

Establishing an Institute of Speech-Language Therapy in Pakistan

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Key Words: *Pregnant Females, Antenatal Care, Physical Therapy.*

INTRODUCTION

We communicate all the time, everywhere and with everyone through what we speak, read, write and understand others. Our gestures, facial expressions, body language and the tone of our voice add to the messages that are exchanged between us. Information technology has revolutionized the exchange of information amongst us. A ship captain in mid ocean can talk to personnel ashore via telephone; the Global Positioning System informs us of our place on earth anywhere and everywhere, we skype, send text messages with written words, symbols and pictures, and use sign language. The world has indeed become a global village, very different from the village where a drummer would beat the drum in the lanes to inform the people of the King's proclamation!

American Speech Language Hearing Association defines and describes a communication disorder as being impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may be evident in the processes of hearing, language, and/or speech. A communication disorder may range in severity from mild to profound. It may be developmental or acquired."

Communication thus involves being able to speak clearly and loudly in a language that is shared and understood by its users. Originating from this definition we see that speech and language form the two main components of communication. Language encompassing the sounds, grammar, and sentence structure as well as the meaning within.

While speech includes the actual utterance of sounds, in an audible, clear and fluent manner by the speaker that conveys the message effectively. Hearing is an essential element, being the main input channel for information, and we know that a person who cannot hear will be unable to speak.

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Therefore speech-language pathology is a field that includes linguistics and language sciences, dating back to the origins of verbal communication; the speech sciences and acoustics as well as the study of the human brain, its structure and function, as it is the central processing unit that commands and controls the body to work smoothly in unison. Also in this realm are feeding and swallowing disorders of neurogenic origin, in children and adults, unfortunately this is something few in the medical and paramedical profession are aware of. The impossibility of verbal communication, forces us to share and exchange ideas and thoughts without speech, hence this field takes alternative and augmentative communication methods under its umbrella as well.

Speech-language therapists are needed to assess and treat speech, language, hearing, feeding and swallowing disorders across the entire spectrum (Figure 1) in children and adults across the entire age range, at hospitals, rehabilitation centers and in schools.

SPEECH-LANGUAGE THERAPY

The Historical Perspective

It would be fair to say that Speech-Language therapy emerged around 5000 years ago, with the understanding that human beings must have had difficulties communicating at that time just as they have now, and strategies must have been laid down to overcome them then too. Historical data reveals Elocutionists dealt with disorders of speech, while people with a stammer were considered as having low intelligence! In the mid nineteenth century Paul Broca, and Karl Wernicke revolutionized the field saying that specific areas of the brain were responsible for specific speech and language functions.

The most fascinating fact about this field became the multitude of professionals interested in it over time, elocutionists, psychologists, rehabilitation personnel, educationists, linguists, anthropologists, biologists, doctors such as neurologists, psychiatrists, paediatricians and otorhinolaryngologists and of course speech language therapists themselves.

Today, we know that a communication impediment affects many facets of a person's life across all age groups, from the medical perspective the anatomy and

Figure 1: Speech-language therapists assess and treat speech, language, hearing, feeding and swallowing disorders across the entire spectrum in children and adults across the entire age range



physiology of speech during resonance, phonation, articulation and hearing along with the brain, which is the seat for thoughts and cognitive skills, need to be studied. The psychologist focuses on communication as a behaviour and is interested in its social, cognitive and educational elements. Utterances would call upon themselves a linguist, a phonetician and an elocutionist. A teacher would be interested in factors that impact learning and academics. The speech-language therapist analyses communication with an anatomical, physiological, linguistic, as well as a social, behavioural, vocational, and educational view and its manifestation in all realms of life.

The Global Viewpoint

Amongst Pakistan’s neighbours Iran and India, have not only had the services and training in speech-language therapy for over 40 years, but have also standardised speech and language assessment and evaluation tools in their local languages. Having said that, it is incumbent to assert that despite a well established field, there is a dearth of professionals in both countries as a large chunk of fresh graduates migrate to developed countries such as United States of America, Canada, Australia and Great Britain, where they find ready jobs with patients from the Asian community needing treatment by speech-language therapists who can speak their own language in a foreign land! Bangladesh and Sri Lanka draw parallels with Pakistan, except that personnel from United Kingdom’s organization namely *the Communication Therapy International*, and others collaborated with institutes in both countries to help establish training programs there, a facility that Pakistan gets denied of due to the volatile political scene!

A Pakistani Standpoint

Communication impediments in persons across all ages

cause a series of impediments affecting life in its entirety. Consequently, with the absence of programs that offer training in Speech-Language Therapy and Audiology it is not surprising to see impoverished

services in this sphere in Pakistan.

