disorders among children in early childhood attributable to their monthly income variable (less than

5000 riyals, 5-10000 riyals, 10-15000 riyals, and 15000 and more)?

### 1.2 The Study Aim and Significance

The current study aims to identify the level of parents' knowledge of the developmental learning disorder indicators among children at the early childhood stage. The significance of the current study lies in the fact that it is — within the limits of the researchers' knowledge — a new study in its field, whether in its subject or in the environment in which it was conducted. Accordingly, its results and recommendations will provide specialists in the areas of early childhood education and special education in learning disabilities with rich information of the level of knowledge of parents about signs of developmental learning disorder. This will contribute to the development of scientific theoretical references associated with these indicators. It may also benefit in designing diagnostic criteria to identify children at risk of learning difficulties in early childhood. Furthermore, this may provide a real opportunity for educational practitioners and specialists in the Kingdom of Saudi Arabia to identify the level of parents' knowledge of signs of developmental learning disorders to design awareness programs and practical training courses accordingly. It will also help educators to develop observation skills to be used effectively in the early intervention process in early childhood.

### 1.3 Study Concepts

*Parents* are the mother and father or the one who acts as a parent from whom the student receives different types of care (Banna, 2020). Operationally, they are the fathers and mothers who have one or more children in early childhood or those who care for children at this early stage in all aspects such as educational, psychological, social, and economic.

*Early Childhood*, the National Association for the Education of Young Children (NAEYC) defines early childhood as the stage that extends from the birth of a child until the age of eight (Brewer, 2006). Operationally, they are children ranging in age from 3 to 8 years, or from the start of kindergarten to the end of the second grade of primary school. Indicators of developmental learning disorders are the signs that are evident in the child and indicate the presence of developmental problems in early childhood, and are related to basic cognitive processes; the deficiency in them affects the child's academic skills (Al-Zamil, 2020). Procedurally, they are the deficiencies that appear in the child in early childhood and are associated with disturbances in one or more of the basic psychological processes such as attention, cognition, memory, language, thinking and problem-solving.

## 2. Theoretical Framework

### 2.1 Early Childhood

The early years of a kid's life constitute a critical period in shaping his developmental characteristics since the child at this point makes exceptional progress compared to subsequent phases of his life (Badir, 2008), and early experiences determine the way his mind will grow and develop. Sukkar et al (2017) reaffirm the impact of this stage in a child's life and its positive and negative contribution to his future learning, growth, and physical and psychological health. Herr (2016) describes rapid growth at this stage as developing the child's perception of himself and his surroundings. The achievements he attains in early childhood are an important foundation upon which later learning is built, which emphasizes the importance of monitoring his growth aspects at this crucial stage of his life. Olusanya et al., (2017) claim that the child's brain at this stage develops rapidly and the experiences he acquires from his environment is stored in the brain pathways that are ready to receive and deal with them so that he can interact with environmental stimuli, which is reflected in the progress of his cognitive and functional abilities. Therefore, it is necessary to provide high-quality education based on best

practices at this stage, especially, for those at risk of disability through early intervention services that seek to alleviate the incidence of problems more than correcting the existing difficulties (Zureikat, 2015). In short, early intervention is a process of identifying the manifestations of developmental delays and difficulties in children at an early age and then providing them with effective educational practices and appropriate services, to develop their skills considering their differences (Lalla and Qaadan, 2014).

### 2.2 *Developmental Learning Disorder Indicators in Early Childhood*

Learning difficulties are one of the special education issues that receive considerable attention from both scholars and educators. Learning difficulties are divided into two core categories: developmental difficulties related to the core psychological processes on which academic learning is established, and academic difficulties that occur as a result of a deficiency in these procedures, affecting approximately (7%) of children at the primary stage (Abu Nyan, 2021).

Developmental learning disorders are defined as difficulties that arise in basic psychological processes (Najjar, 2017) and that are associated with aspects of child development, including difficulties in attention, perception, remembering, language, thinking and problem-solving. It can be manifested in some children (Sayed, 2019) in the forms of developmental signs reflected in their different patterns of behavior. According to Al-Waqfi (2015), if these symptoms do not receive early attention and care, they may foreshadow the formation of academic learning difficulties at advanced stages. The studies conducted by (Toki et al., 2014; Balikci and Melekoglu., 2020) also confirm that the manifestations of developmental learning disorders may appear in kindergarten and first primary grades in the form of deficiencies in cognitive processes. These include the child's weak ability to listen to direct speech, disturbances in visual and auditory discrimination, difficulty in recalling, poor ability to express and limited vocabulary (the National Center for Learning Disabilities, 2020; Khasawneh, 2014).

