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Occurring of stammering in the population of Sheringal, Dir upper, Khyber Pakhtunkhwa, Pakistan

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ABSTRACT

Stammering is a developmental disorder, which may adversely affect the individual on many functional and emotional levels, such as anxiety, shame, anger, as well as speech-avoidant behaviors in human, Homo sapiens L. According to present study, the occurring of stammering was determined in the population of Sheringal, Khyber Pakhtunkhwa, Pakistan during June 2013-August 2014. The questionnaires having all information about stammering were distributed among (n=200) the people of Sheringal by random method. Daramdala, Doki, Guryaal, Samang, Shahoor and Sia-Sheringal were the 6 quadrates of the study area. Stammering was the highest in middle class (55%) and the lost in lower class (8%). The major stammering occurring age was 6-12 years (28%). Stammerers suffered different disease, however, the highest occurring disease was epilepsy (8%), however, the lowest was heart disease (1%). Numbers of stammerers found were minimum, 1 stammerer/ family out of 39 families and maximum, 3 stammerers/ family out of 4 families (N=47). Stammerers have been facing different obstacles, however, maximum obstacles were tongue pain (14.5%) and minimum were lungs pain (6%). The maximum stammerers were un-employee (63%). Commonly stammering was occurring during pre-school and school life. The present research will be useful to educate the people about stammering. The gender and congenital bass's investigations are necessary for further research.

Keywords: Blocking, depression, occurring, stammering, Sheringal.

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INTRODUCTION

Stammering is a form of disfluency where painless speech is delayed by sound repetitions, sound prolongations, and/or blocks in articulation. It is one of the most common speech disorders, found in human, *Homo sapiens*, L, 1758. It is a disruption in the fluency of verbal expression, which is characterized by involuntary, audible, silent repetition or prolongations in the utterance of short speech elements namely: sound, syllable and words of one syllable. These disruptions usually occur frequently or are marked in character and are not readily controllable[1]. It is an emotionally-laden phenomenon that may similarly lead to stunted or suppressed affect. The inherently trying nature of communication struggle and the variable reactions of the unsuspecting or uninitiated audience can contribute to avoidance or rejection at a young age. Children quickly learn that avoiding awkward scrutiny or teasing from nobles seems more important than raising one's hand to dis-fluently answer a teacher's question[2]. The limits of emotional expression have often been defined by gender. Whereas women have been traditionally seen as emotionally fluent and expressive, however, men have been stereotypically seen as tending towards the 'strong, silent' paradigm in which rigidly controlled emotions are rarely crushing and occasionally expressed[3].

It may be intertwined with dominant emotions and attitudes such as fear, blushing, irritation, disgrace, frustration, devaluing, and self-deprecation. These emotions occur as a natural reaction to repeated struggle with an action that seems effortless for others, i.e., speaking fluidly and predictably. For many people who stammerers, the last component may provide the greatest interference in their daily lives. Their response to these emotions may drive or hinder their efforts and persistence at overcoming dis-fluency[4]. Persons who stammer experience more nervousness than people without fluency disorders, but this is largely towards communication situations and a learned response from negative experiences. Additionally, secondary behaviors such as avoidance may increase the intensity of this anxiety. Thus, trait anxiety may not be higher for people who stammer, but state anxiety likely is (Yairi and Ambrose, 1999)[5].

