

ANNUAL REPORT

1975 - 76

1-4-75 to 31-3-76

ALL INDIA INSTITUTE OF SPEECH & HEARING
MANASAGANGOTTHRI, MYSORE 570006
S.INDIA

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HIGHLIGHTS OF THE YEAR IN RETROSPECT

Incessant endeavours and onslaught on all possible fronts for development and improvement of the Institute were initiated and maintained during the year. Consultations and discussions were held with Ministries of Social Welfare and Health and Directorate of Health & F.P. Services of Karnataka, various Central and State Institutions, etc., with a view to give publicity to the activities of the Institute and to get assistance and collaboration in various fields, such as, education, library facilities, research, instrumentation, gardening and horticulture, agro-industries, water works. Considerable light has been thrown on various problems and sizeable progress has been made all-round. Committees were formed wherever necessary to get the consensus of opinion and advice on important matters. The highlights of the year in a nut-shell are listed below.

1. Education and Training

The inadequacies in the educational programme were corrected by scientific and rational revamping of the syllabi for BSc and MSc Speech and Hearing after thorough discussions in the Staff council meetings, in the Board of Studies meeting and in the meeting of the Academic Council of the Mysore University.

To give a better understanding and conception of the subject of Speech and Hearing, anatomy of the related structures was taught, for the ^{first} time, with dissections and practical demonstrations of the actual organs and structures. Relevant bones and models were acquired; diagrams and charts

were prepared. Proper orientation and weightage were given to different parameters of multi-disciplinary subject of Speech and Hearing. Basic subjects were scheduled to be taught in the beginning and other related subjects are then introduced step by step in a logical sequence to make it easy to conceive the basic structure, the disorders, the clinical manifestations, the investigations and the therapeutic aspects of various diseases.

The venue of the lectures in medical subjects was changed from Mysore Medical College to the Institute premises leading to substantial saving of teaching hours.

Attempts were made to procure Anatomy and Pathology museum specimens for the Institute, which will go a long way to make his subject practical and understandable. Attempts are continuously made to orient the students to fully understand all the aspects of hearing loss, their treatment and rehabilitation so that the training is not lop-sided.

Weekly Clinical conferences and journal clubs were regularly held. Frequent meetings of the staff and students to discuss interesting and important cases were held as and when required.

Though we do not have a photographic and slide making unit, the required slides and demonstration materials were made available for teaching programmes and scientific papers

with the help of sister institutions.

Pre-MSc course of one year for graduates from other disciplines to prepare them to get entry to MSc Course in Speech and Hearing had served its purpose and was out-moded. The Pre-MSc course was therefore abolished giving more opportunities for better trained BSc (Speech & Hearing) graduates to get admission to MSc in Speech and Hearing.

A significant addition to training programme was the introduction of Doctorate Course in Speech and Hearing. We have been able to obtain 2 UGC fellowships through the University of Mysore. We are also expecting 2 fellowships from the CSIR and 2 fellowships a year will be awarded from the Institute.

An international seminar called the Indo-Danish Seminar held at the Institute was attended by over 100 delegates from all over the country, 3 from Denmark and 1 from USA. Number of our staff members attended the annual conferences of the Indian Speech & Hearing Association and the Association of the Otolaryngologists of India.

The VI volume of the Journal of the All India Institute of Speech & Hearing was published.

2) Clinical Services

The Clinical Services of Speech and Hearing were strengthened during the year mainly because of starting full-fledged service in Otolaryngology at the Institute and because of

full-fledged ENT unit of the Institute functioning at the K.R.Hospital and Mysore Medical College. The patient-load more than trebled. The reputation of the Institute for its medical and para-medical services is building up. This would support the statement that the para-medical field cannot function smoothly, independent of a good medical set up. The waiting list for operative procedures at the Institute has risen to nearly 2 years. The surgery done by the Institute's Otolaryngologists at K.R.Hospital includes very major surgery like, Extirpation of cancer in the head and neck, Maxillo-facial plastic surgery (Repair of cleft lip and palate and Pharyngoplasty), a great number of temporal bone micro-surgery (such as Stepedectomy and Tympanoplasty) and micro-laryngeal surgery. Medical investigations, such as, blood, urine and bacteriological examinations and radiological investigations, and dispensing of medicines and injections, etc. are not still undertaken at the Institute. The work-load is already unmanageable for the existing staff.

His Excellency, Sri Uma Shankar Dixit, Governor of Karnataka, visited the Institute and inaugurated the Minor Operation Theatre.

Nearly 14 Speech and Hearing camps mainly in the rural areas were held during the year which threw a heavy load of work on the existing small contingent of staff members.

3. Research

Funding agencies, such as, ICMR, CSIR, UGC, were approached for grants for fellowships. Several research projects have been carefully formulated with due regard to research methodology and the following are under the consideration of the various agencies

- i) Indo-Danish Collaboration worth Rs 34 lakhs
- ii) SRS (Social Rehabilitation Service) worth Rs 12 lakhs
(Proposals submitted to ICMR)
- iii) Colombo Plan - for technical assistance
- iv) Purely Central Scheme of Grants - worth Rs 2.07 lakhs
- v) Nuffield Foundation - worth Rs 0.80 lakh

It is expected that most of these will come through by next year.

Ten new topics were taken for research by the staff and students of the Institute in the form of dissertations for the Master's Degree in Speech and Hearing.

4. Administration

All-round administrative reforms were taken enthusiastically. Appointment of a new Office Superintendent in place of one who was on deputation has been beneficial because of selection of suitable person and a sense of involvement. All the important previous records of 8 or 10 years were gone through and scrutinised. Inadequacies and deficiencies were noted and many of them were corrected. Normal office methods and procedures are being introduced in all the fields. Records and Stores were put in order.

While there was a need and cry for more hands, a number of posts were unknowingly lying vacant. Action was taken to fill all of them. Funds were procured for the completion of the Audiology and Speech Block and the Block which was standing as a skeleton for the last 6 or 7 years should see its completion during the next year.

Discipline and devotion to duty on the part of the staff members were geared up by proper rewards and punishments. Water scarcity was solved by sinking a bore-well and installing a pump. Garden layout was designed and over 2000 trees and saplings were planted.

Efforts are being made for the public education through articles, news items, radio talks and lectures and speeches at various places including the Speech and Hearing Camps.

Orientation courses are given to all the teachers of the Regional College.

ALL INDIA INSTITUTE OF SPEECH AND HEARING
MYSORE 570006

ANNUAL REPORT FOR THE YEAR 1975-76
(1-4-1975 to 31-3-1976)

INTRODUCTION

The Ministry of Health and Family Planning, Government of India, established this Institute in the year 1965 as a Department of Government of India to shoulder the responsibility of imparting professional training, rendering clinical services to the public with Speech and Hearing Disorders and also conducting research in the field. Later the Institute was converted into an autonomous body and registered under the Societies Registration Act, XXI of 1860 (Punjab Amendment) Act 1957 as extended to the Union Territory of Delhi and since then functioning under the aegis of Union Ministry of Health and Family Planning. The University of Mysore has accorded affiliation for teaching programme leading to the award of BSc and MSc and now Ph.D in Speech and Hearing.

With effect from 28th August, 1974, a technical Director assumed the charge of the Institute.

GENERAL

There are about 36 million to 100 million people afflicted with Speech and Hearing problems in India. Tackling this problem is a gigantic effort which needs support and help from all quarters.

The Institute being only one of its kind in South East Asia, it has to play salutary role in the new field of Speech and Hearing, by adopting new methods through research done at

the Institute by specialists, and also by bringing more qualified specialists into field such as Speech Pathologists, Audiologists, Otolaryngologists, Psychologists and Electronics Engineers.

Hours of work

Teaching - 10 a.m. to 1 p.m.

Clinical - 10 a.m. to 5 p.m.
services

Office - 10 a.m. to 5 p.m.

OBJECTIVES

The objectives of the Institute as enshrined in the Memorandum of Association are as follows :

I - Training

- (a) To provide and assist in providing general professional and technical education and training in Speech and Hearing for graduate, post-graduate & Doctorate courses of a University;
- (b) To provide and assist in providing general professional and technical education and training to various categories of personnel e.g., Medical, Para-Medical, Non-medical etc.,
- (c) To undertake, organise and facilitate study courses conferences, lectures, seminars and the like to promote the above mentioned objects;
- (d) to undertake and provide for publication of journals, research papers, etc., and to establish and maintain libraries and information services in furtherance of the objects of the society.
- (e) To invite representatives of Governments, Universities and other organisations of India and of Foreign countries to deliver lectures on subjects in which the society is interested;
- (f) To co-operate with international agencies engaged in speech and hearing research and training and arrange for interchange of personnel, material and data;
- (g) To institute, offer and grant prizes, awards, scholarships, research grants and stipends in furtherance of the objects of the society;

II- RESEARCH

- (a) To provide and assist in providing facilities and encouragement to research in speech and hearing, their disorders and the concerned diseases of ear, nose and throat

III-CLINICAL SERVICES

- (a) To provide and assist in providing clinical and surgical services for those with speech and hearing handicaps and ear, nose and throat diseases
- (b) To assist in the development of speech and hearing clinics in hospitals and other centres.

