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## ORIGINAL ARTICLE

# Parental Attitudes and Knowledge about Their Child's Stuttering: In Pakistan

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### ABSTRACT

**Objective:** To highlight attitudes and knowledge of Pakistani parents of children who stutter (PCWS) regarding childhood stuttering.

**Study Design:** Cross-sectional study

**Place and Duration of Study:** Study was conducted at Department of Developmental Paediatrics; Children Hospital and Institute of Child Health, Lahore and Speech therapy Department, Shaikh Zayed Hospital over a period of six months from July 2016 to Dec 2016.

**Material and Methods:** Pakistani parents of children who stutter (PWCS) were requested to participate in the study. Questionnaire of Parental Attitude and Knowledge of Stuttering was used for data collection. It included four components that gathered information about stuttering epidemiology, symptomatology, treatment, and prognosis.

**Results:** It was found that Pakistani PCWS had inadequate knowledge of stuttering treatment, epidemiology and prognosis. However, they were adopting a positive approach towards children who stutter (CWS).

**Conclusion:** Pakistani PCWS did not have adequate knowledge regarding childhood stuttering epidemiology, aetiology, treatment and prognosis. However it is no longer a stigma for them and they treat stutterers as normal people, are quite helping, prompt them to communicate and are eager to work in unison with the therapist. Hence remedial measures in the form of educating the parents are required.

**Key Words:** *Stuttering, Childhood, Parents, Attitude, Knowledge*

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### INTRODUCTION

A fundamental human ability of fluent speech production is affected by Stuttering, resulting in a significant negative impact on psychosocial development of an individual.<sup>1</sup> It is evident that stuttering is a neurodevelopmental disorder that is categorized as atypical development of speech motor planning and execution networks. The motor speech system must interact in composite ways with neural systems to facilitate cognitive, emotional processes and language.<sup>2</sup> This disorder has a high prevalence of 5% in children but 1% in

adult population. There is low prevalence in adults most probably because a large number of children usually recover before puberty.<sup>3</sup> Childhood stuttering has a clinical presentation of an effort full and interrupted speech production, usually with a history of rapid onset.<sup>4</sup>

Prognosis of childhood stuttering is heavily dependent on parental support. Therefore, it is essential for clinician to realise to eliminate these harmful stereotype of misconception present among parents in order to achieve success in therapy of stutterers. These stereotypes are

widespread in the general public irrespective of age, level of education, culture, geographic location, and profession.<sup>5</sup> There is a good chance that certain cultural and society specific stereotypes or beliefs affect behaviour, knowledge and attitude towards stutterers hence resulting in occurrence of speech disability. Generally negative opinions on stuttering and people who stutter (PWS) appear to exist cross-culturally.<sup>6</sup> Parental input has been described as an influential factor in early childhood stuttering yet the exact nature of this influence remains equivocal.<sup>7</sup>

Several studies have described the attitudes of members of a single group toward stuttering.<sup>8</sup> For example teachers<sup>9</sup> and the general public.<sup>5</sup> Also attitudes on stuttering have been assessed using different procedures including telephone interviews<sup>10</sup> semantic differential techniques<sup>11</sup> and questionnaires.<sup>5</sup>

Numerous reports of negative attitude towards stuttering have been observed.<sup>12,5</sup> A few reports of more negative attitude by male respondents than female respondents have been recorded.<sup>13</sup> Self esteem of young ones is highly dependent on their parents and environmental acceptance.<sup>8</sup> It is a delicate issue that should be kept under check. Attitudes of parents associated with situations and beliefs related to the child and their disciplinary and rearing issues are noted as "Parental attitude".<sup>14</sup> There are infinite factors that affect the stutterer's ability to cope with the disorder of fluency in social situations. Help can be provided by family in the form of managing the disorder by positive attitude, guidance and by increasing the coping capability of the person with undue positive regard or else they may cause major hindrance by counteracting the management. This points that family's attitude can either reinforce proper management or delay it.<sup>15</sup>

Childhood stuttering is quite common in Pakistan but dearth of studies on the subject, with no study on understanding Pakistan's cultural perspective. Hence this study was conducted to determine the frequency of different attitudes of Pakistani parents of children who stutter (PCWS) towards their child's stuttering and to determine the extent of knowledge of childhood stuttering among Pakistani PCWS. This study is important as it highlights Pakistani cultural practices and beliefs

and will help in designing remedial measures where knowledge and attitude of parents lack and would provide a base for future research.

