Introduction

Understanding the pattern of collaborative behavior and the possible hurdles that Special Education (SE) teachers and school-based Speech-Language Pathologists/Therapists (SLP/Ts) might face, keeping them from efficiently meeting the Speech Language and Communication Needs (SLCN) of individuals in Special Education settings.

An increasing number of children experience delays in their speech and language development as they start their academic careers with underdeveloped linguistic tools and skills. The impending need for a well-balanced collaborative equation where the speech language pathologists/therapists and the special educationists come together to understand and cater to the speech language and communication needs of children. The practical evidence consistently proves that the two groups of professionals under question have their separate and distinct understandings of children with speech language and communication needs (SLCN), their needs and how to intervene accordingly.

Abstract

Objective: To investigate the needs of speech and language therapy service in special education settings. To specify that the particular speech language and communication needs of an individual cannot be sufficiently met by one clinician alone.

Methods: A comprehensive survey questionnaire was employed to attain a clear view of the similarities and differences between the groups of professionals, their understandings of terminology, spoken language indicators of SLCN, associated academic needs, behavioral challenges, and professional barriers to meeting the children's needs.

Results: Fluctuations in the response pattern for both groups were observed when it came to understanding of latest terminologies associated with SLCN, SLP/Ts were predominantly more aware of the terms than special educationists. Special education teachers were unexpectedly more aware of the academic and behavior features related to speech and language difficulties. However, training, advice as well as resource availability saw special educationists lacking whereas slp/ts showed a consistent pattern of having received the necessary training and resources.

Conclusion: A special education environment is designed to fulfill an individual's needs, whether they be physical, sensory, cognitive or communicative and to achieve that goal, a compatible team of healthcare professionals and special educators is crucial. In this particular scenario, there is an impending need for both speech language pathologists/therapists and special educators to understand the prerequisites of each other's role and more importantly how they can assist to provide better Individualized Education Plans (IEPs), improve peer and staff interactions, prevent undesired behavioral interactions, evolve the academic experience and the therapeutic intervention necessary to enhance the quality of life of an individual with speech-language and communication needs.

Keywords: Speech-Language and Communication Needs (SLCN), Special Education teachers, Special Education settings, Multi-professional collaboration.

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requirements in any inclusive or special education setting. The initial phase in the process towards comprehending the hurdles keeping from effective collaboration is to establish a baseline of the current understanding that the two groups have regarding speech, language and other associated difficulties experienced by children so that an analysis of views can be formed that of the researchers, the speech pathologist/therapists and the special educationists. Such a task requires a thorough evaluation of both group of professional’s perceptions with a substantial level.

Training staff assume an important function in either distinguishing individuals with SLCN as well as in providing sufficient guidance to these and others during language development. Most of the individuals having speech-language difficulties are in standard schools and, for some, external resources are not included in supporting them. This circumstance relevant despite the fact that Education professionals report encountering various difficulties in addressing the necessities of youngsters with SLCN of participation.

There was a visible gap when it came to the availability of identifying factors for specific speech language behaviors that may carry equal weightage in terms of assessment and diagnosis both clinically and in academic settings. For children in school settings, this posed a particular predicament as there seemed a little attention paid towards signs of communicative and discourse shortcomings in toddlers and young children or even behaviors associated with speech and language difficulty in a classroom context.

To better understand the potential gap in the provision of a holistic system dedicated to bring SLP/T’s and SE’s on a single platform of joint academic and therapeutic service in various special education institutes and inclusive education settings across the country, let us understand what inclusive education is furthermore what specifies the role of a speech language pathologist/therapist (SLP/T) and a special educationist (SE) in that light.

Discussion of how to improve the standards of special education services has been going on for a while, with terms such as “mainstreaming” regular education initiative, and “inclusion” to describe understanding and re-conceptualizations of what represents “the right thing” for children with disabilities. These discussions have highlighted some of the perceived requirements for a new service delivery model to be successful, including overall school restructuring, the merging of general and special education, and the formulation of a unified educational system.

