

## **A Regional Perspective on Parents' Awareness of Childhood Communication Disorders**

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**Abstract**

This study aimed to measure parents' awareness of communication disorders in childhood within Jordanian society, and to examine whether there is a subgroup of Jordanian society that is more aware than others. The parents of 234 preschool children were interviewed using a questionnaire developed for this purpose. The items were selected based on different studies published on this topic that examined factors such as gender, age, family income, level of education, geographical region, and knowledge of communication disorders in childhood. Items that asked about a specialist who can help children with communication disorders, the best age for therapeutic intervention for children with language delay, and whether the way parents interacted with their child affected the child's speech and language development, among others were included in the questionnaire. The total percentage of correct answers regarding parents' awareness about communication disorders in children was 51%. This result indicates that parents' awareness of communication disorders in childhood in Jordanian society needs improvement. The results further showed that there was no subgroup in Jordanian society that had more awareness than others.

**Keywords:** communication disorders; childhood; language delay; hearing loss; consequences of hearing loss; speech and language disorders; parental awareness.

**Introduction**

Communication is considered as a basic human function (McCormack, Baker, and Crowe 2018; McEwin and Santow 2018; McLeod 2018) that is essential to every person and society's health and wellbeing (McEwin and Santow 2018). Communication disorders can limit involvement at all levels, including family, group, national and global levels (Hegde 2001). Early detection and treatment of such conditions can help avoid the incidence of comorbidities, as early specialized intervention can prevent the co-occurrence of expressive (Norbury 2020; Shukla et al. 2020), hearing (Lieu et al. 2020) and language disorders (McAfee 2009), as well as phono-audiological disorders (Shibly and McAfee 2009), which commonly arise in the first decade of one's life (Australian Bureau of Statistics 2017; Hegde 2001).

However, clinical practice demonstrates that communication disorders influence a person's relationship with their environment (Shukla et al. 2020; Yuan and Dollaghan 2018), self-image (Norbury 2020) and formal and informal learning (McLeod 2018; Tambyraja, Farquharson, and Justice 2020). As a result, because parents are typically involved in their children's development from an early age, they have a better chance of detecting possible speech and language disorders early on (Markham and Dean 2006).

The need to raise parental consciousness about the various communication disorders in childhood is the first step in preventing the onset of communication disorders. According to the American Speech and Hearing Association (1991), primary prevention refers to the 'elimination or inhibition of the initiation and development of communication disorder by altering sensitivity or reducing exposure for susceptible persons'. Several studies have attempted to determine the degree of knowledge, attitudes, and understanding among different target groups, including the general public, teachers, health professionals and so forth. Therefore, if parents are aware of communication disorders early on in their child's life, they can request the diagnosis and treatment from an appropriate therapist, thus facilitating and speeding up treatment to avoid any negative consequences that may result from communication disorders.

Chu et al. (2019) conducted a study to analyse the general public's awareness and views towards communication disorders and speech-language pathology. A Google form and a paper-pencil format were used to distribute a self-developed questionnaire. There were 535 responses in total. More than half of those polled had a moderate level of understanding of communication disorders and a high level of understanding of speech-language pathology. In terms of attitudes, 67.3% of respondents had a favourable view of people with communication disorders, and 86.5% had a favourable view of speech-language pathology as a specialty.

Gibson, Sutherland, and Newbury (2020) conducted a study to understand the awareness among New Zealand parents/caregivers about language-rich interactions and child growth. Using Qualtrics, a survey was created and distributed online. Participants' demographics, perceived factors, and sources of knowledge about child language development were analysed from the items. A total of 500 responses were analysed. The participants with higher education levels scored better. The participants demonstrated that a broad understanding of the impact of early vocabulary acquisition on children's learning paths was previously underappreciated. Higher levels of parent/caregiver education were linked to greater accuracy on subjects related to infant language development.

Gabriela and Bárbara (2019) conducted a study about parents' perceptions of the prevalence of and factors associated with speech-language and hearing disabilities in early childhood. They interviewed 75 parents of preschool children in southern Brazil

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using a standardized questionnaire. Gender, age, number of children, and knowledge of phonological disorders, such as the age of language changes, effects of hearing problems, behaviour problems prior to speech therapy, what harmful behaviours their children elicited, and knowledge of speech therapy were investigated. The results showed that in the event of parents suspecting a speech-language disorder, 46 (61.3%) parents sought assessment from a speech-language therapist, while 37 (49.3%) sought evaluation from paediatricians. The higher the education level of the parents, the more likely they were to regard the age range of 4–5 years as the final age of phonological acquisition and the overcoming of speech disorders related to language development.