## MATERIALS AND METHODS

**Research design:** A Cross-sectional study was conducted in Department Of Developmental Paediatrics; Children Hospital and Institute of Child Health, Lahore and Sheikh Zayed Hospital, Lahore speech therapy department for a period of six months from July 2016 to Dec 2016 after obtaining ethical approval from the Institutional Research Board vide registration number 1779/SAHS dated 1<sup>st</sup> December, 2016.

**Participants:** A total of N=73 Pakistani parents of children who stuttered (PCWS) were included in the study using non probability convenience sampling. Sample size was calculated using formula:

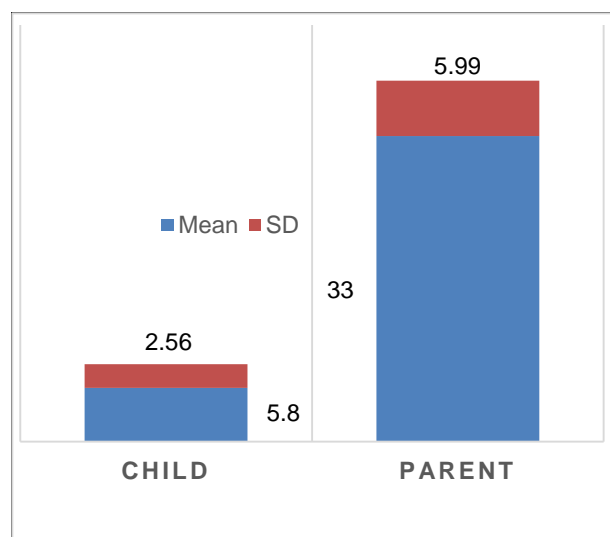
$$n = \frac{z^2 p(1-p)}{d^2} \quad n = (1.96)^2 (0.05)(1-0.05) / (0.05)^2 = 73$$

(Note: n=required sample size, z=confident level at 95% (standard value of 1.96), p=prevalence (5% or 0.05 (Nouri.et al., 2012)<sup>3</sup>, d=margin of error at 5%)

**Data Collection:** A questionnaire "Questionnaire of parental attitude and knowledge of stuttering" Safwat and Sheikhy (2014)<sup>8</sup> was used as the data collection tool. Study included Pakistani Parents of Children who stutter (PCWS) children having child who stutter (CWS) age ranges from 3 -11 years old. Parents brought their children for the first time to the department for check-up. Whereas parents having children who have any other speech, language, neurological or developmental impairment and children who were enrolled in any other speech therapy sessions were excluded from the study. All parents fulfilling the defined criteria were given questionnaires and in case the parents were uneducated, questionnaire was filled by the researcher as per given response. The parents were instructed to answer each statement by choosing one of three responses: 'yes', 'no', or 'unsure'. The scale format was not sure=0, yes=1, no=2. The questionnaire evaluated parental attitude and knowledge on four areas of aetiology, symptomatology, treatment and prognosis. It took 20-25 minutes to complete questionnaire. The data collected was analysed by using statistical package for social sciences version 20.

## RESULTS

Current study sample N=73 Pakistani parents of children who stutter (PCWS) revealed a mean age of  $33 \pm 5.9$  years with an age range of 23 to 52 years. While the mean age of CWS was  $5.8 \pm 2.5$  years with age range of 3 to 11 years (fig 1).



**Fig 1: Descriptive statistics of mean age of stuttering child and accompanying Parent. (N=73)**

Of the PCWS, 46 (63%) mothers and 27(37%) were fathers having CWS of whom most were males i.e., 66(90.4%) and 40 (54.8%) PCWS had positive family history of stammering. Also 57 (78.0%) PCWS had personal experience with stutterers other than their own child and 56 (76.6%) of parents were educated above 5<sup>th</sup> grade (table-1)

**TABLE 1: Demographic characteristics of PCWS (n=73)**

Demographics Variable		N (%)
Variable	Group	
Child's Gender	Male	66 (90.41)
	Female	07 (9.59)
Parent's Gender	Male	27 (36.99)
	Female	46 (63.01)
Parent's Education	Educated	56 (76.7)
	Uneducated	17 (23.28)
H/o Stuttering	Positive	40 (54.79)
	Negative	33 (45.2)
Parent's exposure to other stutterers	Yes	57 (78.0)

