

**THE DEMOGRAPHIC CHARACTERISTIC  
OF COMMUNICATIVE DISORDERS  
MALE Vs FEMALE**

**Register No.M9010**

**AN INDEPENDENT PROJECT *SUBMITTED AS PART FULFILLMENT FOR*  
FIRST YEAR M.SC. (SPEECH & HEARING) TO THE UNIVERSITY OF  
MYSORE**

**ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE-570006.**

**MY GUIDE**

**.....FOR**

**.....HELPING**

**....UNDERSTANDING**

**.....CRITICISING**

**....AND BEING**

**....IN TIME**

**..OF NEED**

## **DECLARATION**

This project is the result of my own study undertaken under the guidance of Dr. (Miss)S.Nikam, Professor and Head of the Department of Audiology, All India Institute of Speech & Hearing, Mysore-6 and has not been submitted earlier at any University for any other Diploma or Degree.

MYSORE

June:1991

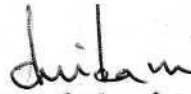
REG.NO.M-9010.

## **CERTIFICATE**

This is to certify that this Independent project entitled "THE DEMOGRAPHIC CHARACTERISTIC OP COMMUNICATIVE DISORDERS, MALE Vs FEMALE" has been prepared under my supervision and guidance.

Place:Mysore

June 1991

  
• **Dr. (Miss) S. Nikam**  
GUIDE

## **CERTIFICATE**

This is to certify that the project entitled **"THE DEMOGRAPHIC CHARACTERISTIC OP COMMUNICATIVE DISORDERS , MALE Vs FEMALE"**, is the bonafide work in part fulfillment for the First Year Degree of Master Science (Speech and Hearing) of the student with Register No. M-9010.

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## INTRODUCTION

Communication is very essential for human being life. When there is problem in communication, he seeks help for cure. The importance of it is realised by one and all, across cities and villages, races, cultures and age. It is also important here to realise that these communicative disorders vary with age, sex, socio-economic background etc. It has been noted that, in addition to their specific problem, they also suffer from social consequences from auditory deprivation, speech deprivation (such as embarrassment, guilt, loneliness, and lowered economic status) which is more marked in older people (Hudgson and Skinner, 1975),

It has been noted that the type of treatment given for each different group varies. Usually with the educated people will have good follow-up program and early identification,

We all know that an audiologist is not only an expert of only auditory disorders, he needs to know about other



disorders for his effective functioning. Especially some disorders may be prevalent in to a greater extent in some age groups. These may not be as prevalent in other age groups. Thus the treatment procedure for different age groups will also vary. This kind of growing demand is being recognised in the world all over, and also in India, where rural people are more and their specific problems needs to be known by audiologists about the details regarding communicative disorders and how it is different from female to male.

There are a few studies available which aimed to get at the information to serve different purpose,

Steven and Bowman (1983) conducted study on "communication campus for communicatively handicapped children and their families". His study was designed,

(1) To determine relevant theoretical and practical knowledge related to communication disorders and development, and intervention strategies. This goal was achieved through formal presentation and informal group discussion and individual consultation in each family.

(2) To analyse each communicatively impaired child and communicatively network of interaction and to exploit opportunity for fostering communication.

Pam Enderbay (1989) did study on "communication disorders" Planning a service to meet needs". In this they have tried to assess and estimate on epidemiological data from total population and on empirical data concerning the number of patients assessed, counselled, and treated in to treat this case. Then the method of intervention as well as consequences treatment regimens.

Mythili (1981-82) conducted study on "conductive hearing loss cases tested at AIISH". During that period in total 36,892 cases were examined. Out of this 55.01% of the cases were found to have hearing loss. She also reported that distribution of subjects with conductive hearing loss in terms of sex, thus percentage and ratio.

Then conductive hearing loss in terms of different age group. Then bilateral conductive loss cases in terms of etiology.

Suresh (1990) conducted study on "Characteristics of hearing aid user" where he reported that males are larger in number 55.85% than females 42.85% and among males larger number of people from rural areas 69% with agriculture as their main sources of income.