From this standpoint, Al-Adel (2013) stressed the importance of prompt intervention in early childhood for children who exhibit signs of developmental deficiencies. This occurs through the implementation of measures aimed at mitigating the effects caused by those indicators and limiting their exacerbation, especially because they are one of the main reasons for the emergence of academic learning difficulties in the future. Taboada et al. (2020) cite the possibility of using these signs as one of the steps to detect children at risk of learning difficulties to help them overcome and alleviate their effects at an early stage. Accordingly, parents and teachers have a large and effective role in observing the emergence of these developmental difficulties among children, requiring them to have sufficient awareness and high knowledge of the aspects of early childhood development (Hallahan et al., 2005/2007).

### 2.3 *Parents' Awareness of the Indicators of Developmental Learning Difficulties*

Parents' views on children are an essential source for obtaining relevant information and observations. Through their observations, developmental learning difficulties that their children suffer can be identified (Abdul Baqi et al., 2019). No one can deny the important role of the family in recognizing developmental difficulties in their child because the family is the first milieu in which a child grows up, interacts with, and spends the majority of his time. This fact demonstrates that parents are more able to identify any difficulties a child may suffer in his early childhood (Al-Qamsh, 2013; Kostelink et al., 2014). This necessitates parents obtaining a high level of knowledge of indications of developmental learning disorders that may occur amongst children at an early stage. This may be obtained by researching numerous sources and consulting their children's teachers and specialists (Fabian et al., 2020; Sultan, 2016) to contribute to identifying whether their children are among those at risk of learning difficulties and to provide them with adequate early intervention services.

### 3. Previous Studies

Although there has been limited research in the Kingdom of Saudi Arabia investigating the level of parents' knowledge of the indications of developmental learning disorders for children in early childhood, some studies have addressed this topic globally.

In 2019, Alotaibi emphasized the significance of families' engagement in providing early intervention services and programs for their disabled children. The study adopted a descriptive approach applying a questionnaire to a sample of a group of families and early intervention service providers. The study found a gap between research in the field of early intervention and realistic practices, as well as the necessity for families to have an organized framework and a thorough understanding of the early intervention process. Based on this outcome, the study advocated increased family involvement in early intervention programs as well as updating these programs to improve children's capabilities and ensure a decent life for them (Alotaibi, 2019).

Saber's (2017) study tried to develop the awareness of mothers of children with learning disabilities on how to identify and manage indicators of learning difficulties and develop sensory and cognitive skills for children with learning difficulties in early childhood through the design of the "Portige" program for early intervention. The study used the experimental method based on a single group. A questionnaire was applied to only (17) mothers due to the limited study population and to a specific area. The outcome indicated statistically significant differences between the average scores of the mothers' responses on the scale in favor of the post scale, and that there were no statistically significant differences between their average scores on the same scale a month after the completion of the program.

Ismail and Mahrameh (2018) conducted a study to identify the degree of using the early observation estimation model for learning, and its effectiveness in detecting developmental learning disorders in children aged (4-5 years) from the point of view of kindergarten teachers and parents. The study relied on the descriptive analytical approach on a sample of (330) children, using the scale for estimating early observation of learning. The parents and teachers responded to the scale but were unable to notice all of the characteristics of the children. Therefore, a low level of usage of the model was found; this suggests that a child in early childhood is characterized by rapid growth. This also accentuates the need for educators to understand the aspects and characteristics of each stage independently to observe them more accurately. Consequently, the study recommended that educators design and use effective strategies for the early diagnosis of children at risk of learning disabilities.

A recent study has indicated the low level of kindergarten teachers' familiarity with indicators of learning disorders at the kindergarten stage. The study employed descriptive-analytical by applying a questionnaire to (263) kindergarten teachers in the Eastern Province of the Kingdom of Saudi Arabia. The study recommended paying more attention to the implementation of these signs at the kindergarten stage and included them in the criteria for early intervention in early childhood (Subaie & Al-Sayyad, 2020). In the same year, (Hunt et al., 2020) conducted a study to exhibit the level of familiarity of the developmental coordination difficulties of children in early childhood using the descriptive approach. The questionnaire was applied to participants (n=494), of which (153) were caregivers, (149) teachers, (165) health practitioners, and (27) professionals. It was found that over a third of caregivers and teachers were moderately familiar with developmental coordination difficulties despite their poor knowledge of terminology linked to the disorder and its confusion with other developmental difficulties. Therefore, it recommended the need to increase knowledge and awareness on the part of caregivers and those related to the child. This is reflected in the process of accurate diagnosis of the child and the provision of services appropriate to his individual needs.

Al Kathiri and Al Kathiri (2019) relied on the descriptive analytical approach to reveal the level of knowledge possessed by kindergarten teachers regarding cognitive difficulties among children at risk of learning disabilities. The study used a questionnaire to collect relevant data from female kindergarten teachers (n = 55). It became apparent that the differences in the level of teachers'

knowledge of cognitive difficulties were attributable to the variable years of experience in favor of the category (10 years or more). Therefore, the study recommended holding training courses for kindergarten teachers in the field of special education to help in the early detection of kindergarten children who portray a deficiency in developmental skills.

