



Effectiveness of School-Based Speech-Language Therapy Services and Caregiver Satisfaction

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Purpose: In South Korea, the government recently introduced the School Speech-Language Pathology (SLP) Pilot Program to incorporate speech therapy services within elementary schools, with the objective of improving accessibility for students. Despite the implementation of this initiative, there remains limited research regarding its actual impact, particularly concerning caregivers' satisfaction. This study aims to evaluate caregivers' satisfaction with school-based speech therapy services, focusing on various aspects of the program.

Methods: This study was conducted over six months at two elementary schools in Gwangju, involving 22 students (11 boys and 11 girls) aged 7 to 12. A total of 22 caregivers (3 fathers, 16 mothers, 3 grandparents) participated in a satisfaction survey upon program completion. The survey comprised 30 items, divided into five domains: overall satisfaction, satisfaction with evaluation, satisfaction with the therapy environment, satisfaction with the SLP, and perceived effectiveness of the therapy. Responses were measured on a 5-point Likert scale. Cronbach's alpha was calculated to assess internal consistency, while Pearson correlations and ANOVA were used for further data analysis.

Results: The survey demonstrated high internal consistency, with Cronbach's alpha values ranging from 0.85 to 0.91. Caregiver satisfaction was high across all domains, with overall satisfaction ($M=4.75$) and evaluation ($M=4.73$) receiving the highest ratings. Perceived effectiveness was rated lower ($M=4.47$). Correlation analysis showed strong positive associations between overall satisfaction and perceived effectiveness ($r=0.878$, $p<0.001$), and moderate correlations with therapy environment ($r=0.548$) and SLP satisfaction ($r=0.540$). No significant differences were found by gender or grade level, except for the therapy environment, where caregivers of older students and girls reported higher satisfaction.

Conclusions: The school-based SLP program was effective in improving children's speech and language skills, with caregivers expressing high satisfaction. Key factors influencing satisfaction included therapy effectiveness, evaluation, and environment. While no significant differences were observed based on gender or grade, suggestions for program enhancement included increasing therapy frequency and session duration. These findings provide insights for improving school-based speech therapy services and supporting children's speech and language development.

Keywords: School-based speech therapy, Treatment effectiveness, Caregiver satisfaction, Speech-language pathology (SLP), Pilot program



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INTRODUCTION

Language and speech development are foundational components of a child's cognitive, academic, and social-emotional growth [1]. Early identification and intervention for

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speech and language disorders are essential, as such difficulties can have long-term consequences on academic achievement, peer relationships, and overall quality of life. School-based speech-language pathology (SLP) services have emerged as a practical and effective means of delivering early intervention, as they are provided within the child's natural learning environment, thereby minimizing disruptions and promoting generalization of skills [2].

Epidemiological studies estimate that approximately 5% to 10% of school-aged children are affected by speech and language disorders, which can significantly hinder educational outcomes and social integration [3-5]. In response, school-based SLP programs have been widely adopted across various educational systems, including those in the United States, Canada, and the United Kingdom. Research has consistently demonstrated that such programs contribute to improvements in speech production, language comprehension, academic performance, and social behavior [6-8].

Beyond clinical effectiveness, the integration of speech therapy into school settings allows for regular collaboration between speech-language pathologists, educators, and caregivers. This interdisciplinary approach fosters continuity of care and supports the individualized needs of students through mechanisms such as Individualized Education Plans (IEPs). Moreover, evidence suggests that embedding therapy goals within classroom instruction enhances student engagement and accelerates skill acquisition [9].

Despite the demonstrated benefits of school-based SLP services, relatively few studies have explored the perspectives of caregivers—key stakeholders in the therapeutic process. Parental involvement and satisfaction are critical determinants of treatment adherence, child motivation, and overall program success. However, the literature remains limited in addressing caregiver experiences and their perceptions of service quality, therapist communication, and observed child outcomes.

This study seeks to address this gap by examining caregiver satisfaction with school-based speech therapy services. Specifically, it aims to evaluate parental perceptions of therapeutic effectiveness, the quality of interaction with speech-language pathologists, and the overall impact of services on their children's communication abilities. Insights gained from this investigation will inform the development of more responsive and family-centered speech therapy models within school settings, ultimately contributing to improved outcomes for children with communication disorders.

The primary aim of this study is to evaluate caregiver satisfaction with school-based speech-language therapy (SLT) services implemented in elementary schools. Given the pivotal role caregivers play in the therapeutic process, their perspectives significantly influence both participation and long-term outcomes, making an understanding of their satisfaction essential for program improvement.

This study seeks to assess caregivers' perceptions regarding the effectiveness of speech-language therapy delivered within the school environment, examining its impact on children's communication abilities. It also aims to evaluate caregiver satisfaction with the communication skills, professionalism, and responsiveness of school-based speech-language pathologists (SLPs), identifying key factors that contribute to a positive therapeutic experience.

Additionally, the study aims to explore caregivers' perceptions of the influence of therapy on children's classroom behavior, academic engagement, and social interactions, further contributing to the understanding of the broader effects of school-based therapy. Finally, the study will investigate caregivers' suggestions and perceived needs for enhancing service delivery, collaboration among stakeholders, and continuity of care in the school context, with the goal of optimizing the long-term success of therapy programs.

