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Medical Practitioner's awareness on Speech-Language Pathologists and their services in India: A pilot study

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ABSTRACT

Speech-language pathologists (SLPs) strive to provide rehabilitation for people with communication disorders. In the Indian scenario, general physicians act as a source of reference for SLPs. This article provides an insight into the awareness of SLPs among medical professionals. Interview based questionnaire was prepared in Google forms and circulated via different social media platforms. A total of 120 participants from various medical streams completed the form. Thirteen participants were excluded as they were either students or interns. Among 107 participants, only 60 (56.1%) were aware of SLPs. Management of stuttering, aphasia, cleft lip & palate, and hearing impairment (91.7%, 85%, 81.7% and 81.7% respectively) had higher popularity than laryngectomy and swallowing disorders (35% and 30% respectively). Out of 60 participants, 98.3% referred patients to SLPs for various communication disorders. The study exposed that nearly half of the practitioners are unaware of SLPs. However, all the practitioners agreed that there should be a lecture on speech-language pathology for medical students.

1. Introduction

India is a country known for its different forms of alternate medicine, which targets good health and rehabilitation to treat ailments apart from allopathy. Apart from allopathic doctors, Ayurveda, Yoga and naturopathy, Unani, Siddha and Homoeopathy (AYUSH) practitioners provide healthcare. There are 9.1 qualified health workers per 10,000 population. The distribution of health workers are as follows: doctors (allopathy), 3.3; nurses and midwives, 3.1; health associates, 1.8; AYUSH practitioners, 0.6; dentists, 0.3; and traditional practitioner, 0.0.[1] Health plays a significant role in every individual, and people often try different forms of treatment methods and approaches. Health being a fundamental right, according to the preamble Constitution of India, Articles 21, 38, 42, 43 & 47 imposed duties to states under Directive Principles of State Policy to provide public health.[2]

No single medical profession can deliver better health care. Interprofessional collaborative practice has been defined as a process that includes communication and decision-making, enabling a synergistic influence of grouped knowledge and skills.[3] It is important to note that poor interprofessional collaboration can have a negative impact on the quality of patient care.[4] If the health care team is to function effectively, there must be meaningful communications, mutual understanding, and respect among its members.[5] These can be achieved only when there is an interprofessional collaboration. The World Health Organization has developed a "Framework for Action on Interprofessional Education and Collaborative Practice" to understand the functioning of interprofessional education and collaborative practice in a globle context to the policy makers, educators, decision-makers, community leaders, health workers, and global health advocates.[6]

Speech-language pathologists (SLPs) tend to the communication needs for people with communication disorder improving their quality of life. Mahmoud and Alkhamra[7] reported that nearly 70% of the 1203 participants who visited the local mall in Amman, participated in the study were unaware of speech-language pathology and communication disorders. Another similar study on public perspectives on the profession of speech-language pathology and communication disorders in Malaysia revealed more than half of the participants showed high knowledge about speech-language pathology and moderate knowledge about communication disorders. Additionally, participants who had a higher level of education (masters or PhD) had more positive attitudes towards communication disorders and SLP than those primary or secondary school graduates.[8] In the Indian scenario, people primarily approach the

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general physicians for any kind of disorder. Reddy et al.,[9] administered six close-ended yes-no type questions to 145 public volunteers who attended the speech and hearing camp in their area. Participants were in the age range of 19–67 years. The participants were divided into literates (131) and illiterates (14). The study revealed that 79.18% (114 out of 145) were aware of communication disorders in Hospet Taluk, Karnataka, India. Since public visits a general practitioner first, they become one of the sources of reference for the SLPs. Accurate and timely help can be provided to a person with communication disorder when referred. The physician must be aware that there is a profession called Speech-Language Pathologist, who rehabilitate persons with various communication disorders for a better referral.

The major objective of the present study was to empirically measure the level of awareness of the profession of speech-language pathology and their services among the medical practitioners in India.