But the present study entirely is different both in purpose as well as methodology. The present study was designed not only to know the characteristics, but demographic characteristics likes

1. What is the percentage of male vs. female?
2. What is the socio-economic background of a majority of the patients who come frequently to a speech and hearing center?
3. What is the most common type of disorders who comes more frequently?
4. What would be consequence factors for good prognosis and proper treatment?

This study would help in establishing a further need of professionals and Government help modifications and evaluations method and improve rehabilitative techniques.

## METHODOLOGY

The present study was undertaken to determine the types of disorders with which the patients come to speech and hearing centers.

### Subjects:

The relevant information the subjects were taken here through case files. The files was selected from among those who had registered during the years 1985, 1987 and 1989.

In each year, files of cases registered in a period three months were selected for collection of information in the following areas:

- 1.Date of patient was registered.
- 2.Age of the patient.
- 3.Sex.
4. Type of problem.
5. Occupation of the patient.
- 6.Place they came from.

Actually the number of case files taken for each year numbered 1000 and this 1000 files taken from three months at that particular year.

eg. In 1985 - January, February, March

In 1987 - January, February, March

In 1989 - January, February, March

The communicative disorders were grouped fell into nine categories in which the patients as follows.

1. Hearing loss
2. Mental retardation
3. ENT disorders
4. Language disorders
5. Delayed speech and language with hearing loss
6. Delayed speech and language with mental retardation
7. Stuttering
8. Voice disorders
9. Miscellaneous groups.

Only broad categories were used ie under language disorders patients with aphasia, developmental disphasia, were also included.

The sub-group disorders are also put under the main disorders.

The percentage of the above disorders shown in the tables.

In the same way the place they are from, also have been classified into four categories:

1. Karnataka
2. Kerala
3. Tamil Nadu
4. Andhra Pradesh
5. Other place

In the same way the classification of the socio-economic background of the patients were grouped under four categories, which were according to the Central Government pay Scale.

Group-A	:	Rs. 2200-4500
Group-B	:	Rs. 1640-2000
Group-C	:	Rs. 950-1400
Group-D	:	Rs. 750-920.

## RESULTS AND DISCUSSION

**There** was significant; differences shown between **the** number of males and females patients who seek assistance in a speech and hearing centre.

TABLE -I: Showing the percentage of male and, female patients taken treatment at the year 1985, 1987, & 1989.

SEX	Year		
	1985	1987	1989
Male	77%	68%	69%
Female	23%	32%	31%

As can be seen in the Table-I, there is a significant difference in the number of males and females seeking help for their communicative problems. This difference is more marked in the number of patients coming in the years 1985 and 1989.

Now, we see in each disorder and percentage and sex differences in each year.

### Hearing loss:

There was found to be variation in terms of frequency of males and females.

- Upper group
- High middle group

Table -II: Showing percentage of male and female patients with hearing loss in different age groups.

Age in	year					
	1985		1987		1989	
	Male	Female	Male	Female	Male	Famale
20 years and below	3.5	2.5	3.2	2.2	5.2	4.0
21- 40	3.8	2.4	4.8	4.0	2.5	1.8
41 - 60	3.0	2.5	1.8	1.2	2.0	1.6
61- 80	3.2	1.3	1.0	1.0	1.8	1.2

As can be seen from Table-II the number of female patients in all three years and in all the age groups is much less than the male patients, except in the year 1987 in the age group 61-80 years. An increase in the number of female patients in the age group 20 years and below has given up in the year 1989. But in the age group 61-80 years the number of female patients is uniformly low in all three years. In this age group, even the number of male patients has shown a decline in the years 1987 and 1989 compared to the number of patients seen in 1985. An increase in the number of male patients is seen in the group 20 years and below.



Mental Retardation:

The age-wise distribution of patients with mental retardation in the 3 Years taken for study is shown in Table-III.

