

# Research Priority of Clinical Linguistics in Iran

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## Abstract

**Background:** Study in clinical linguistics can reflect and requirements of this area, and can contribute to effective and useful changes in this area.

**Objectives:** Since there have been a few studies in the field of clinical linguistics in Iran, this research can pave the way to find research priorities of clinical linguistics in our country.

**Materials and Methods:** Studies related to linguistics and speech therapy were collected and studied since their appearance in the literature up to 2012 to determine the number of studies performed on clinical linguistics and its evolutionary trend.

**Results:** The most and least numbers of studies conducted by speech therapists on linguistics are related to phonetics/phonology (37%) and pragmatics (14%), respectively. In linguistics, there are a few studies on disorders (0.02%), which are mostly in the domain of aphasia (40%); therefore, other disorders should be investigated too.

**Conclusions:** The number of linguistic studies on language and speech therapy is more than that of the studies in which clinical data are used to study the theories and hypotheses. Therefore, it is necessary to consider this area seriously and guide the studies toward the theories proposed in the related disorders. Thus, attention must be paid to pragmatic and semantic domains of the disorder which are considered less.

**Keywords:** Clinical Linguistics, Research Priority, Speech Pathology, Linguistics

## 1. Background

Although the speech and language sciences have been long used to describe and analyze communication impairments, the term is widespread since the publication of Crystals book in 1981. He defined clinical linguistics as the application of linguistic science to study communication disabilities in clinical situations (1). Most of the researchers have referenced to Chrystal's definition regarding clinical linguistics in their works and have considered it as the basis of their work. However, Cummings believed that clinical linguistics is an expression rather than a field of study (2). Ahadi described clinical linguistics as an application of linguistic theories, methods, and findings to describe, evaluate and treat communication disabilities, also application of clinical data to accept or reject linguistic theories, methods and findings (3).

Clinical linguistics mainly aims to classify patients' linguistic behaviors in the field of differential diagnosis. Clinical linguistics has also evolved in devising a good assessment of abnormal linguistic behavior. The ultimate goal of clinical linguistics is to formulate hypotheses to treat abnormal language behaviors. These areas identify the scope of clinical linguistics. Crystal believed that "the chief aim of clinical linguistics is to provide the clinician with in-

creasing levels of insight and confidence in arriving at linguistic decisions" (4). The mentioned areas of clinical linguistic activities only cover one aspect of the definition (using linguistics in disorders); the other aspect of the studies is using clinical data to accept or reject linguistic hypotheses. For example, one of the reasons to study specific language impairment (SLI) in children is to gain insight in language organization and development (5). As such, a general hypothesis linking these two important areas is proposed by Feodor the modularity hypothesis (6). Studies on specific language impairment show that an impairment which is limited to the language alone provides support for a modularity hypothesis corresponding to big modularity. As for the small modularity, the question arises as what components a language consists of. Grammar and pragmatics are distinct components and if so, how they are. In this regard, grammatical and pragmatic data of children with specific language impairments are studied. Based on this hypothesis in spite of impairment in their grammar, these children are not impaired in their pragmatic language skills (7). Thus, the specific language impairment and other disorders such as autism, Williams syndrome and the like can be very helpful to study linguistic hypothesis. For example, Ahadi et al. in addition to describing morphosyntactic and lexical ability in SLI chil-

dren, used this description to provide modularity hypothesis (8-11).

In Iran, no research has directly studied the relationship between these two fields of speech therapy and linguistics and the extent of their effects on the clinical linguistics area. Only the study by Kaveh (12) reported that studies on pathology were very limited in linguistics. However, some studies are conducted in each of these areas as students' theses; for example, Javandel-Somesarai introduced about 3000 theses (with their abstracts) in the linguistics field from six universities. One year later, this collection was published in the national library of Iran (13). Kaveh carried out a study entitled "the descriptive bibliography of modern linguistics in Iran" in his MA thesis. In his thesis, he presented a descriptive list of the linguistic books and articles in alphabetical order based on the author's name and the title of the work in Farsi. The results of his study showed that the listed activities in theoretical linguistics with 337 works are almost twice the number of the works in applied linguistics (12). Based on the number of works, grammatical issues, sociolinguistics, and dialectologies are ranked from the first to the third, respectively. Furthermore, Persian orthographic branches, glossaries and dictionaries, translations, computer linguistics, and speech pathology had the least contributions.

