Parental attitudes and knowledge of stuttering

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Background
To date, very little research has been carried out on the knowledge and awareness of stuttering in an Arab population. Parents' attitudes toward stuttering play a critical role in helping the child develop healthy communication attitudes.

Objective
The aim of this study was to collect information on the attitude and knowledge of parents on stuttering in order to gain a better understanding of their level of awareness of the nature of the disorder.

Patients and methods
This study included 100 parents of preschool-aged and school-aged stutterers. They were attendants to the Phoniatric Unit at Kasr Al Aini Hospital; of these, 56 (56%) were women and 44 (44%) were men, age range 26.8–44.3 years, mean 34.7 years. A questionnaire was designed to determine the knowledge and attitudes of parents toward stuttering.

Results
Most parents were familiar with stuttering, but their general knowledge of the disorder was limited. Negative beliefs and attitudes toward stuttering and people who stutter were also held by some parents. The results showed a significant association between the education level and to a lesser extent sex and parental knowledge of and attitudes toward stuttering.

Conclusion
The importance of increasing public awareness of stuttering is evident.

Keywords:
awareness, parents, stuttering

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Introduction

Stuttering exists in all cultures and societies worldwide [1]. To date, very little research has been carried out on the knowledge and awareness of stuttering in an Arab population.

Parents' attitudes toward stuttering play a critical role in helping the child develop healthy communication attitudes. Young children's self-esteem is highly dependent on the approval and acceptance of their parents and others in their environment [2].

Several studies have described the attitudes of members of a single group toward stuttering, for example teachers [3] and the general public [4]. The attitudes on stuttering have been assessed using different procedures including telephone interviews [5], semantic differential techniques [6], and questionnaires [4].

The attitudes and beliefs that parents have on stuttering may generally reinforce or hinder the applicability and effectiveness of treatment [7]. Family relationships can have a positive impact, providing support and positive guidance in assisting the individual who stutters to cope with their stuttering. Positive parental attitude toward their children minimizes the chance that they will develop a negative self-image, shame, or embarrassment, which affects many older children, adolescents, and adults who stutter [8].

It is possible that culturally specific, idiosyncratic, or certain attitudes, knowledge, and beliefs toward disabilities in general and towards speech impairments, perhaps, may exist. Negative opinions of stuttering and people who stutter (PWS) appear to exist cross-culturally [9]. Public and perhaps parental ignorance are major contributing factors to the mental and emotional complexities of stuttering. Therefore, targeting and correcting the stereotypical misconceptions present among parents is crucial for clinicians to provide successful therapy to PWS. These stereotypes are widespread in the general public irrespective of age, level of education, culture, geographic location, and profession [10].

The aim of this study is to collect information on the attitude and knowledge of parents on stuttering in order to gain a better understanding of their level of awareness about the nature of the disorder.

Patients and methods

Patients

This study included 100 parents of preschool-aged and school-aged stutterers. They were attendants to the Phoniatric Unit at Kasr Al Aini Hospital; of these, 56 (56%) were women and 44 (44%) were men, age range 26.8–44.3 years, mean 34.7 years. The study was carried out from October 2012 to July 2013. The education level of the parents was assessed using a scale to measure the socioeconomic status [11]. Children with a previous or present history of other communication problems or developmental disability and those receiving speech therapy sessions were excluded from the study.

Designing the questionnaire

A questionnaire involving four components that gathered information about stuttering epidemiology, symptomatology, treatment, and prognosis was designed by the author. Each component included several statements. The parents were instructed to answer each statement by choosing one of three responses: 'yes', 'no', or 'unsure' (see Appendix). The questionnaire took between 20 and 50 min to complete. Some statements were constructed from knowledge and attitude tests on stuttering [4,12]. A written consent was obtained from the included parents before the study. The results of the statements were compared according to differences between sex and education level. A pilot study including 30 parents was carried out before the study in order to modify the questions according to the parental responses.

Statistical analysis

Precoded data were analyzed statistically using the Statistical Package for the Social Sciences Software program, version 21 (Chicago, USA). Data were summarized as frequency and percentage for qualitative variables. Comparison between groups was performed using the $\chi 2$-test or Fisher's exact test. A P value of less than 0.05 was considered statistically significant and a P value of less than 0.01 was considered highly significant.

Results

This study included 100 parents; 44% were men and 56% were women. The distribution of the studied parents according to the age group was as follows: 67% were younger than 35 years of age and 33% were older than 35 years of age. In terms of the education level, it was found that 41% of the included sample was not educated and 59% was educated (Table 1). The results of the parental opinions on the statements in the questionnaire were compared according to differences between sex and educational level and the following results were found.

A highly significant association was found between sex and education level and parental knowledge of the etiology of stuttering (Table 2) and parental attitude toward the stutterer (Table 3). A highly significant association was found between parental education and their knowledge of treatment (Table 4) and prognosis of stuttering (Table 5).