By addressing these objectives, the study intends to provide evidence-based insights that can inform the refinement and development of school-based SLP programs, ultimately contributing to more effective and family-centered service delivery.

METHODS

Research design

This study employed a cross-sectional survey design to examine caregivers' satisfaction with school-based SLT services. The survey was designed to collect both quantitative and qualitative data regarding parental perceptions of the effectiveness, communication, and integration of SLT services within school settings.

Participants

This study involved caregivers of children who participated in a school-based SLT pilot program implemented from June to December 2024 in two elementary schools located in the Gwangju area of South Korea. These schools were selected by local education authorities to serve as pilot sites for the newly introduced in-school SLT service model.

A total of 707 students underwent speech and language screening assessments using a standardized instrument. Children who scored below -2 standard deviations (SD) on at least one domain of the screening test were identified as eligible candidates for speech-language intervention. Following this criterion, 22 children were selected to receive SLT services, with parental consent obtained prior to participation.

Each participating school had one certified SLP assigned on-site. Over the course of six months, each child received therapy twice per week. Among the 22 children, 19 received individual face-to-face therapy sessions, 4 received therapy in small groups, and 1 received therapy integrated within the classroom setting. The distribution of therapy types and demographic characteristics of the children are presented in Table 1.

The caregivers of these 22 students were invited to participate in the survey study. Inclusion criteria for caregiver participation included: (1) being a primary caregiver of a child enrolled in the school-based SLT program, (2) having sufficient knowledge of the child's therapeutic experiences, and (3)

voluntarily providing informed consent. The final sample comprised 22 caregivers (3 fathers, 16 mothers, and 3 grandparents) who completed the questionnaire. No compensation was provided for participation, and all responses were collected anonymously.

Instrument development & validity

The caregiver satisfaction survey was developed to assess caregivers' perceptions of the school-based speech-language therapy services provided to their children. To ensure content validity, the survey items were derived from existing literature that examined various aspects of satisfaction, including treatment effectiveness [10], treatment environment [11,12], therapist relationship and interaction [13,14], and overall satisfaction with speech therapy services [15,16].

The survey was structured around five key subcategories: satisfaction with the speech and language assessment, satisfaction with the speech therapy environment, satisfaction with the speech therapist, satisfaction with the effectiveness of speech therapy, and overall satisfaction with the therapy services. For each subcategory, seven initial questions were drafted based on the relevant literature.

To further ensure content validity, two experienced SLPs, each with over 10 years of professional experience, reviewed the draft questions for clarity and relevance. The SLPs rated each item on a scale from 1 (Not relevant) to 5 (Highly relevant). Items receiving ratings of 3 or higher were retained for the final survey. This process led to the selection of 6 items for the speech and language assessment subcategory, 6 items for the therapy environment subcategory, 6 items for the speech therapist subcategory, 7 items for the effectiveness of speech therapy subcategory, and 5 items for overall satisfaction, resulting in a total of 30 items in the final survey (Appendix).

The survey was designed with a primary response scale of a 5-point Likert scale (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always), allowing caregivers to indicate the frequency with which they experienced specific aspects of therapy. Additionally, open-ended questions were included to capture qualitative feedback, providing a comprehensive view of caregiver satisfaction alongside the quantitative measures.

Data were collected using a structured questionnaire developed specifically for this study. The instrument consisted of six sections:

- Section A: Demographic Information - Collected data on the child's age, grade level, duration and type of therapy,

Table 1. Demographic characteristics of participating children (N=22)

Variables	Category	N (%)
Age (yr)	Mean (SD)	8.26 ± 3.17
Sex	Boys	11 (50)
	Girls	11 (50)
Grade	Grade 1-2	10 (45.5)
	Grade 3-4	8 (36.4)
	Grade 5-6	5 (22.7)
Duration of therapy	3-6 months	22 (100)
		22
Type of therapy	Individual	
	Group	19 (86.4)
Received	In-class	4 (18.2)
		1 (4.5)
Additional support services	No	2 (9.1)
	Yes	20 (90.9)
Progress in treatment	Improvement in one area	4 (18.2)
	Improvement in two or more areas	14 (63.6)
	No change	3 (13.6)

As shown in Table 1, the majority of the children (86.4%) received individual therapy, with a smaller proportion receiving group (18.2%) or in-class services (4.5%). Most participants were in the lower elementary grades (Grades 1-4), and the mean age of the children was 8.26 years (SD=3.1). All children received therapy for a period of six months.

and presence of additional support services.

