

Communication Attitudes of Adolescents Who Stutter: A Comparative Study

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Abstract

Introduction: Stuttering is a fluency disorder that not only disrupts speech flow but also affects emotional, cognitive, and social functioning. Adolescence, a stage marked by heightened peer influence and self-awareness, can intensify these challenges, leading to negative attitudes toward communication. This study aims to assess the communication attitudes of Pakistani adolescents who stutter using the Communication Attitude Test (CAT) and to analyze their emotional and social perceptions related to speaking. **Materials and Methods:** This descriptive, cross-sectional study aimed to assess the communication attitudes of adolescents who stutter in Pakistan using the Communication Attitude Test – Form A (CAT). The CAT is a standardized tool consisting of 35 true/false statements that measure an individual's positive or negative perceptions about their own speech in various communicative contexts such as classroom participation, peer interaction, and conversations with unfamiliar listeners. **Results:** Participants demonstrated a high frequency of negative communication attitudes, particularly regarding speaking in class, talking to strangers, and being teased. The majority reported that speaking felt difficult and that they avoided verbal participation. These responses suggest a low self-perceived communication ability and increased social withdrawal. A total of 90 adolescents participated in this study. The gender distribution was 46 males (51.1%) and 44 females (48.9%). The age groups were 41 participants (45.6%) aged 11–13 years and 49 participants (54.4%) aged 14–16 years. In terms of education, 36 (40%) were enrolled in Grades 5–7, and 54 (60%) were in Grades 8–10. **Conclusion:** The CAT revealed consistent negative attitudes in adolescents who stutter in Pakistan. These findings highlight the need for comprehensive intervention plans that address both speech fluency and communication confidence. The CAT is a culturally adaptable and clinically useful tool for speech-language pathologists working in Pakistani settings.

Keywords: Adolescents, Communication, Pakistan, Self-Concept, Speech-language Pathology, Stuttering

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Introduction

Stuttering is a multifactorial disorder that, in addition to overt disruptions to the forward flow of speech, results in a wide range of cognitive and affective consequences. Across the lifespan, people who stutter have been documented to exhibit negative attitudes towards their speech and communication, which have a negative impact on their overall quality of life to varying degrees. These include, but are not limited to, decreased engagement and achievement in academic and vocational settings; lower levels of self-efficacy and self-esteem that have a detrimental effect on overall quality of life; and higher levels of social anxiety and/or communication apprehension that lead to increased isolation (Perkins, 1990).

Furthermore, it has been shown that stutterers reject social networks and minimize or avoid social interactions, which hinders the availability of protective mechanisms like peer and family support that enhance quality of life. Less is known about the connection between stuttering's effects and a person's perceived communication skills, despite several studies examining how stuttering affects a range of cognitive, psychological, and communicative distinctions (Tüysüz et al., 2026).

The term “communication attitude” refers to how someone approaches communication and how their attitude might either favorably or unfavorably affect their conversation.

Stuttering is a type of speech fluency disorder. It is also referred to as stammering or dysfluent speech. Repeated words, sounds, or syllables that stop speech production or an uneven speech tempo are signs of stuttering (Prasse & Kikano, 2008; Zhi & Wang, 2024).

Several recent studies have examined into the relationship between stuttering severity, communicative attitude, and self-perceived communication skills across age groups. Evidence suggests that a communication attitudes in preschool children who stammer is related to stuttering behavioral characteristics such as the frequency and duration of stuttering events, as well as the prevalence of secondary behaviors. Self-report measures of communicative attitude have been found to provide useful information on the psychosocial impact of stuttering in addition to typical behavioral tests (Werle et al., 2021).

Researchers have found that adults who stutter report lower levels of self-perceived communication skills than fluent speakers. Studies utilizing standardized self-report instruments have consistently found that increased stuttering severity is associated with lower communication confidence and a greater detrimental impact on daily communication (Winters & Byrd, 2026).