Having a predictable estimation of instructing is consistently significant for decent training framework. In this way, curriculum can generally be found in both eastern and western training framework. Nonetheless, with various understandings towards the expression "curriculum", mentalities and qualities towards educational methodology may change, which thus influences how children learn in schools. We, as instructors, could accept them as reference and consider what sort of instructors we would become later on. This paper is equipped towards the viewpoints of the special educationist on separated curriculum for people with special education needs. The abovementioned reason regardless, it is critical to contemplate, the importance of the term curriculum.

The development of something that is culturally relevant and most importantly provides an individual with SLCN with a well-rounded education is the key to the ultimate success of any education system. In this view aims of present study were to investigate the needs of speech and language therapy service in special education settings and to specify that the particular speech language and communication needs of an individual cannot be sufficiently met by one clinician alone.

**Methods**

It was a comparative cross-sectional study focusing on the speech-language pathologists/therapists working in public and private special education schools of Punjab. The duration of Study about 6 months.

The sample Size determined was at least 50 participants of each group i.e, speech language pathologist/ therapist and special educationists. The sampling Technique systematic random sampling for special educationists and convenient sampling for speech language pathologists/therapists Sample selection Speech language pathologist/therapist (SLP/T) having had minimum one year’s worth of experience working in a public or private special education setting.

Inclusion Criteria was set as to consider speech language pathologists/therapists and special education teachers working in special education settings. Speech language pathologists/therapists and special education teachers working in special education settings. Individuals with a bachelor’s degree in speech-language pathology (BS-SLP). Individuals with a Master’s degree in speech-language pathology/therapy (MS-SLP/T). Individuals with a Masters in special education. Speech language pathologist/therapist (SLP/T) having had at least one year’s worth of experience working in a public and private special education setting. Individuals having a post-graduate diploma (PGD) in Speech-Language pathology.

Exclusion Criteria was as not to consider individuals with short courses in SLP/T or special education. Fresh
graduates with no first-hand experience or training. Professionals (SLP/Ts) in clinical or hospital settings. The survey questionnaire used to collect the data comprised of seven sections. Each section covered information critical to the research. Section 1 asked the respondents to declare their preferences across basic demographic questions with overall 8 items, from a respondent’s name, age, gender, and profession, etc. To avoid ambiguity in the data analysis procedure as well as a respondent’s right to remain anonymous, the identity question was left out. A comprehensive survey questionnaire was employed to attain a clear view of the similarities and differences between the groups of professionals, their concepts related to speech language clinical terms, spoken language features of SLCN, relative academic needs, behavioral challenges, and professional barriers in providing such individuals with the best therapeutic intervention.

Results
The result section outlines the prominent patterns and professional preferences across each part of the questionnaire, thus clearly stating the differential trends of practice in each area by both groups in the sample. First part of the survey collected the demographic information from all the participants according to which a total of 109 professionals responded to the survey statements on a three, four and five point Likert scale variations. In a preliminary sorting of the collected data, all the participants with an incomplete response were excluded to avoid any ambiguity in the analysis process. The demographic data displayed that out of 109 participants, 61 respondents were special education teachers and 48 were SLP/Ts.

Majority of both professionals in terms of work-setting were equally distributed in special schools for hearing impaired and special education centers with only 10% of SLP/Ts working in special education institutes for visual impaired.

| Table 1: Distribution of Study Subjects |
|-----------------|--------|--------|
| Profession      | Frequency | Percent |
| SLP/T           | 48      | 44.0   |
| Special Educationist | 61      | 56.0   |
| Total           | 109     | 100    |

To explore the significance levels between the groups being discussed in the study, independent samples t-test was applied, giving us the significance levels of both groups (i.e. SLP/T's and Special educationists) for each category in the survey questionnaire.