- Section B: Overall Satisfaction - Included 5 items measuring general satisfaction with SLT services.
- Section C: Satisfaction with evaluation - Included 6 items caregivers' satisfaction with the initial assessment and diagnostic procedures conducted by the SLPs.
- Section D: Satisfaction with environment - Included 6 items designed to assess caregivers' satisfaction with various aspects of the school-based therapy environment. This section examined perceptions of the physical setting where speech-language therapy sessions were conducted (e.g., privacy, noise level, and comfort), the structure and duration of each session, the frequency of therapy services provided, and the overall accessibility of the program. In addition, caregivers were asked to evaluate the convenience of receiving therapy within the school and whether the location facilitated their child's consistent participation and engagement in the sessions.
- Section E: Satisfaction with the SLP - Included 6 items evaluating caregivers' satisfaction with the SLP in terms of communication, professionalism, and collaboration. This section assessed how well the SLP provided clear and timely information regarding the child's progress, responded to caregivers' concerns, involved them in the therapy process, and demonstrated respect and empathy. Additionally, the items explored the caregiver's perception of the SLP's expertise and ability to build a supportive therapeutic relationship with both the child and family.
- Section F: Perceived Effectiveness - Included 7 items assessing caregivers' perceptions of the effectiveness of the school-based speech-language therapy services. This section focused on perceived improvements in the child's speech and language abilities, increased confidence in communication, and enhanced participation in academic and classroom activities. Items also explored whether caregivers believed the therapy contributed to positive changes in their child's social interactions and overall developmental progress.
- Section G: Open-Ended Comments - Allowed respondents to provide qualitative feedback and suggestions.

Items in Sections B through E were rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire was reviewed by two experts in speech-language pathology to ensure content validity. A pilot test was conducted with 10 participants to confirm clarity and reliability of the items.

Data collection procedure

The survey was distributed either online (via Google Forms) or in paper format, depending on school preference and parent accessibility. Participants were informed of the purpose of the study and provided informed consent prior to completing the survey. Participation was voluntary and responses were anonymized.

Data analysis

Quantitative data were analyzed using SPSS (Version 22). Descriptive statistics (mean, standard deviation) were used to summarize demographic variables and item responses. The internal consistency of each section of the survey was assessed using Cronbach's alpha. Pearson correlation analysis was conducted to examine relationships between satisfaction and variables such as perceived effectiveness and therapist communication. An two-way ANOVA were performed to examine differences in satisfaction scores across demographic groups (gender and grade).

Qualitative responses from the open-ended section were analyzed thematically to identify recurring themes and additional insights into caregiver experiences.

RESULTS

Internal consistency reliability

To assess the internal consistency of the caregiver satisfaction questionnaire, Cronbach's alpha coefficients were calculated for each section (Sections B-F). The results, as shown in Table 2, demonstrated acceptable to excellent reliability across all sections. Specifically, Section B (Overall Satisfaction) yielded a Cronbach's alpha of 0.87, indicating good reliability. Section C (Satisfaction with Evaluation) showed a Cronbach's alpha of 0.89, reflecting strong internal consistency. Section D (Satisfaction with Environment) had a Cronbach's alpha of 0.85, while Section E (Satisfaction with the SLP) demonstrated excellent reliability with an alpha of 0.91. Finally, Section F (Perceived Effectiveness) also exhibited high internal consistency with a Cronbach's alpha of 0.90. These results suggest that the caregiver satisfaction survey possesses robust internal consistency, making it a reliable instrument for assessing caregiver satisfaction and perceptions regarding school-based speech-language therapy services.

Descriptive statistics for caregiver satisfaction

As shown in Table 3, caregiver satisfaction across the five do-

main results of the survey demonstrated consistently high ratings. The highest level of satisfaction was reported in Section B (Overall Satisfaction) with a mean score of 4.75 (SD=0.11), closely followed by Section C (Satisfaction with Evaluation), which had a mean of 4.73 (SD=0.47). Both Section D (Satisfaction with Environment) and Section E (Satisfaction with the SLP) yielded identical mean scores of 4.63, although Section E displayed greater variability (SD=0.63) compared to Section D (SD=0.09). The lowest, yet still high, mean was observed in Section F (Perceived Effectiveness) with a score of 4.47 (SD=0.10). The total range of scores across all items was between 2.9 and 5.0, indicating a generally strong level of caregiver satisfaction with limited variability in responses.

Correlation analysis

Table 4 illustrates that Pearson correlation coefficients were calculated to examine the associations between caregivers' overall satisfaction and satisfaction within specific subdomains of the speech-language therapy experience.

The analysis revealed a strong positive correlation between Overall Satisfaction and Perceived Effectiveness ($r=0.878$, $p<0.001$), suggesting that caregivers who perceived greater im-

provements in their children's communication and academic engagement also reported higher overall satisfaction. A moderate to strong correlation was found between Overall Satisfaction and Satisfaction with Evaluation ($r=0.632$, $p=0.002$), indicating that caregivers who felt the assessment process was thorough and appropriate tended to evaluate the program more favorably overall.

In addition, Satisfaction with the Therapy Environment showed a significant moderate correlation with Overall Satisfaction ($r=0.548$, $p=0.008$), while Satisfaction with the SLP also demonstrated a significant relationship ($r=0.583$, $p=0.004$). These findings suggest that multiple factors—particularly perceived therapy effectiveness, evaluation quality, therapist interaction, and the therapy setting—contribute meaningfully to caregivers' overall impressions of school-based speech-language services.

Collectively, the results highlight the multidimensional nature of caregiver satisfaction, with the strongest influence observed for perceived therapeutic outcomes.

Group differences by gender and grade level

To explore potential differences in caregiver satisfaction based on child gender and grade level, a series of two-way analyses of variance (ANOVA) were conducted across the five domains of the survey.