IV - PUBLIC EDUCATION

- (a) To educate the public about communicative disorders;
- (b) To stimulate interest in speech and hearing through publicity and mass communication and co-operate with other agencies and institutions or professional associations;

V - ADMINISTRATION AND FINANCIAL

- (a) To create administrative, technical, ministerial and other posts under the society and to make appointments thereto in accordance with the rules and regulations of the society;
- (b) To appoint and hire services or discharge/terminate the services of personnel and to pay them in return for the services rendered to the society, salaries, wages, gratuities, provident fund, and other allowances or remuneration in accordance with the rules and regulations of the society;
- (c) To borrow and raise money and funds to further the objects of the society and to raise or collect funds by gifts, donations, subscriptions or otherwise of cash and securities and any property either movable or immovable and to grant such rights and privileges to the donors, subscribers, and other benefactors as the society may consider fit and proper;
- (d) To invest and deal with funds and money of the society;
- (e) To subscribe to, or become a member of or to co-operate or amalgamate with any other association or society whose objects are similar;
- (f) To sell, assign, mortgage, lease, exchange and otherwise transfer or dispose of all or any property movable or immovable, of the society for the furtherance of its objects or any of them, provided prior approval of the Central Government is obtained for any disposition of immovable property;
- (g) To negotiate and enter into contracts on behalf of the society and vary and rescind such contracts;
- (h) To accept and undertake the management of any endowment or trust fund or donation to further the objects of the society;

- (i) To establish a contributory provident fund and Gratuity for the benefit of the employees of the society;
- (j) To pay all costs, charges and expenses incurred in the promotion, formation, establishment and registration of the society;
- (k) To do all such other lawful acts, deeds things either alone or in conjunction with other organisation or persons as the society may consider necessary, incidental or conducive to the attainment of the above mentioned objects or any of them.
- (l) To undertake any other function that may be assigned to the society by the Ministry of Health and Family Planning (Department of Health) government of India in connection with speech and hearing.

AUTHORITY OF THE INSTITUTE :

The authority of the Institute is vested in the Executive Council composed of :

- | | | |
|-----|--|------------------|
| 1. | Dr. Karan Singh, Union Minister of Health and Family Planning, Nirman Bhavan New Delhi 110011 | Chairman |
| 2. | Mr. S. Siddaveerappa
Minister of Health, Government of Karnataka
Vidhanasoudha, Bangalore
Sri D.V. Urs | Vice
Chairman |
| 3. | Vice-Chancellor
University of Mysore
Crawford Hall, Mysore 5 | Member |
| 4. | Mr. Gian Prakash
Secretary to Govt. of India
Ministry of Health & Family Planning, New Delhi
or his nominee | Member |
| 5. | Dr. P.P. Goel
Director General of Health Services
New Delhi or his nominee | Member |
| 6. | Mr. Tekriwal, Director (Internal Financial Adviser) Department of Health, Ministry of Health and Family Planning, New Delhi | Member |
| 7. | Representative of the Department of Social Welfare, Government of India, Ministry of Education and Social Welfare, New Delhi | Member |
| 8. | Dr. Saxena, Additional Director of Health and Family Planning Services, Government of Karnataka, Bangalore | Member |
| 9. | Dr. L.H. Hiranandani, Hon. Otolaryngologist
BYL Nair Ch. Hospital, Bombay | Member |
| 10. | Dr. H. Hirannaiah, ENT specialist, 298/A
1st Main Road, 8th Block, Jayanagar
Bangalore | Member |
| 11. | Mrs. Sudha V. Reddy
2/1C, Palace Road, Bangalore | Member |
| 12. | Dr. N. Rathna
Member of Teaching Faculty of All India
Institute of Speech and Hearing, nominated
by the Director | Member |
| 13. | Dr. P.R. Kulkarni, Director, All India
Institute of Speech & Hearing, Mysore 570006 | Member |

MEETING

The XX meeting of the Executive Council of the Institute was held under the Chairmanship of Dr. Karan Singh, Hon'ble Union Minister for Health and Family Planning, at New Delhi, on 17th December 1975.

DEPARTMENT OF SPEECH PATHOLOGY

Teaching: Undergraduate

The teaching of Speech Pathology courses to the undergraduate students in the form of lectures, practical classes and informal discussions, clinical conferences and journal clubs.

The courses covered in therapy are as follows:

Normal Development of speech, Delayed speech and language, stuttering, articulation, voice, cleft palate, laryngectomy, cerebral palsy, Aphasia, organic anomalies, organization of speech and hearing centres, introduction to scientific methods and education of the aurally handicapped. They attend Anatomy, Physiology and Pathology classes.

Post Graduate: Courses are conducted in the form of seminars. Topics are discussed in greater detail emphasizing recent research. At these seminars informal discussions also take place.

Dr.M.N. Hegde, former lecturer of the Institute and now in U.S.A., delivered a series of lectures on Speech Pathology to the undergraduate and post-graduate students. The topics discussed was Diagnosis and treatment of speech problems, Functional Analyses for the diagnosis and treatment of speech and hearing problems.

Clinical Work: All the cases who register at the Institute are seen by the Speech Department for speech evaluation.

First year BSc students are required to observe therapy sessions. They are guided by the clinical supervisors. The undergraduate and post graduate students are given direct clinical responsibility as part of the training. This is done under supervision. Post graduate students take active part in diagnostics. Case demonstrations by speech pathology staff are arranged three times a week.

There is a constant increase in the number and variety of cases seeking treatment in the department. Cases are examined even on second Saturdays by the skeleton staff on duty.

We are developing speech techniques to suit the rural population as many of them cannot afford to attend therapy in person.

The department utilises prolongation behavioral modification, and melody renotation techniques with stutterers, mental retarded and aphasics respectively and some of these techniques have yielded satisfactory results. Parents of every case seen in department are engaged in counselling sessions. Stress on the importance of home programme, care of the hearing and vocational training, admissions to normal schools and on follow up at fixed intervals.

Research:

1. An attempt is made to see the usefulness of musical stimulation for the recovery of language in an aphasic patient

The study revealed significant improvement in recalling appropriate words and the articulation of speech.

2. Analysis of 50 aphasic patients registered at the Institute was carried out to know the nature of the problem in terms of onset, etiology and other behavioral manifestations.

3. It has been planned to carry out a study of astrological patterns among the speech and hearing handicapped with the help of one of our students who is a professional astrologer. The data is being collected for the analysis.

4. Identification of context sentences using test sentences by listening was studied. The test sentences were presented in combination with other context sentences. 75% of the listeners were able to identify correct pair of context and test sentences. Thus it was formed that it would be possible to identify the context sentences using the test sentences.

5. Auditory discrimination training in articulation therapy:

The effect of ear training in articulation therapy was studied. A 10 year school going boy was given articulation therapy by the phonetic placement method without auditory clues. All auditory feedback was cutout. It was observed that even without ear training or auditory feedback the boy showed improvement in his articulatory skills. This points to the possibility of providing therapy with an economy of time and effort.

Thesis - Final MSc

S. Asok Kumar

A Survey of the problems of the hearing impaired children regarding scholastic achievements in normal schools - proved the success of integration of the hearing impaired children in normal schools.

Miss Premalatha

A study of frequency discrimination done has shown the variability of sex, ear preference, background in music and dysphonics controlling all possible variability. No difference in frequency discrimination was found between the two sexes and ears. However, subjects trained in music showed better discrimination than the non trained people. Similarly normals were better than the dysphonics in terms of discrimination of frequency. Frequency discrimination training was recommended as part of voice therapy.

K. Jayaram

An attempt was made to differentially diagnose dysphonics using parameters of voice, vital capacity, air flow rate, optimum frequency, habitual frequency, frequency range, transfer function of vocal tract and phonation duration. Each type of dysphonic presented individual profiles and thus it was found possible to differentially diagnose dysphonics using these parameters of voice.

DEPARTMENT OF AUDIOLOGY

The activities in the Department related to human communication and its disorders have been productive and rewarding. It has meant collaboration with various other institutions.

One of the main functions of the department is related to training both undergraduate and graduate students in Speech and Hearing. Included in the training program are such activities as teaching courses in various aspects of Audiology, Acoustics and Electronics, Practical training in dealing with an array of clinical problems, in making earmoulds and in calibrating audiological instruments and minor repairs of hearing aids. In addition to the students in the Institute, post-graduate students in Otolaryngology and Paediatrics from the Medical College, Mysore have also received instruction in audiological evaluation.

The clinical activities of the department have ranged from attending to the patients coming to the Institute for examination, checking and repairing hearing aids, loaning hearing aids, issuing cords and batteries, making earmoulds and identifying school going children with Speech and Hearing problems. The number of patients going through the department has increased tremendously. In view of this, without additional qualified staff, it is becoming increasingly difficult to meet the needs of the patients promptly and completely.

