

# **Research Paper**





The Relationship of Pragmatic Language Competency and Self-Esteem in **Hearing-Impaired Children** 

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## **ABSTRACT**

Background and Aim It is suggested that hearing impaired children with hearing aids and cochlear implant, showed poor pragmatic abilities. Pragmatic is the most related language component to social interaction. Further, it has effect on personality development and self-esteem. The main aim of the present study is investigating the relationship between pragmatic abilities and self-esteem in hearing impaired children. Methods & Materials sixty hearing impaired children with hearing aids or cochlear implant were included into this study according to inclusion and exclusion criteria. Then parents or other caregivers were asked to fulfill children's communication checklist (CCC) and self-esteem questionnaire. The participants were divided into three groups based on hearing impairment severity, including: severe, moderate and mild. The relationship between pragmatic ability and self-esteem was examined in three groups and without considering categorization, by Pearson correlation coefficient, significant level was 0.05.

Ethical Considerations This project was approved by the Arak University of Medical Sciences (Code: IR.ARAKMU.REC.1399.150).

Results The results illustrated that there is significant relationship between pragmatic abilities and selfesteem in all hearing impairment children without considering categorization (P<0.05). By considering categorization, significant relationship was showed in self-esteem and pragmatic abilities in moderate and mild groups (P<0.05).

Conclusion According to our analysis, pragmatic abilities and self-esteem are related. This relationship is more obvious in low severity impairment.

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### **Extended Abstract**

### Introduction

earing impairment is beyond a simple condition, especially in children [1]. It has influenced language development in all components because it can restrict access to spoken language for children with hearing impairment [4]. Like other language components, pragmatic language competency is also impaired in these children [8]. Also, pragmatic language competency is forcefully correlated with behavioral characteristics [6].

Hearing impairment as a disability is related to psychosocial problems [13]. Moreover, some studies have shown that hearing-impaired people experience more problems in self-esteem because of their communication, speech, and language disorders and impaired access to the environmental and verbal sounds in the world [15, 17]. These investigations declared that hearing-impaired children compared to their peers with normal hearing had lower self-esteem levels [15, 16]. Similarly, deaf and hard-of-hearing adolescents compared to normal-hearing peers had lower self-esteem [18]. But it is still controversial why self-esteem is lower in hearing-impaired children so that recent theories have suggested some effective variables, such as environmental factors [17]. However, other notable factors, such as communication problems and pragmatic ability affect self-esteem [9, 14, 19]. The relationship between pragmatic competency, as an important language part of communication, and self-esteem in hearing-impaired children, has not been discussed. Thus, the present study was done to explore this relationship in hearing-impaired children of preschool age.

# **Materials and Methods**

This is a descriptive correlational study, which was conducted for five months, February 2020 to July 2020, in which 60 children with mild to severe hearing impairment were included; 20 children with mild, 20 children with moderate, and 20 children with a severe hearing impairment aged 6-7 years. All children had hearing aid or cochlear implant. They were selected according to inclusion criteria from private clinics, auditory rehabilitation centers, and the Arak University of Medical Sciences affiliated speech therapy clinics in Arak, Iran. All children used spoken language and had no history of neurological and psychological problems and physical and mental disabilities. They were all monolingual Persian-speaking children with normal or corrected to normal vision. Those unwilling to participate were excluded from the study.

Pragmatic ability was assessed by the pragmatic section of the children communication checklist (CCC) Persian version [20]. This tool consists of nine subscales, speech, syntax, inappropriate initiation, coherence, stereotyped conversation, context, rapport, social behavior, and restricted Interests. The pragmatic section has five subscales, inappropriate initiation, coherence, stereotyped conversation, context, and rapport, and each subscale has almost eight items [19]. Self-esteem was measured through Self-Esteem Scale for Preschool Children. This scale has 20 items, including social, academic, family, and physical [21]. Parents were asked to complete both checklists.

## **Results**

In the present study, 60 hearing-impaired children (12 girls and 48 boys) with a hearing aid and cochlear implant aged from 6 to 7 years old (Mean±SD 60.9±18.7 months) participated. There was a significant correlation between pragmatic ability and self-esteem in all participants. The correlation between pragmatic ability and self-esteem was calculated in each hearing-impaired subgroup, it was significant in just mild and moderate hearing-impaired children.

#### **Discussion**

The present study on 6- to 7-year-old hearing-impaired children using both hearing aids and cochlear implants, confirmed that pragmatic ability was correlated with selfesteem in all hearing-impaired children. Thus, it is an important factor for self-esteem, as a psychological behavior. Our result is in accordance with a previous study on the importance of pragmatism in self-esteem [6] and communication skills [9, 19]. Pragmatism is hypothesized to play a key role in hearing-impaired children's self-esteem and heightens the importance of pragmatism in speech and language rehabilitation for hearing-impaired children. It can result in a higher level of self-esteem, which is essential for healthy psychosocial status [9]. As the severity of hearing impairment increases, the children's overall score in five pragmatic composes decreases. As expected, the severity of hearing impairment is an effective factor in pragmatic competence. This is in the line with the results of earlier studies [7, 13]. Self-esteem and pragmatism correlational coefficient is higher in mild, then moderate, and finally severe hearing-impaired children. The severity of hearing impairment affects the relationship between selfesteem and pragmatism. It highly affects lower levels of hearing impairment, mild and moderate, respectively. It seems that the importance of pragmatism in self-esteem in mild and moderate hearing-impaired children is higher

than in severe hearing-impaired children. To conclude, self-esteem and pragmatism are related in hearing-impaired children, especially in the lower level of impairment.

## **Ethical Considerations**

# Compliance with ethical guidelines

This project was approved by the Arak University of Medical Sciences with the ethical registration code IR.ARAKMU.REC.1399.150. All parents gave written informed consent forms.

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### **Authors' contributions**

Concept, design, and literature review: Sousan Salehi, Saeed Mirahmadi, Maryam Tarameshlou; Data gathering: Sousan Salehi, Saghar Hashemi, Milad Hassan Sheikhi; Manuscript preparation, edition, and Ssupervision: Sousan Salehi, Saeed Mirahmadi, Maryam Tarameshlou.

### **Conflicts of interest**

The authors declared no conflict of interest.

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