

Self-esteem and anxiety in stuttering children and attitude of their parents

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Abstract

Objective: To evaluate anxiety and self-esteem in children who stutter compared to a control sample and to describe parental attitudes.

Methods: Employing a cross-sectional study, participants included 49 children who stutter and 53 controls. We have administered the State and Trait Anxiety Inventory and the Coopersmith self-esteem Inventory (the school form) to evaluate respectively anxiety symptoms and self-esteem. We have also examined parental attitudes.

Results: Compared with controls, the stuttering group showed higher levels in anxiety state ($p=0.001$) and anxiety trait ($p=0.01$). Children who stutter had also a significant low self-esteem in the general domain ($p=0.01$) and in academic domain ($p=0.04$). Negative parental attitudes were significantly associated to anxiety and to poor self-esteem.

Conclusions: Stuttering appears to be associated with a heightened risk for the development of anxiety and low self-esteem. Indeed, misguided parental attitudes are risk factors for anxiety and low self-esteem. These results highlight the need for multidisciplinary approaches on stuttering treatment including speech therapy, child psychology care and parental guidance.

Introduction

Data show that stuttering children (SC) are perceived negatively by peers [1] and are rejected by peers more often than children who do not stutter [2]. SC are often exposed to negative social experiences with both their peers and families such teasing and bullying [3]. These problems interfere negatively with self-esteem (SE) development and anxiety levels [4-9]. Anxiety has been considered for a long as one of the most frequent psychological problem associated to stuttering [8,9,10-13]. Indeed, some studies did not find that SC are significantly more anxious than control samples [14,15]. The relationship between self-esteem (SE) and stuttering has also attracted the interest of several studies [4,5,16]. Previous research has indicated that SE is an important factor in the understanding and clinical treatment of stuttering [16]. Some studies supported that stuttering negatively affects self-esteem of SC [17,18] while others did not found this [5,16]. Familial attitudes have been also identified as risk factors associated in SC [9]. Positive parental support can help SC to manage their disorder. In contrary, negative family attitudes may hinder the development of positive management of stuttering [19].

Identifying heightened levels of anxiety and low SE as co-occurring conditions in SC helps in treatment planning and techniques, as well as parental attitudes. Therapeutic interventions for SC could often include either implicit or explicit goals to improve anxiety, low SE and parental attitudes. This support the critical need for interdisciplinary teams working with SC [20]. Screening for anxiety and low self-esteem allows a comprehensive treatment approach and a secondary prevention. Little is known about anxiety, SE and parental attitudes in SC in Tunisia. This is in contrast to the larger body of knowledge that shows the international literature. To our knowledge, there is no Tunisian

study exploring this subject despite the fact that it is important. So, there is a need of minimal data that indicate a requirement for the implementation of regular clinical attention to SE, anxiety and parental attitudes in SC. This relative absence led to the current study. Thus, we aimed on this study to screen for anxiety and SE of SC compared to a control group and to analyze their associations with parental attitudes.

Methods

Type of study

A cross-sectional comparative study was conducted on two groups of children and adolescents, during a period of 2 years.

Participants

The group of children and adolescents who stutter was constituted of 49 participants drawn from the department of child psychiatry of the University Hospital Hedi Chaker in Sfax, Tunisia, when receiving speech therapy. Inclusion criteria were: (1) age 8 to 15 years, (2) presence of stuttering confirmed by speech pathologist during assessment and (3) receiving speech therapy for stuttering (4) had no concomitant disorder or illness. Exclusion criteria were: (1) no consent of parents or

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participants, (2) children under 8 years old, (3) children older than 15 years and (4) mental retardation or psychosis disorder confirmed after child psychiatric consultation. The control group included 53 children and adolescents examined in a clinic community in Sfax for a benign acute medical condition (flu, angina, diarrhea, bronchitis, and so on). Child and adolescent psychiatrists interviewed children. Groups do not differ by sex, age and socio-economic status. The comparative table of the two groups shows this (Table 1).