Discussion

The present study showed interesting data on parental awareness of stuttering. Most parents were familiar with stuttering, but their general knowledge of the disorder was limited. Negative beliefs and attitudes toward stuttering and PWS were also held by some parents. A significant association was found between the education level and to a lesser extent sex and parental knowledge and attitudes toward stuttering.

The present data indicate that most of the parents knew little or were confused about the prevalence of stuttering, its causes, and treatment and prognosis. Women attributed stuttering to psychological or environmental factors because of their over-reaction to mistakes in children's speech, an indication of an old Johnsonian theory [1]. A low percentage (8%) of parents believed that stuttering is genetic, in line with the recent literature [13]. Others (9%) reported that the problem may be because of an abnormality in the oral cavity and they considered surgical procedures for treatment. It was found that main reason that motivated some parents to seek advice was approaching school age or comparing the child with other siblings or family members. These findings were in agreement with those of other studies [14,15].

Reviewing the parental opinion on the stutterer's personality, a highly significant association was found between sex and parental attitude while dealing with the

Table 1 Frequency distribution of the respondents in terms of age, sex, and educational level

	n (%)
Age (years)	
<35	33 (33.0)
≥35	67 (67.0)
Sex	
Male	44 (44.0)
Female	56 (56.0)
Educational level	
Not educated	41 (41.0)
Educated	59 (59.0)

Table 2 Comparison of knowledge of the etiology and epidemiological features of stuttering among the studied parents in terms of their sex or educational level

	Sex			Educational level			Total [*n* (%)]
	Male (*n* = 44) [*n* (%)]	Female (*n* = 56) [*n* (%)]	*P* value	Not educated (*n* = 41) [*n* (%)]	Educated (*n* = 59) [*n* (%)]	*P* value	
Do you know that stuttering							
Occurs more in female	16 (36.4)	26 (46.4)	0.3	27 (65.9)	15 (25.4)	<0.001	42 (42.0)
Occurs more in male	15 (34.1)	12 (21.4)	NS	4 (9.8)	23 (39.0)	HS	27 (27.0)
Equal in both sex	13 (29.5)	18 (32.1)		10 (24.4)	21 (35.6)		31 (31.0)
Stuttering occurs							
Before age of 3 years	10 (22.7)	13 (23.2)	0.5	9 (22.0)	14 (23.7)	0.3	23 (23.0)
At school age	25 (56.8)	36 (64.3)	NS	28 (68.3)	33 (55.9)	NS	61 (61.0)
Absent in adults	9 (20.5)	7 (12.5)		4 (9.8)	12 (20.3)		16 (16.0)
Stuttering occurs more in							
Left-handed person	9 (20.5)	6 (10.7)	0.4	8 (19.5)	7 (11.9)	0.3	15 (15.0)
Right-handed person	7 (15.9)	11 (19.6)	NS	9 (22.0)	9 (15.3)	NS	18 (18.0)
Same incidence	28 (63.6)	39 (69.6)		24 (58.5)	43 (72.9)		67 (67.0)
Person who stutter is often described as being							
Shy	11 (25.0)	29 (51.8)	<0.001	14 (34.1)	26 (44.1)	0.5	40 (40.0)
Nervous	10 (22.7)	12 (21.4)	HS	8 (19.5)	14 (23.7)	NS	22 (22.0)
Normal person	14 (31.8)	0 (0.0)		8 (19.5)	6 (10.2)		14 (14.0)
Unsocial	9 (20.5)	15 (26.8)		11 (26.8)	13 (22.0)		24 (24.0)
I believe that stuttering is caused by							
Psychological factor	27 (61.4)	19 (33.9)	0.007	19 (46.3)	27 (45.8)	0.002	46 (46.0)
Chemical change in brain structure	2 (4.5)	3 (5.4)	HS	2 (4.9)	3 (5.1)	HS	5 (5.0)
Genetic inheritance	3 (6.8)	5 (8.9)		1 (2.4)	7 (11.9)		8 (8.0)
Environmental pressure	2 (4.5)	20 (35.7)		4 (9.8)	18 (30.5)		22 (22.0)
Following prolonged fever	7 (15.9)	5 (8.9)		9 (22.0)	3 (5.1)		12 (12.0)
School entry	3 (6.8)	4 (7.1)		6 (14.6)	1 (1.7)		7 (7.0)

HS, highly significant.