Technical consultation and assistance given by the department from time to time have included loan of instru-

ments, and assistance for vibration and noise measurements suggestions for purchase and manufacture of instruments, electroacoustical measurements of hearing aids, repair and calibration of instruments belonging to other institutions. In addition, maintenance, calibration and repairs of instruments purchased by the Institute is undertaken.

The duties of the staff are diverse. In addition to regular lectures and demonstrations, they are engaged in assisting the senior students in their dissertations work. They write pamphlets and popular articles for public education. Several scientific articles by staff have been published. They attend Seminars and Conferences. The staff has been deputed as technical representative of the Institute on the ISI panel for hearing aids and audiometers. Whenever an opportunity presented itself, the staff visited various institutions of professional interest. They serve as members of Board of Studies, Editorial Board and Board of Examiners of the Mysore University and Bombay University. They have been active in the co-curricular activities of the Institute - National Service Scheme and Students' Association of the Institute.

The staff has been active in recommending technical books, article reprints and periodicals for the library in the Institute. Further they keep up-to-date information regarding technical instruments used in Speech and Hearing Sciences.

A fairly wide variety of research and developmental projects have been undertaken. A speech console (used in training stutterers), a cord tester, an electronic calling device were designed and fabricated in the Electronics Laboratory. Requirements for a clinical audiometer were prepared and sent to several manufacturers.

Several research projects were written up and submitted for grants from agencies such as ICMR, CSIR. The research undertaken by the staff are both basic and clinical.

Correspondence handled in the Department covering a wide spectrum, has grown phenomenally. By far, most of the letters received are from patients regarding loan of hearing aids, issue of earmoulds and examination. Frequent requests are received for technical information regarding noise measurements, damage risk criteria, information on specific instruments, stimuli for speech audiometry and earprotective devices. Certificates are issued to patients/guardians for admission to Deaf school, for transfers, for donation of hearing aids etc. Often the staff initiate the correspondence when information on sound treated rooms, ear protective devices and other technical information are required from outside agencies, both here and abroad.

There is scope for strengthening and expanding the present activities in the Department. Besides, this becomes a necessity as awareness of the services both

prior to increasing the services, the present facilities of space, equipment and personnel must be expanded.

RESEARCH PROJECTS:

Dr. S. Nikam and Sri S.S. Murthy were involved in the following projects, in collaboration with Institutions :

<u>Projects</u>	<u>Collaborating Institution</u>
1. Noise Measurements from a motor cycle.	- National Institute of Engineering, Mysore
2. Assistance in project work in students in Electronics.	- Jayachamarajendra College of Engineering, Mysore.
3. Short term training programme in making noise measurements.	- with Dr.S.Kameswaran, Director, Institute of Otolaryngology, General Hospital, Madras.
4. Installation of Group Hearing aids.	- At school for Deaf & Blind, Mysore.
5. Assistance in recording and loan of instruments.	- Indian Institute of Science, Bangalore.
6. Assistance in recording Speech Stimuli for audiometry.	- Central Institute of Indian Languages, Mysore
7. Identification of School going children with speech and hearing problems.	- Lions Club, East Mysore.

Sri S.S. Murthy, Lecturer in Electronics visited Physical Research Laboratories, National Institution of Occupational Health and Indian Space Research Organization at Ahmedabad. Dr.(Miss) S.Nikam, Reader in Audiology visited National Physical Laboratories at New Delhi, Indian Institute of Science, Bharat Electronics Ltd., National Aeronautical Laboratory, Bangalore, Institute for Aviation Medicine and

DISSERTATIONS:I. Audiological findings in Presbycusis: by Babu Punnan
Guide: Sri SPC Pandala

Objective: To establish the pattern of hearing loss among Indians as a function of age.

To report other audiological manifestations by the patients.

One hundred subjects between 35-74 years were selected randomly from among the attendants of cases coming to the institute with Otologically normal ear structure. All subjects were tested in the sound treated room using Madsen OB-70 audiometer, calibrated to ISO '64.

Conclusion:

1. There is a progressive reduction in the sensitivity of the hearing of the subjects as a function of age.
2. It is found that presbycusis starts a little earlier for Indians than it is for the white population.
3. Presbycusis is a factor to be considered while assessing the hearing loss of any employee be considered for compensation.
4. The function of Cochlea in the aged is comparable to that of a normal subject on modified SISI test.
5. Pathological changes at the retrocochlear structures, if present are not detectable according to this research obtained on Tone Decay test.
6. There is a slow reduction in the discrimination ability of the subject as age advances.

II. Development & Standardization of Phonetically balanced materials in Tamil language : by Dayalan Samuel
Guide: Sri SPC Pandalay

Objective: -To construct a word list in Tamil.

To test for speech discrimination testing.

Methodology:

The familiar words were collected from Raja Rani's (1972) study of "Recalled Vocabulary in Tamil", and the words were administered to ten people to ensure familiarity. Then, 4 lists of 25 words each were constructed using the functional load of sounds in Tamil as reported by Meenakshi Sundaram. All the word list were recorded on a Magnetic tape with an appropriate carrier phrase in Tamil.

After ensuring the equivalency of all the lists, 30 subjects were selected from the student population of the Mysore University whose mother tongue was Tamil. The reliability and validity of the test was verified.

Conclusion:

1. Normals obtain optimal scores at 35 dB SL with reference to SRT.
2. All the 4 lists can be used interchangeably.
3. The present list yields similar results like any other valid test of discrimination.

III. Clinical Bone Conduction Standard Values for the
Bruel and Kjaer 4930 Artificial Mastoid: by Mallika Cowsik
 Guide: Shri MN.Vyasamurthy.

Summary:

There are at present no adequate standards for bone vibrator calibration, especially for the Bruel and Kjaer 4930 artificial mastoid. Further most of the studies use the bone conduction responses of normal hearing subjects. This method has its own limitations. Hence, in the present study, responses of thirtyone bilateral sensorineural loss subjects were used to calibrate a bone-vibrator(X-120 Denmark) provided with the Madsen TBN 60 audiometer in the manner suggested by Carhart (1950). The corrections obtained in this manner were applied to the vibrator output which was measured periodically on the B & K 4930 artificial mastoid connected ~~but a~~ B & K frequency analyzer (2107). The corrected output values at 0 dB dial setting were: -93.1, -91.8, - 97.3, -104.0 and -118.0 dB (re: IV) at 250, 500, 1000, 2000 and 4000 Hz respectively.

Further to examine whether these values could be applied to other types of bone vibrators, three vibrators (Radioear B-70A, Vibrator M 66 of Madsen OB 70 audiometer Vibrator A-39 of Madsen TBN 60 audiometer) were calibrated on the B & K 4930 artificial mastoid using the obtained norms. Four of the S.N. loss subjects tested earlier were retested using these vibrators. The results showed good

agreement. The values obtained in the present study should prove useful as a standard for calibrating bone vibrators on the B & K 4930 artificial mastoid.

IV. Development and Standardization of a picture SRT test for adults and children in Kannada: by Rajasekhar.B.
Guide: Sri M.N.Vyasamurthy

Summary:

There have been no tests developed for the determination of speech reception thresholds in Kannada. The conventional speech reception thresholds requiring verbal responses were found to be not suitable for the speech impaired and children. The arise of this study was to develop and standardize a picture SRT test for adults and children in Kannada. Most frequently occurring words in Kannada which could be picturized were administered to one hundred adults and twentyfive children for familiarity testing. The most familiar words were selected to form two lists of twenty words for adults and one list of fifteen words for children. Corresponding pictures were drawn and the ambiguous ones were redrawn. All the test materials were tape-recorded and fed through the speech channel of the audiometer. Fiftyfive adults and thirty children served as subjects. These lists were presented to the subjects at various intensities and articulation curves were drawn. The mean SRT was determined from the articulation curves. Mean SRT of 19 dB SPL and 19.5 dB SPL were obtained for adults list I and list II respectively. A mean SRT of 21 dB SPL

was obtained with the children's list. The present study resulted in standardized picture SRT lists which can be used with any speech audiometer calibrated to ANSI(1969) specifications, without any further corrections.

V. Temporary Threshold Shifts following monaural and
Binaural exposure to high frequency puretones:
by Shivashankar
Guide : Sri M.N.Vyasamurthy

TTS at low frequencies following monaural and binaural exposures have revealed that TTS following binaural exposure is less than the TTS following monaural exposure. This difference in TTS was explained on the basis of the middle ear muscles activity which is restricted to low frequencies only (below 2 KHz). During binaural exposure, the middle ear muscles contract more vigorously and reduce the energy reaching the cochlea, thereby there will be reduction in TTS during binaural exposure. In addition to the reflex action Ward considers the action of Olivo-cochlear bundle and cochleo-cochlear pathways during binaural exposure at low frequencies.