Table-III : Showing the percentage of male and female patients with mental retardation in different age groups,

Age in Years	Year					
	1985		1987		1989	
	Male	Female	Male	Female	Male	Female
20 years and below	2.3	1.3	2.4	0.2	2.4	0.12
21-40	2.1	1.8	2.3	2.0	2.0	0.8
41-60	0.5	0.2	0.3	0.2	0.01	0.02
61-80	0.2	0.0	0.1	0.0	0.0	0.0

A glance at Table-III shows that more number of mentally retarded patients were seen in the youngest age group i.e. 20 years and below. It is once again dear that in all age groups in all three years, the number of female patients is less compared to the male patients. This difference is most apparent in the

youngest age group in the year 1987 and the next youngest age group in 1989. The difference between the two sex groups is not as significant in the two older age groups ie, 41-60 years and 61-80 years in all three year, In fact, in the oldest age group no patients with mental retardation have reported to the center.

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ENT Disorders:

Patients with speech and hearing disorders were also examined for Otolaryngological problems, for the three years, 1985, 1987, 1989, the percentage of male and female patients seen in the various age groups is shown below:

Table-IV: Showing the distribution of percentage of ENT disorders in male and female patients in the various age groups.

Age in years	Year					
	1985		1987		1989	
	Male	Female	Male	Female	Male	Female
20 years and below	3.5	3.4	2.8	2.2	3.5	2.5
21 - 40	3.2	3.0	2.5	2.5	2.8	2.2
41 - 60	0.8	0.5	0.8	0.7	0.5	1.5
61 - 80	0.5	0.4	0.7	0.8	0.8	0.6

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It can be seen from the above Table that the difference in the number between the male and female patients is not

significant in the three years chosen for the present study. This is true of the various age groups also. In general there is a gradual decrease in the number of patients with an increase in age. This drop in number is most marked between the age group 21 - 40 years and 41 - 60 years.

### Stuttering:

The number of patients with a complaint of stuttering seen in the years 1985, 1987 and 1989 in the four age groups is shown in the table below.

Table-V: Showing the percentage of patients, male and female in the various age groups in the three Years.

Age in years	Years					
	1985		1987		1989	
	Male	Female	Male	Female	Male	Female
20 years & below	0.6	0.3	0.6	0.5	0.4	0.4
21-40	0.2	0.1	0.2	0.1	0.2	0.1
41 - 60	0.01	0.0	0.0	0.1	0.01	0.04
61 - 80	0.0	0.0	0.0	0.0	0.0	0.01

It shows in the above table that the number of patients with a complaint of stuttering seeking help in a speech and

hearing center is comparable in the male and female groups. As can be expected, more number of patients with a complaint of stuttering in the younger age groups seek professional help.

### Voice Disorders:

The percentage of male and female patients seeking professional help for voice disorders in the four age groups is shown below for the three years separately.

**Table-VI:** Showing percentage of male and female patients with complaints of voice disorders in the various age groups for the three years.

Age in years	Year					
	1985		1987		1989	
	Male	Female	Male	Female	Male	Female
20 years & below	0.8	0.7	0.8	0.8	0.8	0.7
21 - 40	0.7	0.7	0.8	0.7	0.5	0.4
41-60	0.5	0.6	0.8	0.6	0.2	0.2
61-80	0.0	0.0	0.0	0.0	0.0	0.0

The table shows that there is not much sex difference in patients seeking help for their voice disorders, the percentage remaining almost identical. In all four age

groups. As with stuttering (Table-V), in the higher age groups the percentage of patients, male or female is much less compared to the younger age groups. In the oldest age group, 61 - 80 years, no patient with a complaint of voice disorder seems to have visited the center.

**Delayed speech and language with hearing loss:**

Patients with delayed speech and language associated with hearing loss visit speech and hearing centers. The percentage of such patients is shown in Table-VII.

**Table-VII:** Showing the percentage of male and female patients with delayed speech and language with hearing loss in the various age groups.

Age in years	Years					
	1985		1987		1989	
	Male	Female	Male	Female	Male	Female
20 years and below	0.8	0.8	0.8	0.8	0.8	0.8
21 - 40	0.5	0.5	0.5	0.5	0.3	0.3
41 - 60	0.0	0.0	0.0	0.2	0.2	0.1
61 - 80	0.0	0.0	0.0	0.0	0.0	0.0

There appears to be little difference in the number of patients with delayed speech and language distributed in the

the two sex groups. As with stuttering, voice disorders, very few patients in the older age groups appear to seek help with speech and language delay.