Table 3 Comparison of the parental attitude toward the stutterer among the studied parents in terms of their sex or educational level

	Sex			Educational level			
	Male (*n* = 44) [*n* (%)]	Female (*n* = 56) [*n* (%)]	*P* value	Not educated (*n* = 41) [*n* (%)]	Educated (*n* = 59) [*n* (%)]	*P* value	Total [*n* (%)]
Stuttering can occur in the form of							
Repetition only	29 (65.9)	30 (53.6)	0.2	26 (63.4)	33 (55.9)	0.5	59 (59.0)
Associated body movements	15 (34.1)	26 (46.4)	NS	15 (36.6)	26 (44.1)	NS	41 (41.0)
If I were talking to a stutter I would							
Ask him to repeat again	13 (29.5)	26 (46.4)	0.006	12 (29.3)	27 (45.8)	<0.001	39 (39.0)
Look away from him	11 (25.0)	1 (1.8)	HS	10 (24.4)	2 (3.4)	HS	12 (12.0)
Fill in the person's words	2 (4.5)	5 (8.9)		7 (17.1)	0 (0.0)		7 (7.0)
Wait patiently	8 (18.2)	14 (25.0)		6 (14.6)	16 (27.1)		22 (22.0)
Tell the person to slow down or repeat	10 (22.7)	10 (17.9)		6 (14.6)	14 (23.7)		20 (20.0)
If I were talking to a person who stutter I would be							
Stressed	16 (36.4)	12 (21.4)	<0.001	12 (29.3)	16 (27.1)	0.7	28 (28.0)
Relaxed	21 (47.7)	12 (21.4)	HS	15 (36.6)	18 (30.5)	NS	33 (33.0)
Confused about my reaction	7 (15.9)	32 (57.1)		14 (34.1)	25 (42.4)		39 (39.0)
I feel							
I do not accept my child's stuttering	8 (18.2)	16 (28.6)	0.001	11 (26.8)	13 (22.0)	0.002	24 (24.0)
Disappointed	11 (25.0)	28 (50.0)	HS	8 (19.5)	31 (52.5)	HS	39 (39.0)
I feel I cannot manage	25 (56.8)	12 (21.4)		22 (53.7)	15 (25.4)		37 (37.0)

HS, highly significant.

stutterer. It seemed that mothers were more upset with the disorder; the majority (98%) viewed their children as being tense, shy, and withdrawn and more likely to be rejected by their peers. Others (21%) reported that they felt anxious, frustrated, and guilty while dealing with their children. It is understandable that parents

Table 4 Comparison of the knowledge of treatment of stuttering among the studied parents in terms of their sex or educational level

	Sex			Educational level			
	Male (n = 44) [n (%)]	Female (n = 56) [n (%)]	P value	Not educated (n = 41) [n (%)]	Educated (n = 59) [n (%)]	P value	Total [n (%)]
If my child is a stutterer I would							
Inform school teachers	23 (52.3)	40 (71.4)	0.06	20 (48.8)	43 (72.9)	0.02	63 (63.0)
I would not inform school teachers	21 (47.7)	16 (28.6)	NS	21 (51.2)	16 (27.1)	S	37 (37.0)
I believe stuttering should be helped by							
The family of the person who stutters only	15 (34.1)	16 (28.6)	0.3	13 (31.7)	18 (30.5)	<0.001	31 (31.0)
Psychiatrists	6 (13.6)	3 (5.4)	NS	1 (2.4)	8 (13.6)	HS	9 (9.0)
Phoniatrician	12 (27.3)	16 (28.6)		3 (7.3)	25 (42.4)		28 (28.0)
Pediatrician	11 (25.0)	21 (37.5)		24 (58.5)	8 (13.6)		32 (32.0)

HS, highly significant; S, significant.

Table 5 Comparison of the knowledge of the prognosis of stuttering among the studied parents in terms of their sex or educational level

	Sex			Educational level			
	Male (n = 44) [n (%)]	Female (n = 56) [n (%)]	P value	Not educated (n = 41) [n (%)]	Educated (n = 59) [n (%)]	P value	Total [n (%)]
People who stutter							
Can communicate effectively	17 (38.6)	6 (10.7)	0.01	3 (7.3)	20 (33.9)	<0.001	23 (23.0)
Can get a job and can do well at work	8 (18.2)	3 (5.4)	S	0 (0.0)	11 (18.6)	HS	11 (11.0)
Can lead a normal life	5 (11.4)	2 (3.6)		0 (0.0)	7 (11.9)		7 (7.0)
Will never speak fluently	17 (38.6)	30 (53.6)		36 (87.8)	11 (18.6)		47 (47.0)
Will probably recover from their stuttering	5 (11.4)	7 (12.5)		2 (4.9)	10 (16.9)		12 (12.0)
Do you think							
Stutter should seek medical advice	9 (20.5)	13 (23.2)	0.5	7 (17.1)	15 (25.4)	0.001	22 (22.0)
The condition might resolve on its own	11 (25.0)	16 (28.6)	NS	9 (22.0)	18 (30.5)	HS	27 (27.0)
Stuttering cannot be treated	4 (9.1)	7 (12.5)		5 (12.2)	6 (10.2)		11 (11.0)
Early intervention is essential in progress	12 (27.3)	9 (16.1)		4 (9.8)	17 (28.8)		21 (21.0)
Device can be used	6 (13.6)	4 (7.1)		8 (19.5)	2 (3.4)		10 (10.0)
Surgery	2 (4.5)	7 (12.5)		8 (19.5)	1 (1.7)		9 (9.0)

HS, highly significant; S, significant.

might fear that stuttering might affect their children's educational, social, or occupational opportunities if it were to continue into adulthood. Several studies have found similar results [2,16,17].