2. Method

A total of 120 participants filled the form from various streams such as Bachelor of Medicine, Bachelor of Surgery (MBBS), Bachelor of Ayurveda, Medicine and Surgery (BAMS), Bachelor of Dental Surgery (BDS) along with super-specialists and others. However, students and interns responses were excluded. The study was approved by the AIISH ETHICS COMMITTEE (AEC) and conformed to the Ethical Guidelines for BioBehavioral Research Involving Human Subjects. Interview based questionnaire from Agni and Batin[10] was adapted and modified (11 out of 17 questions) by the first author according to the present study's requirements. The modified questions where initially given to two experienced speech-language pathologists of over 15 years of experience to provide an opinion and for suggesting modifications, if any. The changes proposed were incorporated, and the questions were prepared using Google forms. The link to the questionnaire was circulated to the physician through different social media platforms such as Whatsapp, Facebook, and Instagram, and through e-mails. Exponential Non-Discriminative Snowball Sampling was employed to recruit the participants in the study. The hyperlink of the questionnaire was initially sent to a few physicians directly and was asked to forward to their respective medical groups in Whatsapp to fill the form. The questionnaire had both closed-end questions such as Yes/No questions, multiple-choice questions, and open-end questions.

The questionnaire had four sections. The first section had demographic details of the participants, which included their name, e-mail id, age, gender, graduation, specialization, and years of practice. The second section had one question which tapped about the participants' awareness of SLPs. If the participant is aware, then the questions related to the SLPs and their services were arranged in section three. If the participant was not aware of the SLP, then the form skips the third section and directly enters the fourth section where the form is submitted. The summary of the responses was considered for further analysis. As suggested by the consulted statistician, descriptive statistics was carried out as no other statistical test can be applied for the obtained data unless the data is collapsed to the required form which is not suggestive for the current study.

3. Results

The responses in the google forms were subjected to analysis, both individually and pooled data. The results are represented as frequency and percentage in Tables 1 and 2. Table 1 has the demographic details of the participants, and Table 2 reveals the responses of the participants who are aware of the profession – Speech-Language Pathology.

Among 107 participants, 51 (47.7%) and 56 (52.3%) were undergraduates and postgraduates, respectively. Overall, 56.1% of the practitioners are aware of Speech-Language Pathology. Among the different services of speech therapy, the most popular ones are managing persons with stuttering (91.7%), aphasia (85%), habilitating, and rehabilitating resonance problem in children with cleft lip & palate (81.7%), and children with hearing impairment (81.7%). Less known fields are managing swallowing disorders (30%) and laryngectomies (35%).

Table 1
Demographic details of the participants.

Main Questions	Sub questions	Frequency distribution
1) Qualification	a) Undergraduates	51 (47.7%)
	b) Postgraduates	56 (52.3%)
	c) PhD	0 (0%)
2) Years of practice	0–5 years	85 (80%)
	5–10 years	11 (11%)
	10–15 years	3 (2%)
	>15 years	8 (7%)
3) Specializations	a) Paediatrics	3
	b) General medicine	51
	c) ENT	5
	d) Dentistry	6
	e) Community medicine	7
	f) Pathology	6
	g) Anaesthesiology	4
	h) Orthopaedics	2
	i) General Surgery	7
	j) Maxillofacial Surgeon	4
	k) Radiologist	2
	l) Psychiatry	1
	m) Physiology	3
	n) Neuroscience	1
	o) Cardiology	1
	p) Nephrology	1
	q) Microbiology	1
	r) Ayurveda	2
4) Awareness about SLP	a) Yes	60 (56.1%)
	b) No	47 (43.9%)

Out of 60 participants, 75% reported that a person need not visit an SLP through a doctor. Furthermore, 98.3% of 60 participants have referred patients to an SLP. Among different clinical conditions, difficult to speak had a maximum of 96.5%; and tongue-tie, cleft lip and palate had the least with 1%. 71.7% of 60 participants, reported that speech-language pathology was introduced as a topic during their graduation and which never was given importance at that time, and 100% accept that there should be a lecture on speech-language pathology for medical students regularly.

4. Discussion

The study intended to determine the awareness level of speech-language pathology and their services among medical practitioners to see the understanding of the doctors on holistic healthcare, which needs to be assessed where the inter-professional collaboration is the need of the hour for patient management.

According to the data obtained from the present study, 120 participants filled the questionnaire, among which 13 participants (students and interns) were excluded from the study. It was observed that out of 107 participants, only 60 (56.1%) participants were aware of the SLP profession. A similar study, but from a different perspective by Kenny and Adamson[11] described that only 22% of the speech pathologists agreed that doctors had adequate knowledge and understanding about their profession.