Research on stuttering in school-aged children and adolescents has highlighted the importance of understanding their communication experiences and attitudes. According to the results of communicative attitude questionnaires, children and adolescents want more understanding, acceptance, and support from their families, teachers, and peers. These findings emphasize the necessity to address both psychological and speech-related elements during the assessment and management of stuttering (Bayarl et al., 2022).

Developmental, neurogenic, and psychogenic stuttering are the three categories of stuttering. The precise etiology of stuttering remains unclear. A speech-language pathologist assesses your child's speech and language skills to identify stuttering. Communication is a vital component of human interaction, essential in determining a person's social, emotional, and cognitive growth. However, communication might pose special difficulties for adolescents who stutter that go beyond the mechanical characteristics of speech production. A person's self-esteem, social involvement, and general communication attitudes are all impacted by stuttering, a speech condition marked by disturbances in speech flow (Bloodstein et al., 2021; Yairi, 2007).

Peer pressure, the need for social acceptability, and increased self-awareness are all common during adolescence. Stutterers may find it more difficult to communicate in social and academic contexts. The communication attitude, how adolescents who stutter perceive their communication skills can significantly affect their social functioning, self-worth, and general psychological health. According to research, stutterers may react negatively to communication breakdowns or unfavorable reactions from others by feeling embarrassed, frustrated, or anxious (Chard & van Zalk, 2022).

Rakesh Chow Kali and Martin (2021) conducted a cross-sectional study. An established tool for assessing cognitive characteristics in adults who stutter (AWS) is the Communication Attitude Test for Adults who Stutter (Big CAT). The adaptation and validation of the Big CAT to the Kannada language was the main

goal of the current work. The study compared Big CAT-K scores of adults who stutter (AWS) with those of adults who do not stutter (AWNS) and comparing AWS' scores in subpopulations according to severity and age was the secondary goal. A purposive sample of 317 AWNS and 100 AWS was used in the study. The results of the discriminant analysis and cross-validation demonstrated strong concept validity and good test-retest reliability. Additionally, similar to other Big CAT studies, this self-report test showed a statistically significant group mean difference between AWS and AWNS, indicating that Kannada-speaking AWS have a negative attitude toward communication (Byrd et al., 2024).

A study conducted in 2023 The stuttering group's communication attitudes were compared to those of the general group using meta-analysis, and the effect sizes of communication attitudes across preschool, school, and adulthood—were utilized to look at patterns of change. compared the communicative attitude scores of the stuttering and general groups between 2000 and June 2022 using two rounds of searches utilizing domestic and foreign databases. The authors conducted a meta-analysis to examine the overall effect size and moderating effect after extracting 16 data from a total of 15 articles that satisfied the study selection criteria (Chang et al., 2025).

Communication attitudes among adults who stutter may be influenced by these experiences, which may result in social disengagement, avoidance actions, or decreased conversational engagement. Conversely, greater self-confidence and improved social adjustment are linked to good communication attitudes. In the end, this study aims to emphasize how crucial it is to create a safe space where teenagers who stutter can develop more positive communication experiences and outcomes and have meaningful conversations with others. Our goal is to improve our knowledge of communication attitudes so that people who stutter can embrace who they are, participate more fully in social interactions, and succeed in their academic and personal endeavors (Constantino et al., 2022).

Materials and Methods

This descriptive, cross-sectional study aimed to assess the communication attitudes of adolescents who stutter in Pakistan using the Communication Attitude Test – Form A (CAT). The CAT included 35 True/False statements that assess how individuals feel about their ability to communicate in various situationss such as in