**Delayed speech and language with mental retardation:**

The statistical significance was not present in this disorders. It was found that same incidence in both the sex.

And 2 to 3% of population shown this type of disorders.

**Language Disorders:**

It was found to have more incidence in males at older age group.

**Miscellaneous disorders:**

Cleft palate, Cerebral palsy, Articulation disorders added in this group. It was found that same incidence both females and males.

Now in terms of socio-economic status the more incidence disorders are found to present more in Group D and Group B.

There was some difficulty in categories, some professionals groups. So it was again categorised into four groups

- Upper group
- Higher middle group
  
- Lower middle group
- Lower, group

So here higher middle group found to have more incidence of speech and hearing problem than other class groups.

TABLE-VIII: Showing the percentage of patients who registered in each category and year.

Year	A	B	C	D	Not given profession
1985	9.8	9.7	12.3	36.3	24
1987	9.7	9.2	9.2	40.1	22
1989	9.8	12.0	10.0	48.1	22

The analysis shows that Group-D registered more than any other groups. where payscale stands as follows :

GROUP-A	Rs	2200-4500
GROUP-B	Rs.	1640-2000
GROUP-C	Rs.	950-1400
GROUP-D	Rs	750- 920

The percentage of patients who visit speech and hearing center is shown in Table-IX.

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TABLE-IX: Shewing the percentage of patients who visit  
the Speech and Hearing Centre.

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Place	percentage
Karnataka	0.75
Kerala	0.09
Tamilnadu	<b>0.04</b>
Andhra Pradesh	0.06
Other places	0.06

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## DISCUSSION

As shown in Table-1, more number of male patients have sought assistance from a speech and hearing center. This may be due to several reasons. First and foremost, it could be due to the fact that male patients are able to come on their own and do not need an attendant to accompany them to the center. Secondly, the economic independence of the male patients makes it easier for them to travel and incur expenditure that any such professional attention requires. Further, there may be less number of female patients visiting a speech and hearing center as they or their family members do not want a stigma attached consequent to such a visit. The lower number of female patients may also reflect the social values and the role the females are expected to play, the socio-cultural pattern may be such that the female members who have a handicapping condition are allowed to lead a protected life and any expenditure on their welfare may be looked upon as wasteful. Lastly, the pathological conditions of the aural and oral structures and functions may be more prevalent among the males than in the females which is reflected in the

differential percentage of the two groups coming for professional advice. The census data also show that there are more number of males than females. Hence the differential percentage of male and female patients may only be reflective of the population figures.

The number of male and female patients is almost comparable in the year 1987 compared to the other two years. This could be due to<sup>a</sup> fall in the number male patients visiting the center or an increase in the number of female patients seeking professional help, the former explanation seems more plausible considering that the percentage of males is less in the year, 1985, compared to the other two years. This low number may be a freak one i.e., the low number may be unrelated to the need of the male patients requiring assistance.

The results showed that there are more number of patients with a complaint of hearing loss in all three years and in all age groups. This is not surprising considering that appropriate remedial steps would alleviate the problem. It can also be explained that hearing loss causes communication difficulties which is detrimental to one's daily activities. It may

also reflect the success of a public education program initiated by the speech and hearing professionals. Similarly ENT problems which are reported with a comparatively higher frequency can occur at any age and hence the high frequency irrespective of the age groups. The points suggested for a higher percentage reporting with complaint of hearing loss apply to the high percentage reporting with ENT problems. Besides, the same patient with an ENT problems could also have a hearing loss associated with it. Hence the higher percentage with complaints in these two groups.

The higher incidence of mental retardation in the younger age group in all three years is as per expectation. It is expected that the patients with mental retardation would have been identified and appropriate rehabilitation steps taken at a younger age and no rehabilitation measures would be initiated in later years. Hence the percentage of patients in the higher age group is practically nil.