Table 2. Internal consistency reliability of caregiver satisfaction survey (Sections B-F)

Section	Content description	No. Items	Cronbach's α
Section B	Overall satisfaction with school-based services	5	0.87
Section C	Satisfaction with evaluation process	6	0.89
Section D	Satisfaction with therapy environment	6	0.85
Section E	Satisfaction with the speech-language pathologist	6	0.91
Section F	Perceived effectiveness of therapy	7	0.90

Table 3. Descriptive statistics for caregiver satisfaction (Sections B-F)

Section	Mean (SD)	Min-max range
Section B: Overall satisfaction	4.75±0.11	4.0-5.0
Section C: Satisfaction with evaluation	4.73±0.47	3.7-5.0
Section D: Satisfaction with environment	4.63±0.09	3.5-5.0
Section E: Satisfaction with the SLP	4.63±0.63	3.0-5.0
Section F: Perceived effectiveness	4.47±0.10	2.9-5.0

The scores for each section are based on a 5-point Likert scale, with 1 representing "Strongly Disagree" and 5 representing "Strongly Agree."

Table 4. Correlations between overall satisfaction and subscale scores

	Overall satisfaction	Evaluation	Environment	SLP	Treatment effectiveness
Overall satisfaction with school-based services	1.00	0.632**	0.548**	0.583**	0.878***
Satisfaction with evaluation process	0.632**	1.00	-	-	-
Satisfaction with therapy environment	0.548**	-	1.00	-	-
Satisfaction with the speech-language pathologist	0.583**	-	-	1.00	-
Perceived effectiveness of therapy	0.878***	-	-	-	1.00

** $p<0.01$, *** $p<0.001$.

For Overall Satisfaction with Speech Therapy Services, no significant differences were found based on gender ($F(1, 18) = 163.384, p = 0.050$) or grade level ($F(1, 18) = 18.210, p = 0.147$), and the interaction effect was also non-significant ($F(1, 18) = 0.026, p = 0.874$).

Regarding Satisfaction with the Language Assessment, there were no significant main effects of gender ($F(1, 18) = 1.749, p = 0.412$) or grade level ($F(1, 18) = 1.749, p = 0.412$), and the interaction between the two variables was also not significant ($F(1, 18) = 0.376, p = 0.548$).

In the case of Satisfaction with the therapy Environment, a significant main effect was found for both grade level ($F(1, 18) = 400.000, p = 0.032$) and gender ($F(1, 18) = 225.000, p = 0.042$), suggesting that caregiver satisfaction with the therapy environment varied meaningfully across these groups. However, the interaction effect was not significant ($F(1, 18) = 0.002, p = 0.961$).

For Satisfaction with the SLP, no significant main effects were observed for gender ($F(1, 18) = 4.457, p = 0.282$) or grade level ($F(1, 18) = 18.778, p = 0.144$), and the interaction was also non-significant ($F(1, 18) = 0.071, p = 0.794$).

Similarly, for Satisfaction with the Perceived Effectiveness of Therapy, there were no significant main effects of gender ($F(1, 18) = 25.564, p = 0.124$) or grade level ($F(1, 18) = 5.769, p = 0.251$), nor was there a significant interaction ($F(1, 18) = 0.101, p = 0.754$).

Qualitative feedback from caregivers

Caregivers provided open-ended responses reflecting their overall impressions and experiences with the school-based speech-language therapy program. Thematic analysis of the qualitative comments revealed several recurring themes: perceived improvements in communication abilities, appreciation for the therapist's professionalism and communication, benefits of school-based delivery, and suggestions for program enhancement.

A majority of caregivers reported notable improvements in their children's speech, expressive language, and reading or writing abilities, with several comments specifically stating that their child's speech had become "clearly better" compared to before the intervention. Others noted increased sentence-level understanding and expressive depth, indicating a perceived enhancement in the child's overall language competence.

Caregivers also frequently praised the therapists' ability to communicate therapy goals, session content, and home strategies clearly and effectively, with one respondent noting that

biweekly feedback allowed them to "easily understand what kind of education their child received." The child-centered and empathetic approach of the SLPs—including establishing rapport and working at the child's developmental level—was another key element that caregivers valued.

The convenience and accessibility of school-based services were consistently highlighted, with many caregivers expressing satisfaction that therapy was delivered within the familiar school environment, minimizing disruption and enhancing student engagement. Regular opportunities for parent-SLP communication were also considered highly beneficial for supporting the child's development and reinforcing progress at home.

In terms of suggestions, several caregivers requested increased therapy frequency (e.g., three times per week), greater session duration, or individual rather than group sessions for more focused attention. A few also recommended increased visual privacy during sessions to reduce distractions from other students. There was also interest in extending therapy beyond the current semester and expanding to more engaging, interest-based content.

Overall, the qualitative data supported the quantitative findings, emphasizing high caregiver satisfaction and providing practical insights for the ongoing improvement and customization of school-based speech-language therapy services.

DISCUSSION

The findings from this study provide compelling evidence regarding the high level of caregiver satisfaction with a school-based SLP program implemented in South Korea. As illustrated in the results, caregivers expressed overall high levels of satisfaction across various dimensions of the program, which aligns with previous research on the effectiveness and accessibility of school-based therapy programs. In particular, the positive feedback regarding the quality of the therapy, the expertise of the SLPs, and the conducive learning environment strongly supports the viability and effectiveness of school-based speech therapy as a model of care. This study is the first of its kind in South Korea and provides foundational data for the further development of school-based SLP programs in the region.