Measures

The State and Trait Anxiety Inventory (STAI)

The STAI was used to measure via self-report the presence and severity of anxiety symptoms. The STAI contains two scales of 20 items each [21]. The participant responds to the STAI items by selecting one of the alternative responses using a 4-pointlikert scale. First, the State Anxiety Scale evaluates the current state of anxiety, asking how respondents feel “right now,” using items that measure subjective feelings of apprehension, tension, nervousness, worry, and activation/arousal of the autonomic nervous system. The Trait Anxiety Scale evaluates relatively stable aspects of “anxiety proneness,” including general states of calmness, confidence, and security. Scores for both the State anxiety and the trait anxiety scales can vary from a minimum of 20 to a maximum of 80.

The Coopersmith self-esteem inventory (school form)

SE was measured by Coopersmith self-esteem inventory (SEI) in its school form for the ages 8-15 years [22]. The SEI is a 58-item self-report instrument to which each subject responds “like me,” or “unlike me”. The Coopersmith SEI was developed through research to assess attitude toward oneself in general, and in specific contexts. The components of SE measured are: (1) General SE (26 items), related to personal worth perceptions; (2) Social SE (8 items), related to peer relationships; (3) Academic or School-Related SE (8 items), related to ability at school;

(4) Parent-related SE (8 items), related to children’s status at home and parents’ reactions; and (5) Total SE ranging between 0-100. Participants have good SE if they have > 18.64 in the General self-subscale > 5.67 in the Social Self-Peer subscale, > 4.96 in the Home-Parents-subscale, >4.12 in the School-Academic subscale and > 33.35 in the total SEI score.

The STAI and the SEI were translated into Arabic but are not yet validated in Tunisia.

Evaluation of parental attitudes towards SC

A self-report form was performed to screen for parental attitudes towards SC. We searched the literature [13,19,23] for the most prevalent parental attitudes towards CS. We wanted to verify the existence of these attitudes among Tunisian parents. Parents were asked to answer yes or no to 10 questions written in dialectal Arabic, such: “Do you say to your child stop stuttering when he is speaking?”, “Do you have even looked away from your child when he stutters and asked someone else?”, “Do you asked your child to slow down and relax when he stutters?”. Questions are summarized in (Table 2) describing parental attitudes.

Procedure

The parents of children were initially contacted on the phone and informed what the study involved. They discussed this with their child who confirmed their desire to participate. For each patient included and his parent (father or mother), a clinical interview based on predetermined format, was done by a child and adolescent psychiatrist. The interviews were held in an atmosphere of confidentiality in an examination room in the department of child psychiatry of the Hedi Chaker university hospital of Sfax. Questionnaires were self-administered. Explanations were given for items not understood. Parents were interviewed separately about their attitudes towards their child.

Table 1. Samples presentation (N=102).

Socio demographic characteristics		SC (N=49)	Controls (N=53)	P
Mean age (± SD)		10.39 (± 2.8)	10.11(± 1.87)	0.5
Gender (%)	Boys	77.5	75.4	0.8
	Girls	22.5	24.6	
Socio economic status (%)	High	7.6	16.34	0.3
	Middle	79.2	73.46	
	Low	13.2	10.2	

SD: standard deviation

Table 2. Parental attitudes towards their SC (N=49)

Parental attitude	Frequency	
	Yes (%)	No (%)
1) « filling in the child’s words »	57.1	42.9
2) « asking him to slow down or relax »	53.1	46.9
3) « ordering him to stop stuttering! »	44.9	55.1
4) « manifesting impatience »	36.7	63.3
5) « waiting patiently »	32.7	67.3
6) « shouting at the child »	26.5	73.5
7) « looking away from the child»	20.4	79.6
8) «making a joke»	10.2	89.8
9) « hitting over the head »	10.2	89.8
10) « imitating »	6	94

Note: SC, stuttering children

Statistics

Statistical analyses were performed by using the SPSS statistical package, version 20.0.

Comparisons between the means of two groups were made using student's t-test. Chi-square test was used to compare percentages. All p-values are two-sided. P-values < 0.05 were considered significant.

A descriptive study was performed for parental attitudes towards SC. Responses about parental attitudes were recorded and analysed in the form of descriptive statistics such as frequency and percentages.

Results

Demographic data for two groups

Demographic characteristics of the two groups are presented in (Table 1). Concerning SC, the mean age of onset of stuttering was 5 years (± 1.8). The mean duration of stuttering was 5.5 years (± 3.05) with extremes ranging from 0 to 12 years.

Screening for anxiety

SC felt significantly more anxious than controls on the STAI state ($p=0.001$). SC had also more anxious traits, according to the STAI ($p=0.01$) (Figure 1).