The present study was an attempt to investigate whether there is any significant difference in TTS between monaural and binaural exposure to high frequency tones at equal intensity levels for equal duration. TTS for monaural and binaural exposure was measured in 30 normal subjects. These subjects were divided into three groups and were

exposed to three difference frequencies 2 KHz, 3 KHz and 4 KHz at equal intensity levels in both monaural and binaural conditions continuously for 15'. TTS at the fatiguing frequency was measured immediately after the cessation of the stimulus (TTS₀), after 1' of recovery time (TTS₁) and after 2' of recovery time (TTS₂). TTS after 3' of recovery time (TTS₃) was measured one step beyond the fatiguing frequency and TTS after 4' of recovery time (TTS₄) was also measured two steps beyond the fatiguing frequency.

It was observed that there was no significant difference in TTS between monaural and binaural exposure to high frequency tones at equal intensity levels for equal duration.

VI. A Test of Ear Preference for Music: by S.U. Nandur
Guide: Sri M.V.Vyasamurthy

Based on a pilot study, a test was developed with 13 events out of which 10 were test events and 3 were control events. In each test event one ear gets a constant piece of tune and the other ear received the distorted version of the constant tune and two other distorted tunes, one at a time in a dichotic fashion. After listening to the whole event, the subject was asked to find out as to which one of the three distorted tunes resembles the constant piece of tune in the other ear. In a control event, the distorted version of the constant tune was not present and it was replaced by another distorted tune. The subject

was expected to indicate that there was no resemblance between the constant and the three distorted tunes.

50 normals (25 males and 25 females) 10 stutterers and 10 trained musicians were tested. In normals there was a significant difference between the two ears for the perception of music. There was no significant difference between the two ears in stutterers and trained musicians.

VII. Language as a variable in a Competing Message Task
by Miss D. Vasantha
Guide: Dr. Shailaja Nikam

Objective: To investigate whether the language of the competing message makes a significant difference in a discrimination task.

Two groups of normal young adults who spoke Telugu as the native language served as subjects. For one group, the Primary message was in the native language and for the other, the primary message was in the second language and the native language respectively. Two digit numbers embedded in single sentences served as test stimuli. The Signal-to-Noise ratio was varied from -12 to + 12 in 6 dB steps.

The results showed that there was no significant difference between the two conditions where the

competing message was in native language and primary message in second language or vice versa. Secondly, Signal-to-Noise did not make a significant difference in the percent correct discrimination score.

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sph/-

DEPARTMENT OF PSYCHOLOGY.

TEACHING AND TRAINING :

The Department actively participated in the Teaching and Training programmes of the BSc and MSc students. This included teaching course subjects in Psychology for the students and imparting instructions in terms of treatment procedures for certain clinical group of patients. The subjects included Social Dynamics, Developmental Psychology and Psychology of Learning, Clinical Psychology, Statistics, Research Methods, Psychology of the Exceptional, Counselling and Psycho therapy. As a new measure, Psychology practicals were introduced at the BSc level to give a good grounding in experimentation and clinical evaluation.

DIAGNOSTIC EVALUATION:

All cases which attended the Institute for speech and/or hearing problems were evaluated and wherever necessary counselling services were offered. The Annual Report of the Department provides statistics of cases diagnosed and treated.

SUPERVISION OF THERAPY :

The Department was incharge of giving supervision to the students in the clinical areas of stuttering and Mental Retardation. Therapy supervisors supervised the cases, and therapy sessions conducted by students.

CLINICAL CONFERENCES AND JOURNAL CLUB :

The Department was incharge of organising the clinical conferences and journal clubs. Cases were assigned to students for presentation in clinical conferences and research

It was found that 38.3% of these cases reported stuttering in the family. This data lends weight to many considerations concerning stuttering. For instance, certain individuals in the general population are stutterers because of the incidence of this disorder in their family background; others are potential stutterers, but for some reason do not stutter and still others would start stuttering at a later date.

4. Effect of Operant Conditioning in an Athetoid for improving Dexterity - by Vidya Hoskote

A single case study was done in a athetoid child to see the effect of operant conditioning for improving dexterity.

Minnesota Manual Dexterity Board was used. In the base rate session the total number of blocks placed were sixty and in the experimental sessions, ninety four blocks were placed. The increase in the placement of blocks can be attributed to the reinforcement introduced.

The use of operant conditioning in improving dexterity was successful. The learning was stabilized.

5. Comparison of performance of Normal children on Seguin Form Board and Columbia Mental Maturity Scale - M. Raghunath.

This study was done to find out whether the mental age obtained on Columbia Maturity Scale of Normal children correlate with the mental age obtained on S.F.B. A statistically large population (N=33) whose mean age was 5.6 years were selected from the first grade children of a school at Mysore. The CMMS and SFB were administered to them and the performance were compared. The coefficient of correlation was found to be 0.26 which is statistically insignificant. The poor linear

relationship needs to be explained by future research in this line.

6. Analysis of I.Q. scores of hearing loss patients on short term Bhatia's Intelligence Test by K.R.Parimala

Analysis of I.Q. scores among hearing loss patients between 12 years to 15 years, using short-form Bhatia's test was done. An ex-post-facto study, wherein the data was collected from case history files and analyzed. The distribution of intelligence among the S.N. hearing loss patients in the age group of 12 years to 15 years was found to be almost normal.

There is no significant variance seen among the mean I.Q. of the 4 age groups. The difference between mean I.Q. scores among males and females in each age group was not found to be not significant at .05 dB at .01 level. The mean I.Q. score for 49 subjects of different age groups is 96.2, which falls between the normal range of I.Q. (90-110), showing that the average performance of the hearing loss patients in short form Bhatia's is within the normal range.

7. The Motor Proficiency of Stutterers - By Tasneem Banu

This study was conducted to see if there is a difference in the scores obtained by stutterers and non-stutterers on (1) two motor co-ordination test and (2) tapping test.

Subjects for this study were 5 stutterers and 5 non-stutterers. The results show that there is no statistically significant difference between the performance of stutterers and non-stutterers on the two tests used in this study.

8. The measurement of the relationship between Psycholinguistic Parameters - Noun and Verb Phrase transformation - by Meher Pavri

A group of 5 subjects normals - were given a series of 18 sentences, having 9 sentences with noun phrase transformations and 9 with verb phrase transformations. Each sentence having an additional transformation than the preceding one. The subjects were required to comprehend the sentences and express the meaning of the sentences in their own words or the words of the sentence. Their response was judged by 2 judges on a rating scale of comprehensibility. The χ^2 method was used to evaluate the results.

The results confirmed the Chamsky's statement that verb phrase transformation was better comprehended than the noun phrase transformation.

9. A study of lie scores in stutterers and non-stutterers by Kurien

Eysencks Personality Inventory scores were collected from 1018 normals and 568 stutterers between the age range of 15-45 years. The Lie Scores thus obtained were later analysed and compared. The results indicate that there is no significant difference between the lie scores of stutterers and non-stutterers. The mean lie score of stutterers were 5.10 and for normals, it was 5.27. The S.D. of stutterers were 1.93 and of norms 1.74. The significance of difference between the mean was (T) only .21, indicating no significant difference.

10. Analysis of cases at All India Institute of Speech and Hearing from 1965 to 1975 April - by Radha Simhadri

An analysis of cases was done to know what type of cases are seen mostly, which sex is more prevalent age at which consulted from the years 1965 upto 1975 April.

A total number of cases registered for speech and hearing problems from 1965 to April 1975 is 11718, i.e., an average of 1172 cases per year. 5303 cases are males, 1973 female cases (excluding hearing loss with other problems, category i.e., 4442). Majority of the cases are of hearing loss problems. Year at which maximum number of cases seen is between 1974-75

Age range of the case between one month and 75 years. This indicates how early a child is identified for its problem by parents.

DEPARTMENT OF OTOLARYNGOLOGY

Staff

Director & Professor	..	Dr.P.R.Kulkarni
Reader in Otolaryngology..		Dr.M.V.Susheela
Junior Otolaryngologist	..	Vacant - being filled up
Staff Nurse	..	Mrs. M.G.Mariamamma
Ward-Boy	..	Mr. R.Kannan

Clinical Services

A Visiting Professor of Otolaryngology from the K.R. Hospital was attending this Institute for half to one hour twice a week. A number of patients of the Institute did not get the benefit of ENT examination and their case records were incomplete. For about 3 years, the services of a retired general duty medical officer who obtained his DLO at the time of his retirement were available to the Institute through the VRA Research Project. The service rendered was negligible because he was in a pitiable state of not being able to prescribe or to use even an injection syringe leave alone the surgical knife.

During the year under review, normal out-patient services were made available to all the patients attending the Institute including out-patient consultations, prescriptions and minor operations.

Thanks to the efforts of Sri H.Siddaveerappa, the

Health Minister of Karnataka, a full-fledged ENT unit was established for this Institute at the K.R.Hospital. One out-patients day and one operations day were available from March to September 1975. From October 1975, two out-patients days and two Operation days and 15 in-door beds are made available. Resident medical officers and house-surgeons are also to be provided by the K.R.Hospital. Thus, the patients of the Institute requiring further medical investigations, and medical and surgical treatment are treated at the K.R.Hospital under the care of this Unit. Therefore the patients are now receiving complete coverage for speech and hearing and otolaryngological services - preventive, curative and rehabilitative.