Naseh (14) presented 2530 theses from 30 universities in abstracts and introductions. Among them, 1080 abstracts were in the field of general linguistics and the rest were about Farsi literature, teaching Farsi language to non-native speakers. He also mentioned some related fields such as speech therapy, but not all of them. At the end of his collection, he presented a subject index, but there was no term such as disorder to find the number of linguistic studies about disorders. Just one index was used for language pathology in which one thesis was mentioned. For different linguistic domains such as syntactic (381), semantic (99), phonetic/phonological (175), morphological (221), pragmatic (25) and lexicon studies (235), there was a specific index through which the number of studies could be determined (12).

In 2000, abstracts of speech therapy theses were collected and organized in rehabilitation universities and faculties. Of course, they were classified based on the subjects and their universities and the educational level rather than their linguistic domains (14).

Crystal studied 360 articles to investigate the type and trend of studies in the field of clinical linguistics which were published in the journals of clinical linguistics and phonology in 15 years. The results of his study showed that phonology and phonemics comprised the bulk of the research with 138 and 217 articles, respectively and after them, grammar, discourse, pragmatics, semantics, and sociolin-

guistics comprised 34, 30, 9, 9, and 3 articles, respectively. Phonology and phonetics included 67% of the research. A significant number of studies were related to case reports which described patients' language problems. In the next step, he classified articles based on disorders. His study showed that the maximum amount of research was related to aphasia, apraxia, dysarthria, hearing loss, stuttering and cleft palate (15).

Marrero and Pineda investigated the articles sent to the second international conference of clinical linguistics held in 2003. First, he studied articles based on researcher's country and showed that 59% of them had been submitted from out of Spain (28% were from Europe, 20% from America and 8% from Asia). A total of 84 articles were sent to this conference from which 63% were accepted. In addition to English which was the language of the majority of studies, more than half of the studies were related to the Romanian (Spanish, Italian and Portuguese). The maximum amount of research in the field of linguistics was related to phonology and phonetics and the minimum was related to semantics and sociology (16).

## 2. Objectives

Since the studies in an area can reflect requirements and needs of that area, author decided to conduct this research to pave the way and find research priorities of clinical linguistics in Iran.

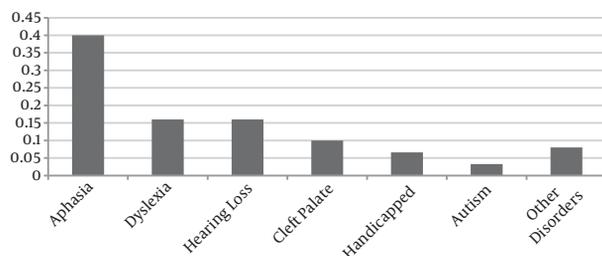
## 3. Materials and Methods

First, the titles of all BA, MA and PhD theses in speech therapy were collected from the beginning of this major in Iran (the first graduation in 1976) from medical universities of Shiraz, Ahvaz, Semnan, Mashhad and Tehran provinces (Tehran University of Medical Sciences, Iran University of Medical Sciences and University of social welfare and rehabilitation sciences). Then, titles were classified in four groups of pragmatics, syntax, semantics, and phonetics/phonology. The studies focused on a specific disorder, general subjects such as language development or studies which did not belong to any of these four domains were classified in the fifth group. It should be noted that, there are other universities such as university of Hamedan in which speech therapy is taught but not mentioned here, since some are just founded and no thesis is presented by their students yet or in some universities such as university of Tabriz (at BS level) instead of thesis, just a short report is proposed which cannot be documented. In the next step, studies related to linguistics as MS or PhD theses of linguistics were studied from the beginning of this major in Iran

up to 2012. In this regard, theses on disorders were recognized and separated. To collect the titles published from 1954 to 2006, Naseh's abstract of language and linguistics theses was used. In this study, all titles and summaries of linguistic theses were mentioned since the beginning of this major in Iran up to 2006 (13). For the studies from 2006 to 2012, theses recorded in electronic library portal of universities were used. These universities included Institute for humanities and cultural sciences, as well as Tehran, Shahid Beheshti, Allameh, Tarbiat Moallem, Kermanshah, Mashhad, Shiraz, Esfahan and Tehran Azad universities.

#### 4. Results

The obtained data indicate that out of 891 theses of pathologies conducted until 2012, 15% were on the main domains of linguistics and the majority of the studies were on phonology/phonetics (37%) and syntax (33%), and the minority of them were on semantics (17%) and pragmatics (14%) (Figure 1).

