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Original Article

An Exploratory Study of Hospital Speech-Language Pathologists' Experience, Perception, and Needs Regarding Patients With Tracheostomy Tubes

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Purpose This exploratory study investigated the experiences, perceptions, and needs of hospital-based speech-language pathologists (SLPs) in South Korea regarding the assessment and intervention of patients with tracheostomy. The findings aim to provide foundational data for developing standardized guidelines and strengthening SLPs' professional competencies.

Methods A questionnaire was developed consisting of four domains: participant information (11 items), education and clinical experience (36 items), perceptions of assessment and intervention (35 items), and confidence in assessment and treatment (2 items). Data were collected online via Google Forms (n = 57). Descriptive statistics and independent t-tests were performed using SPSS version 20, with the significance level set at $p < .05$.

Results SLPs with higher academic degrees and certification levels demonstrated significantly greater awareness of tracheostomy-related issues. However, only 10.6% reported receiving prior training, and 54.4% had clinical intervention experience, mostly limited to adult patients. While the necessity of speech-language intervention was widely recognized, confidence in assessment (M = 2.74) and treatment (M = 2.84) was low. Nevertheless, participants expressed strong recognition of the need for further education and research, as well as a high willingness to participate in training opportunities.

Conclusions The findings highlight gaps in clinical experience and confidence among Korean hospital-based SLPs, underscoring the urgent need for structured education programs, standardized guidelines, and multidisciplinary collaboration systems to improve the quality of care for tracheostomy patients.

Keywords Tracheostomy, Speech-language pathologists, Clinical competence, Perception, Educational needs, Questionnaire survey

INTRODUCTION

A tracheostomy tube is a medical device inserted into the trachea through a surgical opening called a tracheotomy. This procedure is performed to secure the airway in situations where spontaneous breathing is compromised due to neurological injuries, upper airway obstructions, or prolonged mechanical ventilation [1,2]. In addition to its role in respiratory function, a tracheostomy can significantly affect phonation, swallowing, and overall communication. Prolonged intubation, in particular, can worsen communication difficulties and adversely impact patients' quality of life [3-6].

The prevalence of tracheostomy procedures has been increasing, particularly since the COVID-19 pandemic. This rise can be attributed to advancements in intensive care practices and an aging population. As the number of patients requiring long-term tracheostomy care continues to grow, it becomes increasingly important to im-

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plement multidisciplinary approaches and integrative interventions aimed at functional recovery [7-9]. In this context, speech-language pathologists (SLPs) play a pivotal role in tracheostomy care. They focus on restoring phonation, supporting communication, and providing swallowing interventions. Global surveys of healthcare professionals during the COVID-19 pandemic reported that communication difficulties (33.9%) were the most prevalent challenges in tracheostomy management, followed by secretion-related occlusions and wound care issues. Respondents highlighted the need for better guidance on cuff management and the initiation of speech trials, underscoring the necessity of SLP expertise in tracheostomy care [10,11].

The American Speech-Language-Hearing Association [12] outlines the responsibilities of Speech-Language Pathologists (SLPs) in evaluating and rehabilitating communication, cognitive, and swallowing disorders in tracheostomy patients. Through individualized education, training, and counseling, SLPs enhance patients' communication and swallowing abilities. This, in turn, leads to shorter hospital stays, reduced healthcare costs, and lower readmission rates [13,14]. Evidence from international studies further demonstrates the importance of SLP-led interventions, which include the use of speaking valves, respiratory muscle training, speech therapy, and swallowing rehabilitation. SLPs play a crucial role as integral members of multidisciplinary teams in these efforts [15-17].

Numerous studies conducted in the United States, Australia, and Europe have extensively examined SLPs' perceptions, experiences, and training in tracheostomy care [1,18,19]. These studies consistently report that while SLPs are actively involved in communication and swallowing assessments for tracheostomy patients, barriers remain, including insufficient training, unclear role definitions, lack of confidence, and challenges in interdisciplinary collaboration [1]. Furthermore, many respondents emphasized the urgent need for more structured training opportunities, increased access to clinical practicums, and the establishment of collaborative care environments.