As with mental retardation, stuttering is a disorder that is attended to in a younger age. It is not a disorder that has its origins in adults. The percentage of patients with stuttering reporting to the center is comparable in the three years, 1985, 1987, 1989 indicating that this disorder is recognized by the patient/guardian as a condition that is abnormal and that it requires professional attention. As is to be expected, the percentage in the higher age groups has declined. Similarly, the number of patients with delayed speech and language and mental retardation are few in the higher age groups in all three years taken up for the study, this once again may reflect the fact that there is increasing awareness among the lay people that delayed speech is to be attended in the early ages. This awareness may again be due to the successful efforts directed at public education.

Complaints of voice disorders occur with high frequency in all the age groups except the oldest age group. This is in the expected direction because voice disorders may be caused by a variety of etiological factors that may be prevalent in the different age groups. It is possible that even though there is little

difference in the percentage in the different age groups the etiological factors in these age groups may be different. But the study was not designed to elicit this information. It would be worthwhile to investigate this aspect so as to facilitate further steps related to public education, preventive measures, and treatment/rehabilitation procedures. It is significant that the percentage of patients coming to a speech and hearing center with a complaint of voice disorder has gone down to a significant extent in 1989. It is difficult to explain this drop in the number for this year. It would be worthwhile to investigate if the lower numbers are maintained in the subsequent years also.

The percentage in patients with language disorders shows a slight upward trend, This trend is, however, true of the lower age groups. This may again be due to the greater awareness among the lay people regarding language disorders. Once again, it is not known whether this upward trend is maintained or improved upon in subsequent years. It would be worthwhile to investigate the same.

### SUMMARY AND CONCLUSIONS

The purpose of the present study was to study differences if any, between the males and females patients in different diagnostic categories, seeking professional help in a speech and hearing center. It was also intended to study if there were sex differences in the patients falling in the varying age groups.

The subjects chosen for the study were those registered and examined in a speech and hearing center.

The required information such as age, sex, type of problem, native place, whether from the rural or urban, were collected from the case file. Only those patients who had registered in the first three months of the calendar year 1985, 1987, 1989 were included in the study. The disorders taken up were hearing loss, mental retardation, language disorders, voice disorders, disorders of fluency, ENT disorders, and miscellaneous complaints.

The data collected was tabulated and percentage calculated. The data is presented in a tabular form. From the information collected the following conclusions may be drawn.

1. More number of male patients seek help for their communication disorders than the female patients.
2. Patients with language disorders are found both in the young and old.
3. Patients with articulation disorders were more among children. But there was no sex difference in the patients with this disorder.
4. Very few patients in the older age groups with mental retardation report to a speech and hearing center.
5. The number of male and female patients with voice disorders who reported to speech and hearing center is about the same. Very few patients in the older age groups with a voice disorders seek professional assistance.
6. Patients in all age groups with ENT disorders report to a speech and hearing center.
7. Delayed speech and language with mental retardation or with hearing loss is more in younger children coming to a speech and hearing center than in patients in the older age groups.
8. The adolescent age group more than the other age group had patients with the complaint of stuttering seeking professional help.

9. No sex difference in the number of males and females with stuttering was noticed. Sex difference was found in terms of the number of patients in the two groups that sought professional help in a speech and hearing center. This difference is more obvious during some years than others. In almost all age groups, the number of females patients is less than the number of male patients.
10. A greater number of patients in the lower socio-economic status group reported to a speech and hearing center than in the higher and upper socio-economic groups.



### SUGGESTION FOR FURTHER WORK

The further suggestion for this study can be given. The study has been done till 1989, so we have to know whether the same result we get in 1990 and 1991 year.

The following points can be investigated further

1. *The patients who come to Speech and Hearing Centre were significantly found Group-D. With what frequent complaints they come? need to be investigated.*
2. Equal number of E.N.T. patient in all age group. With what frequent they come? Need to be investigated.
3. Hearing loss whether etiology is the same or different in different age groups.
4. Whether incidence of hearing loss is same in all age group.
5. The same study may be repeated to the other year to see the trend may be the same or not.

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