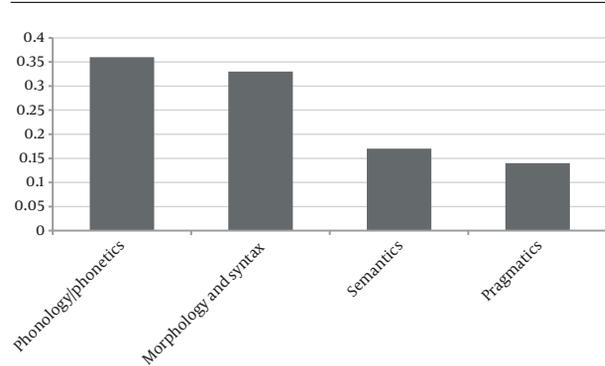


**Figure 1.** The Distribution of Linguistics Research on Speech and Language Disorders

Among all related MA and PhD theses (1775 theses) conducted up to 2012 in public linguistics in Iran, only 2% were on the linguistic study of disorders from which 4% were on the linguistic study of aphasia and 16% on the reading disorder and 16% on the study of language properties in deaf children. As it can be observed in Figure 2, studies on the handicapped children (0.07%) are on the top and autism (0.03%) is in the next place. The first linguistic thesis in this area was on aphasia in 1967. But recent theses are focused on other linguistic disorders such as autism.

#### 5. Discussion

The evaluation of speech therapy and public linguistics researches shows that the number of studies in the domain of clinical linguistics in the course of speech therapy (15%) is eight times more than that of the linguistic



**Figure 2.** The Distribution of Speech Therapists' Research in Linguistics

course (2%). The reason can be the speech therapists' need to acquire data about the language and speech disorders, while the linguists' need to language and speech disorders is not much; since most of their studies are conducted on the normal language. This finding is consistent with the results of the study by Kaveh (12) in which the minimum amount of linguistic research belonged to computer linguistics, language and speech pathology.

The results show that most of the linguistic studies are conducted on the area of disorders related to aphasia and a few of them studied language disorders in children with autism. Researches on reading and writing disorders are in the second place. According to the research by Crystal, the majority of foreign studies published in clinical linguistic journals in the last 15 years were on aphasia (15).

The study of theses conducted on linguistics shows that aphasia was the first domain which attracted many linguists. However, the initial studies had very general subjects such as aphasia disorders, while the recent studies were about the application of linguistic theories in disorders; for example, the analysis of available processes in the speech of people with aphasia in the Persian language in systemic functional linguistics. In recent studies, the domains of studies are not limited to aphasia but focused on other disorders such as cleft palate, autism, etc. Even a few studies were conducted on the language properties of people with Parkinson's disease and Alzheimer. The trend of these studies shows a combination of linguistics and speech therapy and indicates development of clinical linguistics.

The study of theses in the field of speech therapy shows that the highest and lowest numbers of studies were conducted on phonology/phonemics and pragmatic disorders, respectively. After phonetics/phonology, syntax comprised most of the studies. The reason can be the objectivity of phonology and high number of disorders in this area,

since the articulation disorder rate is very high compared to other disorders. On the other hand, phonology is very interesting for experts because of its connection with reading and writing disorders; therefore, most of the phonological studies are in the area of phonological awareness and its relationship with reading disorders. In the studies by Marrero (16) and Crystal (15), the majority of studies were also on phonology and phonetics.

The comparison between the results of the present study and those of Naseh shows that in general linguistics the majority of the studies were on the syntax and phonology/phonetics were in the fourth place; in the present study, the studies on the phonology/phonetic disorders were in the first place which is due to the importance of this area in disorders research or the great number of people with phonological/phonetic disorders (14). The comparison of domestic and foreign studies shows that in clinical linguistic journals of foreign countries, there are a lot of articles about apraxia, dyslexia, and stuttering, but in Iran, there is almost no thesis of linguistics discussing such disorders. Also, in foreign studies, there are a lot of case reports which explain the specific language impairments. But in Iran there is almost no thesis in this area.

### 5.1. Conclusions

The current study shows that many areas of research should be considered in future. By conducting researches in these areas, effective and useful changes could be made in clinical linguistics. Since all linguistic domains play important roles in communication, damages to each of them make a serious disorder. It is also necessary to consider pragmatic and semantic domains of the disorder which are not considered very much in the studies. In addition, in studying linguistic disorders, other disorders (except aphasia) such as reading problems and low-hearing should be investigated too. The number of linguistic studies on language and speech therapy is more than the number of studies on theories and hypotheses. Therefore, this area must be seriously considered and the studies should be guided toward the hypotheses and theories proposed

with regard to language disorders.

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