

IQ VARIATIONS CONSEQUENT TO SPEECH AND LANGUAGE THERAPY AMONG HARD OF HEARING CHILDREN

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Introduction

Many western studies have been reported comparing the hard of hearing and normal groups with reference to mental development. One group of such studies have pointed out that the Hard of Hearing as a group are about two years retarded mentally as compared with the normal (Pintner and Reamer, 1920; Myklebust et al. 1960). But according to some other group of studies that there is no significant difference in intelligence between normal and the Hard of Hearing (Levine, (963). In spite of this controversy, with the weight of evidence from the subsequent studies there appears a general agreement that the Hard of Hearing as a group show a functional lag atleast by two years.

Although there have been a number of studies available pointing out the difference in intellectual levels between the Hard of Hearing and normal there is a great dearth regarding the studies pointing out improvement in intellectual level consequent to Speech and Language training procedures.

The fact that Speech and Language therapy procedures when tried with the aurally handicapped brings about improved communication is beyond debate. With this improvement in communication one can expect an overall improvement in learning, adaptation and behavior also. If this contention has substance the improved communication must elevate the level of intellectual functioning. Having a provision for measuring intellectual levels of the clinical group at pre-therapy (at the time of admission to clinic with the complaint of hearing loss with no speech) and post therapy situations it would be possible to assess the increments in IQ consequent to therapy. The aim of the present study is to see whether a real improvement in intellectual level is found and, if so, to what extent.

There is a sufficient body of evidence in-recent psychological literature to justify that age becomes an important variable as related to the learning potentialities. This would be quite true whether one is dealing with a normal or a sensory deprived like the hearing impaired. Another aim of the present study is to see whether among the hearing impaired as a group the younger learn better and quicker than the older.

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Hypothesis

That significant improvement must take place in [Q in the clinical group consequent to speech and language therapy, -

The Method

(a) A sample of 30 Hard of Hearing children (all boys), ranging in age from 5-10 years are proposed to be had. The cases with the history of brain damage and hearing loss —will be eliminated. Two groups are proposed to be had.

1. *Clinical experimental: 'E' Group*

The cases who are attending the clinic for therapy with different degrees of hearing loss which are diagnosed as moderate and severe hearing loss.

2. *Clinical control : 'C' Group*

Those cases which are not attending the clinic for therapy staying in or around Mysore city inspite of therapy being advised. It is hoped to equate the two groups on other variables like mother tongue, extent of parental stimulation, Socio-economic background etc.

(b) *Psychological and other tests*

For purposes of evaluation of intelligence Seguin Form Board and Vineland Social Maturity Scale (Indian Adaptation) will be used.

The reasons for using these tests is that we have norms derived on these tests, with Indian children. The Seguin Form Board is purely a performance test similar to many other non-verbal tests tried with hard of hearing children elsewhere.

As a more realistic measure of intelligence as manifested in the social behavior of the individual which would throw light on (he overall adjustment Vineland Social Maturity Scale is used.

A gross assessment of speech will be made prior to, and after speech therapy.

(c) *Design of experiment*

The therapeutic benefits derived by the clinical experimental group for a total duration of six months will be considered in the present study. This group will be evaluated prior to-therapy, after three months of therapy and finally after six months of therapy.

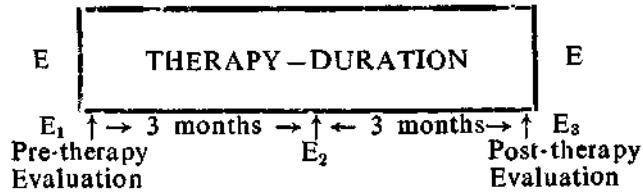
The difference between the pre-therapy and the post therapy evaluations of the clinical experimental group will serve as a quantitative index of the gained improvement with reference to control group. The difference between the pre-therapy and post therapy evaluations between the two groups will be compared with each other.

Speech and language therapy will mean :

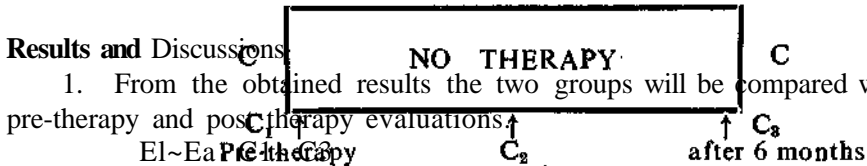
- (a) Auditory training —Discrimination of gross and fine sounds.
- (b) Speech training, correction of misarticulations developing vocabulary.
- (c) Speech and language training.

N = 30 Age range 5-10 years.

GP 1 Clinical Experimental.



GP 2 Clinical Control.



Results and Discussions

1. From the obtained results the two groups will be compared with respect to pre-therapy and post-therapy evaluations

2. The consistency of improvement in speech and IQ between the two groups may be obtained by comparing

$$E_1 \sim E_2 \sim E_3 \quad C_1 \sim C_2 \sim C_3$$

3. The results of the present study will be compared with the similar previous studies if available.

4. The IQ gains of group E, will be compared with IQ gains of clinical control (C group). This will again be subjected to statistical tests of significance.

5. In the clinical experimental group, sub-groups with moderate hearing loss and the other with severe hearing loss will be compared with each other with respect to their gains in IQ scores and acquisition of speech. Their mean difference will be subjected to tests of significance.

6. In the clinical experimental group, the younger (5-7 years) age group and older (8-10 years) age group will be compared with respect to their gain in IQ scores and acquisition of speech.

Conclusion : Depends on the out come of the study.

Limitations : The time span of the study is so short that the study is only of an exploratory nature.

The present study would come across the same types of problems as in other studies in terms of equating the groups and the control of variables etc. It is only hoped that these goals be achieved as far as feasible.