It is becoming increasingly important to raise parental awareness about communication disorders in childhood in order to encourage early diagnosis and intervention of children with communication disorders. Parents carry a large share of the responsibility for early detection and intervention of communication disorders in childhood. Despite attempts to investigate parents' awareness about communication disorders in childhood, there is a scarcity of information to quantify or define parents' awareness regarding this topic. Consequently, the current study was an attempt to use a questionnaire-based survey to understand the level of awareness about communication disorders in childhood among parents from various socioeconomic backgrounds in Jordan. This is the first study to assess parents' awareness about communication disorders in childhood in Jordanian society, and that targeted samples from different socioeconomic backgrounds and regions.

## **Methods**

A total of 234 adults who had a child in preschool and did not have a communication disorder or hearing loss themselves took part in the study. The parents were recruited as volunteers and were chosen at random from 21 kindergartens and nurseries in different major cities in Jordan. The participants were all native Arabic speakers. Parents' perceptions regarding communication disorders in childhood were investigated through interviews and a questionnaire (Appendix).

The questionnaire came with a cover letter that outlined the study's intent. The letter guaranteed confidentiality and expressed gratitude for participating.

The items of the questionnaire contained three important parts. The Identification part asked about their gender, age, geographical region, total annual family income, and field of work in order to identify if there was a subgroup that had more awareness than others. The Knowledge part assessed knowledge regarding the age limit that is considered to be normal for the occurrence of speech changes. Items asked about the age when children first say a meaningful word, appropriate specialists who can help children with communication disorders, the best age for therapeutic intervention for children with language delays, whether hearing is important for

children's overall growth, and whether the manner of interaction of parents with their child affects the child's speech and language.

### **Statistical Analysis**

Based on the questionnaire items and answer categories, an analysis coding system was developed. Data were analysed using SPSS statistical analysis program. Descriptive statistics were calculated to examine the response distribution. Comparison analysis was used to determine the association for selected demographic variables including gender, age, level of education, field of work, total annual family income, and city of residence.

### **Results**

The internal consistency reliability coefficient (Cronbach's  $\alpha$ ) for the questionnaire assessing parents' awareness of communication disorders in children was 0.79, which is suitable for scientific research. Table 1 shows the correlations between each item and total items of the questionnaire. Correlations ranged from 0.432 to 0.711.

Table 1. Pearson's correlations between each item and total items for the questionnaire on parents' awareness.

<b>Item</b>	<b>Pearson's value</b>	<b>p-value</b>
1. The age limit considered to be normal for occurrence of speech changes is between 7–8 years	0.562	0.000
2. The age (in months) when the child should begin to say their first meaningful words	0.471	0.000
3. Specialists who can help the children with communication disorders	0.432	0.001
4. The best age (in years) for therapeutic intervention for children with language delays	0.662	0.000
5. The importance of the manner of parents' interaction and communication with their child and its effect on the child's speech and language	0.551	0.000
6. The importance of hearing for children's overall growth	0.711	0.000

Table 2 shows that most of the participants were women (129), comprising 55.1% of the sample, while the number of men was (105), which was 44.9% of the sample. Regarding age, 205 (87.6%) were above 31 years of age. Level of education and field of work indicated 106 participants (45.3%) had a bachelor's degree, 43 (18.4%) were unemployed and 66 (28.2%) worked in the field of education. Regarding income and residence, 152 participants (64.9%) had an income range between 1000–10000 JOD, and 151 participants (64.4%) lived in Amman, Irbid, or Balqa.

Table 2. Sociodemographic characteristics of the parents.

Characteristics	Category	Frequency/234	Percentage
Gender	Female	129	55.1
	Male	105	44.9
Age	20–25	5	2.1
	26–30	24	10.3
	31–35	32	13.7
	36–40	44	18.8
	41–45	49	20.9
	46–50	36	15.4
	51+	44	18.8
Level of education	High school and lower	38	16.4
	Diploma	33	14.1
	Bachelor's degree	106	45.3
	Master's degree	33	14.1
	Ph.D.	24	10.2
Field of work	Education	66	28.2
	Health	23	9.9
	Trade	19	8.1
	Security	23	9.8
	Administration	11	4.7
	Public Services	5	2.1
	Agriculture	5	2.1
	Academic	22	9.4
	Household	17	7.3
	Unemployed	43	18.4
Total annual family income (JOD)	1000–5000	101	43.1
	5001–10000	51	21.8
	10001–15000	30	12.8
	15001–20000	21	9.0
	20001–25000	6	2.6
	25001–30000	4	1.7
	30001–35000	6	2.6
	35001–40000	5	2.1
	40001–45000	5	2.1
	45001–50000	3	1.3
	50000+	2	0.9

