Psychological Health and Coping Strategies of Adolescents with Chronic Stuttering

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Received date: February 23, 2015, **Accepted date:** March 12, 2015, **Published date:** March 17, 2015

Abstract

Objective: To assess the psychological health and coping strategies of 35 male adolescents with chronic stuttering and 35 male adolescents who do not stutter using standardized instruments. The study will also identify any relationships between psychological health and coping strategies and make recommendations to improve therapy outcomes for adolescents with chronic stuttering.

Methods: Adolescents with chronic stuttering were diagnosed through case history, stuttering history, qualitative and quantitative overt speech behaviors and attitudinal measures. Participants who do not stutter were matched on age, race/ethnicity, grade level and SES. Standardized scales measuring coping strategies (The Coping Inventory for Stressful Situations-Adolescent, CISS-A) and psychological health (The Strengths and Difficulties Questionnaire, SDQ) were completed.

Results: Adolescents with chronic stuttering reported a higher number of peer relationship difficulties and a lower number of pro-social behaviors than adolescents who do not stutter. Adolescents with chronic stuttering reported significantly greater use of emotion-oriented coping strategies in dealing with general stressors compared with adolescents who do not stutter. Significant relationships were found between emotion-oriented coping strategies, peer relationship difficulties and pro-social behaviors for adolescents with both groups of participants.

Conclusions: Adolescents with chronic stuttering may be vulnerable to peer relationships difficulties and poor pro-social behaviors. The results may reflect adolescents with chronic stuttering responses' to reported negative biases and stereotypes by multiple conversation partners and the general public view of their social communication disability. Adolescents with chronic stuttering were more likely to use emotional-based coping strategies in dealing with general stressors in their lives. The data provide additional evidence for the need to address emotional and social assessment and treatment concerns for some adolescents who stutter.

psychological scales including nearly 1300 adults with chronic stuttering. The analyses confirmed a majority of adults with chronic stuttering had at least moderately elevated trait anxiety and substantially elevated social anxiety. Iverach, Jones, O'Brian et al [17] reported a high co-occurrence of one or more Personality Disorders (PD) for 92 adults who stutter. Manning and Beck [18] questioned the results of Iverach, Jones, O'Brian et al study on the use of reported screening procedures. They also refuted the conclusions of PD and cautioned that psychological problems associated with stuttering may be expected as a typical outcome from continued negative reactions of listeners and social and communication partners' distancing. In contrast, Manning and Beck [19] recently reported on 50 adults with chronic stuttering using the 94-item self-report questionnaire, Assessment of DSM-IV Personality Disorders, for identifying personality disorders (PD). They reported that only 4 participants were classified as displaying one PD, one participant was classified as displaying two PDs and the remaining 45 (90%) adults with chronic stuttering were classifed as having no PD. These conficting results may be explained by sampling procedures, testing instruments selected to identify psychological distress, participants' former therapy interventions or lack of therapy interventions, perceived stress of stuttering or coping mechanisms. It may also be that the problems reported surfaced at an earlier developmental period and that sampling procedures did not account for the potential differences.

Coping processes and psychological health

The classic definition

another person avoiding all social gathering and jobs where fuent communication is perceived as benefcial.

Studies reporting the identifcation of anxiety and psychosocial distress as a consequence of stuttering have also been reported in adolescents [5-8,34-37]. Findings show stuttering has a negative impact on the quality of life of adolescents who stutter including: heightened anxiety, greater communication apprehension, greater likelihood of bullying and greater emotional distress. Smith, Iverach, O'Brian et al. [9] completed a critical review of the research examining anxiety reported in adolescents who stutter. Tey concluded that anxiety related to stuttering increases over time and could explain higher than normal levels reported in adults.

For adolescents who stutter, the chronicity of stuttering may add another daily stressor during a period marked with intense growth, struggle, transition and development. Typical daily stressors, peer and academic pressures, bullying, issues of self-identity and self-image, physical or sexual issues, spirituality decisions, risky behavior choices, and "pushing away" from parental/caregiver involvement are hallmarks of adolescence [25-29,38-40]. Efective treatments with all adolescents are a challenge, in part, because adolescents are daily making their "best" choices based on inconsistent and wavering beliefs, feelings and attitudes. Assessment and treatment decisions for adolescents, especially those with chronic disabilities, ideally should address the adolescents' preferred choice of coping resources and strategies.

According to Compas, Jaser, Dunn and Rodriguez [41] when reviewing coping with chronic illness in childhood and adolescence, "Te efectiveness of coping strategies depends on the match between characteristics of the stressor, especially perceived controllability, and the individual's coping responses"(pp: 476). Te use of unsuitable or mismatched coping strategies may place the adolescent with a chronic disorder at higher risk for psychosocial distress. For adolescents with chronic stuttering the perceived and/or actual "loss of control" in producing fuent

between percentages of participants in the "normal" category for peer relationships with 48.6% for adolescents with chronic stuttering compared with 85.7% for adolescents who do not stutter. Similarly, large differences were seen in the pro-social subscale scores in the "normal" category with 65.7% for adolescents with chronic stuttering compared with 80% for adolescents who do not stutter. Other total number and percentages for the two groups appeared similar. A series of chi-square tests were performed to determine significant differences. The percentage of adolescents with chronic stuttering was significantly different from those adolescents who do not stutter on only the peer relationships category ($\chi^2(2, N=70)=10.9$, $p<0.01$). No other significant differences were found between the two groups.