In Korea, empirical research on SLPs' clinical experiences, perceptions, and needs regarding tracheostomy patients remains scarce. Without such foundational data, it is difficult to establish evidence-based intervention models, develop tailored training programs, or propose effective policy frameworks. Therefore, this exploratory study aims to systematically investigate Korean SLPs' experiences, perceptions, and educational needs concerning tracheostomy patients, to provide initial baseline data to inform future research, strengthen professional competencies, and improve the quality of tracheostomy-related speech-language rehabilitation services in Korea.

METHODS

Questionnaire development

In this study, a questionnaire was developed to explore the perceptions and needs of hospital-based speech-language pathologists (SLPs) regarding tracheostomy patients. The development process and item composition were guided by the procedures outlined in a previous study by AlMarshad et al. (2022) [20]. Based on these procedures, the researcher created a preliminary draft of the questionnaire. Feedback on the initial version was obtained from two doctoral students with more than five years of clinical experience and from the corresponding author. The questionnaire was then revised and refined accordingly.

The final iteration of the questionnaire consisted of four domains: participant information (11 items), education and clinical experience with tracheostomy patients (36 items), perceptions of assessment and intervention (35 items), and self-confidence in assessment and intervention (2 items) (see Table 1). The rationale for item selection within each domain is articulated as follows.

Participant information

Demographic and clinical background variables were included, including gender, age, highest level of education, certification level, and clinical experience. These variables are essential for analyzing the characteristics of the study population and for controlling external variables that may influence the interpretation of results. Similar items have been consistently included in both domestic and international survey studies [20-22]. Additionally, AlMarshad et al. (2022) [20] highlighted the importance of gathering background information during questionnaire development, emphasizing that such data are crucial for accurately interpreting research findings. In line with this, participant information was incorporated into this study to ensure validity in both sample characterization and interpretation.

Education and clinical experience with tracheostomy patients (36 items)

Clinical experience and training in tracheostomy care significantly influence SLPs' perceptions, confidence, and clinical intervention practices. In this study, the questionnaire items were constructed based on prior work by AlMarshad et al. (2022) [20], who utilized the Delphi method to identify essential areas of current practice and the clinical experience required in the field.

Confidence in assessment and intervention (2 items)

The clinical confidence of SLPs is closely linked to their ability to provide effective intervention. In the questionnaire development process by AlMarshad et al. (2022) [20], expert panels reached consensus that clinical confidence and role clarity are critical variables for evaluation. Building on these findings, this study aimed to quantify SLPs' self-efficacy in assessing and intervening with tracheostomy patients. The questionnaire items were developed based on Bandura's (1977) [23] self-efficacy theory to capture respondents' perceived competence in clinical practice.

Table 1. Questionnaire Contents

Contents	1. Personal Information (11 items)
Items	Gender, Age, Final Educational Background, Affiliated Branch, Certificate Level, Clinical Experience, Current Workplace, Department, Type of Employment, Main Patient Age Group, Awareness of Tracheostomy
Contents	2. Experience with Tracheostomy Patient Education and Treatment (36 items)
Items	Participation in tracheostomy-related education (experience, willingness to participate, attended programs/workshops, access methods)
	Perception of the need for speech-language therapy in tracheostomy patients
	Reasons for perceiving speech-language therapy as unnecessary
	Treatment experience and patient information related to tracheostomy
	Reasons for the lack of treatment experience
	Reasons why speech-language therapy referrals are not made
Contents	3. Perceptions of Assessment and Intervention for Tracheostomy Patients (35 items)
Items	Perceived need for assessing breathing, swallowing, voice, and speech functions
	Considerations when assessing tracheostomy patients
	Considerations when assessing voice and speech functions
	Reasons why speech-language rehabilitation is needed
	Perceived need for speech-language rehabilitation based on tracheostomy type
	Conditions that should be in place for assessment and intervention
	Important factors and supportive elements in assessment/intervention from the perspective of SLPs
Contents	4. Confidence in Assessing/Intervening with Tracheostomy Patients (2 items)

Data collection

The survey was conducted from May 16 to June 29, 2023, and the questionnaire was created as a Google online questionnaire. The URL was distributed through online communities, SNS, text messages, and KakaoTalk. The purpose of the study and questionnaire areas were presented in the Google questionnaire, and consent was obtained to use the data for research purposes. Sixty-one responses were received, and 57 participants were selected for the study, excluding four cases: those who disagreed that their data could be used for research purposes and those who did not complete the survey.

