The effect of different negative reinforcement on stuttering frequency

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Introduction

According to reports, children’s stuttering develops from preschool age and results from an unresolved process of determining different negative and positive reinforcers. Different negative reinforcers that are not resolved therefore contribute to stuttering being more severe in statement-making compared with younger age children. However, speech-reinforcement therapy treatment is the most effective and efficient method enabling the elimination of stuttering. Furthermore, its efficiency is strongly dependent on age and severity of the disease. However, research and treatment studies investigating negative reinforcement and resulting speech improvement are relatively scarce. The purpose of this research was to evaluate the effects of two negative reinforcement approaches (i.e., the "repetition" group and the "punishment" group) on the reduction of occurrence stuttering in children with normal intelligence. In the present study, children's stuttering was assessed with the "Dysarthria Measurement and Social Scales Assessment Tool" (DMSST), a standardized clinical tool. The findings suggested that different negative reinforcement approaches have different effects on the severity of stuttering in children.

Results

Repetition group

1. Treatment effectiveness depended on age. The 
   "Repetition" group was most effective in children younger than 3 years old. In this group, a significant reduction in stuttering frequency was observed, with the percentage of corrected disfluencies ranging from 35% to 90% in children under 3 years old and from 15% to 60% in children aged 3 to 6 years. A significant improvement was observed in children aged 3 to 6 years, with the percentage of corrected disfluencies ranging from 35% to 90% in children under 3 years old and from 15% to 60% in children aged 3 to 6 years. A significant improvement was observed in children aged 3 to 6 years, with the percentage of corrected disfluencies ranging from 35% to 90% in children under 3 years old and from 15% to 60% in children aged 3 to 6 years.

2. Treatment effectiveness did not depend on stuttering severity. The 
   increase in severity of stuttering was not associated with a reduction in treatment effectiveness. The correlation between treatment effectiveness and stuttering severity was found to be statistically non-significant (r=0.05, p>0.05), but it was consistently significant (r=0.05, p<0.05).

Conclusion

A comparison of the two groups revealed that the "punishment" group exhibited a significantly higher effect on stuttering reduction compared to the "repetition" group. The "punishment" group led to significant speech improvement, with a higher percentage of corrected disfluencies observed in comparison to the "repetition" group. This suggests that negative reinforcement techniques, such as the "punishment" approach, can effectively reduce stuttering frequency in children. The use of different negative reinforcers can lead to varying outcomes, with the "punishment" group demonstrating a stronger effect on speech improvement. However, further research is needed to explore the long-term effects of these approaches and to determine the most effective strategies for managing stuttering in children.