Being an agro-based country, majority of Pakistan’s population is rural, who are, undeniably deprived of basic health care and education, and certainly do not identify speech and language disorders as treatable, unjustly meting out discrimination towards their affected off springs, denying them of opportunities that they would normally strive to provide their other children with. Therefore it is absolutely acceptable for a child or adult who has lost the ability to speak or was born with a disability, to be deprived of any organized means of communication. The individual is doomed to be labelled as ‘handicapped’ or ‘dumb’ and a burden on otherwise ‘normal individuals’ in society! Currently, amongst the four provinces of Pakistan Khyber Pakhtunkhwa and Baluchistan lack the facility of speech-language therapy the most, followed closely by Punjab, whilst Sindh leads with the most personnel in this field, furthermore, all the qualified speech-language therapists are in the big cities. Several attempts to teach and train individuals in the field of speech-language therapy, in Pakistan achieved little success due to the dearth of qualified trainers and faculty. Till the end of the last millennium, there were several short courses some of which stemmed out of special education, offering diplomas and/or a certification in Speech-Language Therapy, with special educationists, psychologists, otorhinolaryngologists, physical and occupational therapists, teaching Speech-Language Therapy! Such training programs were not only a miniscule effort, but have also proved detrimental to the profession and extremely unfair to the students enrolled, as on completion of the course they lacked profound knowledge, and had weak clinical competence. Although Pakistan prides in its rich multilingual and multicultural fabric giving English a foreign language stature, it has been unable to bestow upon its national language ‘Urdu’ the deserved importance, in governance and education, long after independence from the British Raj. The unfortunate socio-economic divide discriminating Pakistanis striving towards mainstream education, groups them into those enrolling in English versus Urdu medium schools; with the former required to master at least two languages, the native language at home and English at school, and the latter although required to master Urdu only seldom achieve much success in higher education. In such challenging territories, one only quivers to educate (provide reading and writing skills) young children who have difficulty mastering the first two modalities of verbal communication (understanding and speaking), and this places a heavy demand on the speech-language therapist *who must successfully achieve verbal communication skills* that ascend naturally towards literacy for the young child. Thus it is not only incumbent for the speech-language therapist to have* in depth

knowledge of communication disorders and their treatments, but also necessary to have exceptionally good clinical skills.

Surveying the need of Speech-Language Therapy in Pakistan

In 1998 - 99, a small group of professionals thoroughly cognizant of the mammoth crisis faced by children and adults having communication, hearing, feeding and swallowing impediments, converged from the fields of paediatrics and psychology along with two speech language therapists, to form the Speech and Hearing Association of Pakistan (SHAP). The group conducted the first survey to quantify the need of the profession in our country by gathering information about individuals visiting hospitals and clinics and students of schools and colleges in Karachi, which revealed a staggering 14% of children and adults afflicted with some form of speech, language, hearing, swallowing or feeding impediment. Bear in mind that with impoverished health care & nutrition in rural Pakistan this number was likely to be worse there. With the heart breaking findings of the survey and the ever increasing case load being handled by the two speech-language therapists, SHAP endeavoured towards establishing this field in our country.

OVERCOMING CHALLENGES

Launch of Ziauddin College of Speech-Language Therapy (ZCSLT)

The foremost challenge in a developing country like Pakistan clearly appeared to be the stark scarcity of qualified speech-language therapists. Without delay our country needed to have in depth training programs conducted at the undergraduate, and post graduate levels, thereby increasing the number of qualified and competent professionals in this field. But the question was, where would *teachers* and *trainers* come from? SHAP made several attempts to harness professional assistance from England, Ireland, America and India, on an individual basis and through universities and institutes, but was haplessly unsuccessful, with foreigners fearing to be in Pakistan on a long term basis (30 to 90 days). Luckily two young speech language therapists of Pakistani origin moved back to Karachi, from US and Canada, to join the two who were already here, thus there were four qualified professionals from universities in US and India; destiny seemed to shine on

SHAP's endeavors!

In 2006 SHAP collaborated with the Ziauddin University (ZU) to further strengthen their stance. Together they embarked ambitiously to establish the Speech Language Therapy Training School (SLTTS) for patients, and a year later this unit evolved to become the Ziauddin College of Speech Language Therapy (ZCSLT) that pioneered a four year Bachelors' program in Speech Language therapy (BS SLT). With a core faculty of four

speech language therapists as master trainers, the faculty for associated courses joined in from the Ziauddin Medical College and other institutes in Karachi. The curriculum was carefully structured keeping it at par with similar programs in universities of developed countries yet maintaining features indigenous to Pakistan. Clinical Practicum was carefully mapped on to the theory taught throughout the 4 years of the program; which would culminate with a mandatory internship. 2007 October saw the induction of six students in the first batch, they were to be the torch bearers of the profession in Pakistan.