Data analysis

The questionnaire included various types of response formats, such as a 5-point Likert scale, yes/no questions, and multiple-choice items. For the descriptive statistical analysis, frequency analysis was conducted for each item, and frequencies, means, standard deviations, and percentages were calculated. To examine whether perceptions varied based on tracheostomy treatment experience, certification level, and educational background, independent t-tests were performed. All statistical analyses were conducted using SPSS Statistics version 20 (IBM Corp., Armonk, NY, USA), with the significance level set at $p < .05$.

RESULTS

Participant information

The subjects of this study were 57 speech-language pathologists working in Korean hospitals who responded to the online questionnaire distributed by the researcher. In terms of gender, there were 5 males (8.8%) and 52 females (92.8%). The age of the participants was 7 (12.3%) under 25 years old, 24 (42.1%) between 26 and 30 years old, 15 (26.3%) between 31 and 35 years old, 3 (5.3%) between 36 and 40 years old, and 8 (14%) over 41 years old. In terms of final education, 2 (3.5%) had an associate degree, 21 (36.8%) had a bachelor's degree, 4 (7%) had completed a master's coursework, 26 (45.6%) had a master's degree, 3 (5.3%) had completed a doctoral coursework, and 1 (1.8%) had a doctoral degree. In terms of final education, 2 (3.5%) had an associate's degree, 21 (36.8%) had a bachelor's degree, 4 (7%) had a master's degree, 26 (45.6%) had a master's degree, 3 (5.3%) had a doctorate, and 1 (1.8%) had a doctorate. Regarding certification level, 37 (64.9%) were Level 1 SLPs and 20 (35.1%) were Level 2 SLPs. Clinical experience was 19 (33.3%) with 5 years or less, 27 (47.4%) with 6 to 10 years, 2 (3.5%) with 11 to 15 years, 4 (8.8%) with 16 to 20 years, and 5 (8.8%) with 21 years or more. The most common specialty was rehabilitation medicine, with 48 (84.2%), followed by otolaryngology, with 7 (12.3%), and psychiatry, with 2 (3.5%). Fifty-three (93%) were employed full-time, and four (7%) were employed part-time. Currently, they were affiliated with the Korean Speech-Language Pathologists Association (KSLP), 15 members (26.3%) of the Seoul branch, 9 (15.8%) of the Incheon Gyeonggi branch, 5 (8.8%) of the Daejeon Chungcheong branch, 4 (7%) of the Gwangju Jeolla branch, 9 (15.8%) of the Daegu-Gyeongbuk branch, and 15 (26.3%) of the Busan-Ulsan-Gyeongnam branch (Table 2).

Current status in tracheostomy tube speech rehabilitation

Experience of receiving training on tracheostomy tube assessment and intervention

When respondents were asked if they had received any education or training on tracheostomy patients, including university, graduate school, or other continuing education, 10.6% (6 respondents) had, and 89.5% (51 respondents) had not. Of those who had received education or training, the following were the most common: 50%

(3 respondents) through curricular classes at their school of origin, 17% (1 respondents) through special classes at their school of origin, and 33% (2 respondents) through other training courses.