Self-esteem among SC and controls

SC had significantly a low SE on the general and academic subscale than controls. No significant differences were found between the two groups on the other subscales (Figure 2).

Analysis of parental attitudes on stuttering

Table 2 shows that the most frequent parental attitudes towards SC were filling the child's words (57.1%), asking him to slow down (53.1%) or to stop stuttering (44.9%), manifesting impatience and annoy (36.7%) and looking away from the child and asking someone else (20.4%).

Associations between parental attitudes, anxiety and self-esteem of SC

We have mentioned on (Table 3) only the significant associations between some parental attitudes, anxiety and SE: looking away from the child, filling in the child's words, waiting patiently and asking him to slow down or relax. The remaining parental attitudes were not significantly associated with anxiety and SE.

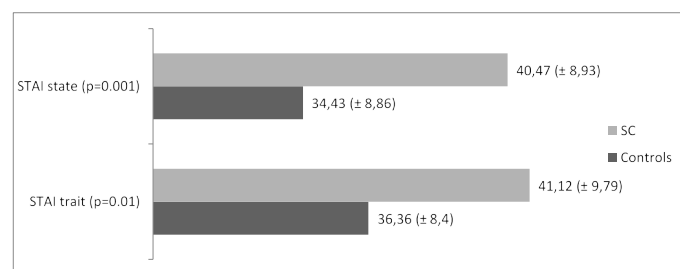


Figure 1. Comparison of anxiety according to the STAI between the 2 groups (total of 102 children). STAI mean score (\pm standard deviation): state and trait anxiety inventory p value: no statistically significant correlation ($p > 0.05$); significant ($0.05 \leq p \leq 0.01$); very statistically significant correlation ($p \leq 0.01$).

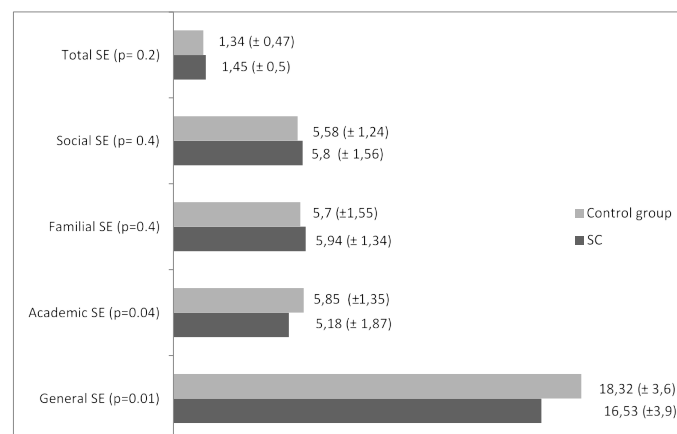


Figure 2. Comparison of average scores of SE between the 2 groups (total of 102 children). Note: SE, self-esteem mean score (\pm standard deviation); SC, stuttering children. p value: No statistically significant correlation ($p > 0.05$); Significant ($0.05 \leq p \leq 0.01$); very statistically significant correlation ($p \leq 0.01$).

Table 3. Correlations between parental attitudes, anxiety and SE (N=49 SC)

SE domain middle score	Parental attitude		
« looking away from the child »			p
	Yes	No	
STAI state	47.9 ± 8.98	38.56 ± 7.96	0.002
STAI trait	48.5 ± 9.56	39.23 ± 9.02	0.006
General SE	13.4 ± 3.34	17.33 ± 3.65	0.003
Academic SE	3.5 ± 1.78	5.62 ± 1.66	0.001
Total SE	28 ± 6.39	34.72 ± 6.58	0.01
« filling in the child's words »			p
	Yes	No	
Familial SE	5.57 ± 1.26	6.43 ± 1.32	0.02
« waiting patiently »			
	Yes	No	
Familial SE	5.25 ± 1.34	6.27 ± 1.23	0.01
« asking him to slow down or relax »			p
	Yes	No	
Academic SE	5.73 ± 1.56	4.57 ± 2.04	0.02
General SE	17.69 ± 3.35	15.22 ± 4.13	0.02

Note: SE, self-esteem; STAI, State and Trait Anxiety Inventory. p value: No statistically significant correlation ($p > 0.05$); Significant ($0.05 \leq p \leq 0.01$); very statistically significant correlation ($p \leq 0.01$).