This speech disorder occurs without known origin between 3-8 years of age and often remits before puberty. When it persists after puberty, it becomes a chronic adult speech disorder throughout the lifespan. The advances in neuroimaging were promoted insights into the highly distributed system of speech production. Therefore, alterations in adulthood stammering may be possible. One important motivation in stammering research is to separate neurobiological core symptoms from neurobiological associated compensational symptoms of stammering. However, results indicate a variety of complex dysfunctional systems and it appears problematic to distinguish between mechanisms responsible for speech dis-fluencies

and those connected to compensation in the adult system[6]. Children under age 3 are at the greatest risk for beginning stuttering (Yairi, 1999)[5]. Such an early onset of stuttering may lead to disturb maturation, especially concerning neurological processes and social development. This sentence is reiterated by[7], who acknowledged that the severity of the speech impairment increases and likelihood of socio-emotional impact may grow as children become older. In other words, the association of stuttering with specific words and events may become entrench and it continues to longer. However, he suggested that the neuronal plasticity of a young child's brain may make them more amenable to intervention at an early age[8]. As the preceding evidence implies, the definitive origins of stuttering are uncertain. Several commonalities have been identified in people who stutter, but little causality is clear. A genetic component is clearly present, but environment is thought to play a major role[9].

Sheringal valley is located between the 720°-200° east longitudes and 350°-280° north latitude in Pakistan. Altitude is approximately 2000 m above the sea level. This is a small valley situated northern site of district Dir Upper, KP, Pakistan. Bajauar Agency and Jandool is located toward the west while it is surrounded by district Swat and Malakand Agency from the East and South, respectively. Total area covered by this hilly valley is 7992.67 hec. The Northern part is generally covered with forests. The river Panjkora flows towards the north-south. The climate is somewhat cold in winter and warm in summer. The minimum and maximum temperature in January has been recorded as -2.3 °C and 11.22 °C, respectively[10](Figure 1).

The present research is based on 2 objectives that to estimate the occurring of stammering in the population of Sheringal, Dir upper, Khyber Pakhtunkhwa, Pakistan and to educate the people.

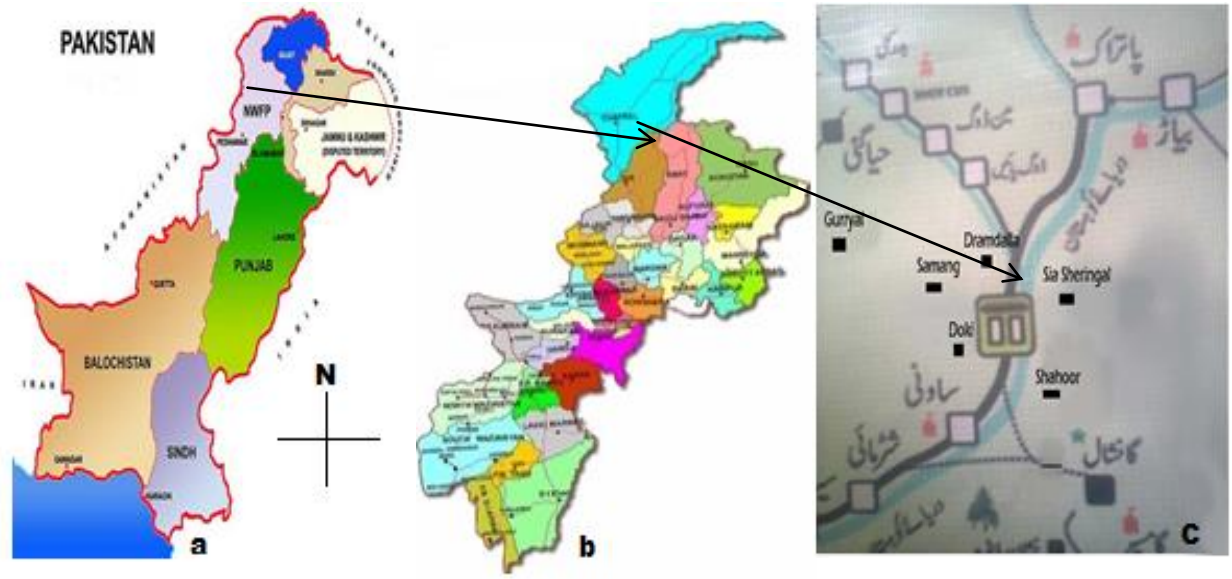


Figure 1 Map of 6 quadrates of study area *viz.*, Daramdala, Doki, Guryaal, Samang, Shahoor and Sia Sheringal are located in tehsil Sheringal (c) in Khyber Pakhtunkhwa (b) one of the province of Pakistan (a) where the present research was conducted during June 2013-August 2014 (Online, 2013)[11]