Table 2. Participants' Information

Gender	Participants(%)
Male	5(8.8)
Female	52(92.8)
Age	
≤25	7(12.3)
26-30	24(42.1)
31-35	15(26.3)
36-40	3(5.3)
≥41	8(14)
Education	
Associate Degree	2(3.5)
Bachelor's Degree	21(36.8)
Master's coursework completed	4(7)
Master's Degree	26(45.6)
Doctoral coursework completed	3(5.3)
Doctoral Degree	1(1.8)
Region of word facilities	
Seoul	15(26.3)
Incheon/Gyeonggi	9(15.8)
Daejeon/Chungcheong	5(8.8)
Gwangju/Honam	4(7)
Daegu/Gyeongbuk	9(15.8)
Busan/Ulsan/Gyeongnam	15(26.3)
Certification	
First	37(64.9)
Second	20(35.1)
Clinical career (yr)	
≤5	19(33.3)
6-10	27(47.4)
11-15	2(3.5)
16-20	4(8.8)
≥21	5(8.8)
Work setting	
Rehabilitation Medicine	48(84.2)
Otorhinolaryngology	7(12.3)
Psychiatry	2(3.5)
Time of Work	
Full-time	53(93)
Part-time	4(7)

Experiences with speech rehabilitation among tracheostomy tube patients

When asked whether they had experience in speech rehabilitation for tracheostomy tube patients, 54.4% (31 respondents) reported having experience, and 46.5% (28 respondents) reported having no experience. For those with experience, the age of the patients they are treating every week (duplicate responses) was highest among adults (84% [32 respondents]), followed by pre-school children (8% [3 respondents], middle/high school students (5% [2 respondents]), and elementary school students (3% [1 respondents]). The types of patients currently being treated (multiple responses) were 14% (10 respondents) for voice disorders, 40% (28 respondents) for spontaneous brain injuries, 34% (24 respondents) for traumatic brain injuries, and 10% (7 respondents) for congenital cerebral palsy. Other types were listed as "congenital malformations." Additionally, when asked about the kind of tracheostomy for patients referred primarily for treatment experience only (duplicate responses), 19% (18 respondents) had a tracheostomy with a speaking valve, 19% (10 respondents) had a tracheostomy with a cuff, and 19% (10 respondents) had a fenestrated tracheostomy, with 15% (14 respondents) of tracheostomy tube patients without a speaking valve, 11% (10 respondents) of tracheostomy tube patients without a cuff, 6% (6 respondents) of tracheostomy tube patients with a single-lumen cannula, 6% (6 respondents) of tracheostomy tube patients with an unfenestrated cannula, and 5% (5 respondents) of tracheostomy tube patients with a double-lumen cannula.

Recognizing tracheostomy tubes and the need for evaluation and intervention

Tracheostomy tube recognition

To find out the awareness of the tracheostomy tube, patients were asked to respond on a 5-point Likert scale (5 for having heard of it a lot, 4 for having heard of it often, 3 for having heard of it occasionally, 2 for having

heard of it occasionally, and 1 for having never heard of it). Table 3 shows the results by level of education and certification, with higher levels of education and accreditation associated with greater awareness. There was a statistically significant difference in tracheostomy tube awareness between the two groups by education (t[-4.069]= 33.912, p=.000) (Figure 1). There was a statistically significant difference in tracheostomy tube awareness between the two groups by certification level (t[3.168]=55, p=.003) (Figure 2).

Need for communication assessment for tracheostomy tube patients

To investigate the perceived need for communication assessment among tracheostomy tube patients, we asked them to respond on a 5-point Likert scale (5 = very necessary, 4 = somewhat necessary, 3 = moderate, 2 = not necessary, and 1 = not necessary at all). We divided language assessment into three main areas: respiration, swallowing, phonation and speech function, and speech function, and the need for assessment in all three areas was highly perceived (Table 4). However, none of the three domains showed statistically significant differences (p>.05) by education level, number of years of licensure, or treatment experience.

The perceived need for swallowing function assessment was conducted using a 5-point Likert scale (5 for very necessary, 4 for somewhat necessary, 3 for moderately necessary, 2 for not necessary, and 1 for not necessary at all) to determine the need for assessment of phonation, cough, cough intensity, sputum volume, aspiration, and cuff. The results showed a high perceived need for evaluation in all areas (Table 5). There were no statistically significant differences (p>.05) by level of education or certification in any domain. When examining whether there was a statistically significant difference based on treatment experience, only the presence or absence of a CUFF was statistically significant (t[-2.071]= 54.669, p=.043) (Figure 3).