The waiting list for surgery to relieve or cure hearing and speech problems has gone to nearly two years. The out-patient load both at the Institute and at the K.R. Hospital is already unmanageable with the existing staff and facilities. Qualitatively, the special attention given and the modern investigations done are such the kind of which are available only in few centres in the country. With a well-evolved diagnostic procedure, the surgical attention given includes very major operations of extirpation of cancer in head and neck, maxillo-facial plastic surgery and pharyngoplasty for cleft palate and

lip, microsurgery like stapedectomy and tympanoplasty for hearing losses and ear infections and micro-laryngeal surgery for voice problems, etc.

Acoustic neurinoma or VIII nerve tumours are by far the commonest intracranial tumours. The diagnosis of this is generally delayed in our country. A programme has been mooted with the National Institute of Mental Health and Neuro Sciences, Bangalore, to diagnose these tumours early, to enable their excision through the ear or early enough so as to leave minimum morbidity after the operation. This Institute will supply the special investigations required for early diagnosis of this condition.

With this modern and high quality of service, the reputation of the Department is building up and the patient-load is expected to rise faster.

The facilities at the ENT Department of the K.R. Hospital were not up to the mark. But the Health Ministry of Karnataka has promised to upgrade this Department by providing additional funds of about Rs.1 lakh in the first year and about Rs.50,000/- every year. The expert service rendered by the Institute Staff through the K.R.Hospital to the patients who are from the State of Karnataka is completely on honorary basis.

Teaching

The two staff members are handling teaching of special Anatomy and Physiology and Rhinolaryngology and Otology for Graduation and Master's Courses. With the rationalisation of the syllabi and the Lecture Programme taken up by our own staff members resulted in better orientation of the whole subject of Speech and Hearing being imparted to the students and the quality of education appears to have improved.

Research

A few research projects have been formulated and proposals sent to funding agencies like ICMR, CSIR, and a few foreign collaborations are also proposed. In the absence of a well-equipped hospital and ^{due to} the lack of help from other medical departments and shortage of medical and para-medical staff and heavy clinical and surgical load, the field of research in Otolaryngology was restricted.

Accommodation

The ENT Out-patients Department which was housed in a room of 10' x 8' is now shifted to the cellar floor which was being used for storing implements. A large Consultation Room, a Minor Operation Theatre and a small Ward of few beds was inaugurated by His Excellency Sri Uma Shankar Dixit, Governor of Karnataka.

Equipment

The essential equipment have been procured. An operating microscope from Andhra Surgicals was installed in the Minor Operation Theatre. ^{the} Some of/micro-surgical equipment purchased are being used both at the Institute and at the Operation Theatre at the K.R.Hospital. Basic life-saving requirements like anaesthetic apparatus, oxygen, etc. have been purchased. The procedure for the purchase of a West German Operating Microscope was complete and the microscope is expected to arrive in the next year.

Work-load

It will be noted from the statistics given below that a fantastic load of work has been handled by only two medical officers in the Department both quantitatively and qualitatively.

Out-patients

At the Institute (AIISH)	..	4133
At K.R.Hospital	..	12896

		17029
		=====

Operations

Major operations	..	279
Minor operations	..	151

		430
		=====

Out of these 430 operations, 129 were micro-surgical to improve hearing and 95% of them had their hearing restored.

Monoblock dissections of the cancer of tongue, cheek, pharynx and larynx along with radical block dissections of the neck were done in few cases. Palate repairs and velopharyngoplasty were also done.

Scientific Papers

A number of scientific papers were read at conferences which are reflected elsewhere in this report.

Thus, a firm foundation for the development of a modern Otolaryngological Department was laid during the year.

CLINICAL SERVICES

A full-fledged Clinic has been developed at the Institute to provide Diagnostic, Treatment (medical, surgical and otherwise) and Rehabilitation and Counselling facilities for persons with the following disorders of Speech and Hearing and to provide necessary clinical material for the trainees:

(1) Stuttering; (2) Cleft Palate; (3) Voice disorders; (4) Aphasia and Cerebral Palsy; Speech and Language problems associated with paralytic strokes and brain damage; (5) Laryngectomees; people whose larynx (voice box) has been removed; (6) Articulatory disorders; indistinct speech, baby talk (7) Delayed language and speech development; (8) Otosclerosis; (9) Middle ear fluid conditions; (10) Ossicular discontinuity; (11) Meniere's disease; (12) Acoustic Neuroma (tumor of the auditory nerve); (13) Sensorineural hearing loss and (14) Functional speech and hearing problems (viz. Hysterical Aphasia, hysterical deafness) and other psychological problems that may be associated with Speech and Hearing problems. Facilities are also available for ear, nose and throat problems at present.

We are also trying to help stutterers, who are unable to attend the clinic because of distance or some other problems, through correspondence. School screening and Infant screening etc. are also carried out by the staff and students of the Institute, with the help of philanthropical societies like Rotary Club, Lions Club, Jaycees, etc.

Parent Counselling:

The staff also meet the parents of the cases who are attending the Clinic for long term treatment (particularly deaf and other cases who are attending schools also) to discuss and give suggestions regarding the problems faced by our cases and their parents outside the clinical situation regarding speech and hearing problem. Our Itinerant Speech Therapist also visits houses and schools to solve the problems of our cases.

Follow-up work is also being done wherever necessary. The following is the statistical data of cases attended:

	1974-75	1975-76	% of increase
New cases	2206	2785	26.3
Repeat cases	2824	5133	82.1
Therapy cases	10384	11644	12.1
cases seen at camps		9521	
ENT OPD cases at KPH		12896	
Total No. of cases	15414	41250	168.0
ENT operation			
X Major	10	279	269.0
X Minor	8	151	1787.0
Clinical correspondence	899	1116	24.0
Follow-up sent (Reply PP Cards)	427	700	69.0
Replied & Reported in person	202	410	103.0
Letter returned due to insufficient address/particulars.	6	12	200.0

TRAINING

Admissions:

Students were admitted to various courses of Speech and Hearing conducted at this Institute as follows:-

	<u>Courses</u>	<u>No. of candidates</u>
1.	1st BSc	15
2.	2nd BSc	15
3.	Final BSc	15
4.	Pre-MSc	3
5.	1st MSc	10
6.	Final MSc	10

Admission to BSc Speech and Hearing course was made on Zonal basis and to the MSc, on merit.

Results

Sl.No.	Courses	<u>No. of candidates</u>		
		<u>Appeared</u>	<u>Passed</u>	<u>1st Class</u>
1.	1st BSc	15	15	7
2.	2nd BSc	15	14	-
3.	Final BSc	15	15	6
4.	Pre-MSc (including repeaters)	6	3	3
5.	1st MSc (including repeaters)	11	11	-
6.	Final MSc	10	10	9

With effect from the academic year 1976-77, the Pre-MSc course stands abolished.

The Executive Council at its meeting held on 17th December 1975, approved creation and award of four Junior Research Fellowships every year leading to the award of Ph.D. Degree in Speech and Hearing on a fellowship of Rs 400/- per month to conduct research in any one of the following disciplines:-

- a) Speech Pathology
- b) Audiology
- c) Psychology
- d) Otolaryngology

During the year, the University of Mysore allotted two Junior Research Fellowships out of the UGC quota to conduct research on the following problems.

1. "To develop a test for assessing language acquisition and performance in children in Kannada language".
2. "To study the effect of bilingualism on later learning of language".

The Government of Karnataka sanctioned permanent affiliation of this Institute to the University of Mysore for the BSc and MSc Speech and Hearing courses vide letter No. ED 242 UAC 75 dated 6th February 1976.

The University of Mysore has, in principle, recommended to the Government of Karnataka to recognise this Institute as a research centre and the following members of the Staff as Guides for Ph.D.

Name	Field of specialisation
1. Dr. P.R.Kulkarni	Otolaryngology
2. Dr.N.Rathna	Speech Pathology
3. Dr.(Miss)S.Nikam	Audiology
4. Dr.J.Bharath Raj	Psychology

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LIBRARY

Books added	123
Total No. of Books	2152
Volumes of Journals added	32
Journals subscribed	35
Journals exchanged	7
No. of books consulted by Staff & Students	10595
Average issues per day	35

PUBLICITY AND INFORMATION

a) Camps and Exhibitions:

During the year 1975-76, fourteen Speech and Hearing Camp and exhibitions were conducted in different parts of the State of Karnataka and Andhra Pradesh. In these Camps, a total number of 9521 cases as detailed below, were examined for various speech and hearing disorders. The voluntary organisations, mainly the Lions International and the Rotary International sponsored these programmes. By conducting these programmes, we have been able to create public awareness about, among other things, the clinical facilities available for the communicatively handicapped people. We have also stressed the people that early identification of the handicap helps them to have effective rehabilitation. Consequently, quite a number of handicapped people have been helped.

