Educational attainment of primary school children with hearing difficulties,

A Thesis submitted in partial fulfilment of Master degree in (Childhood)

by

Magdi Karam El-Deen

M.B.B.CH

Under supervision of

- Prof. Dr. Diaei mohamed Hussin, Head of pediatric departement.
  Maady hospital Military academy.

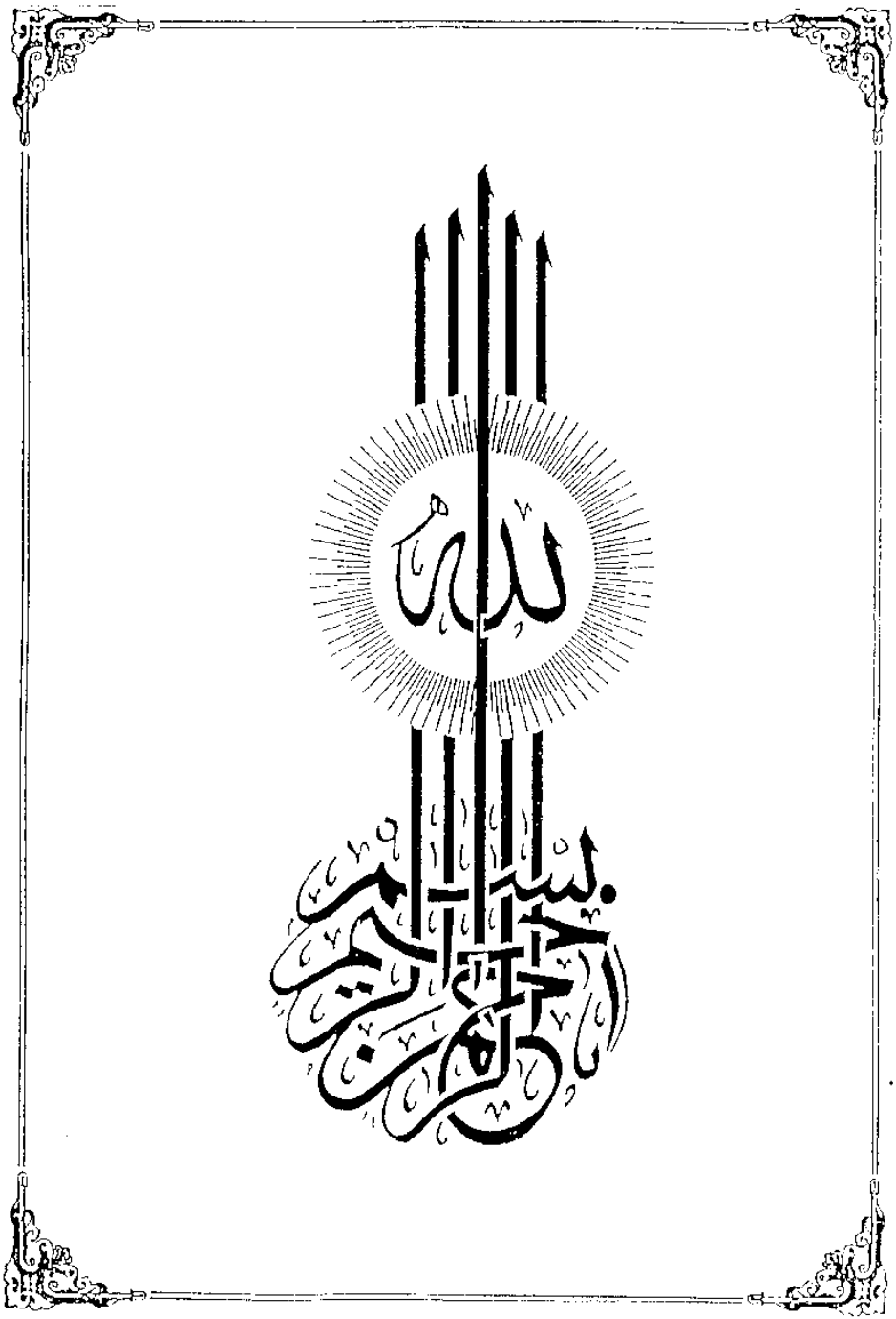
- Dr. Layla Karam El-Deen, Lecturer of psychology
  Institute of post graduate childhood studies.