SHAP and ZCSLT conducted awareness programs, workshops, and seminars, used tele and print media to enhance the profession's status here and to provide a new career opportunity to our brilliant Pakistani youth. On the clinical front, awareness about speech language disorders in society would subsequently lead to early intervention of speech-language disorders, thereby crucially reducing the degree of severity and magnitude of disability, rendering a less handicapping condition for the affected individual.

The survey of 1998-1999 was repeated in 2009-2010 in Karachi covering a larger number of educational institutions, clinics and hospitals; only to reveal a horrific worsening to 32% in the prevalence of communication, and feeding-swallowing disorders. ZCSLT was on track, serving patients from all segments of society, indiscriminately, by way of its academic and clinical units established and prospering.

The Ziauddin College of Speech Language Therapy was carefully designed and constructed by the Ziauddin University close to the Ziauddin Medical College, in a quiet vicinity of Clifton, Karachi. Five custom-made rooms for individualized assessment and therapy, one room each for play and group therapy were built. All rooms were given optimal acoustic features conducive for minimizing distractions, and maximizing effective communication, with an individualized audio-visual set up, that was used by caregivers and students who could see and hear the activities of the session through the observation window; this tremendously facilitated the carryover of appropriate communicative behaviors at home and at school. The sound treated Audiology unit was also made at the very start, the Voice clinic was established in 2007, which further evolved into a Voice and Swallow laboratory in 2010. State of the art equipment for assessment and treatment of individuals with voice and swallow disorders and hearing impairment had been installed. Other spaces included classrooms, faculty offices, resource and material rooms, stores, administration office and the front desk. Each day saw more and more people finding out about the ZCSLT. Teachers, parents, doctors all referred patients to the clinic, most referrals were from Pediatricians, Otorhinolaryngologists, and Psychologists, with Neurologists joining the bandwagon soon. On

average, the speech-language therapists took 25-30 sessions a week, with at least 15 - 20 patients waiting to be seen on discharge of one from therapy. Since speech-language therapy once commenced with a patient (adult or child) almost always followed a long term course ranging anywhere between 3 months to 4 years, over bi-weekly sessions of 30-45 minutes, the rate of patient discharge was much slower than the rate of induction. The ZCSLT clinic was challenged continually by the increasing number of waitlisted patients yet to be seen, but quality of work was held in high esteem, with no compromises accepted, hence group therapy was never preferred over individualized therapy unless it was needed. Periodically parents, caregivers and teachers of the patients were trained about management of speech-language disorders at

home and at schools with children.

Tools for testing speech-language disorders were imported from England, but these could only be used with patients whose language of communication was English. To overcome this dilemma similar tools were imported from India (as Hindi aligned with Urdu, although the lexicon differed greatly between the two languages they were closer morphosyntactically) ZCSLT immediately embarked upon development of tools for assessment of speech and language disorders in Urdu, closely followed by Punjabi, Gujrati, Pushtu and Sindhi. In a multilingual cosmopolitan society, the need to develop screening tools, and detailed test batteries in all regional languages was mandatory to test more accurately, following which treatments, would be exact and precise, and the Material Unit of ZCSLT toiled tirelessly to develop them in local languages. A multitude of computer based and play based linguistically appropriate material was researched and developed for the patients seen. This was another area craving for the attention of speech-language therapists.

Fortunately two more young and energetic speech-language therapists joined the ZCSLT in 2009 and 2011, on completion of their graduation from England and US, bringing some ease to the college's core faculty who were being stretched far too thin as they toiled to teach and train their students meticulously, conducted clinics as well as supervised students' clinical practice.

The first year of the four-year bachelors' program was based upon the foundation courses in speech, language, hearing sciences as well as biological and medical sciences, in addition to information technology and psychology. In the clinical component the first year students collected and analysed normal communicative samples in children and adults. Core courses in professional studies included childhood speech, language and hearing disorders along with diagnostic procedures in the second year; Urdu Linguistics indigenous to the Pakistani curriculum was also taught at this time, and observation of all patients formed the

clinical component. In the third year the students studied adult speech-language disorders and indulged hands on in testing and therapy with children through supervised clinical practice; while in the fourth year they studied research, and courses such as Bilingualism and Alternative Augmentative Communication among others, whilst being supervised in the clinic, at placement sites, and the hospital during therapy with adults, and children. On graduation all students had to complete a mandatory period of internship, following which they would be eligible to work in hospitals, rehabilitation units, schools and clinics independently. The faculty engaged in research was assisted by the students. Continuing education and faculty development became a part of life for all ZCSLT core faculty remaining abreast of developments in the field the world over.

ZCSLT thrived on their pledge to *'make lives worth living'* ⁽¹⁾ through indiscriminate services in speech-language therapy unto all needing it. Creating more professionals worthy of this pledge and also trying to educate professionals from allied disciplines to improve on the services they rendered.