SDQ Score Category	Normal	Borderline	High Risk
Emotional problems score			
Adolescents with Chronic Stuttering	31 (88.6%)	2 (5.7%)	2 (5.7%)
Adolescents who do not Stutter	33 (94.2%)	1 (2.9%)	1 (2.9%)
Conduct problems score			
Adolescents with Chronic Stuttering	32 (91.4%)	3 (8.6%)	0 (0%)
Adolescents who do not Stutter	33 (94.2%)	1 (2.9%)	1 (2.9%)
Hyperactivity score			
Adolescents with Chronic Stuttering	35 (100%)	0 (0%)	0 (0%)
Adolescents who do not Stutter	34 (97.1%)	1 (2.9%)	0 (0%)
Peer relationship score *			
Adolescents with Chronic Stuttering	17 (48.6%)	14 (40%)	4 (11.4%)
Adolescents who do not Stutter	30 (85.7%)	4 (11.4%)	1 (2.9%)
Total difficulties score Ranges			
Adolescents with Chronic Stuttering	29 (82.9%)	4 (11.4%)	2 (5.7%)
Adolescents who do not Stutter	33 (94.2%)	2 (5.7%)	0 (0%)
Pro-social behavior score			
Adolescents with Chronic Stuttering	23 (65.7%)	8 (22.9%)	4 (11.4%)
Adolescents who do not Stutter	28 (80%)	6 (17.1%)	1 (2.9%)
Asterisk indicates significant differences between group percentages.			

Table 1: Number and percentages of 35 adolescents with chronic stuttering compared with 35 adolescents who do not stutter scores' in the "normal", "borderline" and "high risk" categories for emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship total difficulties and pro-social behavior SDQ subscale scores.

Table 2 presents the means and standard deviations of the five SDQ scores and the total SDQ for both groups. The mean scores for adolescents who do not stutter were within the normal range for all scales and total SDQ score. In contrast, adolescents with chronic stuttering had similar mean scores within in the normal range for the emotional symptoms, conduct problems, hyperactivity/inattention, and total SDQ scores but poorer scores on the peer relationship and pro-social behaviors indicating a higher vulnerability for psychological symptoms and distress. The specific ranges for "normal", "borderline", and "high risk" were examined for each set of mean scores for adolescents. The mean score of 3.8 (S.D.=2.0) for participants with chronic stuttering for the peer relationship subscale was outside the normal range of 3.0. This was the only subscale mean score outside the normal range. A review of Table 2 showed all other SDQ mean subscales scores for both groups were in the normative range suggesting typical psychological adjustment compared with the reference group.

Measures/Scale	Adolescent Group				
	Chronic Stuttering (n=35)			No Stuttering (n =35)	
SDQ Raw Scores					

	Normative Range	M	SD	M	SD
Emotional Symptoms	0-5	3.7	1.3	3.8	1.7
Conduct problems	0-3	1.8	0.9	2.1	1
Hyperactivity/inattention	0-5	3.5	1.6	3.6	1.4
Peer relationship*	0-3	3.8*	2	2.1*	1.4
Total SDQ Score	0-15	12.8	3.4	11.6	2.9
Pro-social behaviors*	06-Oct	6.2*	1.6	7.5*	1.5
CISS-A T-scores					
Task-focused	45-55 (average range)	48.1	4.2	49.3	3.7
Emotion-focused*	45-55 (average range)	54.1*	8.6	48.1*	3.4
Avoidance-focused	45-55 (average range)	48.1	3.8	47.6	5.2
Distraction	45-55 (average range)	48.5	3.9	48.4	4.9
Social Diversion	45-55 (average range)	45.7	4.1	47.1	5.1
Asterisk indicates significant differences between group means.					

Table 2:

two group mean subscale scores for the SDQ. Adolescents with chronic stuttering scored outside the “normal band” for peer relationships when compared with adolescent who do not stutter. Nearly 89% (peer

relationship between these factors. Are individuals who use more emotion-oriented coping responses perceived as less social and more likely to have difculties in developing and maintaining peer relationships? Or do adolescents who are stereotyped and stigmatized by their peers, due to their chronic stuttering, begin to use more emotion-oriented coping strategies to try to immediately reduce the feelings of rejection, criticism, disapproval, bullying and victimization. Future studies should examine these variables in children and adolescents with chronic stuttering and other chronic health conditions.

The discussion of these findings should be taken in the context of the small number of male, homogeneous participants, from middle to upper middle socio economic strata who demonstrated varying degrees of stuttering severity. Other limitations of this study include that limited age range of the participants and the use of screening measures. These data suggest that most adolescents who report or experience social communication difculties may not suffer negative mental health outcomes. Future research should continue to examine psychosocial factors determining what makes some adolescents with chronic stuttering vulnerable to negative psychological health outcomes and what attributes make them more resilient to harmful psychological consequences.

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