Overall satisfaction and effectiveness of the therapy program

The highest levels of satisfaction in this study were reported in the domains of Overall Satisfaction (Section B, $M = 4.75$) and

Satisfaction with Evaluation (Section C, $M = 4.73$). These findings are consistent with previous research by Grela and Illerbrun [16] who emphasized that thorough, accurate, and well-communicated evaluations are essential components of caregiver satisfaction in speech therapy programs. High levels of parent satisfaction with the assessment process may be attributed to the way in which it enhanced parents' awareness of their child's developmental needs, making the experience a positive one. Furthermore, the assessment process provided valuable insight into their child's development, playing a key role in encouraging parental engagement in intervention planning and implementation. Moreover, the high satisfaction levels in these areas suggest that the caregivers appreciated the quality of the initial assessments, as well as the clear communication about their child's progress. Caregivers' satisfaction with these core aspects of the therapy program reinforces the importance of a comprehensive evaluation process in fostering trust and engagement in the therapeutic process. Early implementation of language assessments allows for the timely identification of emergent literacy and socio-emotional skills in children with language impairments, thereby enhancing school readiness [21,22]. This proactive approach is considered a key factor contributing to increased parental satisfaction with school-based language rehabilitation services [17]. Notably, pre-literacy skills were found to be strong predictors of later reading and spelling performance, highlighting their foundational role in literacy acquisition. This aligns with previous research emphasizing the critical influence of emergent literacy on early academic trajectories [23,24].

While socio-emotional skills were not directly predictive of later literacy outcomes, their inclusion as a distinct dimension of school readiness underscores their relevance in supporting classroom behavior, peer relationships, and overall engagement in learning [25]. According to the research, improvements in social-emotional skills enhance children's school adjustment, which in turn positively impacts their academic performance [23,25]. These studies demonstrate that social-emotional skills play a critical role in children's school readiness and academic outcomes. Therefore, programs or interventions aimed at enhancing social-emotional competence may be effective in improving both school readiness and academic performance.

In the present study, 19 out of 22 children (86.4%) demonstrated improvements following intervention, with only 3 children showing no notable progress. Importantly, children with more severe language delays or speech disorders were found

to require more intensive intervention. These findings suggest that the degree of therapeutic improvement and the severity of initial impairments may significantly influence caregiver satisfaction.

In addition, a previous study reported that parents rated the assessment process and parent-focused intervention highly, which may serve as indicators of a generally positive perception of the overall therapy experience [16]. Although the study did not statistically examine a direct correlation between parent satisfaction and child developmental outcomes, it was noted that parents perceived the services they were most satisfied with as having a positive impact on their child's development. In our current study, caregivers expressed confidence in the effectiveness of the therapy in enhancing their children's language skills, which is evident from the high mean scores in several domains, including the therapy environment (Section D, $M = 4.63$) and satisfaction with the speech-language pathologist (SLP) (Section E, $M = 4.63$). These domains focus on the quality of the therapeutic environment and the SLP's professional competence and interpersonal skills, both of which are central to effective therapy outcomes [18]. The previous studies emphasized the importance of providing clear and timely information regarding children's diagnoses, as caregivers expressed a strong desire for understandable explanations of their child's language and literacy disorders. Furthermore, the study revealed that parents often face challenges in fully comprehending the nature of these disorders, suggesting a need for improved communication strategies in school settings. Such findings highlight the potential for more effective support for children and families by addressing communication barriers and enhancing the clarity of information provided [18,26].

Therefore, this study underscores the critical role of SLPs in delivering accessible and precise information to parents about their child's condition. By fostering a more transparent and collaborative communication process, caregivers are more likely to become actively engaged and informed participants in their child's treatment. In line with these findings, the current study suggests that similar factors—such as clear communication and caregiver involvement—may significantly influence caregiver satisfaction with speech-language therapy services. Effective communication not only enhances parents' understanding of the therapy process but also contributes to higher levels of satisfaction with the services provided.

Specifically, in the current study, caregivers' confidence in

the therapy's ability to enhance their children's language skills was reflected in their consistently positive evaluations of both the therapeutic setting and the SLP's professional competence. These findings are consistent with prior research emphasizing that the quality of the therapeutic environment, along with the provider's communication, empathy, and expertise, significantly contributes to perceived treatment efficacy and caregiver engagement. A supportive and structured environment not only facilitates child participation but also fosters trust and collaboration between caregivers and clinicians. Therefore, continued attention to the therapeutic atmosphere and the professional development of SLPs in relational and clinical competencies may be essential for sustaining high levels of caregiver satisfaction and optimizing child outcomes.

The moderate variability in the ratings for Section E, where the standard deviation was 0.63 compared to Section D's 0.09, suggests that while most caregivers were satisfied with the SLP's performance, there may be some differences in individual expectations or experiences. These differences could be related to the SLP's approach, therapeutic style, or communication with caregivers, underscoring the need for flexibility in treatment methods to accommodate diverse caregiver preferences and expectations [19]. Furthermore, these results highlight the importance of ongoing training and professional development for SLPs to ensure consistency in their approaches and maintain high levels of caregiver satisfaction.