Section A presented 14 terminologies associated with SLCN and asked the professionals to state their level of familiarity to the terms. The significance level (.000001) was $p = < .05$, meaning that the difference between the two professional groups was significant. Trends in the level of familiarity with various terminologies associated with SLCN for both groups of professional showed close relativity i.e. both groups displayed high levels of familiarity with terms like SLCN, communication disorders, speech difficulty and language difficulty. Section B presented the participants with 11 language
Table 2: Chi Square Test on Variables

| Term | t-test | Sig.   | P value | Mean of Sp. Edu. | Mean of SLP/T. | Diff. | SE of difference | T ratio | df | Adjusted P value. |
|------|--------|--------|---------|-----------------|----------------|-------|-----------------|---------|----|------------------|
| Terminologies associated with SLCN. | Yes. | <0.000001 | 67.90 | 57.84 | 10.06 | 1.315 | 7.649 | 107.0 | <0.000001 |
| Language behavior indicating speech or language disorder. | Yes. | 0.000565 | 23.52 | 26.77 | -3.250 | 0.9143 | 3.555 | 107.0 | 0.00 |
| Academic/behavior features indicating speech difficulty. | Yes. | 0.000184 | 26.71 | 22.74 | 3.970 | 1.825 | 3.875 | 107.0 | 0.000738 |
| Academic/behavior features indicating language difficulty. | No. | 0.485855 | 24.06 | 24.97 | -0.9100 | 1.211 | 0.7517 | 107.0 | 0.453855 |
| Barriers in meeting the needs of individuals with SLCN. | Yes. | <0.000001 | 21.60 | 13.98 | 7.620 | 0.5427 | 14.04 | 107.0 | <0.000001 |
| Advice/Information received during professional training. | No. | 0.080991 | 11.92 | 11.46 | 0.4600 | 0.2603 | 1.767 | 107.0 | 0.153767 |

Behaviors. The p value (0.000565) p=<.05, showing that the difference between both groups was significant. 80% of SEs chose “both” for very talkative, 45% SEs were “unsure” whether hesitations indicated a speech or language impairment and about 54% SEs were “unsure” whether selective mutism indicated a speech or language difficulty. Error in spoken language saw 80% SLP/T’s choosing it as an indicator of language difficulty and 82% special educationists saw it as an indicator of speech difficulty. Section C presented 13 behavioral and academic features and asked the respondents to state the how likely they were to indicate a speech difficulty on a 4 option Likert scale. The p value for this category was also less than .05 (p=0.000183), which meant that the there was a significant difference in the responses of both professional groups. For most of the behavioral and academic features both SLP/Ts and SEs thought that they were likely to indicate a speech difficulty with insignificant variations. For “depression” and “anxiety” less than 5% of SLPs thought “unsure” whether hesitations indicated a speech or language impairment and about 54% SEs were “unsure” whether hesitations indicated a speech or language difficulty. The p value (0.000565) p=<.05, hence the response difference was significant. The response pattern saw a clear divergence in the views of the two groups, such that SLP/Ts thought most to be significant barriers, whereas special educationists viewed them as not significant barriers. Section F asked respondents to state whether or not they received information, advice or resources necessary to meet the needs of individuals with speech-language and communication needs. For this category the p-value was 0.000001, so p=<.05, hence the response difference was significant. The response pattern saw a clear divergence in the views of the two groups, such that SLP/Ts thought most to be significant barriers, whereas special educationists viewed them as not significant barriers. Special educationists stated 40% and 20% did not receive resources and information in regards to treating people with a language or a speech impairment respectively whereas SLP/Ts showed a consistent pattern of responses that they’ve received the information and resources necessary for treating individuals with speech language and communication needs.

