# PREVENTABLE AND TREATABLE MENTAL RETARDATION

An Essay Submitted for the Partial Fulfillment of the Master Degree in Phoniatrics


*By*

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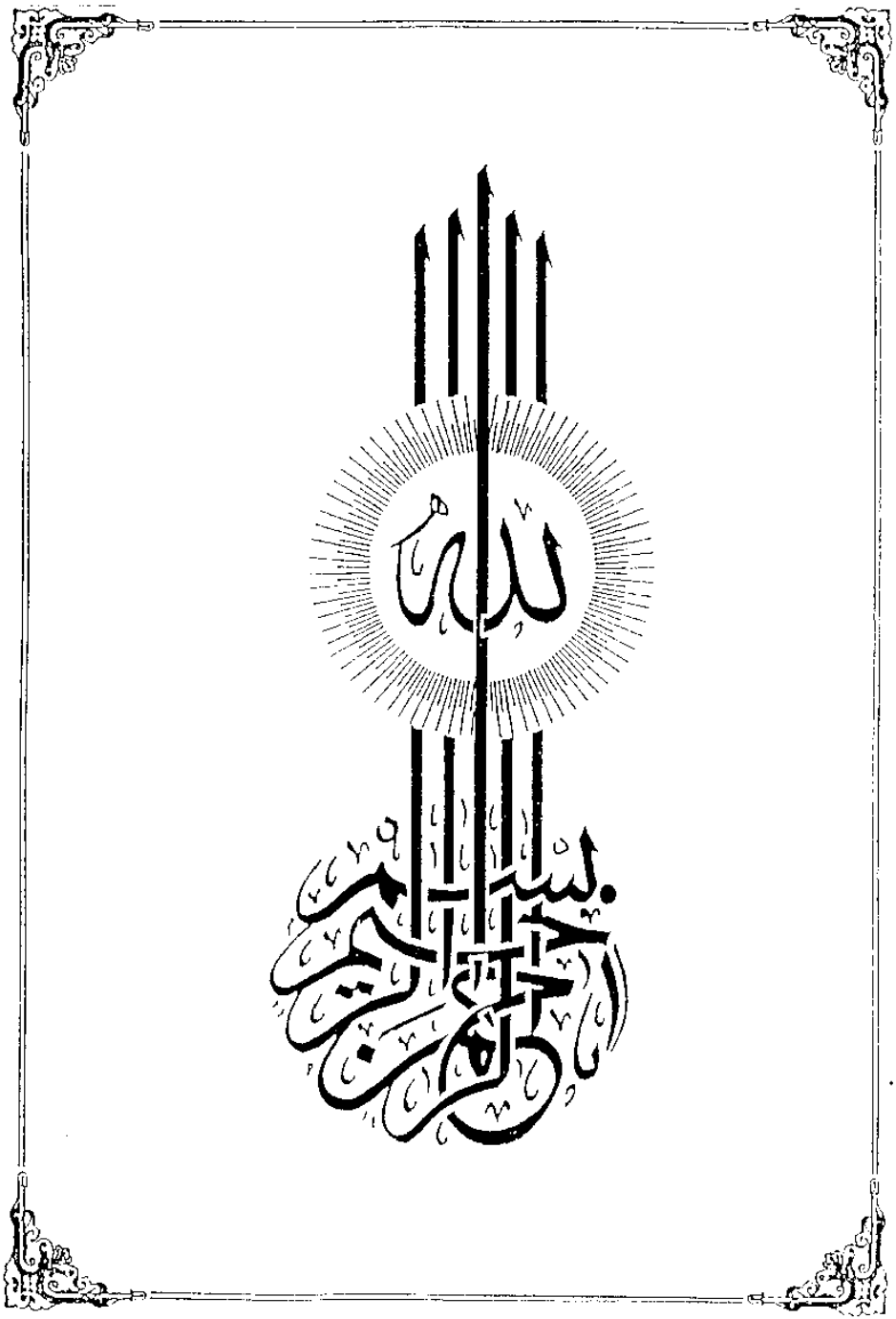