class, with peers, and with strangers. The participants consisted of 90 adolescents aged 11 to 16 years, enrolled in grades 5 to 10, and diagnosed with stuttering. The sample size was calculated using a single population proportion formula with a 95% confidence level, 5% margin of error, and an expected prevalence of negative communication attitudes of approximately 50%, with an allowance for potential non-response. Ethical approval was obtained from the Riphah Ethics Committee (REC) and Ethical Approval Number is REC/RCR&AHS/24/0650. Both male and female participants were included. Inclusion criteria were adolescents aged 11–16 years, diagnosed with developmental stuttering by a speech-language pathologist, enrolled in grades 5–10, and able to comprehend either Urdu or English, with parental consent and participant assent obtained. Exclusion criteria were the presence of other speech-language disorders, intellectual disability, uncorrected hearing loss, neurogenic or psychogenic stuttering, or refusal to participate. The participants were recruited from Farooq Hospital, National School, and a Government Boys School in Lahore, Pakistan. The test was administered individually in a quiet setting. All items were explained in Urdu or English, based on the participant's language preference, to ensure understanding. Following data collection, responses were coded and analyzed using SPSS (Statistical Package for the Social Sciences). Only descriptive statistics were applied, including frequencies, percentages, and mean scores, to summarize participant responses and identify common patterns in communication attitudes. This analysis helped identify the prevalence of negative attitudes and provided insight into the overall emotional and communicative experiences of adolescents who stutter in the Pakistani context.

Results

A total of 90 adolescents participated in this study. The age range was 11 to 16 years, with an approximately equal gender distribution and education levels. Among them, 46 (51.1%) were male and 44 (48.9%) were female. In terms of education level, 40% were in grades 5–7, while 60% were in grades 8–10. Descriptive analysis of the Communication Attitude Test (CAT) responses revealed a high frequency of negative attitudes toward communication. The majority of participants answered "True" to negatively worded statements such as "Some kids make fun of the way I talk", "It is hard for me to talk to strangers", and "I let others talk for me." Conversely, positive attitude items such as "I like to talk" and "Talking is easy for me" were often marked "False," indicating low self-confidence in communication abilities. The responses demonstrated a high frequency of negative communication attitudes,

with several negatively worded items receiving True responses from more than 70% of participants. The highest endorsement was observed for Item 24, 'I sometimes have trouble talking' (84%), followed by Item 3, 'Words stick in my mouth' (82%), Item 29, 'My words do not come out easily' (81%), and Items 5 and 19, which each received 80% True responses. These patterns highlight a strong need for not only fluency-based interventions but also counseling and interventions targeting communication attitudes to improve communication confidence and participation in social settings.

Table 1: Demographic Characteristics of Participants

Variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	46	51.1
	Female	44	48.9
Age Group	11–13 years	41	45.6
	14–16 years	49	54.4
Education	Grades 5–7	36	40.0
	Grades 8–10	54	60.0

The demographic characteristics of the study participants are presented in Table 1. A total of 90 participants were enrolled, with a near-equal gender distribution (51.1% male, 48.9% female). The majority of participants were in the 14–16 years age group (54.4%), and most were from Grades 8–10 (60.0%).

Table 2: Summary of CAT Items and Participant Responses

Item No.	CAT Statement (Summarized)	Attitude Type	% Responded "True"
1	I don't talk right	Negative	75
2	I don't mind asking the teacher a question	Positive	38
3	Words stick in my mouth	Negative	82
4	People worry about the way I talk	Negative	70
5	Giving a class report is harder for me	Negative	80
6	Classmates don't think I talk funny	Positive	40
7	I like the way I talk	Positive	33
8	People finish my words for me	Negative	65
9	My parents like the way I talk	Positive	78
10	Easy to talk to everyone	Positive	30
11	I talk well most of the time	Positive	35
12	It is hard for me to talk to people	Negative	68
13	I don't talk like other children	Negative	73
14	I don't worry about the way I talk	Positive	28