In the same context, Madini and Al-Sayyadi (2018) conducted a study to identify the degree of awareness among kindergarten teachers about indicators of developmental learning difficulties for pre-school children using the descriptive-analytical approach in which (65) kindergarten teachers in Jeddah, KSA, responded to the questionnaire. The outcome revealed that the kindergarten teachers' awareness of the signs of developmental learning difficulties for pre-school children had a neutral response degree. The study recommended several points, the most important of which is the establishment of a committee of specialists in early childhood learning disabilities, officially to enrich teachers and educators with indicators of developmental learning difficulties at this stage. Following a review of previous studies, it was found that the majority of these were concerned with examining the level of teachers' awareness of the signs of learning disabilities in early childhood. However, this study was distinguished by its attempt to indicate the parents' level of knowledge of signs of developmental learning difficulties for children in early childhood, given their prominent role in the early intervention process.

#### 4. Materials and Methods

##### 4.1 Methods

Based on the nature of the study and the data to be obtained, the descriptive survey method was used to disclose the level of parents' knowledge of the indicators of developmental learning disorders in children in early childhood. This is because it provides an accurate description and expresses it quantitatively and qualitatively (Obeidat et al., 2016).

##### 4.2 Population and Sampling

All parents in Al-Khobar, Dammam, Dhahran and Jubail in the Eastern Province of Saudi Arabia, who had one or more children in early childhood, participated in this study based on Statistics Authority data specifically for children within age groups in each city. The researchers were informed of the difficulty of determining the number of parents within the specific characteristics, so there was a difficulty in determining the size of the population. This required that the study sample should not be less than (380) participants when the sample size is large and difficult to determine (Sekaran & Bougie, 2016). The questionnaire was distributed, and (462) parents responded to it as depicted in Table (1).

##### 4.3 Instrument

A questionnaire was developed to collect data from the participants and comprised two main parts. The first part included basic data on the participants according to the family's residential area and other variables such as parents, educational qualification, and monthly income. The second part measures the level of parents' knowledge of developmental learning disorders indicators through (5) main areas, namely: attention 7 statements perception 7, statements memory 7, statements language 7, statements and thinking 6. The researchers employed a 4-point Likert scale with the responses (I have no knowledge; low knowledge; medium knowledge; high knowledge). The participants were informed that all their responses and information would be kept totally confidential and used only for this research. The instrument's face validity was validated by academic specialists in the domains of special education and early childhood to ensure its coherence and relevance. The final form of the instrument contains (35) items after considering the modifications. The researchers used the Pearson

correlation coefficient to ascertain the construct validity, after applying the instrument to an exploratory sample of (52) parents in the eastern region as indicated in Table (2), where the reliability of the instrument was verified using Cronbach's Alpha coefficient as depicted in Table (3).

**Table 1:** Description of the study sample according to its independent variables

Variables	Categories	Frequency	Ratio
Parents	father	103	%22.3
	mother	342	%74.0
	Others	17	%3.7
Educational qualification	< Secondary	101	%21.9
	Diploma	31	%6.7
	B.A	281	%60.8
	Postgrad.	49	%10.6
City	Al-Khobar	122	%26.4
	Dhahran	59	%12.8
	Dammam	168	%36.4
	Jubail	113	%24.5
Monthly income	< 5.000 SAR	57	%12.3
	5.000-10.000 SAR	99	%21.4
	10.000-15.000 SAR	109	%23.6
	< 15.000 SAR	197	42.6%
Total		462	100%

**Table 2:** Indicators of construct validity

1 <sup>st</sup> field		2 <sup>nd</sup> field		3 <sup>rd</sup> field		4 <sup>th</sup> field		5 <sup>th</sup> field	
Item	coefficient	Item	coefficient	Item	coefficient	Item	coefficient	Item	coefficient
1	0.771**	1	0.681**	1	0.893**	1	0.760**	1	0.854**
2	0.800**	2	0.812**	2	0.872**	2	0.748**	2	0.835**
3	0.791**	3	0.725**	3	0.810**	3	0.886**	3	0.682**
4	0.814**	4	0.845**	4	0.836**	4	0.894**	4	0.863**
5	0.858**	5	0.806**	5	0.910**	5	0.920**	5	0.807**
6	0.797**	6	0.813**	6	0.788**	6	0.915**	6	0.818**
7	0.709**	7	0.798**	7	0.690**	7	0.771**	-	-

\*\*significance at (0.01).

