

The Profession of Speech Pathology and Audiology in Other Countries

SPEECH PATHOLOGY AND AUDIOLOGY IN INDIA

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Speech pathology and audiology is just past the teens in India. In a sense we were fortunate that we started late, because we did not have to start from scratch (Van Riper, 1978). We were also lucky to have Indian speech pathologists and audiologists in U.S. who willingly came down to start this profession. Notable among them were Y.P. Kapur, N. Rathna, Vijay A. Shah, Ramesh Oza, S. Nikam and S. Menon. Though we had the technical know-how and the personnel, India with its multitude of language and economic situations posed challenges. Nevertheless, we have prevailed.

TRAINING PROGRAM:

The speciality of audiology and speech pathology is an allied health profession in India. The training programs are based on the American model at least up to the master's level. One significant difference is that all the graduates of speech and hearing specialize in both audiology and speech pathology. At the doctoral level the English model is followed, i.e. a student works on a single research topic for two to five years and submits a thesis to earn the degree.

There are three training programs in India. Two of them are situated in the faculties of otolaryngology in medical schools. One is an independent establishment in an university setting. For details refer to Table I. The syllabi are almost similar in all the three schools.

All the three schools have excellent opportunities for clinical work. The first year B.Sc. students spend the entire clinical hours in observing diagnostics and therapy. From the second year onwards, they are assigned cases to work with. However, they are supervised by the clinical staff. The clinical hours earned in India can be used to get credits for the Certificate of Clinical Competence from the American Speech-Language-Hearing Association. They also attend speech and hearing camps conducted at various places.

The subjects in the B.Sc. are: introduction to audiology, special audiological tests, management of the aurally handicapped, pediatric audiology, speech and language disorders, speech therapeutics and diagnostics, administration and organization of speech and hearing centers, articulation disorders and stuttering, voice and its disorders, cleft palate, cerebral palsy, mental retardation, language development and its disorders, introduction to scientific enquiry, statistics, social psychology, clinical psychology, developmental psychology, psychology of learning, basic anatomy, physiology, pathology, otorhinolaryngology, pediatrics, genetics, neurology, electronics and acoustics, linguistics, phonetics and phonemics, noise measurements and hearing conservation.

In the master's level, the students study advanced aspects of the subjects studied at the B.Sc. level. The emphasis is towards research. In addition, they study psychophysics of audition, auditory physiology, speech perception, differential audiology, speech-hearing communication, seminars

in audiology and speech pathology, research methods, psychology of exceptionals, advanced statistics, counselling, psychotherapy, psycholinguistics, applied electronics and acoustics. The first year M.Sc. students are required to submit an independent research work in audiology and final year students are required to submit a master's dissertation in audiology or speech pathology or in allied areas.

CONTINUING EDUCATION:

We do not have continuing education programs similar to the ones conducted in U.S. or Canada. However, workshops, seminars and symposiums are conducted by the Indian Speech and Hearing Association and by Government Institutions like the All India Institute of Speech and Hearing, and National Institute of Mental Health and Neuro Sciences. During 1983-84, we had the following continuing education programs:

1. Central auditory disorders (NIMHANS) - Mansfred Spreng, Germany.
2. Education of the aurally handicapped (EAR) - Daniel Ling, Canada.
3. Bliss symbolics (AIISH) - Anne Warrick, Canada.
4. Continuing education in diagnostic audiology (ISHA) - Jean Smith, U.S.; M.N. Vyasamurthy, and J.D. Samuel, India.
5. Hearing impaired child (ISHA) - Vasanta, U.S.; Shukla and Ravi Shankar, India.

Enrollment in these programs required only a delegation fee of Rs.50/- to Rs.100/-.¹

EMPLOYMENT SETTINGS:

In 1983, the total number of speech pathologists and audiologists was around 450. According to Balakrishnan (1978) 40% of speech pathologists and audiologists are employed in medical institutions, 33% in speech and hearing clinics, 15% in special schools and the rest in industries, and special institutions. A few are in private practice, but flourishing.

Balakrishnan's (1978) survey indicates, 35% of speech pathologists and audiologists are employed by private institutions, closely followed by Central Government which employs 33.3%. The remaining professionals are almost equally shared by State Government and quasi-Government institutions. The majority of the professionals are below 30 years, and the highest number of them are in the age group of 20-24 years. A large number of them have a Master's degree in speech pathology and audiology. At present there is no employment problem but a lot of them are under-employed. There are several vacancies for which candidates are not available, mainly due to poor salaries offered by those institutions. This has resulted in some professionals switching over to some other non-professional jobs.

PROFESSIONAL RELATIONSHIPS:

Majority of the speech pathologists and audiologists work in close liaison with medical specialists. To go by statistics it is almost 60%. Unfortunately, many medical specialists are not aware of the availability of speech and hearing professionals. However a few medical specialists do ignore or refuse to accept the capabilities of a qualified speech pathologist and audiologist. Although, undoubtedly, many medical professionals do recognize, appreciate, seek and accept the need for this young profession in India.

Individual interactions are warm and pleasant with ENT doctors. We do

¹ Editor's note: approximately \$6.25 - \$12.50 in Canadian funds.

have delicate and tense situations in India as it is now in U.S., with some ENT surgeons. Hearing aid dealers have maintained a good relationship with us. Professionals like teachers of the deaf, social workers, occupational therapists and physiotherapists have been good to us.