- Prof. Dr. Ahmed Mohamed Shalaby, Head of E.N.T. departement and manager of Mit-Ghamer general hospital.

Ain Shams University

1986

C O N T E N T S



ACKNOWLEDGMENT

I would like to express my deep thanks and gratitude to my professor Dr. Diaiy Mohammed Housein professor of pediatrics, for giving me the privilage of working under his supervision, for his encouragement, his patience and fruitful guidance throughout the whole work.

Iam sincerely indebted to Dr. Laila karam El-Din, lecturer of psychology in Institute of postgraduate childhood studies, who suggested the subject of the study and gave me her great support and help, for her valuable advice, encouragement and support throughout this work, she has revised this work and suggested many valuable remarks. Iam sincerely indebted to her for her kind supervision.

I would like to express my deep thanks for Dr. Ahmed Shalaby lecturer of E.N.T. and head of E.N.T. department in Mit Ghamr general hospital, for his indespensible guidance and valuable suggestions. Iam sincerely indebted to him for his great help and remarks.

I can't express my great thanks for the great professor Dr. Salah Soleiman, Professor and head of Audiology Ain Shams University for his great help and advices. Iam greatful to him for training me on the audiometer and for

giving me many of his expensive time. Iam sincerely indebted to him very much.

I would like to express many thanks and gratitudes to all colleagues, the residents of Audiology Department Ain Shams university who participated in some way or the other to let this work come to such a final picture.

INTRODUCTION AND AIM OF WORK

INTRODUCTION AND AIM OF WORK

It is well known that the sense of hearing is an essential factor for the normal development of language and growth of vocabulary, and consquently for normal cognitive, mental, social development and functioning in general. So it is expected then any hearing loss is going to have its impact upon the acquisition of language and will be reflected directly on the different aspects of cognetive aspects of cognetive functioning and consquently on the educational attainment.

Moreover it is known that the ear lier the affection of the child the by hearing loss the greater will be its effect on educational achievement.

So the main aim of this study is to findout the kind of relation between slight hearing loss among school children and their educational achievement to draw the attention to those future hidden disabled, to discover them early, do proper management and to help them as early as possible before they become complicated non learned disabled. What adds importance to the problem of this study is the known fact that the incidence of discovered complet hearing loss in Egypt is 0.24 in 1000, school children (Gabre, 1980) and hearing impairment constituted 36.96% of cases

of delayed language development in Egypt in 1974, and this percentage decreased gradually and reached 20,97% in 1978 (Kotby, 1979).

In the scope of the previous discussion we can formulate the problem as a question which we shall try in our research to answerit viz.

"Is there any significante difference between the children who suffer from reduced hearing and normal children in their educational achievement?".

Our research will be divided into seven chapters

First chapter:-

Will contain a review of literature and it will be divided into 2 sections the first of which is hearing impairment the second is hearing impairment and educational achievement.

Second Chapter:-

Material and Methods: In which our technical design including the tools used, statistical design including sampling techniques and statistical method used and discussed here.

Third chapter:-

Results: Our results are tabulated here with a little comment.

Fourth Chapter:-

Discussion: in which our results will be discussed in views of other researchers who worked previously on the same point.

Fivth Chapter:-

Recommendations: here our recommendations are viewed in the light of our results.

Sexth Chapter:-

Summary: of our methodology, results, and recommendations.

Seventh Chapter:-

References are arranged alphapetically.

Then the appendiaes and at last the Arabic summary. Aiming to introduce a good work.

Review Of Literature.

Chapter I:

Review Of Literature.

