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Comparison of body image dissatisfaction among adolescent boys who do and do not stutter and investigating the relationship between body image dissatisfaction, anxiety and Self-assessed stuttering severity

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Abstract

Background Dissatisfaction with body image in adolescents may be associated with disorders such as anxiety. As studies have reported a high risk of anxiety disorders, especially social anxiety, in people who stutter, the present study aimed to compare body image dissatisfaction in adolescent boys who do and do not stutter and investigate the association between body image dissatisfaction and anxiety in both groups.

Materials and methods This is a cross-sectional study in which 102 adolescent male students aged 15 to 17 years (divided into two groups: 51 who stutter and 51 who do not stutter) completed the questionnaires that included an informed consent form, a body image satisfaction scale, an anxiety scale, and a self-assessed stuttering severity scale.

Results According to the results, 55% of adolescent boys who stutter had high levels of obsessive-compulsive disorder (OCD), and 59% of them had high levels of generalized anxiety disorder (GAD), while in adolescent boys who do not stutter these percentages were 43% for OCD and 49% for GAD. In addition, adolescents who stuttered were found to be significantly more dissatisfied with their faces. The path analysis model also revealed a positive relationship between self-assessed stuttering severity and dissatisfaction with body image due to anxiety. In addition, the results showed that in both groups there was a positive correlation between the values of all anxiety subscales and dissatisfaction with body image.

Conclusion A significant positive correlation was found between self-assessed stuttering severity, anxiety (particularly social anxiety), and body image dissatisfaction in adolescent boys. Therefore, the measurement of anxiety and body image dissatisfaction seems to be of particular importance in adolescent boys with moderate to high self-assessed stuttering severity.

Keywords Adolescents who stutter, Body image dissatisfaction, Anxiety, Self-assessed stuttering severity

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in Iran, which limits the generalizability of the findings to the broader population of adolescent boys aged 15 to 17 who stutter. Future research should replicate these findings in diverse cultural and geographical contexts. Additionally, this study focused exclusively on middle and late adolescence. Further research is needed to examine how stuttering and anxiety impact body image across different age groups. While focusing on male adolescents may be considered strength—given the higher prevalence of stuttering in males [46]—stuttering is reported to have a more profound impact on females [47]. Thus, studies involving female adolescents who stutter are warranted to provide a more comprehensive understanding of body image dissatisfaction in this population. Furthermore, the cross-sectional design of this study prevents the determination of causal relationships. Future longitudinal studies are needed to examine the directionality of the associations between stuttering, anxiety, and body image dissatisfaction. Although the questionnaire used in this study assessed various aspects of body image, future research could benefit from incorporating clinical interviews to gain deeper insights into how stuttering influences body image perception in affected individuals. Finally, although, according to a study by Horton et al., self-assessed stuttering severity may be considered an appropriate instrument for collecting research data, it is possible that the accuracy of ratings of severity of stuttering was different for adolescent boys with prior therapy experience than for adolescent boys without such experience. In addition, it is likely that adolescent boys with higher levels of anxiety perceive their stuttering as more severe. As a result, other researchers may benefit from clinician assessment in their studies in addition to self-assessed stuttering severity.

Implications

Schools and parents need to be aware of the impact that stuttering has on the mental health and body image of adolescent boys. In addition, the present study suggests that adolescent boys with moderate to severe stuttering need the special attention of schools, families, and mental health professionals. In addition, those who develop questionnaires to measure the impact of stuttering on the psyche and life of those affected can include a section in their questionnaires to measure the impact of stuttering on the body image of those affected (especially the face). Finally, clinicians working with this population should consider how stuttering-related anxiety may amplify body image concerns, tailoring interventions to address both speech and self-perception.

Conclusion

The present study is the first to examine the relationship between anxiety and body image dissatisfaction in adolescent boys who stutter. The results indicate that overall there is no significant difference between adolescent boys who stutter and those who do not stutter in terms of body image dissatisfaction and anxiety scores. However, adolescent boys who stutter appear to experience greater dissatisfaction with their face. In addition, it was found that self-assessed stuttering severity was positively associated with higher levels of body image dissatisfaction and anxiety. In addition, Body image dissatisfaction and anxiety levels were positively correlated in both groups. These findings may be associated with the fact that the study was conducted between the ages of 15–17 and was completed in a specific location. Future studies could be projected in different cultures and countries. Furthermore, researchers can improve their studies by including expert assessment in addition to self-assessed stuttering severity.

Abbreviations

SCAS	Spence Children's Anxiety Scale
BASS	Body Areas Satisfaction Scale
OCD	Obsessive–compulsive disorder
GAD	generalized anxiety disorder
BMI	body mass index
SAD	social anxiety disorder

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Author contributions

Mahsa Taherifard: Writing—original draft, Investigation, data collection, conceptualized and designed this research. Leila Ghahremani: review & editing, Supervision, Project administration. Zahra Gheibi: Data Analysis, Review. Mohsen Saaidmanesh: Scientific advisor, Review. Maryam Vahab: Scientific advisor.

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Data availability

The data used to support the findings of this study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

This study received ethical approval from the Ethics and Research Committee of Jahad Daneshgahi, Mashhad (Approval Code: IR.ACECRJDM.REC.1400.057) and was conducted in full compliance with the Declaration of Helsinki principles. Prior to study participation, written informed consent was obtained from all participants aged 16 years and above. For participants under 16 years of age, written informed consent was secured from their parents or legal guardians.

Consent for publication

Not applicable (since no individual person's data, images, or videos are included in this manuscript).