**Discussion**

In an attempt to understand the pattern of collaborative behavior and the possible hurdles that special education teachers and speech-language pathologists/therapists might face, keeping them from efficiently meeting the speech language and communication needs of individuals in special education settings. A comprehensive survey questionnaire was employed to attain a clear view of the similarities and differences between the groups of professionals, their understandings of terminology, spoken language indicators of SLCN, associated academic needs, behavioral challenges, and professional barriers to meeting the children’s needs. It was predicted by the researcher that the speech language pathologist/therapists working in special education setting would be more aware of the terminologies and the behavior.
patterns associated with the more complex communication impairments. On the other hand, it was assumed that special education teachers would be more adept at identifying the academic features associated with speech-language and communication difficulties. Fluctuations in the response pattern for both groups were observed when it came to understanding of latest terminologies associated with SLCN, SLP/Ts were predominantly more aware of the terms than special educationists. Special education teachers were unexpectedly more aware of the academic and behavior features associated with speech and language difficulties. However, training, advice and resource availability saw special educationists lacking whereas slp/ts showed a consistent pattern of having received the necessary training and resources.

According to an American Speech-Language-Hearing Association 2003, an estimated 10% of all children have a long-term and persistent speech, language and communication need. Intervention in terms of communicative difficulties was an essential part of speech, language and communication development. SLTs provide guidance and training to individuals and children with communication difficulties in inclusive schools. In inclusive school, the teacher is also a resource person. It confirms that as a person with the knowledge, they have the right tools to guide parents on how to tackle their child’s issues. The teacher explained to parents their rights, decodes certain documents in lay man’s terms. In the process of being a resource person, the teacher became a counselor. Lack of equipment, teaching materials, not being available in there. Others become a problem to the specialist teacher. The situation whereby the specialist teacher has to move to places where there are not available materials.

Training staff assume a key function in both distinguishing youngsters with SLCN and in supporting these and other understudies' language improvement. The lion's share of youngsters with SLCN are in standard schools and, for some, outside organizations are not associated with supporting them. This situation applies even though Education practicitioners report experiencing a number of challenges in meeting the needs of children with SLCN, and of gaining a better understanding of speech and language development and of the difficulties that can ensue if language difficulties are not addressed.

One possible way of eradicating such shortcomings was to pronounce the integration of SLP/Ts into the education system as well as various school settings. Enhancements as such could prove a better base for the exchange of information among professionals, though this process needed a lot of attention and room to develop, but once established would enable health professionals to better comprehend one another’s perspective and approach towards intervention. All the more as of late, there had been developing acknowledgment of the requirement for separated guidance in the classroom.

A shared understanding of an individual’s speech and communication requirements comes from applying an empathetic approach towards co-productive service. Such that, one practitioner/professional needs to understand the other professionals opinion and where they are coming from. This evidently provides an insight to the counterparts approach. If a special educationist is able to contemplate the view of a speech-language pathologist and vice-versa, the chances of them effectively meeting the needs of children with SLCN are bound to improve for the better. Not only that but if the multiple practitioners are willing to understand each others perspective, it will increase the chances of overcoming the difference in training and experience.

In basic terms, separation implies fitting guidance to address singular issues. The thought is to give various roads to getting the hang of relying upon the individual needs of various students in the classroom, for example, giving perusing materials at different clarity levels, manipulatives, decision in tasks, and drawing in work setting.

As per the assumptions, the Special Education teachers were comparatively less friendly with the lingo used to refer to various speech-language difficulties. Therapists regularly use SLCN to refer to a much bigger category of individuals. Given that a high extent of Education staff demonstrated that they didn’t have an away from of the terms utilized by SLP/Ts, notwithstanding having standard contact with SLP/Ts, this brings into question on how best to address a person's correspondence challenges inside an instructive setting. Though the use of more norm, yet disputable wording may go some route toward diminishing correspondence troubles, the requirement for a modified uncommon needs training structure is urgent. Presumably that thinking about the idea of language and discourse challenges, a youngster may have and the absence of clearness for exact determination profiling kids' qualities and necessities inside the range of language and correspondence might be generally useful for training and give a reasonable comprehension. In a joint study by educational psychologists and speech and language therapists Sheila McConnellogue in 2011 a review was done to analyze handy and reasonable issues which may emerge in a guided correspondence framework between educational psychologists and speech and language therapists. While it was discovered that 62.8% of recently alluded kids with special education needs had some history of coinciding correspondence and education needs, it was demonstrated that duplication of work exists and correspondence is difficult. It was additionally indicated.
that schools were not completely educated about youngsters’ needs. Joint dispatching of administrations is required to encourage individual practitioners in working together to serve the needs of these kids.