Nearly half of the participants (48.3%) who knew about SLPs reported that their major source of information on SLPs was during their course work. However, all the participants thought that a lecture on speech-language pathology should be conducted for medical students regularly. One-fourth of them got to know through medical centres and a few from their colleagues, family members, and friends. Mass media being the educational medium for all irrespective of caste, colour, sociological, geographical, and economic diversities.[12] Surprisingly, in our study, mass media showed the least source of information at only 5%.

Table 2
Frequency distribution of responses of participants who are aware of the profession.

Main questions	Sub questions	Frequency distribution
1) Source of information about SLP	a) During Graduation (course work)	29 (48.3%)
	b) Through Hospitals/Medical Centres	15 (25%)
	c) Mass Media	3 (5%)
	d) Colleagues	9 (15%)
	e) Family and friends	4 (6.7%)
2) Jobs of SLP	Manage voice disorders	46 (76.7%)
	Prescribe prosthesis	19 (31.7%)
	Manage stuttering/stammering disorder	55 (91.7%)
	Manage swallowing disorders	18 (30%)
	Manage rehabilitation for patients with aphasia	51 (85%)
	Manage ICU patients	2 (3.3%)
	Manage pronunciation problem	46 (76.7%)
	Manage resonance problem in cleft lip and palate patients	49 (81.7%)
	Manage laryngectomy	21 (35%)
	Habilitation/rehabilitation for children with Hearing loss	49 (81.7%)
	Habilitation/rehabilitation for children with Mental retardation	32 (53.3%)
	Habilitation/rehabilitation for children with Cerebral palsy	32 (53.3%)
	Manage behavioural issues	12 (20%)
3) Intervention strategies used by SLP	a) Oro-motor exercises	53 (89.8%)
	b) Mobilization	13 (22%)
	c) Cognitive-Communication Therapy	50 (84.7%)
	d) Enhancing linguistic skills	48 (81.4%)
	e) Pressure points	4 (6.8%)
	f) Drugs	4 (6.8%)
	g) Stuttering/Stammering therapy	56 (94.9%)
	h) Physical exercise	14 (23.7%)
4) Should SLP dept be in all hospitals	a) Yes	57 (95%)
	b) No	3 (5%)
5) Perception about the role of SLP	a) Very important	29 (48.3%)
	b) Important	31 (51.7%)
	c) Not important	0 (0%)
	d) Don't know	0 (0%)
6) Referral from doctor to SLP is a must	a) Yes	15 (25%)
	b) No	45 (75%)
7) Referrals to SLP	a) Yes	59 (98.3%)
	i. Developmental disorder	29 (50.9%)
	ii. Arthritis	0 (0%)
	iii. Voice disorder	44 (77.2%)
	iv. Swallowing problems	19 (33.3%)
	v. Psychiatric disorders	8 (14%)
	vi. Behavioural issues	18 (31.6%)
	vii. Deaf-mute	41 (71.9%)
	viii. Difficulty to speak	55 (96.5%)
	ix. Memory disorder	4 (7%)
	x. Pulmonary issues	1 (1.8%)
	xi. History of late talking	37 (64.9%)
	xii. Tongue-tie	4 (7%)
	xiii. Cleft lip and palate	1 (1.8%)
	b) No	1 (1.8%)
8) Awareness on SLP centres nearby	a) Yes	39 (65%)
	b) No	21 (35%)
9) Awareness of various specializations in SLP	a) Yes	22 (36.7%)
	i. Motor Speech Disorders/Swallowing	13 (61.9%)
	ii. Augmentative and Alternative Communication/Sign Language	15 (71.4%)
	iii. Voice Disorders	11 (52.4%)
	iv. Fluency Disorders	12 (57.1%)
	v. Child Language Disorders	15 (71.4%)
	vi. Adult Language Disorders	10 (47.6%)
	vii. Maxillofacial Anomalies	6 (28.6%)
	viii. Phonological Disorders	11 (52.4%)
	b) No	38 (63.3%)
10) Encourage family members to become an SLP	a) Yes	55 (91.7%)
	b) No	5 (8.3%)

When the participants were asked to indicate the different roles of an SLP, it was observed that the management of persons with stuttering had the highest (91.7%) of other managements. It was trailed by the rehabilitation of aphasia (85%); managing resonance problem in cleft lip and palate patients and habilitation/rehabilitation for children with hearing loss (81.7%); managing voice disorders and pronunciation problems (76.7%); habilitation/rehabilitation for children with mental retardation and cerebral palsy (53.3%); managing laryngectomy patients (35%), prescribing prosthesis (31.7%), and managing swallowing problems (30%). There were a few of the management options which the SLPs do not deal with as catch points. However, few had mentioned that the SLPs deal with behavioural issues (20%) and managing ICU patients (3.3%).