15	I don't find it easy to talk	Negative	70
16	My words come out easily	Positive	26
17	It is hard to talk to strangers	Negative	78
18	Other kids wish they talked like me	Positive	18
19	Some kids make fun of me	Negative	80
20	Talking is easy for me	Positive	32
21	Telling my name is hard	Negative	74
22	Words are hard to say	Negative	76
23	I talk well with most everyone	Positive	29
24	I sometimes have trouble talking	Negative	84
25	I would rather talk than write	Positive	35
26	I like to talk	Positive	30
27	I am not a good talker	Negative	72
28	I wish I could talk like other children	Negative	78
29	My words do not come out easily	Negative	81

30	My friends don't talk as well as I do	Positive	15
31	I don't worry about talking on the phone	Positive	26
32	I talk better with a friend	Positive	68
33	People don't like the way I talk	Negative	66
34	I let others talk for me	Negative	69
35	Reading out loud is easy for me	Positive	28

The participants' responses to the 35-item Communication Attitude Test (CAT) are summarized in Table 2. Items were categorized as positive or negative attitude statements based on their wording. The percentage of participants who responded 'True' to each item ranged from 15% to 84%, with the highest endorsement observed for Item 24 ('I sometimes have trouble talking') at 84%, and the lowest for Item 30 ('My friends don't talk as well as I do') at 15%.

Discussion

The present study aimed to examine the communication attitudes of adolescents who stutter in Pakistan using the Communication Attitude Test (CAT). The analysis of demographic data and test responses revealed patterns that underscore the emotional and social challenges faced by this population. People who stutter may experience stigma and negative social reactions. People who stutter may experience negative reactions and treatment from others. PWS can feel or perceive in it is documented that, this feeling of stigmatization can contribute to distress or anxiety among people who stutter. Research also shows that PWS experience negative reactions from others and they can anticipate stigma in other situations as well (Eggers & Millard, 2026).

In a study conducted by M.P Boyle, in which he gathered the lifetime prevalence of reported experiencing enacted stigma were gathered. Most participants reported

having experienced almost all of the negative reactions from listeners, like laughed at, being mocked or teased or treated like a child, listeners avoiding eye contact, experienced eye contact avoidance, being taken less seriously and being treated unkindly. And about felt stigma almost all of the participants agreed or somewhat agreed that they were worried about the reaction of other people, embarrassed about their stuttering in social situations, or are fearful of rejection. Overall, this research shows that people have experienced enacted and felt stigma once in a life time. This study also showed the positive correlation between enacted and felt stigma which show both increases with time (Gattie et al., 2025a).

The current results indicate a high prevalence of negative communication attitudes among the adolescents who stutter. Several negatively worded CAT items received True responses from more than 70% of participants, with the highest endorsement reaching 84% for the item 'I sometimes have trouble talking.' These findings suggest substantial difficulties in perceived speaking ability and communication confidence among the participants. This pattern is consistent with a substantial body of literature that has found that individuals who stutter, particularly during school-age and adolescence, have more negative beliefs about their speaking abilities than their fluent peers (Kim et al., 2023).

The gender difference observed in the current study with girls reporting slightly more negative attitudes than boys, is consistent with recent evidence that the psychosocial burden of stuttering is not evenly distributed between genders and adds to the recognition that communication attitudes cannot be considered a multidimensional construct in the pediatric stuttering population. A systematic review of psychosocial characteristics in school-aged children who stutter identified communication attitudes as one of four key domains of concern alongside general affect, anxiety, and speech satisfaction and highlighted that these domains interact and intensify during adolescence, characterized by increased peer evaluation and social comparison (Johnson et al., 2023). This supports the finding of the current study that even relatively ``neutral'' positive items such as ``I like to talk'' were often marked as false, suggesting that negative attitudes in this group are not limited to overtly stigmatizing statements, but also pervade general self-perceptions of communicative competence.