City of residence	Amman	61	26.0
	Irbid	45	19.2
	Al-Zarqa	18	7.7
	Al-Balqa	45	19.2
	Jerash	9	3.9
	Ajloun	8	3.4
	Al-Mafraq	8	3.4
	Madaba	7	3.0
	Al-Karaq	8	3.4
	Al-Tafila	7	3.0
	Ma'an	8	3.4
	AL-Aqaba	10	4.4

Results regarding the parents' awareness are presented in Table 3. Most parents (73%) agreed that the age limit considered to be normal for occurrence of speech changes is between 7–8 years. Around one-third (36.3%) of the participants reported that 12 months is the age when children should say their first meaningful word, while 3.6% of participants reported that 36+ months is the age when children should say their first meaningful word. Nearly 22% of the participants reported that the age of four is the best age for therapeutic intervention for children with language delay, while 12.4% reported that the age of two is the best age for therapeutic intervention. Exactly 50% of the participants reported that the way parents interacted with their child affected their child's speech and language. Most participants (71.4%) indicated that the specialist who can help children with communication disorders is a speech-language pathologist, and about two-thirds (66.7%) indicated that hearing is important for children's overall growth.

Table 3. Parents' knowledge/level of awareness regarding communication disorders in childhood.

Item	Category	N = 234	Percentage
1. The age limit considered to be normal for occurrence of speech changes is between 7–8 years	Yes	170	73.0
	No	64	27.0
2. The age (in months) when the child should begin to say their first meaningful words	12	85	36.3
	18	72	30.8
	24	50	21.4
	30	18	7.7
	36+	9	3.8
3. A specialist who can help the	Speech-language	167	71.4

children with communication disorders	pathologist		
	Paediatrician	43	18.8
	Otolaryngologist	24	10.2
4. The best age (in years) for therapeutic intervention for children with language delays	1	13	5.6
	2	29	12.4
	3	48	20.6
	4	52	22.0
	5	49	21.0
	6	43	18.4
5. The importance of the manner of parents' interaction and communication with their child and its effect on the child's speech and language	Yes	117	50.0
	No	117	50.0
6. The importance of hearing for children's overall growth	Yes	156	66.7
	No	78	33.3

***Is there sufficient awareness in Jordanian society regarding communication disorders among parents?***

Table 4 shows the number and percentage of correct answers for each of the items on the awareness of communication disorders questionnaire. There was a high percentage of correct answers for the age limit considered to be normal for the occurrence of speech changes (73%), whereas there was a low percentage of correct answers for the age when children should begin to say their first meaningful words (36%). A higher percentage knew that specialists can help children with communication disorders (71%), while very few knew the best age for therapeutic intervention for children with language delay (12%). The importance of hearing for children's overall growth was 67%, which was high. The percentage of the total number of correct answers regarding the awareness of parents in Jordanian society about communication disorders in childhood was 51%. These results indicate that in Jordanian society, parents' awareness about communication disorders in childhood is not very high and that they need more education regarding communication disorders in childhood.

Table 4. Frequency and percentage of correct responses to the questionnaire items.

Item	Response	Frequency	Percentage
1. The age limit considered to be	True	170	73%

normal for occurrence of speech changes is between 7–8 years	False	64	
2. The age (in months) when the child should begin to say their first meaningful words	True	85	36%
	False	149	
3. Specialists who can help the children with communication disorders	True	167	71%
	False	67	
4. The best age (in years) for therapeutic intervention for children with language delays	True	29	12%
	False	205	
5. The importance of the way parents interact and communicate with their child and its effect on the child's speech and language	True	117	50%
	False	117	
6. The importance of hearing for children's overall growth	True	156	67%
	False	78	
Total percentage	True	120	51%
	False	114	49%

***Is there a subgroup in Jordanian society that has more awareness regarding communication disorders in childhood than others?***

Multiple analysis of variance (MANOVA) was used to determine if there were differences in parents' awareness regarding communication disorders in children according to sociodemographic characteristics of the parents. Table 5 shows the results of these analyses. There were no statistically significant differences based on the demographic characteristics of the participants.

Table 5. Results of the multiple analysis of variance to identify differences among parents in their awareness of communication disorders in children according to demographic characteristics.