As the ZCSLT forged ahead with a stronger faculty, there were more students longing to join the program each year and an ever increasing patient load, it was envisioned that the college needed to grow in terms of human resource, space, and equipment to cater to the ever growing requirement of professionals in this field, in Pakistan and the world at large. In the years to come ZCSLT plans to commence their Masters Program in Speech Language Therapy, and further develop their voice and swallow lab. Mindful of the immense benefits of early intervention ZCSLT is initiating screening of children below 6 years of age in mainstream schools. Public awareness programs, research and development are a regular feature of the college and shall continue to remain so.

ZCSLT was proud to see their first batch of students graduate in 2011, human resource was needed desperately, not only at the ZCSLT, but in Pakistan at large. The task was stupendous, but as saying goes; it is drops of water that form the ocean!

RESOURCES

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3. Definitions of Communication Disorders and Variations; www.asha.org/docs/html/RP1993-00208.htm
4. History of Speech – Language Pathology an Over view; Judy Duchan; www.acsu.buffalo.edu/~duchan/new_history/overview.html
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INSTRUCTION TO AUTHORS

Authors should consult the journal's instructions to authors before submitting their manuscripts. The manuscripts should be emailed on journal's address in the form of one document with tables and figures embedded in the text.

PREPARATION OF MANUSCRIPTS

Manuscripts should be typed in times roman font size 12, using double spacing throughout, including the title page, abstract, text, acknowledgments, references, individual tables, and legends.

PLAGIARISM

In order to have checks and balances against unethical practices, the Higher Education Commission of Pakistan has developed a Plagiarism Policy which is applicable to all the Higher Educational Institutions of the country. Ziauddin University is a strong proponent of academic integrity and intellectual honesty. The Plagiarism Policy of HEC is strictly applied in all the academic concerns of the university including PJMD. The policy should be adhered to when preparing a manuscript of original work to be submitted to the PJMD. A covering letter should also be provided, certifying that the content of the manuscript is not plagiarized.

TITLE PAGE

The title page should carry

1. The title of the article (not more than 10 words)
2. The name of each author, with designation
3. The name of the department(s) and institution(s) to which the work should be attributed
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5. Source(s) of support in the form of grants, equipment, drugs, or all of these.
6. A short running head or foot line of no more than 40 characters.

AUTHORSHIP

Should only be given to those who have participated sufficiently in the work to take public responsibility for the content. The contribution of each author must be described in detail.

ORIGINAL ARTICLE

An original article should have a minimum word limit of about 2000 words with two tables and two figures supported by 30 references.

ABSTRACT AND KEY WORDS

A structured abstract of 250 words is required for original articles while other types of articles require unstructured abstracts of 150 words each. The content of the abstract should be structured under the headings of Background, Objective, Methods, Results and Conclusion with 3 to 10 relevant key words from the Medical Subject Headings (MeSH).

INTRODUCTION

The introduction should provide the background and the rationale for the along with brief literature review on the topic. The section should highlight the purpose of the article using only strictly pertinent references.

METHODS

In this section, the sampling procedure for the research should be described (patients or laboratory animals, including controls). The age, sex, and other important characteristics should be clearly defined with name of ethical review committee of your organization who has reviewed the manuscript. The methods should be written with references, apparatus (the manufacturer's name and address in parentheses), and procedures in sufficient detail to allow other workers to repeat the procedure. In addition, the statistical methods used to analyze them should also be specified.

RESULTS

Important observations and findings should be highlighted. The data in this section can take the form of text, tables, and illustrations, all of which should be organized and presented in a logical sequence.

DISCUSSION

In this section only the new and important aspects of the study should be highlighted. Repetition and redundancy of data should be avoided and references given in the Introduction should not be repeated. The inference of the findings and their limitations, including implications for future research should be discussed with references from latest relevant studies.

CONCLUSION

The conclusions should be matched with the objectives of the study and unqualified statements should be avoided.

ACKNOWLEDGEMENTS

All participants who do not justify authorship should be acknowledged for their contributions. Such participants can take the form of departmental chair, technical help, financial and material support, data collection, scientific adviser etc.

REFERENCES

All works cited and researched should be referred to in the Vancouver referencing style. A minimum of 25 references should be cited.

REVIEW ARTICLE

A Review should have unstructured Abstract (200 words), an Introduction (200 words), and Discussion (up to 2000 words), with 40 to 60 references.

SHORT COMMUNICATION AND COMMENTARY

Short Communications or commentaries should have unstructured Abstract (150 words), and general text (1500 words) with 20 references.

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The structure of the case report should include an Abstract (150 words), an Introduction (100 words), a Case Report section(500 words) and Discussion (1000 words), with 10 references.

STUDENTS CORNER

Students contribution of CHS research based on KAP study is also accepted. The general format of the Original Article should be followed 1000 to 1500 words of content.

LETTERS TO EDITORS

Letters to Editors should be concise and not exceed 400 words with a maximum of 5 references.