The correlation coefficients of all the items with their domine are significant at (0.01), showing a high construct validity. The correlation coefficients of the means of the responses on the domains were calculated with the overall mean of the scale as illustrated in Table (3).

**Table 3:** Correlation coefficients for the fields with the overall mean

	Fields	Correlation coefficient/Scale
1	Indicators of developmental learning difficulties related to attention	0.793**
2	Indicators of cognitive-developmental learning disabilities	0.858**
3	Indicators of developmental learning difficulties related to memory	0.902**
4	Indicators of language-related developmental learning difficulties	0.865**
5	Indicators of developmental learning difficulties related to thinking	0.880**

\*\*significance at (0.01).

Table (3) shows that the field's correlation coefficients with the scale overall mean are statistically significant at the level of significance (0.01), and the high correlation coefficients are evidence of the

high construct validity of the questionnaire content, indicating that the fields measure what the questionnaire measures entirely. As depicted in Table (4), Cronbach's reliability coefficients obtained high-reliability coefficients (0.89-0.96) as indicated by (Taber, 2016). These values are appropriate for achieving the purpose of this study.

**Table 4:** Cronbach's Alpha reliability coefficient for the fields of scale and overall reliability

	Field	Cronbach's
1	Indicators of developmental learning disorder related to attention	0.90
2	Indicators of cognitive-developmental learning disorder	0.89
3	Indicators of developmental learning disorder related to memory	0.92
4	Indicators of language-related developmental learning disorder	0.93
5	Indicators of developmental learning disorder related to thinking	0.89
	Overall reliability	0.96

#### 4.4 Procedures

The special education department at Imam Abdulrahman Bin Faisal University assessed the study's details and procedures before approving them, ensuring that they complied with scientific research ethics. The researchers then contacted the Eastern Province Statistics Authority to collect data on the number of parents in the Eastern Province. However, the statistics were unavailable, but only provided the number of male and female residents within the required age group and for each city. To determine the minimum and maximum of the ranges, they were calculated by  $(4-1 = 3)$ , then divided by 3 as this is the greatest value  $(3 \div 4 = 0.75)$ . Afterwards, number (1) which is the least value was added to identify the maximum of this cell as exhibited in Table (5).

**Table 5:** Distribution of scale ranges

Level	No	Low	Medium	High
Values	1	2	3	4
Ranges	<1.75	1.75-2.50	2.50-3.25	3.25-4

The data were analyzed using descriptive statistics approaches using the statistical package (SPSS) method. In addition, inferential statistical procedures were employed (the Pearson correlation coefficient, ANOVA, Cronbach's Alpha coefficient).

## 5. Results

1. *The first question:* "What is the level of parents' knowledge of the indicators of developmental learning disorders for children at the early childhood stage in the Eastern Province?" Descriptive analysis was used to determine the level of parents' knowledge of the indicators of developmental learning disorder for children in early childhood as illustrated in Table (6).

**Table 6:** The descriptive analysis of the fields of the scale

NO.	Field	Means	SD	Rank
2	Indicators of cognitive disorder	2.81	0.98	1
5	Indicators of thinking disorder	2.76	1.01	2
4	Indicators of Language disorder	2.75	1.01	3
3	Indicators of memory disorder	2.70	1.02	4



NO.	Field	Means	SD	Rank
1	Indicators of attention disorder	2.61	0.92	5
Total		2.73	.99	-

The data in Table (6) show the overall level of parents’ knowledge of the indicators of developmental learning disorder among children in early childhood (medium) with a mean (2.73). Regarding each field, parents had a (medium) knowledge of the indicators of the level of the cognitive disorder which obtained the highest rank (mean= 2.81) followed by the indicators of thinking (mean= 2.76), the indicators of language (mean=2.75), the indicators of memory (mean =2.70), where their awareness of the indicators of attention ranked last (mean=2.61). Parents’ level of knowledge of all these signs was medium which may be due to the fact that a large percentage of parents have much contact with their children in early childhood and have extensive access to educational manuals and references associated with children’s developmental standards. This led to their acquisition of some knowledge related to signs of developmental learning difficulties. It may also be attributed to the fact that the majority of parents have more than one child in early childhood. This helped expand their experiences about dealing with children, comparing them, and distinguishing developmental indicators that predict the presence of learning difficulties or a particular disability.

