



INFLUENCE OF ONSET OF HEARING LOSS AND PARENTAL INVOLVEMENT ON READING COMPREHENSION OF PRIMARY SCHOOL PUPILS WITH HEARING IMPAIRMENT IN OYO TOWN

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Abstract

This empirical study investigates the influence of the onset of hearing loss and parental involvement on the reading comprehension of

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students with hearing impairment in Oyo town,

INTRODUCTION

Background of the Study

Hearing impairment is a significant disability that affects communication and educational outcomes. There is a growing need to understand how the onset of hearing loss and parental involvement impact the reading comprehension abilities of students with hearing impairments in the field of education.

Education is a fundamental right and a crucial element in personal and societal development. For students with disabilities, including those with hearing impairments, achieving academic success requires tailored educational strategies and supports. Reading comprehension, a vital component of academic achievement, is particularly challenging for students with hearing impairments.

Hearing impairment, encompassing a range of

Nigeria. Using a mixed-method approach, the research explores the relationships between the age of onset of hearing loss, the degree of parental involvement in educational activities, and the reading comprehension abilities of affected students. Data were collected from a sample of 200 students with hearing impairment, their parents, and teachers through surveys, interviews, and standardized reading comprehension tests. Quantitative data were analyzed using statistical methods, while qualitative data were thematically analyzed to identify key patterns and insights. The results indicate that early-onset hearing loss significantly impacts reading comprehension, but high levels of parental involvement can mitigate some of these effects. The study concludes with recommendations for educators and policymakers to enhance the educational outcomes for students with hearing impairments.

Hearing loss from mild to profound, significantly affects an individual's ability to perceive auditory information. This can lead to difficulties in language acquisition, communication, and learning (Marschark & Hauser, 2012). The impact of hearing impairment on education is multifaceted. Pupils with hearing impairments often face challenges in developing phonological awareness, a critical skill for reading comprehension (Puhlman & Wood, 2019). Additionally, pupils with hearing impairment may struggle with vocabulary acquisition, syntax, and pragmatic language skills, all of which are essential for understanding and interpreting text (Pagliaro, 2018), for all ages.

The age of onset of hearing loss significantly impacts language and literacy development, with early onset hearing loss (before spoken language acquisition) potentially leading to profound deficits in phonological skills, reading abilities, and academic achievement (Ching et al., 2020; Fitzpatrick et al., 2017; Gallaudet Research Institute, 2020; Moeller et al., 2019; Werfel & Doucet, 2017). Conversely, Late-onset hearing loss, which occurs after the acquisition of spoken language, may have a less profound impact on literacy skills, as the foundation language skills are already established, although some difficulties in reading comprehension and vocabulary development may still arise (Kushalnagar et al., 2020; Li et al., 2020; Nittrouer et al., 2018; Sarant et al., 2019; Zekveld et al., 2019). However, the deficiency can be limited with parental involvement.

Parental involvement is a well-documented factor influencing academic success across all student populations. Parents of children with hearing impairment can support their children's language development by creating a language – rich environment at home. (Ching, Dillon & Marnane, 2018). Research suggests that high levels of parental involvement are associated with better academic outcomes, including improved reading comprehension (Laura & Saracostti, 2019). Parents who are actively involved in their child's education can advocate for necessary resources

and accommodations, support language development at home, and collaborate with educators to ensure consistent and effective learning strategies, leading to improved academic outcomes and language skills (Henderson et al., 2020; Jeynes, 2016; Kim & Lee, 2017; Li & Liu, 2019; Wilder, 2014).

Objectives of the Study

1. To determine the impact of early-onset hearing loss on reading comprehension.
2. To assess the role of parental involvement in the educational outcomes of students with hearing impairments.
3. To explore the interaction between onset of hearing loss and parental involvement in shaping reading comprehension.

Research Questions

1. How does early-onset hearing loss affect reading comprehension in students with hearing impairments?
2. What is the role of parental involvement in the reading comprehension of these students?
3. How do these factors interact to influence reading comprehension?

Research Design

A mixed-method approach was adopted, combining quantitative and qualitative data collection methods to provide a comprehensive understanding of the research problem.

Population and Sample

The study involved 200 pupils with hearing impairments, along with their parents and teachers, from various schools in Oyo town.

Data Collection Instruments

Data were collected using standardized reading comprehension tests, structured interviews, and parental involvement questionnaires.

Data Analysis

Quantitative data were analyzed using statistical methods, while qualitative data were thematically analyzed to identify key patterns and insights.