In phonation and speech function assessment, we sought to understand the perceived need for evaluation for the presence of a speaking valve, vocal fold vibration through laryngoscopy, communication quality of life, subjective voice impairment, comprehension, and AAC evaluation. A 5-point Likert scale (5 for very necessary,

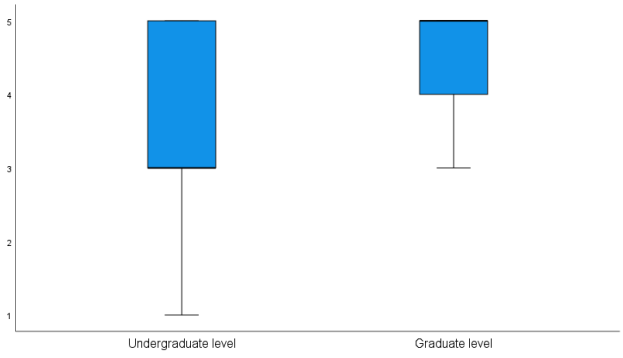

Figure 1. Perception of tracheostomy tube by education level.

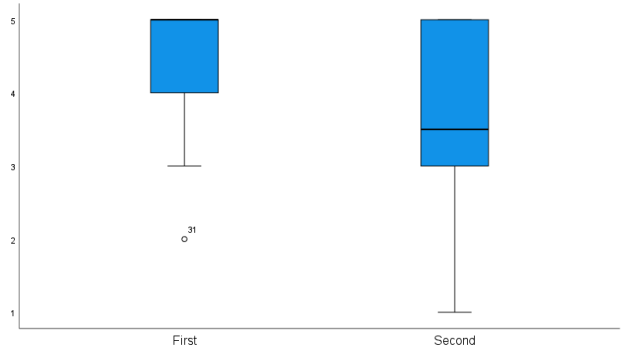

Figure 2. Perception of tracheostomy tube by certification level.

Table 3. Awareness Scores of Tracheostomy According to Level of Education and Certification

Variable	Category	Mean(±SD) (points)
Education level	Bachelor's degree or lower	3.58(±1.13)
	Master's level or higher	4.64(±0.65)
Certification grade	First -grade	4.49(±0.83)
	Second-grade	3.65(±1.13)

Table 4. The Necessity of Assessing Tracheostomy Tube Patients

Assessement domain	Mean(±SD) (points)
Respiration ability	4.88(±0.38)
Swallowing ability	4.88(±0.38)
Phonation & Speech ability	4.88(±0.38)

Table 5. Descriptive Statistics of Perceived Necessity for Evaluation Items in Patients with Tracheostomy

Assessement item	Mean(±SD) (points)
Phonation ability	4.91(±0.28)
Coughing intensity	4.86(±0.35)
Sputum amount	4.77(±0.46)
Aspiration presence/absense	4.67(±0.54)
Cuff presence/absense	4.74(±0.51)