It should be emphasized that (78%) of the participants had university degrees, and some may be engaged in the teaching profession or have experience of working with children which alleviates their level of awareness of indicators of developmental learning disorders. This result is confirmed by the findings of (Al Kathiri and Al Kathiri, 2019) which indicated that teachers who have more than (10) years of experience possess extensive knowledge of the manifestations of cognitive difficulties among children. This supports the fact that the teacher’s experience plays a significant role in increasing his knowledge. This is also consistent with the results obtained by (Hunt et al., 2020) which indicated that parents have a medium knowledge of the manifestations of developmental disorders in early childhood. Despite this, they still lack sufficient experience of how to employ their knowledge in the educational practices with their children who exhibit signs of early childhood developmental learning difficulties. And it also coincides with the results of (Saber, 2017; Alotaibi, 2019) which argue that providing parents with information about the symptoms of developmental learning disorders is insufficient unless they are constantly trained to use this information to empower their children and help them benefit from early intervention services. Al-Shakhes (2011) indicates that despite some mothers being teachers and possessing diverse knowledge concerning the areas of children’s development, they may not necessarily be able to identify the indicators of learning developmental disorder in their children or properly apply their knowledge in dealing with their children who are at risk of learning difficulties, which necessitates providing parents with relevant knowledge on how to detect these indicators and distinguish them from other indicators of normal growth.

2. *The Second Question:* “Are there statistically significant differences at the 0.05 significance level between the averages of participants’ responses of their level of knowledge of the indicators of children learning disorders at the early childhood stage attributed to the parents’ variable (father, mother, other guardians)?”

The one-way ANOVA test was used to find statistical differences between parents’ responses according to the nature of their relationship to the child as depicted in Table (7).

**Table 7:** The One-way ANOVA test for parents’ responses according to parent variable

Field	Source of variance	SS	df	MS	F value	P value
First	SS between	1.190	2	0.595	0.702	0.496
	SS within	389.091	459	0.848		
	Total	390.281	461	-		
Second	SS between	2.133	2	1.066	1.107	0.331
	SS within	442.046	459	0.963		
	Total	444.178	461	-		

Field	Source of variance	SS	df	MS	F value	P value
Third	SS between	0.980	2	0.490	0.467	0.627
	SS within	481.792	459	1.050		
	Total	482.771	461	-		
Fourth	SS between	1.514	2	0.757	0.739	0.478
	SS within	469.998	459	1.024		
	Total	471.512	461	-		
Fifth	SS between	1.833	2	0.917	0.896	0.409
	SS within	469.395	459	1.023		
	Total	471.228	461	-		
All indicators	SS between	0.752	2	0.376	0.461	0.631
	SS within	374.262	459	0.815		
	Total	375.014	461	-		

There are no statistically significant differences at the significance level (0.05) between parents' responses to indicators of developmental learning disorder among children in early childhood in the Eastern Province in all dimensions, and in all signs attributed to the parent variable (father, mother, others). This result is attributed to the fact that (74%) of the subjects are mothers and (22.3%) fathers; therefore, the comparison between the two groups according to this percentage may be inadequate. On the other hand, the findings indicated that there was no relationship between the child's guardian (father, mother) and his or her level of knowledge of the indicators of developmental learning disorder among children in early childhood. This may be attributed to the possibility that most parents have equal educational opportunities which led to a convergence of their level of knowledge of signs of learning difficulties among children in early childhood. This result is consistent with that of (Ismail and Mahrameh, 2018) which indicated a similarity between the parents' knowledge, regardless of their gender, of the early observation estimation model to detect indicators of learning difficulties in children in early childhood.

3. *The Third Question:* "Are there statistically significant differences at the 0.05 significance level between the averages of parents' responses about their level of the acquaintance of the indicators of children learning disorders among children at the early childhood stage due to the educational qualification variable (below secondary, diploma, bachelor's, postgraduate studies)?"

One-way ANOVA was used to find statistical differences between participants' responses according to educational qualifications as presented in Table (8).

**Table 8:** One-way ANOVA Test for the responses according to educational qualifications

Field	Source of variance	SS	Df	MS	F value	P value
First	SS between	2.139	3	0.713	0.841	0.472
	SS within	388.142	458	0.847		
	Total	390.281	461	-		
Second	SS between	3.140	3	1.047	1.087	0.354
	SS within	441.038	458	0.963		
	Total	444.178	461	-		
Third	SS between	3.193	3	1.064	1.017	0.385
	SS within	479.578	458	1.047		
	Total	482.771	461	-		
Fourth	SS between	3.959	3	1.320	1.293	0.276
	SS within	467.553	458	1.021		
	Total	471.512	461	-		
Fifth	SS between	1.537	3	0.512	0.499	0.683
	SS within	469.691	458	1.026		

Field	Source of variance	SS	Df	MS	F value	P value
	Total	471.228	461	-		
All indicators	SS <sub>between</sub>	1.377	3	0.459	0.563	0.640
	SS <sub>within</sub>	373.637	458	0.816		
	Total	375.014	461	-		

The data in this table indicate no statistically significant differences at the significance level (0.05) between parents' responses in all fields attributed to the educational qualification variable (secondary and below diploma, bachelor's, postgraduate studies).