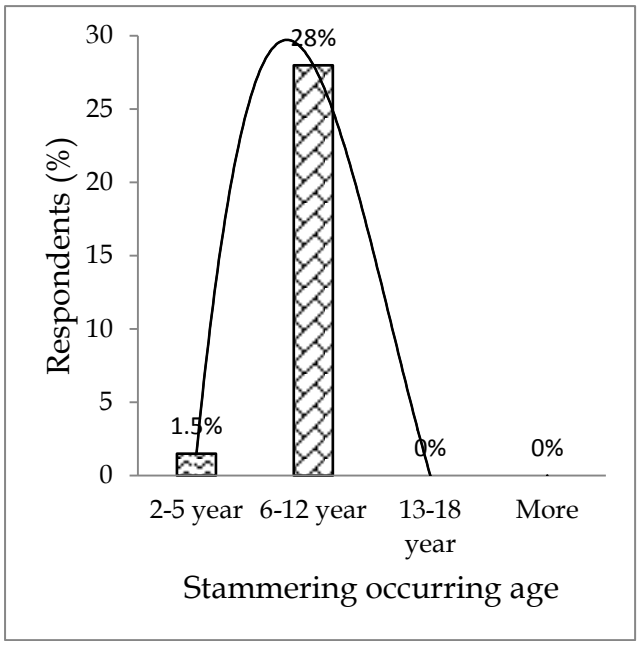
MATERIALS AND METHOD

The present research was conducted during June 2013-August 2014 in 6 quadrates, i.e., Daramdala, Doki, Guryaal, Samang, Shahoor and Sia Sheringal of the study area Sheringal, Khyber Pakhtunkhwa, Pakistan (Figure 1). The questionnaires were planned in Computer Program Microsoft Word (CPMSW) included 27 questions which clarified occurring age, number of patients in each family, other diseases, occupational, economical and obstacles of stammering. The random method was used for distribution of questionnaires in above mentioned quadrates of the study area. Questionnaires were the major tools for data collection. Interviews, informal discussion, field survey, direct sighting, with community were also conducted. Computer Program Microsoft Excel (CPMSE) and Statistical Package for Social Sciences (SPSS) version 16 were used for analyzing of data.

