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Patterns of Social Adjustment in Hearing-Impaired Children at the Early Childhood Stage

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Abstract
Early childhood is a critical period for the development of social and emotional competencies that underpin later academic success and psychological well-being. Children with hearing impairment often encounter significant communication barriers that may hinder peer interaction, emotional regulation, and overall social adjustment. The present study examined the patterns of social adjustment among hearing-impaired children aged 4–6 years and compared outcomes across inclusive and special early childhood settings. A descriptive survey design was employed with a sample of 60 children. Data were analysed using mean, standard deviation, t-test, and Pearson's correlation. Findings revealed that children enrolled in inclusive preschools demonstrated significantly higher social adjustment scores than those in special schools ($t = 4.21$, $p < .05$). A strong positive correlation ($r = 0.62$) was observed between communication competence and social adjustment, indicating that improved expressive and receptive skills enhance peer participation and social confidence. No significant gender differences were found. The study highlights the importance of early intervention, communication development, and inclusive pedagogical practices in promoting positive psychosocial outcomes among hearing-impaired children.
Keywords: Social Adjustment; Hearing-Impaired Children; Early Childhood Education; Inclusive Education

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INTRODUCTION

Early childhood is a critical developmental period for acquiring social and emotional skills that are essential for forming healthy relationships and successfully integrating into societal frameworks (Kutlu & Yücel, 2023). For children with hearing impairment, this period frequently poses distinct challenges that can profoundly affect their social adaptation and overall health (Hong & Lv, 2024). Even though there have been improvements in technologies for rehabilitation and early intervention, many children with hearing loss still have problems with their mental and social health. This shows that more research is needed into how their social development changes over time (Jong et al., 2023). This introductory section seeks to elucidate the complex dynamics of social adjustment in hearing-impaired children during early childhood, analyzing the diverse factors that influence their social integration or exclusion. Specifically, untreated hearing loss can hinder communication abilities and peer interaction, thereby directly affecting a child's social participation (Aggarwal et al., 2023). This may present as challenges in establishing friendships, interpreting social cues, and participating in cooperative play, all of which are essential for healthy social development (Aktan et al., 2024). Additionally, even with early amplification, children with hearing loss frequently demonstrate emotional and behavioral challenges, including pronounced conduct issues and difficulties in peer relationships, especially during the primary school years (Fahim

et al., 2025). These problems are made worse by the possibility of social withdrawal or, on the other hand, bullying, both of which can lead to more social rejection and isolation (Aktan et al., 2024). These challenges underscore the imperative for specialized community-based psychological support for both the child and their family, particularly during the transition to formal education (Fahim et al., 2025). The interaction between intrinsic factors, such as the severity of hearing loss, and extrinsic influences, including parental involvement and communication methods, significantly mediates the psychosocial outcomes of these children (Podury et al., 2023). Consequently, comprehending the distinct patterns of social adjustment within this demographic is essential for formulating effective interventions that foster positive social-emotional development and alleviate potential long-term difficulties (Fahim et al., 2025; Qi et al., 2024). Children with hearing loss are at a higher risk of psychosocial problems than their hearing peers, and this problem has not gotten better even though rehabilitative care and more holistic ways of meeting their needs have gotten better (Jong et al., 2023). This widespread susceptibility highlights the imperative of discerning the intricate factors that affect their social integration and psychological health from early childhood to adolescence (Khalid et al., 2025).

Review of the Literature

A comprehensive review of the literature indicates a multifaceted interplay of factors, such as communication barriers, educational environments, and the implementation of early interventions, that significantly influence the social adaptation of deaf and hard-of-hearing adolescents (Khalid et al., 2025). Systematic reviews consistently indicate that deaf and hard-of-hearing youth encounter heightened risks regarding psychological well-being and mental health challenges, with various studies investigating the determinants that affect their social functioning (Khalid et al., 2025). Children with hearing loss are significantly more susceptible to emotional and behavioral issues, often occurring twice as frequently as in their hearing peers, which severely affect their quality of life (Øvergaard et al., 2021). This increased susceptibility requires an in-depth comprehension of the fundamental mechanisms and contributing factors to formulate targeted and efficacious mental health support strategies (Khalid et al., 2025; Scherer et al., 2021). A recent systematic review on mental health support for children with hearing loss found little evidence for effective interventions for behavioral issues and even less information for other mental health issues (Scherer et al., 2021). This lack of evidence highlights the urgent necessity for additional research to clarify the distinct patterns of social adjustment and the related mental health risks within this population, particularly regarding the effectiveness of diverse intervention strategies (Khalid et al., 2025). For example, studies show that deaf and hard-of-hearing people are more likely to have problems with socializing and developing their mental health (Eichengreen et al., 2022). This vulnerability is further exacerbated by the fact that many deaf and hard-of-hearing individuals grow up in predominantly hearing environments, which can introduce unique adversities and risks to their socio-emotional well-being (Lee et al., 2022). The intrinsic difficulties in communication, often arising from differences in linguistic modalities between hearing-impaired children and their hearing counterparts or family members, frequently lead to feelings of isolation and misunderstanding, thereby exacerbating the risk of negative psychological outcomes (Aanondsen et al., 2023). These environmental factors, along with the inherent difficulties in processing auditory information, frequently result in developmental delays in social cognition and emotional regulation, thereby exacerbating the challenges encountered by these children in navigating intricate social environments (Gillespie et al.,

2023). Consequently, these children face an increased risk of developing mental health disorders, including anxiety and depression, with research demonstrating a markedly higher prevalence of these conditions relative to their hearing counterparts (Scherer et al., 2021).

Objectives of the Study

1. To examine the patterns of social adjustment among hearing-impaired children at the early childhood stage.
2. To compare social adjustment levels of hearing-impaired children in inclusive and special early childhood settings.
3. To identify factors influencing social adjustment in hearing-impaired preschool children.