Additionally, to know more about intervention strategies used by the SLPs, it was revealed that participants had fair knowledge on the strategies used. Stuttering/stammering therapy tops chart (94.9%), subsequently oro-motor exercises (89.8%), cognitive-communication therapy (84.7%), and enhancing linguistic skills (81.4%). However, few

misconceptions were observed, such as using physical exercise (23.7%), mobilization (22%), and both pressure points and providing drugs (6.8%). The results on the intervention strategies indicate that more knowledge needs to educated for the practitioners to avoid the misconceptions. The above misconception indicates that nearly 25% of the respondents confused with the services of physical therapists with speech-language pathologist's services. The misconceptions could be because of the unawareness of medical practitioners about the job tasks carried out by these rehabilitation therapists.

The majority of the participants (95%) believe that the speech-language pathology department should be in all hospitals. However, their knowledge on the availability of nearby SLP centres is comparatively less (65%). Additionally, 48.3% and 51.7% of the participants perceive the role of SLP is very important and important, respectively.

There are many factors that affect the referral of patients to specialists, such as the process of patient evaluation and treatment,[13] clinical outcomes,[14] continuity of care,[15] and costs.[16–18] When enquired whether patients must visit an SLP only with a referral from a doctor, 75% of the participants believed that it is not necessary. However, 25% believe that referral from a doctor is mandatory. A few of the reasons mentioned were "To rule out organic pathology and to address other needs," "As many of the people are not aware of this professional," "Since it's a field known to very few so reference from a doctor will give better insight." 96.5% of the participants refer patients to an SLP who's chief complaint was difficult to speak. The other general complaints and conditions were voice problems (77.2%), deaf-mute (71.9%), history of late talking (64.9%), development disorders (50.9%) swallowing problem (33.3%), memory problems and tongue tie (7%) and repaired cleft lip and palate, and pulmonary issues (1.8%). Over again, it was observed that participants believe SLPs deal with behaviour issues (31.6%). Only 7% of the 60 participants referred patients to SLP who had a complaint of tongue-tie in children.

To know about the knowledge of various specializations in speech-language pathology services, sadly, only 36.7% of the 60 participants were having awareness. Out of which, the maximum known specialization was Augmentative and Alternative Communication/Sign Language and Child Language Disorders (71.4%), Motor Speech Disorders/Swallowing (61.9%), Fluency disorders (57.1%), Voice disorders and Phonological disorders (52.4%) and Adult Language Disorders (47.6%). Despite having more awareness on stuttering and voice problems, it was surprising to find very little awareness of the specializations in speech-language pathology services.

Most of the participants (91.7%) who know about the SLPs stated that they would encourage their family members to become an SLP in the future. However, few participants (8.3%) reported that they would not encourage younger ones to this field of science. The common reasons mentioned above were that "There is no scope in developing countries like India" and "Less salary and not established branch."

Speech-language pathologists observed that parents visit them with misconceptions about their child's speech, language, or intellectual functions due to a lack of detailed knowledge in those areas possessed by child medical specialists.[11] To overcome this lacuna of knowledge, a topic on speech-language pathology should be given emphasis, which will help them to provide adequate information to the parents of children with communication disorders or adults with communication disorders who seek their help.

5. Conclusion

The results of this pilot study exposed that nearly half of the practitioners are unaware of the speech-language pathologists and their related services. Speech disorders such as stuttering and voice issues were the most common disorders known to practitioners. Furthermore, language disorders were the least known. There are few false impressions regarding the disorders that SLPs contend with, which need to enlightened in the future. Almost all the physicians who know Speech-Language Pathologists stated that they would encourage any from their family members to become an SLP. Proper awareness of the SLPs and their services among medical practitioners needs to be established and is necessary. Likewise, all the practitioners also agreed that there should be a series of lectures for medical students on communication sciences and disorders. Good knowledge of each other's profession helps yield a better service to public health. A larger-scale study on individual specialities with modifications in the questionnaire is recommended for better understanding.

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S. Lokheshwar: Conceptualization, Methodology, Investigation, Writing - original draft, preparation. **R. Rajasudhakar:** Methodology, Writing - review & editing.

Declaration of competing interest

None.

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