Perceived effectiveness of the therapy

In terms of perceived effectiveness, caregivers reported a mean score of 4.47 in Section F, which, although lower than the scores in other domains, still falls within the high satisfaction range. The slightly lower rating for perceived effectiveness is understandable, as therapy outcomes are often gradual, and measurable language improvements may take time to manifest, especially for children with more severe language delays. This finding is consistent with the work of Park and Lee [20], who noted that caregiver satisfaction is often influenced by their expectations regarding the child's language development and the timeline for achieving observable results. Nevertheless, the positive feedback from caregivers regarding improvements in children's vocabulary acquisition and sentence formation indicates that the therapy was, in general, effective. However, the overall satisfaction with the speech therapy services in this study was most strongly correlated with satisfaction regarding therapy effectiveness. This result aligns with

previous studies that have emphasized the positive correlation between perceived therapy effectiveness and overall satisfaction with speech-language therapy services [16].

In fact, although the therapy duration in this study was relatively short, the participating children received treatment for a duration ranging from 3 to 6 months, three children (13.6%) showed no change in standardized assessments before and after the therapy, four children (18.2%) demonstrated improvement in one area, and the majority of the children (14 children, 63.6%) showed improvement in two or more speech and language areas. It is anticipated that extending the duration of the service would have a more positive impact on the speech and language development of a larger number of children.

Gender and grade-level analysis

The analysis of satisfaction based on gender and grade level revealed no significant differences, suggesting that the speech therapy program was equally effective for both male and female students and across various grade levels. This finding supports previous research that found no significant differences in caregiver satisfaction based on demographic variables such as gender and grade level [19]. However, it is interesting to note that some differences in satisfaction were observed in the treatment environment, where caregivers of children in higher grade levels and girls reported higher satisfaction. This could reflect developmental differences, with older children and girls potentially being more responsive to structured interventions and benefiting more from the established therapeutic process. These differences warrant further exploration, as they may reveal insights into how age and gender-related factors influence therapeutic engagement and satisfaction.

Feedback on therapy program components and suggestions for improvement

In addition to the quantitative data, qualitative feedback from caregivers highlighted several positive aspects of the program, as well as areas for potential improvement. Caregivers particularly valued the convenience of the therapy being conducted within the school setting. Many emphasized that the proximity of the therapy sessions within the school minimized the logistical burden of arranging external appointments and helped integrate therapy into their child's daily routine. This feedback is consistent with previous studies that underscore the importance of accessibility in therapy programs, suggesting that the school setting offers a practical and effective solu-

tion for providing speech therapy [27].

Another area of satisfaction was the communication between therapists and caregivers. Regular updates on children's progress were highly valued, as they helped parents feel more engaged in the therapeutic process and empowered to support their children's development at home. This positive communication is critical for fostering collaboration between caregivers and therapists, a component identified in previous studies as essential for the success of therapy programs [26].

Despite the positive feedback, several areas for improvement were identified. Many caregivers suggested increasing the frequency of therapy sessions, citing that more frequent sessions might accelerate progress, especially for children with more significant language delays. This suggestion is consistent with findings by Gallagher and Chiat [28], who noted that more intensive interventions may lead to better outcomes for children requiring additional support. Additionally, some caregivers requested individualized therapy sessions to provide more focused attention to their child's specific needs, rather than group therapy sessions. This desire for more personalized care echoes the findings of Ebbels et al. [29], who emphasized the importance of tailored interventions to maximize therapeutic success.

Furthermore, privacy during therapy sessions was a concern for some parents. This feedback suggests that maintaining confidentiality and minimizing distractions could further enhance the therapeutic environment, which is critical for children's comfort and focus during therapy. Several parents also expressed interest in extended therapy session durations, believing that longer sessions would allow for more comprehensive language development and deeper engagement with complex language concepts. These suggestions reflect a desire to optimize the effectiveness of therapy and are consistent with recommendations in the literature advocating for longer, more intensive therapy sessions [30].

Implications for future research and program development

This study provides valuable insights into the effectiveness of school-based SLP programs in South Korea and offers several recommendations for future research and program development. The findings suggest that while the current model has been well-received, areas for improvement, such as increasing session frequency, providing individualized therapy, and extending session durations, should be considered to enhance the program's impact. Furthermore, as this study was conducted in general elementary schools, future research

should explore the feasibility and effectiveness of extending school-based SLP programs to special education schools, where children with more severe language delays may benefit from tailored interventions.

The positive reception of school-based speech therapy in South Korea, as evidenced by this study, calls for the expansion of such programs across the country. Future studies should assess the long-term effects of these programs on children's academic performance, social integration, and overall language development. Additionally, research should explore the training and professional development needs of SLPs, as well as the establishment of collaborative frameworks between schools, therapists, and local communities to ensure the sustainability and expansion of school-based therapy services.

The results of this study highlight the potential of school-based SLP programs to provide accessible, effective, and highly valued services for children with speech and language delays. The positive caregiver feedback and the overall success of the program underscore the importance of expanding and enhancing these services in South Korea to better support children's language development and academic success.