This result can be attributed to the fact that (70%) of parents have a bachelor's degree or higher, indicating the similarity of educational experiences associated with developmental learning difficulties in early childhood. This is particularly because they study compulsory university courses such as (psychology development and introduction to special education) which is taught in almost all universities. Furthermore, this result is consistent with that of (Subaie and Al-Sayyad, 2020; Al-Fawzan, 2019) who found no statistically significant differences in the teachers' level of knowledge of the developmental learning disorder indicators due to the variable educational qualification.

4. *The Fourth Question:* "Are there statistically significant differences at the significance level (0.05) between the means of parents' responses of their level of knowledge of signs of developmental learning difficulties among children in early childhood attributed to the estimated monthly income variable (less than 5 thousand riyals, 5-10 thousand riyals, 10-15 thousand riyals, and 15 thousand and more)?"

The One-way ANOVA test was used to find the statistical differences between parents' responses in the fields of the scale according to monthly income as depicted in Table (9).

Data in Table (9) indicate no statistically significant differences at the significance level (0.05) between parents' responses to indicators of developmental learning difficulties in the Eastern Province in all dimensions attributed to the variable monthly income (< 5.000 SAR, 5.000 – 10.000 SAR, 10.000 > 15.000 SAR, 15,000 SAR <).

**Table 9:** One-way ANOVA test for the parents' responses according to monthly income

Field	Source	SS	Df	MS	F value	P value
First	SS <sub>between</sub>	0.434	3	0.145	0.170	0.917
	SS <sub>within</sub>	389.847	458	0.851		
	Total	390.281	461	-		
Second	SS <sub>between</sub>	4.237	3	1.412	1.470	0.222
	SS <sub>within</sub>	439.941	458	0.961		
	Total	444.178	461	-		
Third	SS <sub>between</sub>	4.457	3	1.486	1.423	0.235
	SS <sub>within</sub>	478.314	458	1.044		
	Total	482.771	461	-		
Fourth	SS <sub>between</sub>	1.186	3	0.395	0.385	0.764
	SS <sub>within</sub>	470.326	458	1.027		
	Total	471.512	461	-		
Fifth	SS <sub>between</sub>	3.594	3	1.198	1.173	0.319
	SS <sub>within</sub>	467.634	458	1.021		
	Total	471.228	461	-		
All indicators	SS <sub>between</sub>	2.164	3	0.721	0.886	0.448
	SS <sub>within</sub>	372.850	458	0.814		
	Total	375.014	461	-		

As a matter of fact, there is no relationship between the parent's high level of knowledge and the high level of family income. This is because the manifestation of a learning disorder may appear in any

child in early childhood and can be observed thoroughly by all parents regardless of the level of their income. This result is confirmed by the outcome of the study conducted by (Al-Zamel, 2020) which cited the similarity of the kindergarten teachers' level of knowledge of the indicators of learning difficulties irrespective of their diverse educational backgrounds and economic levels.

## 6. Conclusion

Family is the first milieu in which a child is raised, acquires his learning and experiences that shape the stages of his development; hence, no other educational institution can play a more pivotal role than this. Parents are their children's first teachers who avidly follow their growth. Therefore, we can say that parents who are able to understand their children's developmental needs can spot any shortcomings in their learning and endeavor to provide them with proper early intervention that may mitigate the severity of their learning difficulties. As a matter of fact, these practices are considered to be the first stage of the early intervention process, but parents' levels of awareness of the indicators of learning difficulties differ. Consequently, (Jaber, 2020) sought to identify the level of parents' knowledge of the signs of developmental learning difficulties among children in early childhood in the Eastern Province of the Kingdom of Saudi Arabia. Accordingly, parents had a medium level of knowledge of the indicators of developmental learning difficulties, and it also became apparent that there were no statistically significant differences between the level of parents' knowledge that could be attributed to their relationship with the child, educational qualification and monthly income.

### 6.1 *The Limitations of the Study*

Because the study sample consists of parents of children in early childhood in the Eastern Province, an accurate determination of the size of the study population within specific characteristics is required. However, after communicating with the Statistics Authority and other relevant authorities, a basic statistic indicating the general numbers of the male and female population within specific characteristics was obtained. The researchers were notified of the difficulties in establishing the number of parents within the parameters stated which made determining the size of the study population problematic.

### 6.2 *Recommendations*

The study's findings emphasize the need of increasing parents' knowledge of developmental learning disorder indicators to diagnose and treat those difficulties when they manifest in children at a young age before they suffer from academic learning difficulties later since the parents show a medium level of awareness of these indicators. Hence, the researchers recommend developing educational and scientific resources targeting parents and educators concerning these indicators, presenting open seminars and discussions to enhance exchanging expertise parents with those interested in early childhood developmental disorders. In addition, developing electronic educational platforms containing activities and educational profiles that provide adequate aid to parents in terms of the early manifestation of children learning difficulties.