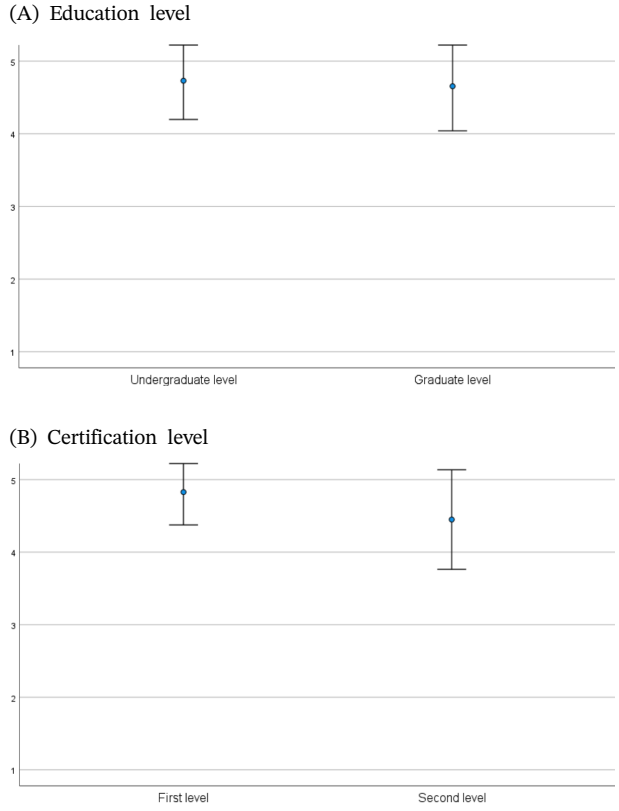

Figure 3. The necessity of swallowing ability assessment according to (A) education level and (B) certification level.

4 for somewhat necessary, 3 for moderate, 2 for not necessary, and 1 for not at all necessary) was used. The results showed a high perceived need for assessment in all areas (Table 6). However, there were no statistically significant differences (p>.05) across all domains by education, level of certification, or treatment experience.

Need for speech rehabilitation for tracheostomy tube patients

To investigate the perceived need for speech rehabilitation among tracheostomy tube patients, we asked them to respond on a 5-point Likert scale (5 = very necessary, 4 = somewhat necessary, 3 = moderate, 2 = not necessary, and 1 = not necessary at all). The results showed a high perceived need for speech rehabilitation with a mean of 4.63 (SD=0.522). However, the differences were not statistically significant (p>.05) according to education, certification level, or therapy experience. To examine the perceived need for speech-language rehabilitation by tracheostomy tube type, we categorized the participants into four groups: tracheostomy tube without a cuff, tracheostomy tube with a cuff, tracheostomy tube without a single lumen canner, and tracheostomy tube with a single lumen canner, fenestrated tracheostomy tube, unfenestrated tracheostomy tube, tracheostomy tube with a speech vavle, and tracheostomy tube without a speech vavle. All eight types showed high awareness of the need for speech rehabilitation. No statistically significant differences (p>.05) were found in the

Table 6. Necessity of Phonation and Speech Ability Assessment

Item	Mean(±SD) (points)
Speaking valve presence/absence	4.84(±0.41)
Storoboscopy test	4.79(±0.49)
Communication quality of life	4.84(±0.52)
Subjective voice disorder test	4.58(±0.40)
Comprehension ability	4.61(±0.72)
AAC assessment	4.32(±0.89)

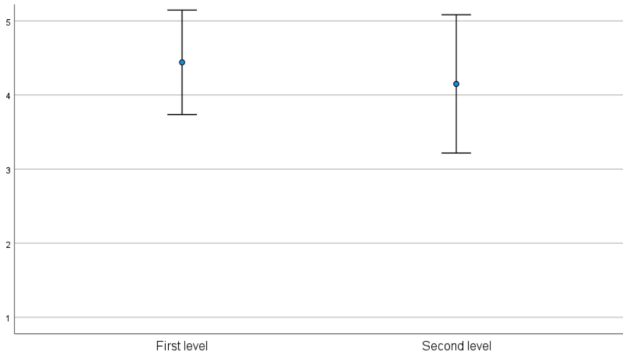

Figure 4. Necessity of tracheostomy tube patients' speech therapy (T-tube: Tracheostomy tube).

eight tracheostomy tube speech rehabilitation awareness types by education level or treatment experience. However, there was a statistically significant difference in understanding of the need for speech rehabilitation for tracheostomy tubes with CUFFs according to level of certification (t[2.455]=29.468, p=.020) (Figure 4).