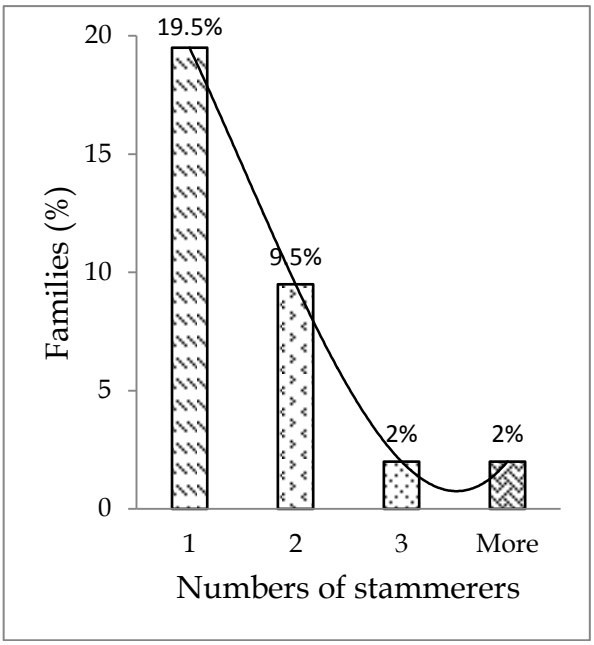
RESULTS AND DISCUSSION

The present survey was conducted to determine the occurring of stammering in the population of Sheringal during June 2013-August 2014. By random method questionnaires (n=200) were distributed in the 6 quadrates of Sheringal: Daramdala, Doki, Guryaal, Samang, Shahoor and Sia Sheringal. The maximum stammering occurring age was 6-12 years, however, minimum age was 2-5 years, moreover, it was not occurring after 13 and above years (Figure 2a). Numbers of stammerers found 1 stammerer per family out of 39 families; 2 stammerers per family out of 19 families; 3 stammerers per family out of 4 families; more stammerers per family out of 4 families (Figure 2b). Stammerers were suffered different diseases such as hepatitis: 2.5%; epilepsy: 8%; heart disease: 1%; diabetes: 3.5% and other: 3% (Figure 2c). The occupations of stammerers were as following: un-employee, employee, business-man and other, however, maximum numbers of stammerers were un-employee (Figure 2d). According to economic status of stammerers, the most of stammerers were belonging to middle-family, however, fewer were from poor-family (Figure 2e). Different obstacles which were encountered by stammerers, *viz*., veins-pain, lungs-pain, tongue-pain and other, however, maximum obstacles were tongue-pain and minimum were lungs-pain (Figure 2f).

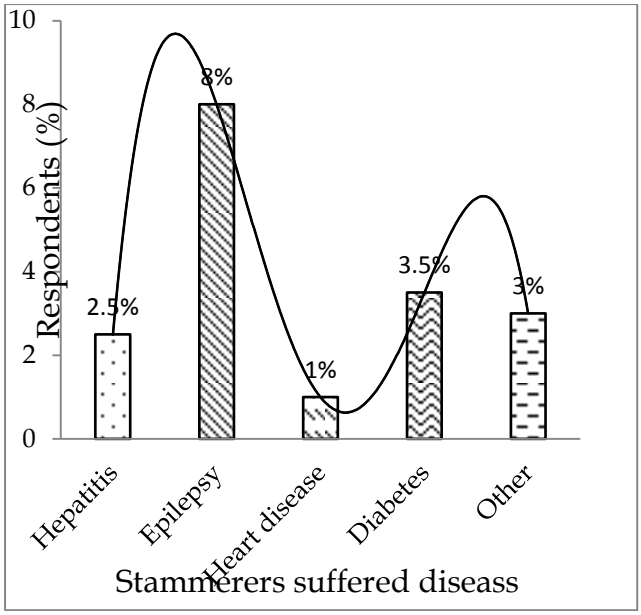
A


Respondents (%)
30
25
20
15
10
5
0
28%
1.5%
0%
0%
2-5 year
6-12 year
13-18 year
More
Stammering occurring age