The researchers suggest conducting more studies to find the best educational practices adopted by educators with children at risk of learning difficulties and children with developmental learning difficulties in early childhood, and also to verify the extent of their application and identify the most prominent challenges they face. In addition to designing diagnostic measures to detect indicators of developmental learning difficulties that help educators, whether parents or teachers, to detect children at risk of learning difficulties early. Finally, it stresses the importance of measuring educators' awareness of the role and effectiveness of early intervention programs in reducing academic learning difficulties in early childhood.

The researchers suggest conducting further research to investigate the best educational

practices used by educators with children at risk of learning difficulties and children with developmental learning disabilities in early childhood, as well as to verify the extent of their application and identify the most significant challenges they face. This is in addition to designing diagnostic measures to detect indicators of developmental learning difficulties to assist educators and parents to detect children at risk of learning difficulties early. Finally, the researchers stress the importance of measuring educators' awareness of the role and effectiveness of early intervention programs in mitigating academic learning difficulties in early childhood; therefore, she invites researchers to conduct new studies concerning this.

## References

- Abdel-Baqi, S., Rashid, A., Abdel-Qader, R., Ismail, S., Farag, A., Al-Azhari, M., Zidan, H., Ibrahim, Mo., & Riyad, S. (2019). *Education in early childhood programs in light of the developmentally appropriate curriculum*. Al Mutanabbi Library.
- Abu Nyan, I. (2021). Learning difficulties from history to services. Encyclopedia House.
- Al-Adel, A. (2013). *Learning difficulties and the impact of early intervention and educational integration for people with special needs*. Modern Book House.
- Alotaibi, W. (2019). Families' involvement of early intervention programs for their disabled children in early childhood stage. *Journal of Special Education Rehabilitation*, 9 (31), 28-40.
- Al-Shakhes, A., Ahmed, S., & Othman, T. (2011). A scale for diagnosing developmental learning difficulties among pre-school children from the point of view of teachers and mothers. *Journal of the College of Education*, 3 (35), 823-863.
- Al-Subaie, L., & Al-Sayyad, W. (2020). The level of familiarity with indicators of learning difficulties for kindergarten teachers and the reality of their early assessment practices in the Eastern Province. *Palestine University Journal of Research and Studies*, 10 (3), 1-38.
- Badir, K. (2008). *Child growth assessment*. Dar alfikr.
- Balawi, H., & Alotaibi, N. (2019). Developmental indicators in children with special needs in early childhood. *Journal of Scientific Research in Education*, 6 (20), 576-561
- Balikci, O., & Melekoglo, M. (2020). Early signs of specific learning disability in early childhood. *International Journal of Early Childhood Special Education*, 12(1),84-95. <https://doi.org/10.20489/intjecse.722383>.
- Banna, H. (2020). *The relationship between students' parents and school administration*. Dar Safaa for Publishing and Distribution.
- Brewer, J. (2006). *Early Childhood Education*. Person Education.
- Fabian, H., Faldt, A., Thunberg, G., & Lucas, S. (2020). All of a sudden we noticed a difference at home too: parents' perception of a parent-focused early communication and AAC intervention for toddlers. *Journal Augmentative and Alternative Communication*, 36(3), 143-145. <https://doi.org/10.1080/07434618.2020.1811757>
- Fawzan, R. (2019). The role of kindergarten in early intervention for children with indicators of learning difficulties from the point of view of their teachers in Al-Ahsa. *Journal of the College of Education*, 35 (10), 97-121.
- Hallahan, D., Kaufman, J., Lloyd, J., Wiess, M., Martinez, A., & Elizabeth, A. (2007). *Learning difficulties, their concept - nature - remedial education* (translated by Adel Abdullah). Dar alfikr. (Original work published in 2005).
- Herr, J. (2016). Working with young children (8th). The Goodheart-Willcox company.
- Hunt, J., Zwicker, J., Godecke, E., & Ranyor, A. (2020). Awareness and knowledge of developmental coordination disorder: A survey of caregivers, teachers, allied health professionals and medical professionals in Australia. *Journal of Child Care Health and Development*, 1-10. <https://doi.org/10.1111/cch.12824>.
- Ismail, A., & Mahram, L. (2018). The use of the early observational learning estimation model in detecting learning difficulties. *Specialized International Educational Journal*, 7 (7), 24-34.
- Jaber, A. (2020). Challenges facing families of children with neurodevelopmental disorders at home in light of the Corona pandemic. *Journal of Special Education and Rehabilitation*, 10 (38), 182-150.
- Kathiri, K., Al Kathiri, N. (2019). The level of knowledge of kindergarten teachers about cognitive difficulties among children at risk of learning difficulties. *The Saudi Journal of Educational Sciences*, (64), 145-167.
- Khasawneh, M. (2014). *Developmental learning difficulties* (i.2). Dar alfikr.
- Khatib, J., & Al Hadidi, M. (2021). *Early Intervention Special Education in Early Childhood* (1.10). Dar alfikr.
- Kostelink, M., Ruppel, M., Soderman, A., & Whiren, A. (2014). *Developmentally appropriate curriculum in action* (7th). Pearson education.

