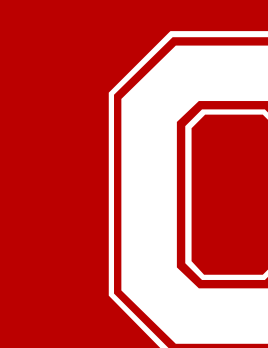


The Role of Early Intervention in Parental Self-Efficacy for Families of Deaf and Hard-of-Hearing Children



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Background

Parental self-efficacy (PSE) is the belief that one is capable of positively impacting child development and is confident in carrying out parenting tasks to do so (Bandura, 1989).

Promoting self-efficacy is a fundamental goal of early intervention (EI) for families of children who are deaf/hard-of-hearing (CDHH) (Moeller et al., 2013) and is positively associated with better quality and quantity of maternal linguistic input (DesJardin, 2006; DesJardin & Eisenberg, 2007).

EI best practices call for parent involvement in decision-making (Moeller et al., 2013). The current study investigates the relationship among EI, parental involvement, and PSE.

Purpose

The current study was motivated by the following research questions:

1. What effect does age at enrollment in EI services have on PSE?
2. What effect does dosage of EI services (frequency and intensity) have on PSE?
3. Do parents with better self-efficacy demonstrate more involvement in deciding Individualized Family Service Plan (IFSP) goals, services, and amount of services?

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Method

Experimental design: Retrospective correlational and between-subjects study

Participants: N = 65 hearing parent/DHH child dyads (see Tables 1 and 2 for child and parent/caregiver characteristics)

Inclusion criteria: prelingual bilateral deafness, moderate to profound range, no additional diagnoses

Dependent variable: Parental self-efficacy – Scale of Parental Involvement and Self-Efficacy (SPISE) (DesJardin, 2003); self-report survey; all items are rated on a 7-point Likert scale; includes 4 subscales (PSE re: speech-language development, PSE re: device use; parental involvement re: speech-language development; parental involvement re: device use)

Independent variables:

- Age at enrollment in EI
- EI dosage (frequency and intensity)
- Involvement in IFSP decision-making (goals, kinds of services, amount of EI services)

| Characteristics | Mean (SD; range) |
|-------------------------------|------------------|
| Age at test | 6.25 (1.6) |
| Age at ID (months) | 3.1 (7.1; 1-36) |
| Age at EI enrollment (months) | 8.47 (7.4) |
| Age at first CI (n = #) | 21.85 (12.9) |
| Age at first HA (n = #) | 8.59 (7.6) |
| Race (percent) | |
| White | 84.6 |
| Black | 8 |
| Black/white | 5 |
| Asian/white | 2 |
| American Indian or Alaskan | 2 |
| Native/white | |
| Ethnicity (percent) | |
| Non-Hispanic | 97 |
| Hispanic | 3 |

Table 1. Child characteristics

| Characteristics | N | Percent |
|-------------------------|----|---------|
| Highest Education Level | 65 | |
| HS graduate | | 12.3 |
| Associate's degree | | 10.8 |
| Some college | | 21.5 |
| Bachelor's degree | | 32.8 |
| Master's/Phd/Prof. | | 23.1 |
| Annual Household Income | 64 | |
| Under \$5,500-\$24,999 | | 10.9 |
| \$25,000-\$49,999 | | 15.6 |
| \$50,000-\$94,999 | | 31.6 |
| \$95,000 and over | | 42.2 |

Table 2. Parent/caregiver characteristics

Results

Effects of age at EI enrollment on parental PSE

- Age at EI enrollment was not correlated with PSE ($p \geq .672$)

Relationship between dosage of EI services (frequency and intensity) on PSE

- Independent samples t-tests found no effect for frequency (1-2 visits/month, 3+ visits/month) ($p \geq .160$) or intensity (30–45-minute visits, 45+ minute visits) of EI visits ($p \geq .226$)

Relationship between PSE and parent involvement in deciding IFSP goals, services, and amount of services

- Independent samples t-tests found mixed results (See Table 3)
- Parents who were involved in deciding amount of EI services reported better self-efficacy related to amplification use
- Self-efficacy of amplification use and speech-language development did not significantly differ based on parent involvement in determining IFSP goals and kinds of services
- Parental involvement in device use significantly differed for parents who reported that professionals determined IFSP goals, kinds of services, and amount of EI services
- Parents who were involved in determining amount of EI services reported better parental involvement in their child's speech-language development

| SPISE subscales | Goals | | | Kinds of services | | | Amount of services | | |
|---|--|---------------------------|------|--|-----------------------|------|--|---------------------------|-------|
| | Parents or parents + professionals Mean(SD) | Professionals Mean(SD) | p | Parents or parents + professionals Mean(SD) | Professionals (SD) | p | Parents or parents + professionals Mean(SD) | Professionals Mean(SD) | p |
| Self-efficacy: Amplification use | 5.81(1.03) | 5.58(1.08) | .594 | 5.85(.96) | 5.62(1.18) | .235 | 6.07(.82) | 5.49(1.14) | .023* |
| Self-efficacy: Speech-language development | 6.09(.86) | 5.83(.71) | .455 | 6.13(.80) | 5.90(.93) | .380 | 6.25(.69) | 5.88(.95) | .07 |
| Parental involvement re: Amplification use | 3.63(.57) | 4.16(.66) | .02* | 3.61(.58) | 3.97(.6) | .04* | 3.45(.46) | 4(.61) | .001* |
| Parental involvement: Speech-language development | 5.2(.92) | 4.18(.86) | .455 | 5.14(.94) | 4.88(.98) | .32 | 5.32(.89) | 4.8(.96) | .029* |

Table 3. IFSP decision-making
* p value $\leq .05$

Discussion

- The absence of correlation between age at EI and PSE might be due to the limited variability in age at enrollment; perhaps parents demonstrate greater self-efficacy in relation to age at enrollment further into their parenting journey beyond the birth to three years
- Parents might rely more heavily on professionals in terms of decision-making regarding device use during the early years
- Future research might further clarify how EI “dosage” is quantified
- EI providers should continue promoting PSE and involvement in decision-making

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