Introduction:

In this chapter the available literature about the subject of the study will be reviewed thoroughly. This will be done in two main sections, in the first of which the basic medical studies about the kinds of hearing impairment and levels of hearing loss are going to be summarized and presented.

In the Second part the studies that has been done about the relation between hearing impairement and educational achievement are reviewed in a historical order.

Section 1:

HEARING INPAIRMENT

There are two types of hearing impairment: hard of hearing and deafness. Hearing impairments are classified according to several criteria. The first criterion is degree: mild, moderate, severe, or profound hearing loss. The second consideration is age of onset: prelingual (before verbal language is acquired); post lingual (after verbal language is acquired), or prevocational (before the age of 19). Third, either one (unilateral) or both ears (bilateral) may be affected. The site of lesion is a fourth criterion; the lesion may be sensorineural (damage to the inner ear), conductive (obstruction to the passage of sound waves through the external canal or ossicular chain), or central (damage to the central nervous system) (Friedman, 1975, Vernon, 1968).

People who are hard of hearing have hearing losses that range from very slight to severe. Hard of hearing persons are able to receive speech with their ears, with or without the use of a hearing aid. People with mild losses often use speech as their main mode of communication, while people with more severe losses are less likely to do so, although this is subject to individual

preferences. Deaf people have hearing losses in the severe to profound range and are unable to receive speech, with or without amplification. (Deborah A. Happ Elizabeth M. Allmair, 1982).

In our research we shall discuss the causes of impaired hearing and their diagnosis by the audiologist. Abnormalities, for simplification, will be grouped into those affecting the external, the middle and the inner ear and those involving the central nervous system. (Irwin A. Ginsberg, M.D. & Thomas P. White, M.A. 1979).

External Ear.

Congenital Atresia:-

Discovered early because of the high visibility of the deformity. Many times the atresia of the canal is associated with malformation of the auricle of the ear such as microtia, and multiple rudimentary auricular anlage presenting as auricular tags or accessory auricles. Whenever one sees these obvious external deformities he must immediately suspect associated deformities in the middle ear as well as in the inner ear. One may have a pure canal atresia with a normal auricle and with a normal middle and inner ear, or a canal atresia which is only a part of the problem and where some or all of the

other portions of the ear are involved. Audiometric studies gives us the idea about the status of inner ear and whether we have an intact cochlea and an intact neural mechanism or not also the impedance studies may be of great help in the diagnosis of the presence or absence of the ear drum.

Treacher Collins Syndrome:-

Adnormalities of the mandible associated with hearing loss. This syndrome results because of the common first branchial arch origin of the mandible, malleus and incus. Pure tone audiometry and impedance studies are of course necessary in establishing a diagnosis.

Impacted Cerumen:-

A much more ordinary and less exciting lesion of the external ear is impacted cerumen. The old idea that appreciable conductive losses cannot be caused by cerumen plugs is not true and losses of as much as 40dB are possible.

Otitis Externa:-

Otitis externa, usually a bacterial infection of the external canal skin and erroneously referred to as fungus

ear infection, can cause a conductive hearing loss if the swelling of the canal is so marked that it obstructs the canal or if the discharge is so copious.

Foreign Body obstruction:-

Obstruction of the external canal by foreign bodies can produce a conductive impairment especially in children but the foreign object would have to be totally obstructive. Foreign bodies should always be thought of in cases of unilateral conductive loss but their presence is soon discovered on otoscopy.

Osteoma, Hyperostosis, Exostosis:-

Growths of the bony external canal are not uncommon but rarely produce a hearing loss if they obstruct the external canal. Osteomas are discrete rounded excrescences of bone, Hyperostosis is a diffuse bony narrowing of the canal. Exostoses are covered with canal skin and are hard on palpation.

Collapsed Canal:-

An air bone gap with a flat air conduction curve due to anatomical variation of the outer most part of the cartilaginous canal and tragus, the pressure of the ear