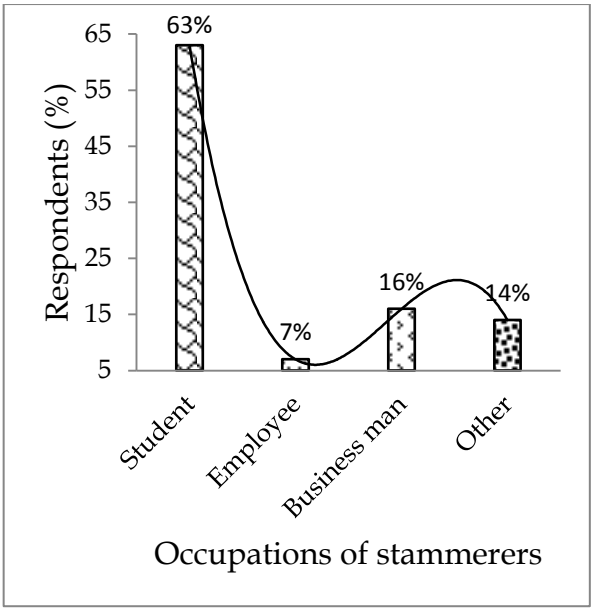
B


Families (%)
20
15
10
5
0
19.5%
9.5%
2%
2%
1
2
3
More
Numbers of stammerers

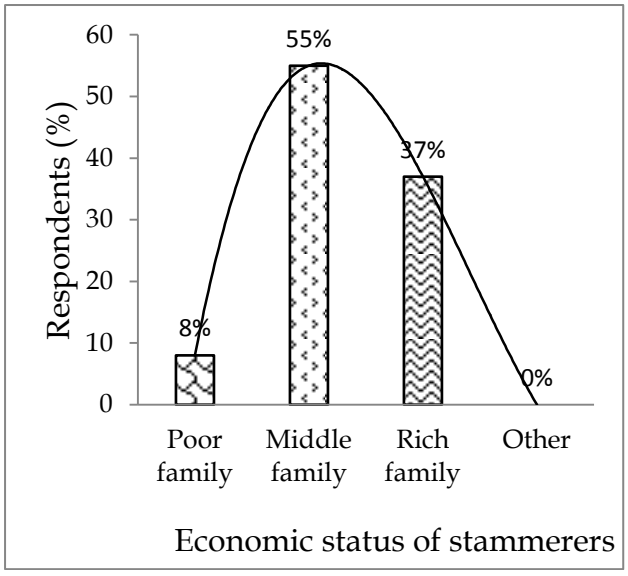
C


Respondents (%)
10
8
6
4
2
0
2.5%
8%
1%
3.5%
3%
Hepatitis
Epilepsy
Heart disease
Diabetes
Other
Stammerers suffered diseass

D


Respondents (%)
65
55
45
35
25
15
5
63%
7%
16%
14%
Student
Employee
Business man
Other
Occupations of stammerers

E


Respondents (%)
60
50
40
30
20
10
0
8%
55%
37%
0%
Poor family
Middle family
Rich family
Other
Economic status of stammerers

F

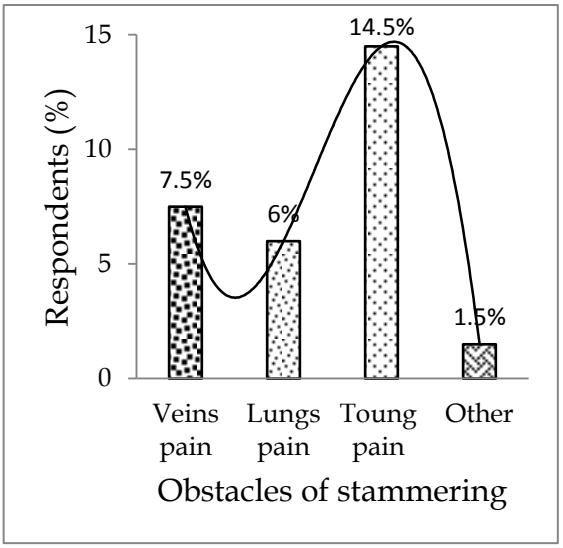

Respondents (%)
15
10
5
0
7.5%
6%
14.5%
1.5%
Veins pain
Lungs pain
Toung pain
Other
Obstacles of stammering

Figure 2 The occurring of stammering in the population of Sheringal, Dir upper, Khyber Pakhtunkhwa, Pakistan: stammering occurring age (a); numbers of stammerers in each family (b); other disease with stammering (c); different occupations of stammerers (d); economic status of stammerers (e); different obstacles which were encountered by stammerers (f) were scrutinized in the present survey during June 2013-August 2014; the study area, Sheringal has been divided in 6 quadrates: Daramdala, Doki, Guryaal, Samang, Shahoor and Sia Sheringal, where questionnaires (n=200) were distributed randomly; trend line: polynomial line; data were analyzed statically by using Computer Program Microsoft Excel (CPMSE) and Statistical Package for Social Sciences (SPSS) version 16; data are showing in percentage (%).