Cases seen at different camps from April 1975
to March 1976

				<u>Cases seen</u>
1.	Pollebetta	September	1975	346
2.	Bangalore	October	1975	426
3.	Shimoga	November	1975	746
4.	Shikaripur	November	1975	810
5.	Tumkur	December	1975	1032
6.	Kharman, A.P.	December	1975	1600
7.	Vijayavada	December	1975	722
8.	Bangalore	December	1975	200
9.	K.G.F.	January	1976	1134
10.	Mulki	February	1976	128
11.	Mangalore	February	1976	266
12.	Mandya	February	1976	781
13.	Maddur	March	1976	283
14.	Bangalore	March	1976	<u>730</u>
Total				9521

Beside the Camps, Exhibitions were also arranged depicting the various activities of the Institute. It proved to be educative and popular.

The Institute participated in a month long medical exhibition organised by the local Medical College in connection with its Golden Jubilee Year.

b) Publications of the Institute:

Volume V and VI (Combined) of the ALISH Journal was published and released. During the year under report, the Institute got into exchange agreement for its Journal with the following foreign publications:-

(1) Psychological Abstract, Washington, D.C. (2) Current Citations on Communication Disorders, Maryland, USA, (3) American Annals of the Deaf, Maryland, USA, (4) dsh Abstracts, Washington, D.C. (5) British Journal of Audiology, London and (6) Audiology, Switzerland.

INTERNATIONAL SEMINAR

Under the auspices of this Institute the Indo-Danish Seminar in the field of speech and hearing was held for a week during the month of October 1975 to mark the successful completion of Indo-Danish collaboration. Many specialists from home and abroad (Denmark, U.S.A.) in the field of E.N.T., Speech Pathology, Audiology, Psychology and Electronics etc. participated giving fillip to broaden and heighten the progress of the Institute in the field of speech and hearing with exchange of ideas, group study and practical demonstrations which were highly beneficial to all participants. The delegates mentioned that the Seminar was praiseworthy for its intellectual and technical content and its practical value.

The following papers were presented at the Seminar:-

<u>Sl.No.</u>	<u>Author(s)</u>	<u>Title of the paper</u>
1.	Prof.B.S.Ramakrishna	Basic Acoustics: Db Concept
2.	Dr.Ludvigsen	Acoustics relevant to Audiology
3.	Dr.M.Pancholy	Noise Measurements: Instrumentation and Procedures
4.	Dr.B.M.Abrol	Noise Abatement
5.	Dr.S.Kameswaran	Review of Anatomy and Physiology of Auditory System
6.	Mr.M.N.Vyasamurthy	Impedance Audiometry: Physics and Mathematics
7.	Dr.H.Ewertzen	Impedance Audiometry: Special Applications
8.	Dr.H.Ewertzen	Tympanometry, Reflexometry
9.	Dr.P.R.Kulkarni	Serous Otitis Media, Glue Ear
10.	Dr.Ewertzen, Mr.Birk and Dr.Ludvigsen	Impedance Audiometry on selected patients

<u>Sl.No.</u>	<u>Author(s)</u>	<u>Title of the paper</u>
11.	Mr.P.Ram Mohan Babu	Puretone Audiometry - Patterns & Pathology
12.	Dr.H.Ewertsen	Pitfalls in Audiometry
13.	Dr.Ludvigsen	Speech Audiometry
14.	Dr.R.M.Varma	Retrocochlear Lesions
15.	Dr.P.R.Kulkarni	Advanced Otosclerosis
16.	Dr.Ludvigsen, Mr.Birk and Dr.Ewertsen	Standards for audiometers, Calibration of Audiometers, Measurements on hearing aids
17.	Dr.Ludvigsen	Hearing aid characteristics and influence of ear-moulds
18.	Mr.R.K.Jagadeesh	Freefield Testing, Drawbacks Warble Tones
19.	Dr.H.Ewertsen	Audiometry in Infants
20.	Mr.Birk	Principles for selection of Hearing aids
21.	3 Danes	Evoke Response Audiometry (ERA) and ECOG
22.	Mr.Birk, Dr.Ewertsen & Dr.Ludvigsen	Cases with selection of proper hearing aids for individual patient. Common defects of -
23.	Dr.Ludvigsen	Technical equipment in the education of deaf children
24.	Mr.Birk	Habilitation of hearing impaired and multi-handicapped preschool children
25.	Dr.H.Hirania	Surgical Management of CSOM
26.	Dr.N.Rathna	Auditory Training and Integration in normal schools -
27.	Mr.Birk	Integration of hearing handicapped children in normal schools
28.	Dr.Ludvigsen, Mr.Birk and Dr.Ewertsen	Measurements of Reverberation and Calculations of Insulation of -

<u>Sl.No.</u>	<u>Author(s)</u>	<u>Title of the paper</u>
30.	Dr.H.Ewertzen	Audiological differential diagnoses
31.	Dr.Ganeshsundaram	Speech Audiometry in Indian Languages
32.	Mrs.Saraswathi Menon	Aphasia and Speech Therapy
33.	Mr.Peston James	Development of Instrumentation in India
34.	Dr.J.Bharath Raj	Stuttering

PAPERS PRESENTED AT SYMPOSIA/CONFERENCES: *

1. ARTICULATION AND AUDITORY DISCRIMINATION: - Rathna N., Subramanyaiah M.G., and Geetha Y.V. - Indian Speech and Hearing Association Conference at Calcutta - January 1976 -
2. MUSICAL STIMULATION THERAPY FOR THE RECOVERY OF LANGUAGES IN APHASIC PATIENTS:- Manohar P.D., and George Samuel - Indian Speech and Hearing Association Conference at Calcutta - January 1976-
3. ANALYSIS OF 50 APHASIC PATIENTS REGISTERED AT AIISH: -Manohar P.D., and George Samuel - Indian Speech and Hearing Association Conference at Calcutta - January 1976 -
4. IDENTIFICATION OF WORD BOUNDARIES BY NON-NATIVE SPEAKERS OF THE LANGUAGE: - Rathna N., and Nataraja N.P., Indian Speech and Hearing Association Conference at Calcutta - January 1976 -
5. DILEMA IN SISI TEST: - Vyasamurthy M.N., and Nandur S. - Indian Speech and Hearing Association Conference at Calcutta - 1976 -
6. AN OBJECTIVE TEST FOR BINAURAL SUMMATION: - Vyasamurthy M.N., Sathyenaraya Murthy S., and Nandur S.U. - Indian Speech and Hearing Association Conference at Calcutta - 1975 -
7. ETIOLOGY OF DEAFNESS: - Dr.P.R.Kulkarni - U.G.C. Conference on Deafness - February 1976

* The papers presented by the staff at the Indo-Danish Seminar has not been included here as the same is covered elsewhere.

DEPUTATION ABROAD

Dr.P.R.Kulkarni, Director of this Institute was sponsored on a Study Tour from 20.5.75 to 11.6.75 to Denmark, entirely financed by Danida.

PARTICIPATION IN SYMPOSIA/SEMINARS/COURSES/MEETINGS:

1. Dr.P.R.Kulkarni

- a) Three weeks research methodology course in November 1975 conducted by the National Institute of Health Administration and Education, New Delhi.
- b) Conference of Otolaryngologists' Association of India - Calcutta - January 1976
- c) Conference of the Indian Speech and Hearing Association at Calcutta - January 1976
- d) U.G.C.Seminar on Deafness, Madras - February 1976

2. Dr.N.Rathna

- a) U.G.C.Seminar on Deafness - Madras - February 1976
- b) Conference of the Indian Speech and Hearing Association at Calcutta - January 1976

3. Sri P.D.Manohar

- a) Conference of the Indian Speech and Hearing Association at Calcutta - January 1976

4. Sri S.S.Murthy

- a) Conference of the Indian Speech and Hearing Association at Calcutta - January 1976
- b) Bio-Electronics Conference, Ahmedabad
- c) Indian Science Congress, Waltair

5. Sri M.N.Vyasamurthy

- a) Conference of the Indian Speech and Hearing Association at Calcutta
- b) Seminar on Vibration Measurements sponsored by Jost Engg. Co.