- Lala, S., Qaadani, H. (2014). *Early intervention and inclusion strategies in early childhood*. Al-Rushd Library.
- Madini, M., & Sayyadi, B. (2018). Assessment of the extent of awareness of indicators of developmental learning difficulties for pre-school children among public kindergarten teachers in Jeddah, Saudi Arabia. *Journal of Educational Sciences*, 4 (4), 175-178.
- Najjar, A. (2017). *Learning difficulties and early intervention in kindergarten*. Al Mutanabbi Library.
- National Center for Learning disabilities. (2020). *The early detection of learning difficulties: from recognizing risk to responding rapidly*. <https://www.nclld.org/wp-content/uploads/2020/10/Early-Detection-of-Learning-Difficulties-1.pdf>
- Obeidat, T., Abdel Haq, K., Adas, A. (2016). *Scientific Research Concept, Tools and Methods* (1.18). Dar alfiker.
- Olusanya, B., Sirimanna, T., & Mcpherson, B. (2017). Timely sensory stimulation and early childhood development. *Journal of the Lancet*, 390. [https://doi.org/10.1016/S0140-6736\(17\)32410-8](https://doi.org/10.1016/S0140-6736(17)32410-8)
- Oshish, N. (2020). Suggesting a training program for early intervention to treat developmental learning difficulties among pre-school children and studying its effectiveness in preventing academic learning difficulties. *Journal of Studies in Humanities and Social Sciences*, 3 (26), 334-353. <https://doi: 10.33953/0381-003-003-017>.
- Al-Qamsh, M. (2013). Multiple Disabilities (i.3). Dar Al Masyrah for Publishing and Distribution.
- Saber, M., & Saber, M. (2017). The effectiveness of (early intervention) to develop the awareness of mothers of children with learning difficulties and develop some sensory and cognitive skills for their children in early childhood. *Journal of Childhood Studies*, 20 (76), 197-193.
- Sayed, A. (2019). The effect of early intervention on academic adjustment among children with learning difficulties. *Journal of the College of Education*, 19 (4), 169-200
- Segall, M., Bredge, B., Bredge, C., Brivani, L., & Jane, M. (2014). *All about childcare and early education* (Translated by Sajida Attari). Dar Alfiker.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach*. John Wiley & Sons.
- Sukkar, H., Dunst, C., Kirkby, J. (2017). *Early childhood intervention working with families of young children with special needs*. London: Routledge group.
- Sultan, T. (2016). *Special education for disabled children in early intervention centers*. Dar Alelm and Eman for publication and distribution.
- Taber, Keith S. (2016). The use of Cronbach's Alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273-1296.
- Taboada, M., Lglesias, P., Lopez, S., & Rivas, R. (2020). Neurodevelopmental difficulties as a comprehensive of learning disabilities in children with developmental delay. *Journal of Annals of Psychology*, 36 (2), 271-282. <https://doi.org/10.6018/analesps.347741>
- Toki, E., Pange, J., & Zakopoulou, V. (2014). Preschoolers' learning disabilities assessment: new perspectives in computerized clinical tools. *Journal of Sino English Teaching*, 11(6), 401-410. [https://www.researchgate.net/publication/263040178\\_Preschoolers%27\\_Learning\\_Disabilities\\_Assessment\\_New\\_Perspectives\\_in\\_Computerized\\_Clinical\\_Tools](https://www.researchgate.net/publication/263040178_Preschoolers%27_Learning_Disabilities_Assessment_New_Perspectives_in_Computerized_Clinical_Tools)
- Walker, D., Sepulveda, S., Hoff, E., Rowe, M., Schwartz, I., Dale, P., Peterson, C., Diamond, K., Meadow, S., Levine, S., Wasik, B., Horm, D., & Biglow, K. (2020) Language intervention research in early childhood care and education: A systematic survey of the literature. *Journal Science Direct*, 50, 68-85. <https://doi.org/10.1016/j.ecresq.2019.02.010>
- Zamel, S. (2020). Indicators of difficulties in learning mathematical skills in kindergarten. *The Arab Journal of Disability and Giftedness Sciences*, 4 (12), 226-250. <https://doi.org/10.33850/JASHT.2020.101204>
- Zureikat, I. (2015). *Early Intervention Models and Procedures* (i.4). Dar Masyrah.