This study holds significant value in that it incorporates the perspectives of caregivers, who are key stakeholders in the therapeutic process, thereby addressing a user-centered dimension that has been relatively overlooked in previous efficacy-focused research. Future studies should pursue more multidimensional analyses by including diverse regional and educational contexts, and qualitative research is needed to gain deeper insight into caregivers' lived experiences. Additionally, integrative research that incorporates the perspectives of other stakeholders—such as teachers and speech-language pathologists—will be essential to developing more practical and sustainable models of school-based speech-language therapy services.

In conclusion, this study empirically demonstrates that school-based speech-language therapy services have a positive impact on children's language and social development, and that caregiver satisfaction and collaboration play a crucial role in the success of such interventions. These findings may serve as a foundational reference for the continued expansion and qualitative improvement of school-based speech therapy services, while also highlighting the importance of adopting more integrated, family-centered approaches to intervention.

REFERENCES

1. Law J, Boyle J, Harris F, Harkness A, Nye C. Prevalence and natural history of primary speech and language delay: findings from a systematic review of the literature. *International Journal of Language & Communication Disorders*. 2000;35(2):165-188.
2. Brandel J. Speech-language pathology services in the schools: a follow-up 9 years later. *Language, Speech, and Hearing Services in Schools*. 2020;51(4):1037-1048.
3. Lee EK, Choi SH. Prevalence of speech and language delay in early school-aged children. *Clinical Archives of Communication Disorders*. 2024;9(3):141-147.
4. Saul J, Griffiths S, Norbury CF. Prevalence and functional impact of social (pragmatic) communication disorders. *Journal of Child Psychology and Psychiatry*. 2023;64(3):376-387.
5. Tomblin JB, Records NL, Buckwalter P, Zhang X, Smith E, O'Brien M. Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language, & Hearing Research*. 1997;40(6):1245-1260.
6. Hoffman LM, Ireland M, Hall-Mills S, Flynn P. Evidence-based speech-language pathology practices in schools: findings from a national survey. *Language, Speech, and Hearing Services in Schools*. 2013;44(3):266-280.
7. Glover A, McCormack J, Smith-Tamaray M. Collaboration between teachers and speech and language therapists: services for primary school children with speech, language and communication needs. *Child Language Teaching and Therapy*. 2015;31(3):363-382.
8. Cahill PT, Ng S, Dix L, Ferro MA, Turkstra L, Campbell WN. Outcomes management practices in tiered school-based speech-language therapy: a Canadian example. *International Journal of Language & Communication Disorders*. 2023;58(3):86-801.
9. Lindsay G, Soloff N, Law J, Band S, Peacey N, Gascoigne M, et al. Speech and language therapy services to education in England and Wales. *International Journal of Language & Communication Disorders*. 2002;37(3):273-288.
10. Justice LM, Jiang H, Logan JA, Schmitt MB. Predictors of language gains among school-age children with language impairment in the public schools. *Journal of Speech, Language, and Hearing Research*. 2017;60(6):1590-1605.
11. Schmitt MB, Justice LM, O'Connell A. Vocabulary gain among children with language disorders: contributions of children's behavior regulation and emotionally supportive environments. *American Journal of Speech-Language Pathology*. 2014;23(3):373-384.
12. Farquharson K, Tambyraja SR, Logan J, Justice LM, Schmitt MB. Using hierarchical linear modeling to examine how individual SLPs differentially contribute to children's language and literacy gains in public schools. *American Journal of Speech-Language Pathology*. 2015;24(3):504-516.
13. Adams C, Lockton E, Freed J, Gaile J, Earl G, McBean K, et al. The Social Communication Intervention Project: a randomized controlled trial of the effectiveness of speech and language therapy for school-age children who have pragmatic and social communication problems with or without autism spectrum disorder. *International Journal of Language & Communication Disorders*. 2012;47(3):233-244.
14. Gallagher AL, Murphy CA, Conway PF, Perry A. Engaging multiple stakeholders to improve speech and language therapy services in schools: an appreciative inquiry-based study. *BMC Health Services Research*. 2019;19:226.
15. Grogan-Johnson S, Alvares R, Rowan L, Creaghead N. A pilot study comparing the effectiveness of speech language therapy provided by telemedicine with conventional on-site therapy. *Journal of Telemedicine & Telecare*. 2010;16(3):134-139.
16. Grela BG, Illerbrun D. Evaluating rural preschool speech-language services: consumer satisfaction. *International Journal of Disability, Development and Education*. 2001;45(2):203-216.
17. Lee HJ, Lee EK. Perceptions of school-based service delivery in speech-language pathology among parents of children with and without language difficulties. *Clinical Archives of Communication Disorders*. 2021;6(3):192-199.
18. Ebert KD. Parent perspectives on the clinician-client relationship in speech-language treatment for children. *Journal of Communication Disorders*. 2018;73:25-33.
19. Adib NAN, Ibrahim MI, Rahman AA, Baker RS, Yahayam NA, Hussin S, et al. Predictors of caregivers' satisfaction with the management of children with autism spectrum disorder: a study at multiple levels of health care. *International Journal of Environmental Research and Public Health*. 2019;16(10):1684.
20. Park H, Lee MS. A study on the perception of parent counseling status and language rehabilitation effectiveness according to language therapy experience of developmental rehabilitation services. *Journal of the Korean Association on Developmental Disabilities*. 2021;25(4):179-195.
21. Nix RL, Bierman KL, Domitrovich CE, Gill S. Promoting children's social-emotional skills in preschool can enhance academic and behavioral functioning in kindergarten: findings from head start REDI. *Early Education and Development*. 2013;24(7):1021-1042.
22. Ricciardi C, Manfra L, Hartman S, Bleiker C, Dineheart L, Winsler A. School readiness skills at age four predict academic achievement through 5th grade. *Early Childhood Research Quarterly*. 2021;57:110-120.
23. Pentimonti JM, Murphy KA, Justice LM, Logan JAR, Kaderavek JN. School readiness of children with language impairment: predicting literacy skills from pre-literacy and social-behavioural dimensions. *International Journal of Language & Communication Disorders*. 2016;51(2):148-161.
24. Mascheretti S, Luoni C, Franceschini S, Capelli E, Farinotti L, Borgatti R, et al. Development and predictors of reading skills in a 5-year Italian longitudinal study. 2024;33(6):e2542.
25. Her, Kim. The effects of five-year-old's school readiness and social skills on their elementary school adjustment in the first grade. *Review of International Geographical Education Online*. 2021;11(8):1-13.
26. Hansen H, Erfmann K, Göldner J, Schlüter R, Zimmermann F.