The present survey was conducted for determining the occurrence of stammering in the population of Sheringal, Dir Upper, Khyber Pakhtunkhwa, Pakistan during June-August 2013-2014. Although an early start of stammering may lead to disturbance in maturation, neurological processes and social development, gradually the severity of the speech loss increased and likelihood of socio-emotional impact may grew as children became elder[12]. During the present study, the presence of stammering was 20% in teenagers (7-18 ages) while 9% in adults (above 18 years age). Therefore, stammering is common in teenagers led to create disturbance in different aspects of life.

It was vague why this occurs, although some have conjectured that this was due to neuro-developmental gender differences and predisposition of females to have more advanced language skills at a younger age. Children under age 3 were at the greatest risk for beginning stuttering[13]. However, current study showed that stammering was occurring from 1.5% in 2-5 years; 28% in 6-12 years and above 13 year are 0%. This concludes that this variation in the age may be due to geographical differences or congenital defect.

Approximately 75% recover from early childhood stuttering without professional interference (Yairi and Ambrose, 1999)[5]. Anderson et al. (2003)[14] explored temperamental characteristics of 31 children who stutter and 31 children who did not stammer ages 3-5 years. Parents ratings of their children's social and emotional behavior suggested that stammer children who were slower to adapt to new situations or people than children who do not stammering, they were more hyper vigilant or highly focused when engaged in tasks, and were less predictable or consistent in physiological functions (such as sleeping , hunger and different pains). While in the present research, stammerers showed different type of physiological functions and pains such as vines-pain 7.5%; lungs-pain 6%; tongue-pain 14.5% etc. However, different types of symptoms have been observed in stammerers according to their mild to severity of the stammering condition.

Viswanath and Chakraborty (2004)[15] reported that for school-age children, stammering may increase risk for harmful interpersonal effects. In a retrospective analysis of school experiences, adults who were stammerers as children, reported a high incidence of oppression experiences. During the present research, the highest stammering occurring age was 6-12 years, however, the lowest age was 2-5 years, moreover, after 13 and above years, it was not observed (Figure 2a). Another study suggested that a decrease in prevalence during youth, then an increase in young adulthood perhaps due to greater willingness to discuss the disfluency. Regardless of the overall prevalence, a distinct sex difference was consistently reported (Craig, 2000)[7]. Therefore, stammering was mostly starting in childhood or teenages. Among stammerers, one-third believed that they would have a better job or different career if they did not stammering; half had sought employment requiring little speaking, and 21% turned down promotions or job opportunities because of their stammering. The researchers also found a severity difference in attitudes towards the impact of stammering on employment. People stammering with moderate to severe impairment were more likely to see it as a barrier than did those with mild impairment. However, in the present research, economic status of stammerers, maximum was middle family (55%) and minimum was poor-family (8%). Historically, people who stammering have been labeled as more neurotic, more anxious, and less healthy than fluent people. These responses are seen as logical squeal of chronic disfluency for people who stammering. Moreover, studies examining the comorbidity of psychiatric disorders and stammering have been conflicting. People, who are stammering either more frequently or equally, encounter mental health problems, as compared with people who are not stammering (Ingham, 2001)[16]. During the present study the stammerers were suffered different diseases such as hepatitis: 2.5%; epilepsy: 8%; heart disease: 1%; diabetes: 3.5% and other: 3%. Hence, the stammerers were also suffered a numbers of others diseases. Therefore, in this area, it is necessary to perform different programs such as seminars, conferences, workshops and symposiums for the encouragement and training of stammerers.

CONCLUSION

According to the present survey, it was determined that stammering was common in Sheringal. Stammerers were suffering different diseases and facing different obstacles, which may be social, cultural, and personal. They felt it a hurdle in their life. Therefore, a comprehensive study is needed to educate and aware the people.

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