Reasons for not believing that speech-language rehabilitation is necessary for tracheostomy tube patients

When asked why they believe that speech-language rehabilitation for tracheostomy patients is not necessary (multiple responses were allowed), the most common reasons were lack of training (35% [23 respondents]) and lack of experience in treating tracheostomy patients (29% [19 respondents]). Other barriers included restrictive treatment environments (17% [11 respondents]), lack of specialized speech-language pathologists (15% [10 respondents]), and ineffective speech-language pathology (3% [2 respondents]). Other comments included, "If there are fewer communication deficits after valving, it is unnecessary.

Confidence

To assess tracheostomy patients' confidence in speech evaluation and speech rehabilitation, they were asked to respond on a 5-point Likert scale (5 for very confident, 4 for somewhat confident, 3 for moderately confident, 2 for not confident, and 1 for not confident at all). Korean SLPs reported low confidence in speech assessment and rehabilitation for patients with tracheostomy tubes (Table 7). There were no statistically significant differences (p>.05) in confidence in speech assessment by education, level of certification, or treatment. There were no statistically significant differences in confidence in speech-language rehabilitation by level of education or certification (p>.05). Still, there was a statistically significant difference in confidence in speech-language rehabilitation by treatment (t[2.173]=55, p=.034) (Figure 5).

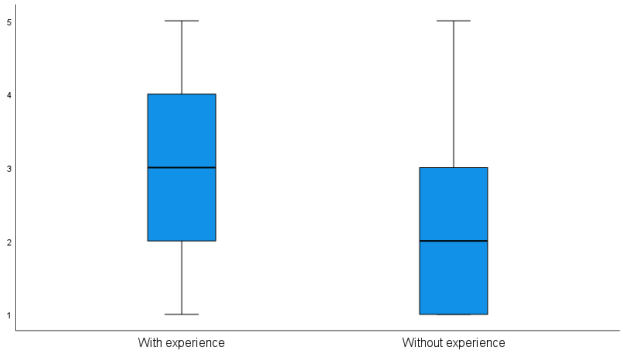

Figure 5. Speech-language pathologists' confidence.

Education and research needs and engagement

Perceived need for education and research

Participants were asked to respond on a 5-point Likert scale (5 for very necessary, 4 for somewhat necessary, 3 for moderately necessary, 2 for somewhat unnecessary, and 1 for not at all necessary) to determine the need for education or research for speech assessment and speech rehabilitation for tracheostomy tube patients. As shown in Table 8, perceptions were high in all four areas. However, there were no statistical differences (p>.05) in education, level of certification, or treatment experience.

Participation in training

To find out if they would participate in a training program for speech assessment or speech rehabilitation for

Table 7. Descriptive Statistics of Confidence in Assessment and Therapy for Patients with Tracheostomy

Item	Mean(±SD) (points)
Confidence in assessment	2.74±1.15
Confidence in therapy	2.84±1.25

Table 8. The Necessity of an Education Program or Research

	Mean(±SD) (points)
Education program in assessment	4.88(±0.38)
Education program in therapy	4.81(±0.44)
research in assessment	4.84(±0.45)
research in therapy	4.81(±0.48)

tracheostomy patients, they were asked to respond on a 5-point Likert scale (5 for very much, 4 for a little bit, 3 for moderately, 2 for a little bit, and 1 for not at all). The results showed a high mean score of 4.49 (SD= 0.805). There was no statistically significant difference in educational participation between education level and certification level ($p>.05$), but there was a statistically significant difference in educational participation by treatment experience ($t[2.576]=36.259$, $p=.014$).

DISCUSSION AND CONCLUSION

This study investigated the clinical experiences and perceptions of 57 hospital-based speech-language pathologists (SLPs) in Korea regarding the assessment and intervention for tracheostomy patients. The findings revealed that awareness of tracheostomy care differed significantly by educational background and certification level. Specifically, participants with less than a bachelor's degree reported a lower awareness score ($M = 3.58$), whereas those with a master's degree or higher reported a higher awareness score ($M = 4.64$). Similarly, first-level certificate holders reported higher awareness ($M = 4.49$) compared to second-level holders ($M = 3.65$). These results are consistent with previous studies indicating that educational attainment, clinical experience, and professional credentials contribute to clinical awareness and expertise in managing patients with severe conditions [24]. In particular, advanced-degree SLPs are more likely to acquire relevant knowledge through academic conferences, research participation, and extended professional training opportunities, which may account for the observed differences. The certification-level differences can also be explained by the additional years of clinical practice required for higher-level certifications, which result in greater exposure to tracheostomy patients.