The initial impression that the speech pathologists and audiologists were useful to ENTs, has been fading. As an (only) evidence, there is more recognized need for speech pathologists and audiologists in departments like neurology, pediatrics and plastic surgery, in the form of employment opportunities.

PUBLICATIONS:

We have three journals published from India.

- 1) The Journal of All India Institute of Speech and Hearing is published annually, by the All India Institute of Speech and Hearing, Mysore-570 006.
- 2) The Hearing Aid Journal is published twice a year by Communication, a private agency. These two journals are abstracted in DSH Abstracts.
- 3) The Journal of Speech and Hearing will be published shortly, twice a year by the Indian Speech and Hearing Association.

Only 3% of the professionals have excellent library facilities, whereas 65% of the professionals do not have adequate library facilities (Balakrishnan, 1978), the rest have adequate library facilities. The All India Institute of Speech and Hearing, Mysore, has the best library for speech pathology and audiology in the country - nearly 8000 books are available. More than 100 journals which deal with speech and hearing are being subscribed. In addition, Dr. Joe Stewart is active and has been instrumental in strengthening the Wendell Johnson Memorial Library, which is located at All India Institute of Speech and Hearing. As books on speech pathology and audiology are expensive in India, individual members find it hard to build their personal libraries.

RESEARCH:

A very few individuals completely devote their time for research work in India. The bulk of the research work is the resultant of projects, master's dissertations and doctoral theses. Information on past research is available elsewhere (Kapur, 1976). In addition, many professionals manage to contribute to clinical research work. They are most often reported in our journals as well as in the journals from U.S., U.K. and Australia and during Annual ISHA Conferences.

RECENT RESEARCH WORKS COMPLETED:

1. Objective Residual Monaural Loudness Adaptation - A new concept - M.N. Vyasamurthy.
2. Aphasia and Schizophasia - P. Karanth.
3. Test of Acquisition of Syntax in Kannada - V. Basavaraj.
4. Linguistics and Stuttering - M. Jayaram.
5. A Method to Overcome Naunton's Dilemma - Babu T. Punnar.

Sanders (1979) reports that recruitment is a normal, rather than abnormal response. He has reviewed the psychoacoustic and electro physiologic data and concluded that recruitment is a normal loudness response at high intensity and that an abnormal recruitment test result is the absence of recruitment, indicative of nerve VIII transmission problems. Thus, a test result of "no recruitment" in an ear with sensorineural hearing loss is more significant clinically, than the demonstration of the presence of recruitment.

The above views on recruitment were first made known by Jagadeesh (1970)

about 15 years ago. His hypothesis that "recruitment is an artifact" was further explained by Vyasamurthy (1976) in his paper entitled "A case with recruitment and abnormal tone decay, typical or atypical?".

It is unfortunate that Jagadeesh's hypothesis on recruitment did not receive wide publicity. Anyway, we are happy that what Jagadeesh had predicted about 15 years ago, has been found to be true by the present day authorities in audiology. Jagadeesh and Vyasamurthy are students of Vijay A. Shah.

CURRENT RESEARCH PROJECTS:

Domiciliary Speech Therapy Project - Principal Investigator, V.A. Shah. Speech and Hearing Problems in Rural Areas - M.N. Nagaraja. Attempts are being made by UNICEF to produce low cost hearing aids in collaboration with All India Institute of Speech and Hearing.

RESEARCH NEEDS:

- Test material for speech, hearing and language assessment are needed in all Indian languages. What has been done is far from enough. Development of inexpensive, indigenous equipment and aids for speech and hearing handicapped is also needed.
- Research to study the role of home training programs.
- Emphasis on rural research, where the heart of India lies.
- Development of audiological tests for identifying CANS disorders.
- A thorough research on hereditary deafness.
- Studies related to Ototoxicity.
- Initiating industrial hearing conservation programs.
- Development of hearing aids with effective bone conduction receivers for CSOM cases.

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Table-1 showing the details of the training programs

<u>Name of the Center/Location</u>	<u>Financing Agent/ affiliation</u>	<u>Degree offered/ duration</u>	<u>Intake</u>	<u>Eligibility</u>	<u>Environment</u>
All India Institute of Speech & Hearing, Mysore.	Ministry of Health & Family Welfare Govt. of India University of Mysore.	B.Sc. (Sp. & Hg.) 3 years.	20 + 2 ¹	PUC (PCMB) citizen of India. B.Sc. (Sp. & Hg.) or B.Sc. (AST) M.Sc. (Sp. & Hg.)	University
		M.Sc. (Sp. & Hg.) 2 years.	10 + 3 ²		
		Ph.D. (Sp. & Hg.) 3 to 5 years.	depends ³		
Audiology & Speech Therapy School, T.N. Medical College Bombay.	Corporation of Bombay, University of Bombay.	B.Sc. (M.S.T.) 3 years.	10	PUC Limited only to Bombay residents.	Medical College
Audiology & Speech Therapy School. Post Graduate Institute of Medical Education and Research, Chandigar.	Ministry of Health & Family Welfare/ Post Graduate Institute of Medical Education and Research, Chandigar.	B.Sc. (AST) 3 years.	3	PUC	Medical College
		Ph.D. 3 to 5 years.	depends	M.Sc. (Sp. & Hg.)	

¹ Supernumerary for Foreigners.

² Supernumerary for Inservice candidates.

³ Depending on number of Guides available.