The present findings show that the majority of parents behaved sensitively toward PWS; however, a significant difference was found between men and women in their response. The majority of mothers reported that they were confused about what to do when their child stuttered, whether to wait for the child to finish talking, or ask him to modify or repeat his speech. It was noted that although a large number of parents (64%) had a personal experience with a stutterer, it seemed that their resilient attitudes were evident irrespective of direct or indirect contact with PWS. Stuttering could be a stigmatizing condition because of the chronic nature of the disorder and the negative attitudes of listeners. The present findings seem to be consistent with those of previous studies [4,7,9,15,18].

It seems that parent–child interaction is a bidirectional relationship. Al-Khaledi et al. [17] reported that children learn how to react to stuttering from watching how their parents react; if parents show signs of frustration, fear, or annoyance, the child is more likely to show similar reactions, which may increase the severity of his/her stuttering.

In the present study, it was evident that maternal opinions of the therapy and prognosis reflected a pessimistic point of view and unrealistic expectations about treatment outcome. Most mothers reported that they felt that it was difficult to cope with the problem because they were not accepting it; others seemed reluctant and were not willing to inform the teachers at school about their child's problem. The pattern of these findings agrees with those of Safwat and Amin [14]. However, it was reassuring that fathers had a more positive opinion about the recovery of their children and the possibility that they will lead a normal life. These findings might reflect acceptance, growing awareness, and open mindedness of fathers toward stuttering. These findings are not in agreement with those of Al-Khaledi et al. [17]. This might be attributed to differences in the cultural and educational backgrounds of the participants included in the study.

Evaluation of socioeconomic standard showed that parents involved in this study were from different educational backgrounds. The present data show that education level and to a lesser extent sex were significantly associated with individuals' knowledge of, attitudes, and reactions to stuttering. It was expected that the educated group would have more knowledge of the medical advances available in their region and may know that there are options and solutions to overcome this problem. In agreement with the present findings, Cox *et al*. [13] and Al-Khaledi *et al*. [17] reported that education may have some impact on a person's reaction while speaking to PWS.

Conclusion and recommendations

(1) The findings of this study reflect the lack of parental tolerance and understanding of stuttering, which might be attributed to limited knowledge of the nature of the disorder.

(2) The clinical implications of this study involved counseling the parents on the importance of their own attitude and its effect on their child's reaction.

(3) Awareness should be increased among teachers, the general public, and health professionals such as pediatricians and ENTs on speech–language pathology services and their existence. This can be done through media and TV teaching programs.

Acknowledgements

Conflicts of interest

There are no conflicts of interest.

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Appendix

Table A1 Questionnaire of parental attitude to and knowledge of stuttering

	Not sure	Yes	No
(A) Epidemiology and etiology of stuttering			
Do you know that stuttering			
Occurs more in females			
Occurs more in males			
Equal in both sexes			
Stuttering occurs			
Before the age of 3 years			
At school age			
Absent in adults			
Stuttering occurs more in			
Left-handed person			
Right-handed person			
Same incidence			
Person who stutter is often described as being			
Shy			
Nervous			
Normal person			
Unsocial			
(B) Parental attitude towards stuttering			
Stuttering can occur in the form of			
Repetition only			
Associated body movements			
If I were talking to a stutter I would			
Ask him to repeat again			
Look away from him			
Fill in the stutterer's words			
Wait patiently			
Tell the stutterer to slow down or repeat.			
If I were talking to a stutterer I would feel			
Stressed			
Relaxed			
Confused about my reaction			
I feel about my child's stuttering			
Shame			
Disappointed			
I would not accept it			
I feel I cannot manage			
(C) Parental knowledge about stuttering treatment			
If my child is a stutterer I would			
Inform school teachers			
I would not inform school teachers			
I believe stuttering should be helped by			
The family of the person who stutters only			
Psychiatrists			
Phoniatrician			
Pediatrician			
(D) Parental knowledge of the prognosis of stuttering			
People who stutter			
Can communicate effectively			
Can get a job and can do well at work			
Can lead a normal life			
Will never speak fluently			
Will probably recover from their stuttering			
Do you think?			
Stutter should seek medical advice			
The condition might resolve on its own			
Stuttering cannot be treated			
Early intervention is essential in progress			
Device can be used			
Surgery			