6. Dr.(Miss)Shailaja Nikam

- a) Panel Meeting on Audioneters & Hearing aids, ISI } By invitati
}
- b) Low cost teaching aids in India, Spon- }
sored by EDMA - Max Muller Bhavan, } By invitati
Bangalore }

PAPERS PUBLISHED:

1. A CASE WITH ABNORMAL TONE DECAY AND RECRUITMENT -
TYPICAL OR ATYPICAL - Vyasamurthy M.N.
(Communicated for publication)
2. STUTTERING - CAUSES AND CURES (English and Kannada)
- Dr.J.Bharath Raj
(to be published)
3. "ಶೃಲಿಂ ಕ್ಷಯ ಮುನ್ನ ಮಾನಸಿಕ ಶೃಗ್ಧ್ಯ" (Anxiety before Examination) - published in 'Sudha' Weekly
- Dr.J.Bharath Raj
4. BRINGING UP MENTALLY RETARDED CHILDREN (ಮಂದಬುದ್ಧಿ ಮಗುವಿನ ಓರೈಕೆ) - Dr.J.Bharath Raj -
- Accepted for publication
5. ಪ್ರೀತಿಗಳು ಮಾತನಾಡುತ್ತಿವೆಯೇ - Dr.N.Rathna
- Published in 'Tunga-Taranga', First Grade College,
Thirtha Halli
6. TREATMENT OF STUTTERING - Dr.J.Bharath Raj
- Accepted for publication
7. TREATMENT OF STUTTERING - A CASE REPORT BASED UPON
SYSTEMATIC DESENSITIZATION - Dr.J.Bharath Raj,
Mr.K.K.Lal and Mr. G.A.Latthe

STORY AND SCREEN-PLAY:

'CHOR-CHOR CHUP JA' - Hindi - regarding a speech handicapped Child - Dr. N.Rathna.

LECTURES AND DEMONSTRATIONS GIVEN OUTSIDE THE INSTITUTE BY STAFF MEMBERS:

Sl.No.	Name of the Staff	Subject	Place
1.	Dr.(Miss)S.Nikam	'Identification of children with hearing loss in the class room'	Tararni Vidyapeeth, Kolhapur
		'Facilities for higher education in U.S.'	University Employment Exchange, University of Mysore
2.	Dr.P.R.Kulkarni	'Mechanism of Hearing'	Indian Institute of Science, Bangalore
		Inauguration of Practice Teaching for Deaf	School for the Deaf and Blind, Mysore
3.	Dr.N.Rathna	'Hearing, training and Integration'	Indo-Danish Seminar
		'Anatomy and Physiology of Hearing'	Sangeethnatak Academy, Bangalore
		Orientation lecture of speech and hearing - for B.Ed students	Srirangapattam
		Orientation lecture of speech and hearing	Ballavadi Training Centre, Mandya
		University extension lecture of speech and hearing	Mudabidare
		'Speech and hearing Problems'	IMA Conference, Hubli
4.	Dr.J.Bharath Raj	University Extension lecture on 'Mental Health'	Bhadravathi
		'Psychological Rehabilitation of disadvantaged children'	Administrative Training College, Mysore

RADIO TALKS :

1. EXAMINATION AND ASSOCIATED PSYCHOLOGICAL FEARS - A.I.R.
by Dr. J. Bharath Raj
2. GENERATION GAP - A.I.R. of by Dr. J. Bharath Raj
3. Interview with Dr. M.N. Hegde, Speech Pathologist, U.S.A.
regarding Speech and Hearing Handicaps - A.I.R. Mysore
by Dr. N. Rathna

COMMITTEES

The following committees were constituted by the Institute during the year :

1. Official language implementation committee :

- (a) Dr. N. Rathna - Chairman
Joint Director
- (b) S. Shankar - Member
Office Superintendent
- (c) Sri Gupta - Member
Hindi Teacher

2. Departmental Canteen Committees :

- (a) Dr. J. Bharath Raj - Chairman
- (b) Sri S. Shankar - Hon. Secretary
- (c) Sri MN. Vyasa Murthy - Member
- (d) Smt S. Padmavathi Bai - Member
- (e) Sri Madhu - Member

APPOINTMENT, RESIGNATION, TERMINATION, DISMISSAL ETC.,

APPOINTMENTS :

<u>Srl</u> <u>No</u>	<u>Name</u>	<u>Post</u>	<u>Date</u>
1.	Dr.MV.Susheela, MBBS MS(ENT)DLO	Reader in ENT	15-5-1975
2.	Mrs. MG.Mariamamma	Staff Nurse	15-7-1975
3.	Sri S. Shankar, M.A. B.L., R.B.V.	Office Superin- tendent	26-7-1975
4.	Sri R. Kannan	Ward Boy	5.9-1975
5.	Smt. D.N. Padma	Sweeper	20-10-1975
6.	Sri. T. Nagesh	Watchman	20-10-1975
7.	Sri N.Narayana Raju	Electronics Engineer	31-12-1975
8.	Sri Shivanna, M.A.	Care Taker	23-1-1976
9.	Sri BHIM Bahadur	Watchman	23-1-1976

RESIGNATION, TERMINATION, DISMISSAL ETC

1. Sri SS. Chandrashekar, MSc resigned with effect from 27th February 1976
2. Sri Palani, Sweeper, was terminated from the services of the Institute on the charges of committing theft of Institute's property.
3. Sri Chinnappa, A watchman of the Institute was retired after attaining the age of 55 years w.e.f. 1-11-1975
4. Sri Gurak Bahadur, Watchman passed away on 10-12-1975 on account of a road accident.

VISITS OF DIGNITARIES

<u>Sl.No.</u>	<u>Dignitary</u>	<u>Date</u>
1.	Mr.K.Nyholm, Technical Attache, Royal Danish Embassy, New Delhi	August 19
2.	Dr.Paul Scoon	Sept. 19
3.	Sri D.Javare Gowda, Vice Chancellor, University of Mysore Mysore	Sept. 19
4.	Hon'ble Sri C.H.Siddaveerappa, Minister for Health & Family Planning, Government of Karnataka, Bangalore	October 19
5.	Hon'ble Sri N.Rachiah, Minister for Social Welfare, Government of Karnataka, Bangalore	October 19
6.	Gen.K.M.Kariappa, Retd. Chief of the Army Staff, Mercara	October 19
7.	Dr. Harold Ewertsen, Director, Speech and Hearing Centre, Denmark	October 19
8.	Mr. Birk Nielsen, Denmark	October 19
9.	Mr.Ludvigsen, Denmark	October 19
10.	Mr. D'Mello	Dec. 19
11.	Smt.Sudha V. Reddy, Member, Executive Council, AIISH, Mysore	January 19
12.	His Excellency Sri Uma Shankar Dixit, Governor of Karnataka, Bangalore	March 19

STEPS OF IMPROVISATION IN VARIOUS DIRECTIONS :

1. Conversion of petrol engine to Diesel Engine

Consequent upon conversion of petrol engine into diesel engine an estimated recurring saving of Rs. 16,000/- per year is expected.

2. Operation Theatre

A minor ENT operation theatre is fully equipped and ready for functioning and was inaugurated by Governor Mr. Umasankar Dikshit.

3. Therapy Park

A Therapy Park is being developed where the children with speech and hearing handicaps will play and have therapy at the same time. For the purpose of management of the park, a trust is being formed and will be registered.

4. Introduction of franking machine:

Saving of paper (on stamps) is achieved and misuse of stamps ruled out, by introducing franking machine.

5. Use of window envelopes

By use of window envelopes, work load of the despatcher is reduced and additional work has been entrusted.

6. Gardening:

With the courtesy of the department of horticulture garden layout is made and garden has been developed without incurring any extra expenditure. Over 2000 trees have been planted this monsoon. Banana, papaya, ragi horsegram etc., are grown and part of the salary of males is met out of this income. This is a contribution

towards grow more food programme of the government.

7. Savings in minor works:

Minor works are being taken up by the Institute without entrusting to contractor or University Engineering Division thus saving almost 40% in the total estimates.

8. Water supply:

A bore well was sunk and a pump house was constructed in the campus and water tanks have also been installed thus water problem has been solved. The expenditure on water charges is reduced.

Vanivilas water works superintendent and his assistant rendered free consultation and supervisory service.

9. Simplification of office work:

A number of self-explanatory forms and formats have been introduced thus simplifying the working of the office.

10. Printing:

Earlier printing was entrusted to one single agency. Now quotations are invited and printing entrusted to lowest tenderer achieving considerable savings.

POOR PATIENTS WELFARE FUND :

A poor patients welfare fund has been created at the Institute with the approval of the Government of India, vide Ministry of Health and Family Planning letter No. F.11 33/68-MA dated 6th December 1968. The fund is utilised to provide the following amenities to the poor patients suffering from speech and hearing disorders and who come to the Institute for treatment

- a. purchase of hearing aids, battery and other accessories in cases where the supply of aid/battery etc., is considered absolutely essential
- b. cost of meeting the reasonable charges of boarding and lodging to poor patients coming to the Institute from a place other than Mysore City Municipal limits and who are not in a position to meet such expenditure during their stay at Mysore for treatment
- c. any other purpose considered by the Director of the Institute to be essential in the interest of poor patients;

The fund will generally be financed from :

- a. moneys collected from charity boxes;
- b. donations, and
- c. charity shows

The following is the financial position of the fund during the year :

1.	Opening balance	-	Rs. 1020.80
2.	Receipts	-	Rs. 1474.00
3.	Payments	-	Rs. 147.00
4.	Closing Balance	-	Rs. 2347.80

STUDENTS UNION ACTIVITIES

The activities of the students started in the month of September 1975 - we participated in the University Inter-collegiate games and also in the M.G.S. Tournament. We won the M.G.S. Zonal Trophy for Tennis in December 1975; and University Championship for Tennis (Women). We were runner up in Sherada Vilas College (Ashoka memorial) Tournament for Table Tennis (1975 November) in the Women's section. Inter-class games were conducted in the months of January and February. We also participated in M.G.S. and Inter-collegiate games for the following games. Ball Badminton, Cricket, Table Tennis, Shuttle, Tenni-koit and Table Tennis.