Source of variance	Sum of squares	Degrees of freedom	Mean of squares	F-value	p-value
Gender	0.092	1	0.092	2.031	0.156
Age	0.245	6	0.041	0.901	0.496
Qualification	0.158	4	0.039	0.872	0.481
Work	0.179	9	0.020	0.440	0.912
Annual Income	0.191	10	0.019	0.421	0.935
City	0.274	11	0.025	0.551	0.866
Error	8.689	192	0.045		
Total	96.449	234			



## Discussion

### *Characteristics of Participants*

The aim of this study was to determine the level of awareness about communication disorders in parents who have preschool-age children without communication disorders. Data were collected by interviewing 234 parents at 21 kindergartens and nurseries in major cities in Jordan between the 2<sup>nd</sup> and 28<sup>th</sup> of March 2021. Kindergartens and nurseries were the most appropriate places to collect the data that would reflect a representative sample, because most parents who have a child in preschool send their child to a nursery or kindergarten.

The percentage of female and male participants were 55.1% and 44.9%, respectively. The results showed that there were no statistical differences in information regarding communication disorders in childhood between subgroups of parents; therefore, it is critical to concentrate on all segments of society when promoting public awareness about communication disorders in childhood, regardless of geographical region, field of work, age, gender, family income, and level of education.

### *Parents' Awareness of Communication Disorders in Childhood*

Most parents reported that the specialist who can help their children with communication disorders would be a speech-language pathologist. This finding is consistent with Gabriela and Bárbara (2013). Most of them also reported that the first meaningful word should be said by children before 12 months, and that the age limit considered to be normal for occurrence of speech changes is between 7 to 8 years. They indicated that the best age for therapeutic intervention for children with language delay is between 3–4 years. These findings differed from that of Gabriela and Bárbara's (2013) study in Brazil that showed most parents considered 18 months to be the age when children should say the first meaningful word. The parents viewed 4-5 years of age as the final age for phonological learning and the overcoming of language related speech disorders related to language development, and age two as the best age for therapeutic intervention. The differences in the findings may be due to differences between Arab and Brazilian cultures.

In one study that analysed the importance hearing in children had among parents or caregivers, the participants did not consider hearing to be necessary for their children's overall growth. In this study, the results demonstrated that most of the parents considered hearing to be important to children's overall growth.

This study showed that there were no statistically significant differences in the awareness of parents in Jordanian society about communication disorders in children based on demographic characteristics (gender, age, qualification, work, annual income, and geographical region). This finding differed from that of Mahmoud, Aljazi, and Alkhamra (2014).

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## Conclusions

This study investigated parents' awareness of communication disorders in childhood in Jordanian society. To this end, a sample of 234 participants completed a questionnaire. In general, parents' awareness of communication disorders in childhood was limited. Furthermore, parents' awareness did not differ according to age, level of education, city, annual family income and field of work. This means that policymakers, medical staff, and social workers should strive to increase parents' awareness of childhood communication disorders and the importance of early diagnosis and treatment to avoid adverse consequences. In addition, all those responsible for family education programmes should work to increase parents' awareness about this topic in various possible ways.

## Limitations

Parents from villages on the borders of Jordan were not included in the study, which may restrict generalization of the findings to the urban population.

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## Disclosure Statement

The author reports no conflict of interest.

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## APPENDIX

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## Questionnaire Items

### IDENTIFICATION

#### 1. Gender:

(a) female (b) male (c) prefer not to say

#### 2. Age:

(a) 20–25 (b) 26–30 (c) 31–35 (d) 36–40 (e) 41–45 (f) 46–50 (g) 51+

#### 3. Level of education:

(a) High school and lower (b) Diploma (c) Bachelor's degree (d) Master's degree (e) Ph.D. degree

#### 4. Field of work:

(a) Education (b) Health (c) Administration (d) Public services (e) Security  
(f) If some other, please specify\_\_\_\_\_

#### 5. Total annual family income: (\$1= 0.71 JODs)

(a) 1000–5000 JOD (b) 5001–10000 JOD (c) 10001–15000 JOD (d) 15001–20001 JOD (e) 20001–25000 JOD (f) 25001–30000 JOD (g) 30001–35000 JOD (h) 35001–40000 JOD (i) 40001–45000 JOD (j) 45001–50000 JOD (k) 50001+ JOD

### KNOWLEDGE LEVEL

**6. The age limit considered to be normal for the occurrence of speech changes is between 7–8 years old.**

(a) Yes (b) No

**7. The age when children should say their first meaningful word (in months):**  
\_\_\_\_\_

**8. The appropriate specialist who can help children with communication disorders:**

(a) Speech-language pathologist (b) Paediatrician (c) Otolaryngologist  
(d) If some other, please specify\_\_\_\_\_

**9. Is hearing important for children's overall growth?**

(a) Yes (b) No

**10. Does the way parents interact with their child affect their speech and language?**

(a) Yes (b) No

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