Despite the generally high recognition of the importance of tracheostomy management, the proportion of SLPs with clinical experience in this area was relatively low. Only 54.4% reported direct intervention experience, while 46.5% indicated no prior involvement. This aligns with previous findings that many SLPs remain underutilized in tracheostomy care, leading to limited clinical exposure [25]. Moreover, among those with experience, the majority had intervened with adult patients (84%), while intervention experience with preschool children (8%), elementary students (3%), and adolescents (5%) was notably scarce. This distribution may reflect the characteristics of rehabilitation medicine departments—where 84.2% of the respondents were employed—given their primary focus on adult rehabilitation during the recovery phase after acute treatment. These findings suggest that Korean SLPs' clinical experience with tracheostomy is disproportionately concentrated in specific age groups and medical departments. Thus, the development of standardized role guidelines and multidisciplinary collaboration frameworks is needed to expand SLPs' clinical involvement across diverse patient populations.

Although hospital-based SLPs demonstrated high awareness of the necessity of tracheostomy-related interventions, their actual implementation in clinical practice was limited. Reported barriers included insufficient education, lack of treatment experience, restrictive clinical environments, shortage of specialized SLPs, and perceived limitations in treatment effectiveness. These findings suggest that while SLPs recognize the importance of intervention, they face practical challenges in delivering it. In terms of professional roles, SLPs are responsible for airway protection, voice rehabilitation, evaluation and training for speaking valve application, and implementation of effective communication strategies [26]. Internationally, such roles are supported by established clinical guidelines and systematic management protocols that ensure SLP involvement as key professionals [27,28]. By contrast, the absence of standardized clinical systems in Korea restricts the scope of SLP involvement, highlighting the urgent need to develop domestic guidelines

and collaborative care models.

In addition, the majority of Korean hospital-based SLPs expressed a strong need for education and training in tracheostomy intervention, yet their participation in relevant training programs was minimal [29]. Most respondents reported no prior training or continuing education in this area. This finding contrasts with the Australian model, where tracheostomy management education is integrated into university curricula [18]. Such results suggest that Korean SLPs perceive themselves as lacking competence in this field and demonstrate a high demand for structured educational programs and capacity-building initiatives.

Furthermore, the results showed that most respondents had low confidence in their ability to evaluate and treat tracheostomy patients. Previous studies have indicated that formal education and mentoring significantly enhance clinical confidence [30]. Therefore, the establishment of structured training programs and on-site supervision systems is urgently required in Korea. Institutional frameworks that foster the development of specialized SLPs, including professional training and certification programs, are also essential for strengthening clinical competence.

Taken together, these findings highlight the urgent need to establish standardized guidelines for tracheostomy interventions, build educational systems to train specialized professionals, and develop multidisciplinary collaboration frameworks in Korea. Such efforts will facilitate more active clinical involvement by SLPs and ultimately improve communication outcomes and quality of life for tracheostomy patients.

This study has several limitations. The number of participants was limited, and the sample consisted exclusively of hospital-based SLPs, thereby restricting the generalizability of the findings to the broader population of Korean SLPs. Moreover, diverse medical specialties, professional groups, and regional characteristics were not adequately represented. Future research should include larger, more representative samples across diverse clinical settings to enhance the generalizability and reliability of findings. Nevertheless, this study is meaningful as one of the first exploratory empirical investigations into the experiences and perceptions of Korean hospital-based SLPs regarding tracheostomy care. Despite its preliminary nature, the findings provide valuable baseline data for the development of educational programs, clinical guidelines, and institutional support systems to strengthen the role of SLPs in tracheostomy management in Korea.

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