- Therapeutic relationships in speech-language pathology: a scoping review of empirical studies. *International Journal of Speech-Language Pathology*. 2024;26(2):162-178.
27. American Speech-Language-Hearing Association (ASHA). (n.d.). Value of school-based speech-language pathology services for elementary school children. Retrieved from <https://www.asha.org/research/ebp/demonstrating-your-value/value-of-school-based-slp-services-for-elementary-school-children/>.
28. Gallagher AL, Chiat S. Evaluation of speech and language therapy interventions for pre-school children with specific language impairment: a comparison of outcomes following specialist intensive, nursery-based and no intervention. *International Journal of Language & Communication Disorders*. 2009;44(5):616-638.
29. Ebbels SH, Wright L, Brockbank S, Godfrey C, Harris C, Leniston H, et al. Effectiveness of 1:1 speech and language therapy for older children with (developmental) language disorder. *International Journal of Language & Communication Disorders*. 2016;52(4):528-539.
30. Byers BA, Bellon-Harn ML, Allen M, Saar KW, Manchaiah V, Rodrigo H. A comparison of intervention intensity and service delivery models with school-age children with speech sound disorders in a school setting. *Language, Speech, and Hearing Services in Schools*. 2021;52(2):529-541.

APPENDIX. Caregivers' Satisfaction Survey on School-Based Speech-Language Therapy Services

I. Section A: Demographic information

1. Child's Age: _____
2. Child's Grade Level: _____
3. Duration of speech therapy received at school:
 - ☐ Less than 3 months
 - ☐ 3-6 months
 - ☐ 6-12 months
 - ☐ Over 1 year
4. Type of Therapy Received:
 - ☐ Individual
 - ☐ Group
 - ☐ Both
5. Does your child receive any additional support services at school (e.g., special education, counseling)?
 - ☐ Yes
 - ☐ No

II. Section B: Overall satisfaction (Please rate the following statements from 1=Strongly Disagree to 5=Strongly Agree)

1. I would be willing to recommend therapy with the school-SLP to other parents.
2. I feel that the therapy goals are aligned with my child's academic curriculum.
3. I am generally satisfied with the school-based speech-language therapy services my child receives.
4. I hope the speech-language intervention services will continue to be offered.
5. I would be willing to participate if the speech therapy services are offered again.

III. Section C: Satisfaction with speech-language evaluation services

6. The tools and materials required for the assessment are properly prepared.
7. During the evaluation, the school SLP was kind and understanding in communicating with the student.
8. The therapist explained the test results clearly and accurately.
9. The results of the evaluation helped to grasp the children's language skills.
10. The results provided after the evaluation helped the children develop their language.
11. I am willing to participate if I have a language evaluation again in the future.

IV. Section D: Satisfaction with therapy environment of the therapy

12. The therapy sessions are tailored to my child's individual needs.
13. I'm satisfied with the number of speech therapy sessions twice a week.
14. I'm satisfied with a treatment time of 40 minutes per session.
15. I am satisfied that my child receives speech-language therapy within the school environment.
16. I believe the environment in the treatment space is one where my child can use it comfortably and with peace of mind.
17. My child actively participates in the therapy sessions.

V. Section E: Satisfaction with speech-language pathologist

- 18. The speech-language pathologist understands my child's specific communication needs.
- 19. The therapist has professional abilities and qualities.
- 20. The therapist is approachable and open to communication with parents.
- 21. I receive regular updates about my child's progress in therapy.
- 22. I am satisfied with the consultation time after treatment.
- 23. I am satisfied with the overall teaching style of the school SLP.

VI. Section F: Perceived effectiveness

- 24. My child's speech and language abilities have improved since starting therapy.
- 25. I have observed more confidence in my child when communicating with others.
- 26. My child's daily living skills have improved.
- 27. My child's peer and interpersonal relationship skills have improved.
- 28. My child's emotional stability has improved.
- 29. People around us have mentioned that my child has shown 'therapeutic progress' or 'improvement.'
- 30. My child's participation in classroom activities has increased.

VII. Section E: Additional comments (Optional)

If you have any suggestions, concerns, or would like to share more about your experience, please write below: