

## Professional skills of speech therapist in special education centres of Punjab, Pakistan

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### Abstract:

Speech-language pathologists (SLPs) evaluate and treat speech-language impairments through professional knowledge and skills. Still, they also provide other resources such as assessing and treating swallowing, impaired memory, and hearing issues. The present study is about the factors affecting the professional skills of speech therapists in special education centres in Punjab. A cross-sectional research design was used. A total sample of 75 speech therapists was drawn through the purposive sampling technique in special educational centres of Punjab, including districts of Lahore, Mandibahudin, Sahiwal, Okara, and Shekhupura. There were 68 (90.7%) participants aged 20 to 30. There were 61 (81.3%) male participants and 14 (18.7%) female participants in the study. Results show that the majority of female participants (39.3%) strongly agreed that speech therapists do not have sufficient skills in special education centres, and it causes work burnout among 49.5% of female participants. Still, there is no gender association value of  $p > 0.001$ . 50.8% of female participants agreed training and the latest assessment tools are required for desired outcomes in therapeutic sessions. This research concluded that failure to ensure efficient technical skills of speech and language pathologists in special education centres has resulted in a slew of permanent, deadly effects for SLPs.

**Keywords:** Speech Language Pathologist (SLP), professional skills, knowledge, workload, assessment tools, special education centres.

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## 1. Introduction

Speech Language Pathologists (SLPs) uses a variety of techniques, including providing areas for speech language pathology and clinical practice. SLPs also work with students who have serious communication disabilities, such as language, speech impairments (speech sounds), fluency (speech speed), voice/resonance, and swallowing problems. SLPs work with patients to develop their verbal and written speech, as well as their auditory and reading comprehension (Glover *et al.*, 2015). SLPs specialize in oral and household swallowing disorders, as well as swallowing recovery, and provide services to slow learners and other students who are at risk of failing in school. They assist the patients after extensive consultations. SLPs concentrate on family, academic, mental, social, and vocational needs that affect educational objectives, and they may play a variety of roles depending on their language experience. They also assist students with disabilities in the care of the verbal and nonverbal foundations of course learning (Ch *et al.*, 2021).

SLPs are self-employed professionals whose goal is to provide speech and language services. They are not supervised, regulated, or tracked by any other health professional (Hill, 2017). SLPs can also work with other peer experts to reach a decision about counselling mythologies or outcomes. Their professional judgments reflects their abilities and knowledge in their respective fields (Douglas *et al.*, 2019). The term “clinician” is the most widely used term to describe a specialist's approach to treating patients with speech, language, and related issues. This was preferred over “pathologist”, which denotes a research that does not include sickness or disease, or “therapist”, which denotes a focus on recovery (Hegarty *et al.*, 2021). The term clinician may conjure up images of work in medical settings, such as at the hospital bedside or in health clinics, as well as a primary concern for the conditions and disorders that may present. Above all, it sends the message that the expert in question is analytical and uses a research, problem-solving approach to people-client observation, assessment, and management (Parveen, 2015).

Varieties of interventions are available to therapists, including articulation treatments, intervention, swallowing, and oral therapies. Collaboration, therapy, prevention and wellness, screening, evaluation, care, modalities, technology, and instrumentation, and population and systems 8 are the eight fields of speech-language pathology service delivery (Law *et al.*, 2017). They deal with goals one at a time, in groups, or in big groups such as classrooms. A Speech and Language Therapist (SLT) may work in a hospital or health centre clinic, but there are other places where they can contact clients. SLPs can contact their place of residence, such as a family home or a care facility, or the place where they go during the day, such as a day centre or a school. SLPs can also operate in other environments, such as resource centres that provide users with an augmentative communication framework. The speech therapist will also discuss re-educational methods for the deglutition and the phoning recovery, with the aim of instilling a calm and the optimistic attitude toward the treatment and the post-operative rehabilitation (Ch *et al.*, 2021).

Many people are familiar with speech therapists in clinics and hospitals, but have little idea what a speech therapist does in a special education centre setting because there is a large gap in factors affecting clinical skills of speech and language therapists in special education centres (Mngo & Mngo, 2018). There are several factors that influence the professional skills of speech and language therapists in special education centres in Pakistan; the current study focuses on

factors such as availability, professional experience, factors influencing professional skills, workload, and evaluation tools. Failure to maintain an appropriate technical skill of speech therapists in special education centres has resulted in a slew of permanent and fatal effects for SLPs (Brandel, 2020).

Several factors influence SLPs professional skills, including teamwork and contact with co-workers, administrative support, provision and condition, workload and SLP preparation and awareness. Other factors, such as years of experience, styles, and strength of professional experience, as well as continuing education, influence the degree to which individuals provide unique EI services in a comfortable and competent manner (Campbell & Douglas, 2017). In the technical fields, there is very little literature on knowledge, type, or strength of case load, and their ability to perform special duties satisfactorily. However, in a scientific sense, some expert's support the connection because it is defined as relaxation and the procedure on palms has been investigated (Shafaroodi *et al.*, 2017).

SLPs do not have laptop experience, and their field of expertise has communication issues. Older and younger generations of SLPs, on the other hand, must devise strategies to adapt IT technologies to their care objectives (Anderson *et al.*, 2015). Similarly, SLPs faces a variety of obstacles in their professional lives, including heavy workloads, erroneous time management, inconsistent client responses and attitudes, a lack of coordination with seniors, inadequate management support, and irregular job assignments. Several success metrics of speech therapists will be evaluated in this report, including clinical expertise, time management, workload, and patient engagement (Chu *et al.*, 2019). The findings of this study will assist speech therapists in concentrating their efforts on high output success metrics.

Speech therapists assist young children in learning to communicate and people with speech difficulties in communicating effectively (Wilson *et al.*, 2015). The aim of this study is to identify numerous factors that obstruct the implementation of therapy procedures, facilities, and technology in special education centres, and to determine how these skills can be efficiently applied in their speech strategies to achieve the desired results. This research will show us how to operate a speech centre efficiently by integrating core professional skills and achieving the desired outcome and patient satisfaction. Speech therapists operate in various rehabilitation centres and special education centres in Pakistan, and the ultimate goal of this study is to identify restricting factors in applying professional skills of SLP in a realistic setting.

## **2. Literature review**

This section examines the literature on factors influencing speech therapists' professional skills in Pakistani special education centres. It will look at the following topics: overview of the definition of special education, types of learners with special needs, and factors affecting the use of speech and language therapists' professional skills in special education settings. According to Walsh (2018), it is common to believe that special education is the least important aspect of the general faculty device; however, this belief is wrong, as special education often necessitates more complex and complicated tasks than general education. Special education is designed to provide education to each student by taking into account special educational requirements. Style schooling includes students on a daily basis with trend/shared environments, while specialized education is focused on asset adjustment in a passive activation context, teaching methodological plans, and analytical exercises (Walsh, 2018).

According to Short *et al.* (2016), more general variables found in different speech or language therapies can also contribute to positive outcomes. For example, in speech or language recovery study, the clinician's role is often underestimated or ignored, despite evidence that clinics are an important component of comparative field therapy. Strange factors can be compared to speech language pathology, particularly in relation to additional individuals. Many speech therapists have unique elements within the physician-user relationship regarding their treatment, specific to the length of the care plan, and the client's expectations of performance have an overall outcome (Short *et al.*, 2016). The implicit clinical centre of experienced practitioners can help form these perspectives, but the goal is not always to capture these well-known elements through speech and language action. The danger of overlooking common factors is examined, as is the efficacy of remediation. Ignoring these variables at first may not negate their impacts, and the results of the study can be muddled as a result. Second, by missing the significance of strange elements, we fail to recognize and use records that can help us optimize care outcomes (Luterman, 2021).

Davidson *et al.* (2015) discovered that language-impaired children and adolescents have trouble forming and sustaining positive social relationships, particularly relationships with their peers, on a daily basis. Speech pathologists must learn which facets of communication best facilitate peer engagement and, as a result, potentially strengthen peer relationships (Davidson *et al.*, 2015). Speech pathologists' decisions that include both the pros and cons of the intervention will motivate them to communicate in a way that minimizes and eliminates major communication errors. Speech pathologists should adopt strategies to discourage the social discrimination of patients (Aguilar, 2021). Expert therapists who jog with children and particularly people who walk with children and adults who are experiencing anxiety believe that speech therapists might be trained through this speech wrapping assistant who performs without supervision. Some medical skills, mutual skills, and management skills were among them (Calle-Romero *et al.*, 2017) Physicians who work with elderly people with neurological disabilities on a daily basis, on the other hand, were more cautious than those who were assisted by assistants who helped straighten them out (Zerbo *et al.*, 2015).

According to Hamid *et al.* (2021), academic performance of speech affected children is going bad due to depression and anxiety. Speech counsellors must be trained the skills handle anxiety and depression and respect should be given to special children by all staff of any special institutions (Hamid *et al.*, 2021). Pakistan initiated a program in 1980s to increase the number and quality of established education centres for both men and women. However, the continued lack of any sort of schooling for children who seek individual education denies the right to attend high school to an unexpected number of these young people (Roof, 2015). A study on beginner clinic staff was written by Volkmer *et al.* (2020). The goal students spoke English as a second language, which posed a significant barrier to their clinical practice. Several issues, such as communication, learning style, and professional conduct, were highlighted in this report, which could help professionals develop their skills in future (Volkmer *et al.*, 2020). Noor and Raja (2019) compiled the constraints faced by SLPs during practice in schools about Speech-Language Pathology in Schools, which was published in an article by Allama Iqbal Open University Islamabad. Restricted parental dialogue and participation, large tasks, discouraging workers, and, last but not least, limited resources are the major issues (Noor & Raja, 2019). Other limitations were identified in a study conducted by St. Bernard Elementary School in Ohio. Collaboration with colleagues and the demand for proof of clinical practice by higher authorities have so far been highlighted as limitations (Kadyamusuma, 2016).

Special education in Pakistan is defined by national coverage, particularly in the areas of school education expectations, specific school curricula, and evaluation and innovation for teacher education packages in schools. Goals are indicated. In Punjab and Sindh, as well as Baluchistan and KPK, the Ministry of Education is responsible for the education of children with special educational needs. The Ministry of Women's Development, Social Welfare, and Special Education created this portfolio. In addition to evaluating Pakistan's individual educational needs, he urged the federal and provincial governments, as well as non-governmental organizations (NGOs), to collaborate on the training of special children and to ensure co-operation and cooperation in sports (Durrani & Halai, 2018). Thompson (2019) in his study described the experiences of clinical professionals when fulfilling their roles as pathologists in higher education. This research can be used to help clinical practitioners better in the future, particularly at higher levels of education. Workload, false time management, inconsistent client response and behaviour, lack of coordination with seniors, inadequate management support, and irregular work assignments are the primary constraints. Aside from highlighting these issues, a few activities that are important for SLPs were listed. Self-realization, realization of roles as a clinical trainer, self-confidence, and realization of relationships with colleagues and patients are examples of these obligations (Shahin *et al.*, 2015).

Weiss and Rohland (2015) assess practical application of ethical practices in clinical practices of phonetics and linguistics. It is needed to refresh and broaden their commitment and expertise to ethical coaching opportunities. The Powel Model of ethical practices is used to create Communication Coaching Program (CCP) based on six ethical constructs. Results of 4-year CCP programs revealed that communication programs should be customized or adopted according to individual needs in addition to being based on ethical standards. Workers' behaviour and team's long-term strategy focuses and builds on a practical software program of creativity that directs and trains people for their responsibilities and allows us to reach goals. With that in mind, it appears to be a method for converting PD teachers into a tool for converting them to experts (Weiss & Rohland, 2015). Lytton *et al.* (2019) in his latest work, "Problems and Issues in Education" writes that "during the strong economic domestic historical past, with the aid of a supportive mother and father, there is a need to beautify a child's overall modest academic overall success". This point can be expected from scholarly teaching performances in which the child is advised to make informed decisions about his teachers and experts who are interested in his mental skills, interests, and sports. Agers may have to deal with illiterate mania. Discover yourself by putting in the effort to walk the streets.

### **3. Theatrical framework**

This study is based on a plan by the American Speech Language Hearing Association (ASHA). SLPs work for individuals, families and groups from a variety of language and cultural backgrounds. Services are provided based on the use of the best research evidence, using expert clinical judgments, and taking into account customer preferences and values. Speech therapists deal with common and unusual communication problems and swallowing problems. Speech therapists also offer their services to people who want to improve their accent or communication skills. Speech therapists play the role of supervision as well as are responsible for professional growth and development of its colleague's. Therefore, clinical education is an important aspect for a speech therapist either to perform role of a supervisor or an administrator in a clinical setting. Skills and expertise needed for it are crucial for successful services delivery to patients, students or clinical fellows.

Skills needed by speech therapists may be gained by practicing with seniors, participating in course workshops, self-study of filed relevant material. A speech therapist must clearly access the problem, understand and demonstrate the best practices and use alternative assessment procedures if needed, must be able to build an effective client-clinician relationship, apply the specific tools and techniques to clients being served, must be able to properly counsel the clients and demonstrate the results obtained after therapy. Speech therapist develop a treatment plan for patients using application of his knowledge, skills and expertise based of various intervention materials, procedures, evidence based techniques, data collected from client behaviours and performance and decide when to use extra resources for intervention (Swan *et al.*, 2018). Speech therapists also consider social relationships of patients to be modelled in a way that is fruitful for both the patient and society. Ethical Standards are also kept in mind to avoid any type of discrimination among patients (Boyle, 2015). This study focuses on the technical and clinical aspects of the skills of speech therapists.

#### **4. Research methodology**

This observational cross-sectional research was carried out in special educational centres in the Punjab districts of Lahore, Mandibahudin, Sahiwal, Okara, and Shekhupura. A total of 73 speech therapists were included in this study's sample. There are 68 (90.7%) participants between the ages of 20-30, 6(8.0%) participants between the ages of 31-40 and 1(1.3%) participant between the ages of 41 and 50. There are 61(81.3%) male participants and 14 (18.7%) female participants in the survey, which is a sufficient sample size for the subject. Purposive sampling was used to select a sample from the population. The instrument was created using a literature review and expert opinion on the topic.

The setting of this research setting was “Lahore, Mandibahudin, Sahiwal, Okara and Shekhupura” where the factors affecting the professional skills of Speech and language pathologists in special education centres was studied. Study population for this research work was all speech therapists of Lahore, Mandibahudin, Sahiwal, Okara and Shekhupura. The sample size of this research study was consisting of 73 speech therapists to evaluate the factors affecting the professional skills of speech and language pathologists in special centres of district Lahore, Mandibahudin, Sahiwal, Okara and Shekhupura.

A data collection instrument was developed with the help of expert opinion and available literature. Content analysis was done to find out reliability and validity of the questionnaire. After that, this questionnaire applied for data collection from speech language therapist working special education centres. Professional skills of SLPs are measured by getting information about number of tests instruments available in special education centres. A structured close-ended questionnaire based on twenty-nine items was used to measure the workload on SLPs in special education centres, professional skills of SLPs, satisfaction of assessment tools used by Speech therapists. Five-point LIKERT scale was used in developing questionnaire. Responses were collected in “Strongly Disagree”, “Disagree”, “Neutral”, “Agree” and “Strongly Agree” options.

Data was collected through survey method. After collecting the data, it was entered into Statistical Packages for Social Sciences (SPSS) version 23 and results were maintained through frequency and percentage method. Descriptive statistic was used for the description of demographic variables of the therapist. Chi Square test was used to see the association of the

professional skills between the male and female (Speech Language Pathologist). SLP working in Special Education Centre of having minimum 1 year experience was included. Pathologists having minimum qualification diploma in speech language pathologist were not included. Pathologist currently working in special education centres were included. SLP having age of 22 or above were included. Pathologists of district Lahore, Mandibahudin, Sahiwal, Okara and Shekhupura were included. SLP who were on leave were not included.

## 5. Results and discussion

The results deal with data analysis. Frequency and percentages were used to evaluate the factors. Table-1 indicates background feature of the speech therapists considering age, gender, qualification, work experience, and work setting. There are 68(90.7%) participants are 20-30 years old, 6(8.0%) participants are 31-40 years old while 1(1.3%) participant are 41-50 years old. There are 61(81.3%) male participants and 14(18.7%) female participants sample size as per topic need participate in survey. The qualification of the participants was BS 10(13.3%), MS 33(44.0%), Diploma holders 17(22.7%) and other 15(20.0%). The work experience of the participants were 1 to 3 years 51(68.0%), 2 to 5 years 2(2.7%), 3 to 6 years 17(22.7%) and more than 6 years 5(6.7%). The work setting of the participants were special education centre 26(34.7%), medical centre 39(52.0%) and other (13.3%). The number of conferences attended was 0-20 times was 72(96.0%), 21-40 times was 2(2.7%) and 41-60 times was 1(1.3%). The number of workshops attended 0-20 times was 74(98.7%) and 1(1.3%) was 81-100 times. The number of seminars attended 0-20 times was 74(98.7%) and 1(1.3%) was 81-100 times.

Table-1: Demographic characteristics of sample

Background	Variables	N=75 (%)
Age	20-30 Years	68 (90.7)
	31-40 Years	6 (8.0)
	41-50 Years	1 (1.3)
Gender	Male	61 (81.3)
	Female	14 (18.7)
Qualification	BS	10 (13.3)
	MS	33 (44.0)
	Diploma	17 (22.7)
	Other	15 (20.0)
Work Experience	1 to 3 years	51 (68.0)
	2 to 5 years	2 (2.7)
	3 to 6 years	17 (22.7)
	More than 6 years	5 (6.7)
Work Setting	Special Education Centre	26 (34.7)
	Medical Centre	39 (52.0)
	Other	10 (13.3)
No. of Conferences attended	0-20 Times	72 (96.0)
	21-40 Times	2 (2.7)
	41-60 Times	1 (1.3)
No. of Workshops attended	0-20 Times	74 (98.7)
	81-100 Times	1 (1.3)
No. of Seminar attended	0-20 Times	74 (98.7)
	81-100 Times	1 (1.3)

According to table-2 for the statement, “no of speech therapists are sufficient according to patients’ ratio” results showed that majority of males (35.7%) agreed with the statement while in females most participants (39.3%) strongly agreed with P value 5.22. For the statement “due to the excessive workload sometimes it is frustrating to take that many sessions” results showed that a majority of males (35.7%) and females (45.9%) strongly agreed with P value 1.99. For the statement “time management during sessions is a great challenge for SLPs results showed that in male most of the participants (35.7%) responded neutral with the statement while in female most participants (45.9%) strongly agreed with P value 8.88. For the statement, “colleague’s collaboration at work place enhances treatment outcome” results showed that in male most of the participants (35.7%) responded neutral with the statement while in female most participants (60.7%) strongly agreed with P value 8.65. For the statement, “more workload negatively affects outcomes of treatment” results showed that majority of males (57.1%) and females (50.8%) strongly agreed with P value 2.35.

Table-2: Factors related to workload effecting the professional skills of speech therapist

Male (14)					Female (61)					P Value
Strongly Agree F (%)	Agree F (%)	Neutral F (%)	Disagree F (%)	Strongly Disagree F (%)	Strongly Agree F (%)	Agree F (%)	Neutral F (%)	Disagree F (%)	Strongly Disagree F (%)	
No of Speech therapists are sufficient according to patients’ ratio										
4 (28.6)	5 (35.7)	1 (7.1)	3 (21.4)	1 (7.1)	24 (39.3)	14 (23)	14 (23)	4 (6.6)	5 (8.2)	5.22
Facing work burnout due to excessive workload										
5 (35.7)	4 (28.6)	4 (28.6)	1 (7.1)	0 (0)	28 (45.9)	18 (29.5)	9 (14.8)	4 (6.6)	2 (3.3)	1.99
Insufficient time for therapy sessions due to extra workload										
2 (14.3)	4 (28.6)	5 (35.7)	3 (21.4)	0 (0)	27 (44.3)	22 (36.1)	8 (13.1)	4 (6.6)	0 (0)	8.88
Lack of collaboration team at work place for effective treatment outcome										
4 (28.6)	4 (28.6)	5 (35.7)	1 (7.1)	0 (0)	37 (60.7)	11 (18)	12 (19.7)	0 (0)	1 (1.6)	8.65
Extra workload negatively affects outcomes of treatment										
8 (57.1)	2 (14.3)	2 (14.3)	2 (14.3)	0 (0)	31 (50.8)	16 (26.2)	11 (18)	3 (4.9)	0 (0)	2.35

According to table-3 for the statement, “you have deep knowledge about the remedial strategies of different communication problems” results showed that majority of males (50%) agreed with the statement while in females most participants (59%) strongly agreed with P value 6.12. For the statement, “your way of conversation and body language is easily understood by the patient” results showed that majority of males (50%) and females (52.5%) strongly agreed with P value 0.63. For the statement, “you believe in teamwork in achieving therapy goals” results showed that majority of males (57.1%) and females (63.9%) strongly agreed with P value 1.48. For the statement, “you maintain complete record of treatment of patients”, results showed that majority of males (42.9%) and females (54.1%) strongly agreed with P value 2.04. For the

statement, “you can adjust treatment plans as needed by finding alternative ways to help your patients” results showed that majority of males (35.7%) and females (54.1%) strongly agreed with P value 2.98. For the statement, “you are compassionate with emotionally demanding patients” results showed that majority of males (64.3%) agreed with the statement while in females most participants (52.5%) strongly agreed with P value 16.97. For the statement, “you listen to patient’s symptoms and problems to decide on a course of treatment”, results showed that majority of males (42.9%) and females (60.7%) strongly agreed with P value 5.34. For the statement, “you have lot of patience to deal with every kind of patients” results showed that majority of males (35.7%) agreed with the statement while in females most participants (49.2%) strongly agreed with P value 3.03.

Table-3: Factors associated with professional knowledge

Male (14)					Female (61)					P Value
Strongly Agree F (%)	Agree F (%)	Neutral F (%)	Disagree F (%)	Strongly Disagree F (%)	Strongly Agree F (%)	Agree F (%)	Neutral F (%)	Disagree F (%)	Strongly Disagree F (%)	
You have deep knowledge about the remedial strategies of different communication problems										
4 (28.)	7 (50)	1 (7.1)	2 (14.3)	0 (0)	36 (59)	14 (23)	6 (9.8)	4 (6.6)	1 (1.6)	6.12
Your way of conversation and body language is easily understood by the patient										
7 (50)	3 (21.4)	2 (14.3)	1 (7.1)	1 (7.1)	32 (52.5)	13 (21.3)	11 (18)	3 (4.9)	2 (3.3)	0.63
You believe in teamwork in achieving therapy goals										
8 (57.1)	4 (28.6)	1 (7.1)	1 (7.1)	0 (0)	39 (63.9)	12 (19.7)	6 (9.8)	2 (3.3)	2 (3.3)	1.48
You maintain complete record of treatment of patients										
6 (42.9)	5 (35.7)	3 (21.4)	0 (0)	0 (0)	33 (54.1)	15 (24.6)	9 (14.8)	3 (4.9)	1 (1.6)	2.04
You can adjust treatment plans as needed by finding alternative ways to help your patients										
5 (35.7)	4 (28.6)	3 (21.4)	1 (7.1)	1 (7.1)	33 (54.1)	15 (24.6)	7 (11.5)	5 (8.2)	1 (1.6)	2.98
You are compassionate with emotionally demanding patients										
1 (7.1)	9 (64.3)	1 (7.1)	1 (7.1)	2 (14.3)	32 (52.5)	20 (32.8)	4 (6.6)	5 (8.2)	0 (0)	16.97
You listen to patient’s symptoms and problems to decide on a course of treatment										
6 (42.9)	5 (35.7)	2 (14.3)	0 (0)	1 (7.1)	37 (60.7)	18 (29.5)	6 (9.8)	0 (0)	0 (0)	5.34
You have lot of patience to deal with every kind of patients										
4 (28.6)	5 (35.7)	2 (14.3)	2 (14.3)	1 (7.1)	30 (49.2)	18 (29.5)	7 (11.5)	5 (8.2)	1 (1.6)	3.03

According to table-4 for the statement “assessment tools according to the child’s speech language problem are available at my work place”, results showed that majority of males

(42.9%) and females (39.3%) strongly agreed with P value 3.67. For the statement, “quality of the education and service delivery at my work place can be improved by using latest therapeutic and assessment tools” results showed that majority of males (35.7%) agreed with the statement while in females most participants (50.8%) strongly agreed with P value 6.30. For the statement “at our workplace we use assistive devices as treatment approach to enhance the quality of treatment”, results showed that majority of males (50%) agreed with the statement while in females most participants (42.6%) strongly agreed with P value 4.89. For the statement, “standardized language assessment tools are available for assessment of the patients” results showed that majority of males (42.9%) agreed with the statement while in females most participants (44.3%) strongly agreed with P value 4.76.

Table-4: Factors associated with availability and use of assessment tools

Male (14)					Female (61)					P Value
Strongly Agree F (%)	Agree F (%)	Neutral F (%)	Disagree F (%)	Strongly Disagree F (%)	Strongly Agree F (%)	Agree F (%)	Neutral F (%)	Disagree F (%)	Strongly Disagree F (%)	
Assessment tools according to the child’s speech language problem are available at my work place										
6 (42.9)	3 (21.4)	5 (35.7)	0 (0)	0 (0)	24 (39.3)	19 (31.1)	11 (18)	7 (11.5)	0 (0)	3.67
Quality of the education and service delivery at my workplace can be improved by using latest therapeutic and assessment tools										
4 (28.6)	5 (35.7)	3 (21.4)	2 (14.3)	0 (0)	31 (50.8)	18 (29.5)	10 (16.4)	1 (1.6)	1 (1.6)	6.3
At our workplace we use assistive devices as treatment approach to enhance the quality of treatment										
3 (21.4)	7 (50)	2 (14.3)	2 (14.3)	0 (0)	26 (42.6)	18 (29.5)	12 (19.7)	3 (4.9)	2 (3.3)	4.89
Standardized Language assessment tools are available for assessment of the patients										
3 (21.4)	6 (42.9)	3 (21.4)	2 (14.3)	0 (0)	27 (44.3)	22 (36.1)	9 (14.8)	2 (3.3)	1 (1.6)	4.76

Findings of this study show that majority 90.7% of the participants are 20-30 years old. Also, a good majority 81.3% male participants and 44.0% participants had MS qualification. A majority of 68.0% participants were having 1 to 3 years of work experience. The work setting of the participants were a majority 52 % works in special education centres. A huge majority 98.7% were 0-20 times attended conferences. A huge majority 96.0% were 0-20 times attended workshops. A huge majority 96.0% were 0-20 times attended seminar. According to research on special education centres environment are being asked to have deeper understandings of child development and early education issues; to provide richer professional and educational experiences for all children.

In the present study, availability of a speech therapists, equipment availability, workplace environment and sufficient financial resources is necessary. A 24.0 percent of the participant agreed and 45.3 percent strongly agreed that speech therapists are always available to offer

their services. A 29.3 percent of them responded neutral, 20.0 percent of them agreed that equipment available at my workplace is sufficient for providing the therapy needed. A 20.0 percent of them responded neutral, 16.0 percent of them agreed that at my workplace speech therapists are given separate place to carry sessions. A 29.3 percent of them responded neutral, 22.7 percent of them agreed that there are sufficient financial resources to carry out day to day tasks of the special education centres.

In this study, professional knowledge is another factor affecting the professional skills of speech and language pathologists in special education centres. A 28.0 percent of them agreed that you have deep knowledge about the remedial strategies of different communication problems. A 21.3 percent of them agreed that the patient easily understands the way of conversation and body language, whereas 52.0 percent strongly agreed. A 62.7 percent were strongly agreed that you believe in teamwork in achieving therapy goals. The findings of this study show that factors affecting professional skills. A 28.0 percent of them agreed that you pay complete focus on patients during clinical sessions, whereas 56.0 percent strongly agreed. A 32.0 percent of them agreed that you feel motivated in dealing with every type of patients, whereas 45.3 percent strongly agreed. A 22.7 percent of them agreed that you take proper consent from patients' caretakers before starting treatment, whereas 62.7 percent strongly agreed. A 36.0 percent of them were agree that you believe in creative ideas of treatment rather than bookish one, whereas only 48.0 percent were strongly agreed.

In this study. workload was another factor affecting the professional skills of speech and language pathologists in special education centres. A 25.3 percent of them agreed that the number of speech therapists are sufficient according to patient's ratio, whereas 37.3 percent strongly agreed. A 29.3 percent of them agreed that due to the excessive workload sometimes it is frustrating to take that many sessions, whereas 44.0 percent strongly agreed. A 34.7 percent of them agreed that time management during sessions is a great challenge for SLPs, whereas 38.7 percent strongly agreed.

## **6. Conclusion**

Male and female speech-language pathologists differed greatly on factors affecting their professional abilities in special education, such as availability, professional experience, workload, and evaluation tools. Such comprehensive research is proposed in the future to improve the factors influencing the application of professional skills in special education centres. There is also a need to strengthen vaccination policies and their implementation across the world. Such comprehensive research is proposed in the future to improve the factors influencing speech and language pathologists' professional skills in special education centres. There is also a need to strengthen vaccination policies and their implementation across the world. The findings of this study include previously unexplored knowledge about the factors influencing the ability of special education centres to implement professional skills and fulfil their roles and responsibilities. This analysis, however, had limitations due to the nature of survey research, operationally specified scales, and the researcher's assumptions. As a result, more research is needed to see how current SLPs can influence or inform pre-service or in-service education.

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