Results

Table 1: Demographic Information

Variable	Category	Frequency	Percentage
Age	8-10	70	35%
	11-13	80	40%
	14-16	50	25%

Gender	Male	120	60%
	Female	80	40%
Hearing Loss Onset	Early (0-3 years)	90	45%
	Late (4-6 years)	60	30%
	Very Late (7+ years)	50	25%
Parental Involvement	High	100	50%
	Medium	60	30%
	Low	40	20%

Data Interpretation:

The demographic data reveals that the majority of pupils (60%) are male, and most (45%) experienced early onset hearing loss. Additionally, half of the parents (50%) have high involvement in their child's education.

Table 2: Reading Comprehension Scores

Variable	Mean	Standard Deviation	Range
Reading Comprehension Score	65.5	12.2	40-90
Early Onset Hearing Loss	70.2	10.5	50-90
Late Onset Hearing Loss	62.1	13.5	40-80
Very Late Onset Hearing Loss	58.5	11.2	40-70
High Parental Involvement	72.5	9.2	60-90
Medium Parental Involvement	65.8	12.1	50-80
Low Parental Involvement	59.2	10.8	40-70

Data Interpretation:

The reading comprehension scores indicate that pupils with early onset hearing loss have significantly higher scores (70.2) compared to those with late (62.1) or very late (58.5) onset hearing loss. Similarly, pupils with high parental involvement have significantly higher scores (72.5) compared to those with medium (65.8) or low (59.2) parental involvement.

Table 3: Interaction Effects

Variable	Early Onset x High PI	Early Onset x Medium PI	Early Onset x Low PI
Reading Comprehension Score	80.1	72.2	65.5
Late Onset x High PI	68.5	65.1	60.2
Late Onset x Medium PI	63.2	60.5	57.1
Very Late Onset x High PI	62.1	59.2	55.5

Data Interpretation:

The interaction effects reveal that the combination of early onset hearing loss and high parental involvement has a synergistic effect, leading to significantly higher reading comprehension scores (80.1) compared to other groups. This suggests that early intervention and high parental involvement are crucial for optimal reading comprehension outcomes among students with hearing impairments.

Discussion

Interpretation of Findings

The findings suggest that while early-onset hearing loss poses a significant challenge to reading comprehension, parental involvement can play a mitigating role. This underscores the need for policies that encourage parental engagement in the education of children with hearing impairments.

The findings of this study reveal that early onset hearing loss is associated with better reading comprehension skills among students with hearing impairments. This is likely due to the fact that early intervention and access to hearing aids or cochlear implants can improve language development and literacy skills. Moreover, high parental involvement is also associated with better reading comprehension skills among pupils with hearing impairments, suggesting that parents who are more involved in their child's education can provide additional support and resources that enhance their child's literacy skills.

Notably, the combination of early onset hearing loss and high parental involvement has a synergistic effect; leading to significantly higher reading comprehension scores. This indicates that early intervention and high parental involvement can have a multiplier effect, resulting in even better outcomes for students with hearing impairments. Overall, the findings of this study highlight the importance of early intervention and parental involvement in supporting the literacy skills of students with hearing impairments.

The implications of these findings are clear: early intervention programs for hearing impairments should be prioritized to improve language development and literacy skills. Additionally, parents of students with hearing impairments should be encouraged to be more involved in their child's education to provide additional support and resources. Furthermore, educators and policymakers should consider the synergistic effect of early onset hearing loss and high parental involvement when developing programs and services for pupils with hearing impairments.

It is important to note that this study has some limitations. For instance, the study only included pupils with hearing impairments and did not compare them to pupils without hearing impairments. Additionally, the study only measured reading comprehension skills and did not examine other literacy skills, such as writing or speaking. Moreover, the study only included a small sample size and may not be representative of all pupils with hearing impairments.

Future research directions include conducting a larger, more representative study to confirm the findings and explore other literacy skills. Additionally, examining the impact of early intervention and parental involvement on other academic subjects, such as math and science, could provide valuable insights. Investigating the effectiveness of different types of early intervention programs and parental involvement strategies could also help to identify best practices for supporting pupils with hearing impairments.

Implications for Practice

Educators should foster strong partnerships with parents and provide them with the tools and knowledge needed to support their children's education effectively.

The findings of this study have several implications for practice. Firstly, the results highlight the importance of early intervention for students with hearing impairments. Educators and policymakers should prioritize early intervention programs to improve language development and literacy skills. This is crucial as early intervention can significantly impact the future academic success of students with hearing impairments.

In addition, the study emphasizes the significance of parental involvement in supporting the literacy skills of pupils with hearing impairments. Parents should be encouraged to be more involved in their child's education, and educators should provide resources and support to facilitate this involvement. This collaborative approach between educators and parents can lead to better outcomes for pupils with hearing impairments.

Moreover, the synergistic effect of early onset hearing loss and high parental involvement suggests that a collaborative approach between educators, parents, and hearing specialists is crucial for optimal outcomes. This requires effective communication and coordination among all parties involved to ensure that pupils with hearing impairments receive the support they need.

Furthermore, the study's findings indicate that pupils with hearing impairments require individualized support to address their unique needs. Educators should work with hearing specialists and parents to develop personalized learning plans that cater to the specific requirements of each student. This may include providing additional resources, such as hearing aids or assistive technology, to support pupils with hearing impairments.

To effectively support students with hearing impairments, educators should receive professional development training to enhance their knowledge and skills. This training should focus on strategies for teaching pupils with hearing impairments, as well as how to use assistive technology and other resources to support their learning. In addition, schools should ensure access to resources such as hearing aids, cochlear implants, and assistive technology to support students with hearing impairments. This may require collaboration with hearing specialists and other professionals to ensure that pupils receive the necessary support.

Finally, educators should adopt inclusive practices that accommodate the diverse needs of pupils with hearing impairments. This may include using visual aids,

providing extra time for assignments, and using alternative communication methods, such as sign language or written notes. By implementing these strategies, educators can create a supportive and inclusive learning environment that fosters academic success for pupils with hearing impairments.

Recommendations for Future Research

Future studies should explore the long-term effects of parental involvement and investigate other factors that may influence the educational outcomes of pupils with hearing impairments.

Future research on the literacy skills of pupils with hearing impairments should consider several directions. Firstly, a longitudinal study could examine the long-term effects of early intervention and parental involvement on literacy skills, providing valuable insights into the sustainability of these interventions. Additionally, a comparison study could investigate the literacy skills of students with hearing impairments who receive early intervention and parental involvement versus those who do not, shedding light on the efficacy of these approaches.

Furthermore, an intervention study could develop and implement a program targeting specific literacy skills for students with hearing impairments, assessing its effectiveness in improving their literacy outcomes. Moreover, a study examining parent-child interaction patterns could identify effective strategies for supporting literacy development in children with hearing impairments. The impact of assistive technology, such as cochlear implants and hearing aids, on literacy skills also warrants investigation.

Teacher training programs and inclusive education initiatives should also be evaluated for their effectiveness in supporting the literacy instruction of students with hearing impairments. A family-centered approach to supporting literacy development in these students could be explored, as well as the impact of cultural and linguistic diversity on their literacy skills. Finally, policy and practice factors influencing the literacy education of students with hearing impairments should be examined to identify areas for improvement. By pursuing these research directions, we can deepen our understanding of the complex factors influencing the literacy skills of students with hearing impairments and develop effective strategies to support their literacy development.

Conclusion

This study highlights the complex interplay between the onset of hearing loss and parental involvement in shaping the reading comprehension abilities of pupils with hearing impairments in Oyo town. By addressing these factors, stakeholders can develop more effective educational strategies to support these students' academic growth.

In conclusion, the study on the influence of onset of hearing loss and parental involvement on the reading comprehension of students with hearing impairment in Oyo Town revealed significant findings. Early onset of hearing loss and high parental involvement were found to be significant predictors of better reading comprehension skills among students with hearing impairments. The study highlights the importance of early intervention and parental involvement in supporting the literacy skills of pupils with hearing impairments.

The findings of this study have implications for practice, emphasizing the need for early intervention programs, parental involvement, and individualized support for pupils with hearing impairments. Educators and policymakers should prioritize these factors to ensure optimal literacy outcomes for these pupils.

Future research directions include longitudinal and comparison studies, intervention programs, and examinations of teacher training, inclusive education, and policy and practice factors. By pursuing these research directions, we can further understand the complex factors influencing the literacy skills of pupils with hearing impairments and develop effective strategies to support their literacy development.

Ultimately, this study contributes to the existing body of knowledge on supporting pupils with hearing impairments, emphasizing the critical role of early intervention and parental involvement in promoting their literacy skills. By translating these findings into practice, we can work towards ensuring that pupils with hearing impairments receive the support they need to succeed academically and beyond.

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