Parental responses collected through questionnaire were divided into four categories as follows:

### Category 1: Parental knowledge regarding epidemiology and aetiology of childhood stuttering:

In this parental knowledge about epidemiology and an aetiology about stuttering was recorded. In this Study 38 (52.1%) of parents thought that stuttering occurred more commonly in males, 50 (68.5%) thought that stuttering occurred at school age, 63 (86.3%) described stutterers as being nervous, 53 (72.6%) believed environmental pressure played a role in causation of stuttering, 61 (83.6%) believed that stuttering was also caused following prolong fever and almost half thought that stuttering was also caused by psychological factors, genetic inheritance and school entry i.e. 42 (57.5%), 41 (56.2%) and 33 (45.2%) respectively. Thus highlighting some of the major misconceptions present regarding epidemiology and aetiology of stuttering.

### Category 2: Parental attitude towards childhood stuttering:

In this the parental attitude towards stuttering was noted. It was observed that 56 (76.7%) of the parents asked the stutterers to repeat again what they said, whereas a low percentage of parent looked away while talking to stutterers i.e. 25 (34.5%). Parents who didn't hesitate to help and fill in stutterers words were about 45 (61.6%) whereas 55 (75.3%) waited patiently for stutterers to complete what they wanted to say. Majority of parents 64 (87.7%) told the stutterers to slow down and repeat again. When asked about their feelings when they talked to people who stutter 56 (76.7%) felt stressed out. 53 (72.6%) of parents were confused about how to react. Almost 36 (49.3%) of parent felt shame in society while telling about their child's problem. A high percent of parents were disappointed about their child's problem i.e. 61 (83.6%). 68 (93.2 %) had accepted that their child had speech fluency issues. Hence, highlighting positive approach of Pakistani Parents of children who stutter (PCWS) but element of shame and disappointment was also noted in PCWS due to societal consideration.

### Category 3: Parental knowledge about childhood stuttering treatment:

Thirdly parental knowledge about stuttering treatment was considered, astonishingly 73 (100%) parents said that they would inform child school teachers about

child's stuttering. 5 (6.8%) parents thought that only family was required to help child who stutter. Almost 44 (60.3%) parents thought that involvement of psychiatrist was necessary in therapy. A high percentage of parents i.e. 71 (97.3%) advocated phoniatrician's (Speech and Language Pathologist) involvement in treatment and 49 (67.1%) of parents thought that paediatrician were required as well. Hence this category highlighted lack of appropriate knowledge of treatment of stuttering in PCWS.

**Category 4: Parental knowledge about prognosis of childhood stuttering:** In the end parental knowledge about prognosis of stuttering was noted, 45 (61.6%) of the parents thought that stutters can communicate effectively. 38 (52.1%) and 56 (76.7%) of parents thought that stutters could get a job and can lead normal life respectively. A very low percent about 6 (8.2%) thought that a stutterer would never speak fluently and in contrast 67 (91.8%) thought that stutterers

will recover from dysfluency. About 51 (69.9%) thought that stutterers should seek medical advice. A low percentage of parents i.e. 6 (8.2%) thought that condition might resolve at its own. A very high percentage of parents i.e. 64 (87.7%) advocated early intervention. About 29 (38.4%) were not sure about the use of device in stuttering treatment and about 26 (35.6%) were not sure about use of surgery. This category recorded optimistic view of PCWS regarding progression of fluency disorder and a healthy response towards early intervention but there were also significant misconceptions as well.

Hence it can be seen that Pakistani parents of children who stutter (PCWS) are adapting a healthy attitude towards Children who stutter (CWS) but PCWS knowledge about stuttering aetiology, prognosis and treatment is not adequate (table 2).

**TABLE 2: Parental attitudes and knowledge about their child's stuttering (n=73)**

1. EPIDEMIOLOGY AND AETIOLOGY OF STUTTERING			
	Not sure (%)	Yes (%)	No (%)
<b>1.Do you know that stuttering:</b>			
Occurs more in female	32 (43.8)	4 (5.5)	37 (50.7)
Occurs more in male	22 (30.1)	38 (52.1)	13 (17.8)
Equal in both	10 (13.7)	26 (35.6)	37 (50.7)
<b>2.Stuttering occurs:</b>			
Before the age of 3 years	11 (15.1)	36 (49.3)	26 (35.6)
At school age	5 (6.8)	50 (68.5)	18 (24.7)
Absent in adult	3 (4.1)	18 (24.7)	52 (71.2)
<b>3.Stuttering occurs more in:</b>			
Left-handed person	41 (56.2)	7 (9.6)	25 (34.2)
Right-handed person <sup>3</sup>	37 (50.7)	22 (30.1)	14 (19.2)
Same incidence	21 (28.8)	32 (43.8)	20 (27.4)
<b>4.Person who stutter is often described as being:</b>			
Shy	7 (9.6)	51 (69.9)	15 (20.5)
Nervous		63 (86.3)	10 (13.7)
Normal person	3 (4.1)	49 (67.1)	21 (28.8)
Unsocial	2 (2.7)	35 (47.9)	36 (49.3)
<b>5.I believe that stuttering is caused by:</b>			
Psychological factors	9 (12.3)	42 (57.5)	22 (30.1)
Chemical changes in brain	24 (32.9)	34 (46.6)	15 (20.5)
Genetic inheritance	7 (9.6)	41 (56.2)	25 (34.2)
Environmental pressure	5 (6.8)	53 (72.6)	15 (20.5)
Following prolong fever	4 (5.5)	61 (83.6)	8 (11.0)
School entry	3 (4.1)	33 (45.2)	37 (50.7)

		Not sure	Yes	No
(2) PARENTAL ATTITUDE TOWARDS STUTTERING	<b>1. Stuttering can occur in the form of:</b>			
	Repetition only	5(6.8%)	38(52.1%)	30(41.1%)
	Associated body movements	1(1.4%)	51(69.9%)	21(28.8%)
	<b>2. If I were talking to a stutterer I would:</b>			
	Ask him to repeat again	1(1.4%)	56(76.7%)	17(23.3%)
	Look away from him		25(34.2%)	47(64.4%)
	Fill in the stutterer's words		45(61.6%)	28(38.4%)
	Wait patiently		55(75.3%)	18(24.7%)
	Tell the stutterer to slow down or repeat.		64(87.7%)	9(12.3%)
	<b>3. If I were talking to a stutterer I would feel:</b>			
	Stressed		56(76.6%)	17(23.3%)
	Relaxed		17(23.3%)	56(76.6%)
	Confused about my reaction	1(1.4%)	53(72.6%)	19(26.0%)
	<b>3. I feel about my child's stuttering:</b>			
	Shame		36(49.3%)	37(50.7%)
	Disappointed		61(83.6%)	12(16.4%)
	I would not accept it	1(1.4%)	4(5.5%)	68(93.2%)
	I feel I cannot manage		9(12.3%)	64(87.7%)
(3) PARENTAL KNOWLEDGE ABOUT STUTTERING TREATMENT		<b>Not sure</b>	<b>Yes</b>	<b>No</b>
	<b>1. If my child is a stutterer I would:</b>			
	Inform school teachers		73(100%)	
	I would not inform teachers			73(100%)
	<b>2. I believe stuttering should be helped by</b>			
	The family of the person who stutters only	1(1.4%)	5(6.8%)	67(91.8%)
	Psychiatrists	11(15.1%)	44(60.3%)	18(24.7%)
	Phoniatrician (Speech and Language Pathologist)	2(2.7%)	71(97.3%)	
	Paediatrician	3(4.1%)	49(67.1%)	21(28.8%)
		<b>Not sure</b>	<b>Yes</b>	<b>No</b>
(4) PARENTAL KNOWLEDGE OF THE PROGNOSIS OF STUTTERING	<b>1. People who stutter:</b>			
	Can communicate effectively	2(2.7%)	45(61.6%)	26(35.6%)
	Can get a job and can do well at work	8(11.0%)	38(52.1%)	27(37.0%)
	Can lead a normal life	1(1.4%)	56(76.7%)	16(21.9%)
	Will never speak fluently	11(15.1%)	6(8.2%)	56(76.7%)
	Will probably recover from their stuttering	4(5.5%)	67(91.8%)	2(2.7%)
	<b>2. Do you think?:</b>			
	Stutter should seek medical advice	11(15.1%)	51(69.9%)	11(15.1%)
	The condition might resolve on its own	6(8.2%)	6(8.2%)	61(83.6%)
	Stuttering cannot be treated	3(4.1%)	8(11.0%)	62(84.9%)
	Early intervention is essential in progress	3(4.1%)	64(87.7%)	6(8.2%)
	Device can be used	29(38.4%)	7(9.6%)	38(52.1%)
	Surgery	26(35.6%)	6(8.2%)	41(56.2%)