Numerous articles emphasized the provision of collaborative approaches that encourage a speech language pathologists role in literary services and with classroom teachers. Sharing those best practices with teachers, colleagues, administrators, and/or special education directors could help bring about changes in caseload sizes, increased opportunities for different service delivery models, and time for planning with classroom teachers. It also mentioned the need for SLP/T’s involvement in the formulation of class curriculum.14,18,19

Another barrier for school-based speech-language pathologists working collaboratively with classroom teachers and incorporating literacy skill during therapy could be the failure to increase their knowledge about best practices and current research. In the survey, the participants were asked about the frequency of reading professional journal articles focusing on language, literacy, and/or reading. The larger part (56%) read diary articles once in a while; 22% showed they read diary articles more than once per month, and 22% reacted they never read diary articles. On the off chance that they are not perusing articles about examination and confirm based practices, how might they increment their 61 information on joint effort and education? In her article, Powell (2018) stated “…there must be a concentrated effort for data to be gathered that supports specific best practices, including workload models, service delivery, and curriculum-based intervention”.19

Conclusion

A special education environment is designed to fulfill an individual’s needs, whether they be physical, sensory, cognitive or communicative and to achieve that goal, a compatible team of healthcare professionals and special educators is crucial. In this particular scenario, there is an impending need for both speech language pathologists/therapists and special educators to understand the prerequisites of each other’s role and more importantly how they can assist to provide better Individualized Education Plans (IEPs)(5), improve peer and staff interactions, prevent undesired behavioral interactions, evolve the academic experience and the therapeutic intervention necessary to enhance the quality of life of an individual with speech-language and communication needs.

Recommendation

Intervention for speech-language and communication needs in context of special education requires the evaluation and treatment process to become multi-dimentional. It can only be achieved by way of combining resources available to both the speech-language pathologists/therapists and that of special education teachers. Only then can positive outcomes in terms of identification of an individual’s exact speech-language and communication needs be met appropriately. The availability of an environment that allows the professionals to come together, filling in the holes, bringing about a wholesome intervention for their clients.

A service structure that is built on the basis of a multidimensional professional approach will eventually lead the development of home grown tools and culturally appropriate resources that will make intervention a much smoother process.

There’s a need to address the presence of conceptual differences in terms of speech and language disorders. This can be achieved by allowing constructive overlapping of curriculum and training resources and protocols for all the professionals responsible for meeting the needs of individuals with speech-language and communication needs.

Limitations

The stronghold of this research project was that a great amount of similar work had been done by many professionals, might they be speech-language pathologists/therapists, psychologists and a good number of special educationists as well. Despite the fact, the most prominent limiting factor is the lack of cultural relevance, presence of which would have made the outcomes even more valid. The biasness of the questionnaire structure and its approach, require an extra effort to be put in to translate the effect it demands in order to bring about the necessary reforms.

This particular project falls short of casting a wider net in terms of looking into the special education system as a whole, its requisites. Since one of the categories showing a significant variation in the point of view of the professional groups being discussed, was Resources/Advice received during training. A look into the background would have added an element of crucial insight as to where to allow constructive overlapping to maintain a consistent stream of service for the individuals with speech-language and communication needs.

The sample size of the research was a factor that was lacking. The idea was to keep the number of responses close to an equal ratio, which required the researchers to limit the variability of respondent source. This shortcoming was somehow made up for by the online respondents, giving the data an essence of integrity in terms of national representation.

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