We also participated in :

- (1) Medical College Cultural Competition
- (2) Medical College Literary Competition
- (3) S.C. College - Quiz Competition - and won the prize
- (4) NIE College - Technical Talk - won the shield.

The students arranged Picnic to Shivasamudram.

Inter-class competitions in literary and cultural activities were arranged in the Institute.

We participated in the Kannada Chethana Sangha music competition.

We hosted Inter-collegiate multilingual drama competition.

Validictory function was conducted on 24th March 1976 and prizes were distributed for various inter-class competition.

BUILDINGS

The following works were completed during the year under review:

The extension of the Ladies Hostel

Compound wall of the Institute

Sinking of Borewell, construction of pump house ,

Installation pump with necessary pipe-line and three over-head tanks were completed in the campus.

EQUIPMENT

New equipment to the tune of Rs. 1,13,000/- were added to various departments during the year.

1. Speech Pathology	... Rs.8,000/-
2. Audiology	... 20,000/-
3. Psychology	... 4,000/-
4. F.N.T.	... 77,000/-
5. Dental	... 4,000/-

STAFF

The staff position is as follows:-

Sl. No.	Category	<u>Sanctioned posts</u>		<u>Existing staff</u>	
		Perma- nent	Tempo- rary	Perma- nent	Tempo- rary
1.	Group A	10	6	9	4
2.	Group B				
3.	Group C	15	13	15	13
4.	Group D	13	11	13	11
		38	30	37	28

Total number of sanctioned posts: 68

Total number of posts filled: 65

Number of posts vacant: 3

DIRECTOR

Dr. P.R. Kulkarni, MBBS., M.S. (ENT), DORL

JOINT DIRECTOR

Dr. N. Rathna, M.S. (Hunter), M.S. (Gallaudet)
M.A.T.Ed.D. (Indiana)

Department of Speech Pathology:

- | | |
|---|---|
| 1. Joint Director & Head of the Department. | - Dr. N. Rathna, M.S. (Hunter), M.S. (Gallaudet), M.A.T.Ed.D. (Indiana) |
| 2. Professor | - Vacant |

- | | |
|-------------------------------|--|
| 3. Reader | -Mrs. Saraswathi Menon, M.A.
(Speech Pathology). |
| 4. Lecturers - 2 | -Sri P.D. Manohar, M.A.(Psychol
M.Sc (Speech & Hearing) |
| | -Sri N.P. Nataraja, M.Sc(Speech
Hearin |
| 5. Clinical Assistant | -Sri E.P.Balakrishnan, M.A.M.Ed |
| 6. Research Assistant | -Sri M.G.Subramanyiah, BSc |
| 7. Itinerant Speech Therapist | -Smt. Indira Prakash, B.Sc |
| 8. Junior Stenographer | -Sri T. Keshava Murthy |
| 9. Peon | -Sri B. Siddaiah |

Department of Psychology:

- | | |
|------------------------------------|--|
| 1. Reader & Head of the Department | - Dr. J.Bharathraj, M.A., Ph.D
(Psychology) D.M.P.. |
| 2. Lecturer in Psychology | - Miss A.D.Bhavani, M.A.
(Psychology), B.Ed., D.M |
| 3. Clinical Assistant | - Sri P. Chandra, B.Com., B.Ed. |
| 4. Senior Stenographer | - Miss S. Padmavathi Bai, B.A. |
| 5. Clinical Attendant | - Sri S. Gopal |

Department of Audiology:

- | | |
|-------------------------------|---|
| 1. Professor | - Vacant |
| 2. Reader & Head of the Dept. | - Dr.(Miss) Shailaja Nikam,
M.A. (Psychology), M.L.
(Speech Pathology & Audiolo
Ph.D (Audiology & Speech
Sciences |
| 3. Lecturer in Electronics | - Sri S.S. Murthy, M.Sc Tech. |

- | | |
|---------------------------------------|--|
| 4. Lecturers - 2 | - Sri M.N. Vyasamurthy, M.Sc
(Speech & Hearing) |
| | - Sri S.P.C. Pandalay, M.Sc
(Speech & Hearing) |
| 5. Electronics Engineer | - Sri Narayana Raju, M. B.Sc, M.A. |
| 6. Scientific Assistant | - Sri Srikantha, B.Sc., B.T. (E) |
| 7. Clinical Assistants-2 | - Mrs. Iffath Aslam, B.A.B.Ed |
| 3 | - Mrs. Sowmyamala, B.Sc., B.E |
| 8. Research Assistant | - Miss Mythili, M.A.(M.Sc) |
| 9. Senior Stenographer
(Afternoon) | - Miss S. Padmavathi Bai, B.A. |
| 10. Peons - 2 | - Sri Basavalingaiah |
| | - Sri K.L. Ramasetty. |

Department of F.N.T.

- | | |
|----------------------------|--|
| 1. Head of the Department | - Dr. P.R.Kulkarni, MBBS, MS
DORL. |
| 2. Reader | - Dr. M.V. Susheela, MBBS, M.S.
DLO |
| 3. Junior Otolaryngologist | - Vacant |
| 4. Staff Nurse | - Smt. M.G.Mariamamma |
| 5. Ward Boy | - Sri Kannan. R. |

Medical Records:

- | | |
|-----------|---------------------|
| 1. U.D.C. | - Sri Gururaj, B.Sc |
| 2. L.D.C. | - Sri G.R.Prakash |
| 3. Peon | - Sri D. Krishnaiah |

Director's Office:

- | | |
|---------------------|-------------------------------|
| 1. P.A. to Director | - Sri K.H.Radhakrishna, B.Com |
| 2. Daftry | - Sri Ameer Ahmed |

Office and others:

- | | |
|---------------------------------------|---|
| 1. Office Superintendent | - Sri S. Shankar, M.A.(Admn.)
M.A. (Pol. Science), B.T
RBV. |
| 2. Librarian | - Sri M.V.Govindarajan, M.A.,
B. Lib Science. |
| 3. Publicity & Information
Officer | - Sri K. Mohamed Fazlulla, M.A. |
| 4. U.D.C.s - 3 | - Sri S.G.Gopinath
- Sri M.Pandurangaraie Urs
- Sri N.S. Subramanya |
| 5. Secountant-cum-Cashier | - Sri S.L.Vijayanarasimha, B.C |
| 6. Care-Taker | - Sri. Shivanna |
| 7. Junior Stenographer | - Sri M.H.Sanjeeva Murthy, B.Com |
| 8. L.D.C.s - 3 | - Sri L. Siddaiah
- Sri N. Ramachandra Rao
- Sri L. Basavaiah, M.A. |
| 9. Peons - 2 | - Sri Madhu
- Sri Jeevan, P.B. |
| 10. Omni Bus Driver | - Sri A. Jesurathnam |
| 11. Staff car Driver | - Sri M.K. Ramappa |

12. Watchmen - 5
- Sri Padam Bahadur
 - Sri Thimmappa
 - Sri Dasappa
 - Sri Nagesh
 - Sri Bhim Bahadur
13. Malis - 4
- Sri Chowdaiah
 - Sri Kannappa
 - Sri Mahadeva
 - Sri Marinnanjaiah
14. Sweepers - 4
- Sri Nanaiiah
 - Sri Rama
 - Sri Hoblaiah
 - Smt. D.V. Padma
15. Cook (Gent's Hostel)
- Sri Venkatesha
16. Cook (Ladies' Hostel)
- Smt. Gowramma

BUDGET

During the year 1975-76, Grant-in-aid of Rs 12,67,000/- was received from the Ministry of Health and Family Planning as indicated below.

Non-Plan	Rs 7,68,000/-
Plan	<u>Rs 4,99,000/-</u>
Total	<u>Rs 12,67,000/-</u>

The Plan grant of Rs 4,99,000/- was allocated as follows:-

Construction	Rs 3,51,887/-
Staff	Rs 24,581/-
Equipment	Rs 1,13,000/-
Furniture	Rs 9,532/-
	<u>Rs 4,99,000/-</u>

The DD for the Construction grant of Rs 3,51,887/- was actually received in April 1976 and the same was credited to the Construction Fund for construction of Speech Pathology and Audiology Block, which is in progress. The Non-Plan grant of rupees 7,68,000/- was spent on salaries, acquisition of equipment and furniture, library books and other routine expenditure for the continuing activities of the Institute. In addition, the Institute received a sum of Rs 41,500/- as income from other sources, which was also spent on the day-to-day activities of the Institute during the year.

The following Budget allocation has been made for the year 1976-77:-

Non-Plan	Rs 7,24,000/-
Plan	<u>Rs 2,50,000/-</u>
Total	<u>Rs. 9,74,000/-</u>