بسم الله الرحمن الرحيم

**قالوا سبحانك لا علم لنا إلا ما علمتنا،**
**إنك أنت العليم الحكيم**

صدق الله العظيم

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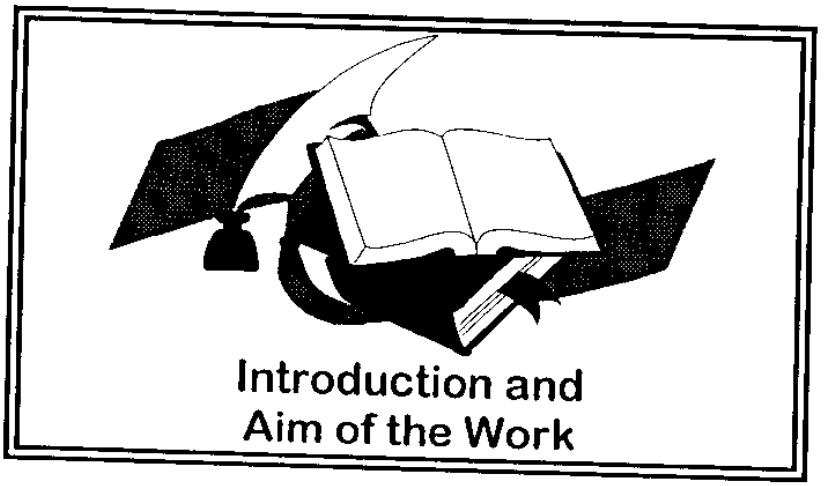

# INTRODUCTION

The problem of mental subnormality is frequently encountered by pediatricians, phoniatricians, and neurologists. Because of its wide area of involvement, and its accumulative nature and sequelae, the subject is important to be studied.

The mentally retarded individuals need extra care and special rehabilitation. Not only are they not productive economically but also the house holding expenditure of families with a mentally retarded individual is increased, regardless of the drawbacks on the emotional balance of the family, the parents and siblings ***(Bregman et al., 1991).***

Concerning the legal view point of the problem, it is well known that such retarded individuals are easily suggestable and led. They could be abused and turned into criminals. The law of almost all countries does not punish them, which means that the society has to protect them from being abused.

Unless we study this problem and plan for reducing and contradicting it, we will definitely face a drastic situation ***(Sevenson et al., 1996).***

The American Association of Mental Deficiency (AAMD) defines mental retardation as significantly subaverage

general intellectual functioning resulting in or associated with impairments in adaptive behaviour and manifested during the developmental period of life ***(Kaplan et al., 1994).***

Mental retardation is classified according to aetiology or according to severity. ***Campbell and McIntosh (1994)*** classified the aetiological factors of mental retardation into:

- Preconceptual disorders as single gene abnormalities (e.g. inborn errors of metabolism) or chromosomal abnormalities (e.g. X-linked disorders, Down's syndrome and fragile X).
- Early embryonic disruptions as infections (e.g. cytomegalovirus, rubella, toxoplasmosis and human immunodeficiency virus [HIV], teratogens (e.g. alcohol, irradiation, and placental dysfunction).
- Prenatal difficulties as extreme prematurity, hypoxic ischemic injury, intracranial haemorrhage, and metabolic disorders.
- Postnatal brain insults as infections by meningitis or encephalitis, trauma, asphyxia, and malnutrition.

According to severity, mental retardation is divided into four degrees, mild, moderate, severe and profound mental retardation, reflecting the degree of intellectual impairment ***(Kaplan et al., 1994).***

Prevention of mental retardation is a complex problem that needs cooperation of many community services, medical community health, nutritional, educational and public attitudes ***(Kaplan et al., 1994).***

This includes improvement of socioseconomic standards to overcome the secondary phenomenon of malnutrition, prematurity and obstetrical hazards that precepitate mental retardation. Prenatal care is crucial. It includes restricting the number of pregnancies in old age (above 35 years) to reduce chromosomal aberrations, providing adequate nutrition, vitamins, minerals and controlling maternal conditions as diabetes, pre-eclampsia, prevention of infections especially rubella, toxoplasmosis, HIV, and cytomegalovirus ***(Nelson, 1996).***

Prenatal diagnostic methods as amniocentesis, can detect infections as rubella, toxoplasmosis, and HIV infections. Also fetal serology done through cordocentesis is reliable in detecting any infection transmitted to the fetus. Ultasonography gives an accurate assessment of growth parameters, gestational age, placental defects, and some fetal abnormalities as neural tube defect and hydrocephalus ***(Luckasson et al., 1992).***

Genetic counseling is important especially in advanced maternal age, previous child with Down's syndrome or any autosomal recessive disorders ***(Nelson, 1996).***

## AIM OF THE WORK:

The aim of this essay is to discuss the causes of mental retardation that could be prevented or treated early in life in order to reduce the prevalence of this handicap for the sake of the whole population.