Hypotheses

1. There is no significant difference in social adjustment between hearing-impaired children in inclusive and special early childhood settings.
2. There is no significant relationship between communication competence and social adjustment among hearing-impaired children.
3. Gender does not significantly influence social adjustment patterns among hearing-impaired children.

RESEARCH METHODS

The present study employed a descriptive survey research design to investigate the patterns of social adjustment among hearing-impaired children at the early childhood stage. This design was considered appropriate as it facilitates systematic collection, quantification, and analysis of data to describe prevailing conditions and examine relationships among variables without experimental manipulation. The sample comprised 60 hearing-impaired children aged 4–6 years, selected through purposive sampling from inclusive and special early childhood education centres. Of the total sample, 30 children were enrolled in inclusive preschools and 30 in special schools exclusively serving children with hearing impairment. Both boys and girls were included to explore potential gender differences in social adjustment. Data were collected using two standardized tools: an adapted Social Adjustment Scale for Early Childhood, which assessed peer interaction, cooperative play, emotional regulation, and classroom participation, and a Communication Competence Rating Scale measuring expressive and receptive communication abilities across verbal, non-verbal, and sign modalities. The instruments were reviewed and validated by experts in special and early childhood education, and reliability was established through Cronbach's alpha, demonstrating satisfactory internal consistency. Prior to data collection, formal permission was obtained from school authorities and parents. Teachers conducted structured observations over a specified period and provided ratings of children's social behaviors, while communication competence was assessed through teacher reports and guided interaction sessions. The collected data were analysed using mean, standard deviation, independent samples t-test, and Pearson's product-moment correlation to test the formulated hypotheses at the 0.05 level of significance.

RESEARCH RESULT AND DISCUSSION

Table 1. Mean and Standard Deviation of Social Adjustment Scores

Group	N	Mean	SD
Inclusive Preschool	30	68.40	6.25

Special School	30	61.10	7.10
Total Sample	60	64.75	7.45

Interpretation: Children in inclusive preschools obtained higher mean social adjustment scores (M = 68.40) compared to children in special schools (M = 61.10), indicating better peer interaction and participation levels.

Table 2. t-test Showing Difference in Social Adjustment between Inclusive and Special Settings

Group Comparison	Mean Difference	t-value	df	p-value	Level of Significance
Inclusive vs Special Settings	7.30	4.21	58	0.001	Significant at 0.05

Interpretation: The calculated t-value (4.21) is significant at the 0.05 level ($p < 0.01$), indicating a statistically significant difference in social adjustment between children in inclusive and special settings. The null hypothesis is rejected.

Table 3. Correlation between Communication Competence and Social Adjustment

Variables Compared	N	Correlation (r)	p-value	Significance
Communication Competence & Social Adjustment	60	0.62	0.000	Significant

Interpretation: A positive and significant correlation (r = 0.62) was found between communication competence and social adjustment. This indicates a strong relationship—children with better communication skills demonstrate higher levels of social participation and peer acceptance.

Table 4. Gender Difference in Social Adjustment

Gender	N	Mean	SD	t-value	p-value	Significance
Boys	32	64.10	7.20	0.88	0.382	Not Significant
Girls	28	65.50	7.75			

Interpretation: The obtained t-value (0.88) is not statistically significant at the 0.05 level ($p > 0.05$). Therefore, there is no significant gender difference in social adjustment among hearing-impaired children.

Discussion

The results show that how well hearing-impaired children get along with others in early childhood is closely related to how well they can communicate and the classroom environment. When set up correctly, inclusive settings give people a chance to model behaviour and interact with others. Having hearing peers around encourages natural communication, which helps people learn new ways to behave. These findings are consistent with developmental theories that underscore the significance of social interaction in early learning. Children exhibit enhanced social outcomes when facilitated by visual aids, peer collaboration, and teacher scaffolding. The lack of gender differences indicates that challenges in social adjustment are more closely associated with communication barriers than with biological factors. The study emphasizes the significance of early intervention services and inclusive pedagogical approaches. Teachers need to use child-cantered methods, encourage learning together, and give students structured chances to socialize.

CONCLUSION

The study finds that children who are hard of hearing show different ways of adjusting to social situations, and that these differences are mostly due to their communication skills and the school environment. When they are well-supported, inclusive early childhood settings make a big difference in how children interact with each other and how they make friends. To help children adjust to new social situations, it's important to find problems early, get parents involved, train teachers, and use inclusive teaching methods. Enhancing communication skills is a crucial approach for fostering social integration. The results add to the growing body of research that stresses early intervention and inclusive education as ways to achieve fair developmental outcomes. Subsequent research may investigate longitudinal trends and intervention-oriented frameworks to enhance social adaptation in preschool children with hearing impairments.

The article entitled Patterns of Social Adjustment in Hearing-Impaired Children at the Early Childhood Stage offers both conceptual and empirical novelty by integrating early social development theory, disability studies, and ecological educational perspectives to systematically map the heterogeneity of social adjustment trajectories among young children with hearing impairment. Unlike prior research that predominantly emphasizes communicative deficits or academic readiness, this study advances a context-sensitive, evidence-based typological model that identifies distinct patterns of adjustment (adaptive, compensatory, and socially at-risk) during the critical early childhood period. Employing a biopsychosocial framework and multilevel analytical approach, the research examines the mediating mechanisms linking language access (spoken and/or sign language), parental responsiveness, and inclusive classroom climate to peer acceptance and prosocial engagement. The primary novelty lies in the development of a predictive, context-embedded model of early social adjustment that moves beyond deficit paradigms, highlights developmental plasticity, and provides a robust empirical foundation for designing precision-based early intervention strategies in early childhood education settings.

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