The particularly high endorsement of items reflecting fear of negative evaluation by others e.g., peers making fun of their speech, difficulty talking to strangers, which

mirrors findings from a recent scoping review of the lived experiences of adolescents who stutter, which reported that fear of judgment, social avoidance, and diminished self-confidence were recurring themes across qualitative and quantitative studies of this age group, often compounding rather than resolving as adolescents grow older (Alharbi et al., 2025; Choo et al., 2025). This convergence reinforces the interpretation that adolescence represents a critical period during which communication attitude may become entrenched, underscoring the value of early attitude-focused screening such as that used in the present study.

The current study also demonstrates the negative reaction experienced by the persons who stutter. Person who stutter reported experiencing laughter from listeners in response to their stuttering, strangers staring at them, treated like a child, people avoided eye contact, being bullied by listeners, being treated unkindly, or people have discriminated against them as well. These results support previous studies and suggest that persons who stutter have experienced negative public responses, degradation or social distancing due to their stuttering (Gattie et al., 2025b).

People were aware about stigma they could experience in various situation and they could anticipate negative reaction from people and responses to it revealed a strong and complex interplay between early adverse social experiences and long-term psychological, social, and emotional well-being. The results indicated that individuals who experienced bullying due to their stuttering in childhood are more likely to exhibit symptoms of anxiety. The study shows that childhood bullying is not a transient hardship but a continuous experience that can leave lasting psychological impacts, particularly among individuals who stutter (Gerlach-Houck et al., 2023).

Adults who stutter and experience self-stigma may approach health care interactions with reduced self-efficacy, heightened anxiety, and diminished trust, which can negatively impact the perceived quality of care and hence reduction in the likelihood of getting timely medical attention. Self-stigma represents a critical, yet often overlooked, determinant of health in this population. Addressing it directly through multidisciplinary, person-centered strategies is essential to mitigating its broad and enduring effects (Horton et al., 2024).

A study of bullying among adolescents who stutter found that, its results showed that adults who stutter were at 43%, compared with 11% among those who do not stutter. Adults who stutter also indicated that they have poorer perceived communicative competence (57%), as compared to those who don't stutter (13%) (Laiho et al., 2022).

Another study examined the impact of stuttering on employment opportunities and job performance was conducted. 17-item survey was applied on persons who stutter, aged 18 years or older. 70% of the people who stutter agreed that the chances of being hired or promoted decreased due to stuttering. 33% of the people who stutter indicated that stuttering also interferes with their performances at job. 20% had to turn down because of their stuttering. These results show that stuttering was considered a handicap in work place for them (Theys et al., 2024).

Finally, low endorsement for self-praise items e.g., "My friends don't speak as well as I do", and high endorsement for avoidance-related items e.g., "I let other people speak for me", may indicate that children who stutter's self-reported negative communication attitudes are often accompanied by observed avoidance and secondary coping behaviors, as found in a recent large-scale study that examined children who stutter. A study also found that children with more negative self-esteem were independently rated by their caregivers as showing greater avoidance and frustration with spoken language (Winters & Byrd, 2024).

Taken together, these findings support that the high rates of negative attitudes in the current study likely reflect not only response biases but also functionally related patterns of avoidance and low self-esteem, supporting the need for attitude-focused, counseling-based interventions in parallel to traditional fluency therapy for this population.

Conclusion

The present study highlights the impact of stuttering on the communication attitudes of adolescents in Pakistan. The use of the Communication Attitude Test (CAT) revealed a predominance of predominantly negative self-perceptions among participants, particularly in social and academic speaking situations. Most adolescents reported difficulty expressing themselves, fear of being judged or ridiculed, and a general lack of confidence in their speech. These challenges were

more pronounced in older adolescents and were influenced by peer interactions and academic pressures. The findings emphasize that stuttering is not only a speech fluency issue but also a condition with important emotional and social consequences. Therefore, effective intervention must extend beyond traditional fluency techniques to include counseling, self-advocacy training, and social support. Incorporating tools like the CAT into routine assessment can help speech-language pathologists better understand the internal experiences of adolescents who stutter and tailor therapy to improve both speech and self-esteem.

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