## DISCUSSION

The current research findings suggested that parents had limited knowledge and misconceptions about stuttering epidemiology, and aetiology i.e. stuttering is caused by chemical changes in brain 34 (46.4%). These findings are close to previously conducted studies including a study by Al-Khaledi *et al.* which reported limitations in general knowledge about disorder and breeding of misconceptions.<sup>12</sup>

The present study also indicated that many of the parents did have an idea about the cause of stuttering i.e. 41 (56%) of parents quoted that the cause of stuttering could be genetic inheritance which is not in accordance to the study conducted by Safwat and Sheikhan, in which it was noted that only 8% of the parents thought that genetic influence had a role in causation of stuttering.<sup>8</sup> In present study, reviewing the parental opinion of child's personality majority of the Pakistani parents of children who stutter (PCWS) i.e. 63 (86.3%) said that children who stutter (CWS) easily get nervous, about 51 (69.9%) parents considered CWS shy and nearly 36 (47.9%) said CWS are also quite unsocial. These findings are in line with the study of Safwat and Sheikhan, who reported that majority of parents (98%) considered children who stutter as being tense, shy and withdrawn.<sup>8</sup> The present study highlighted that almost 53 (72.6%) of PCWS were confused about their reaction and 56 (76.6%) were quite stressed out because of the situation. This prevalence of parental stress in the present study is also in accordance to the study conducted by Humeniuk and Tarkowski. That study indicated that the strongest reaction of parents were on cognitive levels followed by emotional and behavioural reaction hence parents often adapted stress coping strategies. The mother and father both adopted stress coping strategies.<sup>16</sup>

In the present study it is noted that most of the parents had positive attitude when dealing with CWS i.e. 56 (76.7%) of parent asked their children to repeat again and 55 (75.3%) waited patiently for them to complete what they had to say. This positive approach is not in accordance with a study conducted by Abalio *et al.* (2005) in which it was noted that after the onset of stuttering 54.5% of parents had a punishing and warning attitude.<sup>17</sup>

In the present study certain amount of stress i.e. 56 (76.6%) and confusion about the reaction 53 (72.6%) were noted in responding parents that is in accordance with study of Safwat and Sheikhan, in which the prevalence of stress and confusion was 28% and 39% respectively.<sup>8</sup>

In the present study, it was also quite evident, most of the parents held an optimistic view about the prognosis of stuttering, many of the parents 45 (61.6%) believed that stutterers can communicate effectively. About 56 (76.7%) thought that stutterers will speak fluently when treated and will lead a normal life and almost 62 (84.9%) responded that stuttering can be treated. A high percentage i.e. 64 (87.7%) advocated the importance of early intervention. All these findings indicate accepting, positive approach, growing awareness, open mindedness and decrease in misconceptions and wrong beliefs in society which is in accordance with the study presented by Louis *et al.* who also pointed out the positive attitude of public into light.<sup>18</sup> But these positive and healthy attitudes are not in accordance to research conducted by Al-Khaledi *et al.* who claimed of excessive and damaging attitudes towards children who stutter.<sup>12</sup> This difference could be due to cultural difference and time as suggested by Louis *et al.* who indicated that national identity appears to play significant role in determining attitudes.<sup>18</sup>

## CONCLUSION

This study concluded that Pakistani PCWS did not have adequate knowledge regarding childhood stuttering epidemiology, aetiology, treatment and prognosis. However it is no longer a stigma for them and they treat stutterers as normal persons, are quite helping, prompt the stutterers to communicate and are eager to work in unison with the therapist. Hence remedial measures in the form of educating the parents are required.

Further studies should be conducted to explore and understand childhood stuttering with respect to Pakistani culture.

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