Discussion

Evaluation of anxiety among stuttering children

There is no doubt that anxiety disorders are common on adults who stutter [12,24,25], whereas they do not for children. The question if SC are anxious in general has been asked repeatedly. The answers given have been controversial. Some researchers report that anxiety is more frequent in SC compared to controls [3,15,26]. While other studies [27] do not find any difference between the two groups on anxiety symptoms. The current findings indicate that SC are more anxious than controls. First, they have more trait anxiety: an individual's general level of anxiety independent of specific threatening environments. Our research supports studies indicating that anxiety, as a trait is characteristic of person who stutter [24,28,29,30,31]. Second, in the present study, SC have more state anxiety. State anxiety in SC refers to a condition or situation-specific anxiety related to communication in general and to speech communication in particular. Scholars [32,33] have conceptualized anxiety using a multidimensional model that implies that those who score high on trait anxiety manifest greater

state anxiety when situational stress is congruent with one of their trait anxiety levels. Our study supports the assumption that trait and state anxiety are characteristic of SC.

Self esteem among children and adolescents who stutter

Few studies have explored SE of SC. It has been argued that SE is substantially constructed based on social interactions and experiences [4]. SC can experience negative social interactions, which is hypothesized to place them at risk of having a negative impact on SE [4,17]. Several studies found no evidence of low SE as compared to control samples [3,4,16]. Other studies reported adverse effects of stuttering on SE. We shared findings that SC have low SE on the general domain [4,18]. The SC of our sample had not SE impairment except on the general and academic domains. We highlighted Bloodstein data according to developmental categories [34] to explain those findings. It is possible that low SE in stuttering will not be present in a child until after he reaches an advanced stage of a stutterer. General and academic SE seemed to be the first domains to be impaired.

Parental attitudes toward SC

On a study conducted in Kuwait on 424 parents in general population, the most frequent attitudes towards SC were looking away from the child (72%), filling in the child's words (44%) and waiting patiently (85%) [19]. A Turkish study, exploring parental attitudes found more negative frequencies in filling the child's words, telling him to slow down, making jokes and indicating that SC should try to hide his stuttering [35]. In the present study, we found that when parents looked away from the child and asking someone else, SC were significantly more anxious and have poor SE on general and academic SE. Such parental attitudes may impact the developing of child's self esteem [23]. We found also that filling the child's word was associated with good familial SE. Nevertheless, Wischner [36], suggested that stuttering may persist because of "secondary gain" that SC often receive from others. He explained that friends and family when helping SC by speaking for him may diminish some of the negative impact.

We have noted a good familial SE on SC whose parents waited patiently during a child's stuttering. Overall, this indicates that parents are empathetic and sensitive towards their SC and highlights the need for parental guidance on the multidisciplinary approaches on stuttering treatment.

Conclusion

The results of this study show that anxiety and poor self esteem are more frequent in SC than in controls. Negative parental attitudes are frequent. The clinical implications of these findings are diagnostic and therapeutic. First, clinicians should screen systematically anxiety, low self-esteem and negative parental attitudes. Second, for clinicians, the issue of prioritizing treatment for co-occurring psychological difficulties becomes paramount for SC. SC who display anxiety and low self esteem could also be examined for the effectiveness of specific treatments as well as the benefits of team approaches. Treatment procedures that address the psychological concomitants of stuttering may be incorporated into fluency approaches or may stand alone. Involving family members in the therapeutic process must be an important element of treatment. It would be illusory to limit SC treatment to speech therapy. Overall management must be applied in stuttering involving psychological support, parental guidance concomitantly with speech therapy. It is crucial that professionals working with SC should be made aware in order to have an accurate understanding.

Limitations

All instruments were translated into Arabic but were not validated on the Tunisian population.

Due to the preliminary nature of these results, studies with larger samples, multiple anxiety measures and participants who have received treatment and those who have not received treatment for either their anxiety or fluency disorders appear warranted.

Our population were recruited from child psychiatry department. One of the reasons why they seek therapy might be anxiety or low self-esteem. So, anxiety and low self-esteem might be overrepresented. Therefore, it is suggested to include in future research SC that were not followed by a child psychiatrist.

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