#### EPIDEMIOLOGICAL TRIAD OF DIARRHEAL DISEASE IN

CHILDREN (0-5 YEARS)

A CASE-CONTROL STUDY

**Thesis** 

Submitted For Partial Fulliment

Of Master Degree In Epidemiology

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1994





#### **ACKNOWLEDGEMENTS**

I would like to express my sincere gratitude and cordial thanks to *Prof. Dr. Ahmed Sherif Hafez*Professor and Head of Community, Environmental and Occupational Medicine Department, Ain Shams University, who patiently assisted this work by his valuable guidance and remarks.

My sincere thanks and appreciation are due to *Prof. Dr. Gilane Abdel Hamid Osman* Head of the Department of Pediatrics and Executive Director of the Center of Childhood Studies, Ain Shams University for accepting supervising this thesis.

I wish to express my gratitude to *Prof. Dr. Hoda Ibrahim Fahim* Professor of Community, Environmental and Occupational Medicine Department, Ain Shams University, for her valuable assistance and useful advices throughout this work.

I would like to express my sincere gratitude and thanks to *Dr. Ahmed Kamel Mortagy* Assistant Professor of Community, Environmental and Occupational Medicine for providing me with the interview questionnaire and giving me the chance to do the laboratory procedures at the Microbiology Unit of NAMRU-3.

I would also like to express my deepest gratitude to **Dr. Moustafa Hodhod** Lecturer of Pediatrics, Department of Pediatrics, Ain Shams university for his valuable assistance and advices.

My sincere thanks and appreciation to the members of the Microbiology Unit of NAMRU-3 for doing all the laboratory procedures of diarrheal cases and controls.

I would like to thank all patients for cooperation during the study.

And last but not least, I would like to thank my family and my friends for their encouragment and their confidence in me and so everyone in the Community

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# INTRODUCTION

#### INTRODUCTION

Diarrheal diseases are among the most important causes of death of children in developing countries (Walsh and Warren, 1979, Chen et al., 1980). Furthermore, these highly prevalent illnesses have been found to be the major determinants of growth retardation and malnutrition (Scrimshow et al., 1968, Martorell et al., 1975, Rowland et al., 1977). An estimated one billion episodes of acute diarrheal diseases occur annually in the developing world (Synder et al., 1982). These illnesses result in more than 4.6 million deaths each year and contribute to secondary malnutrition among survivors (Martorell et al., 1975, Rowland et al., 1977, Black et al., 1984). Martorell et al., (1975) and Black et al., (1984) calculated that approximately 25 % of the growth differential between children in selected developing countries and children in North America can be explained by diarrhea.

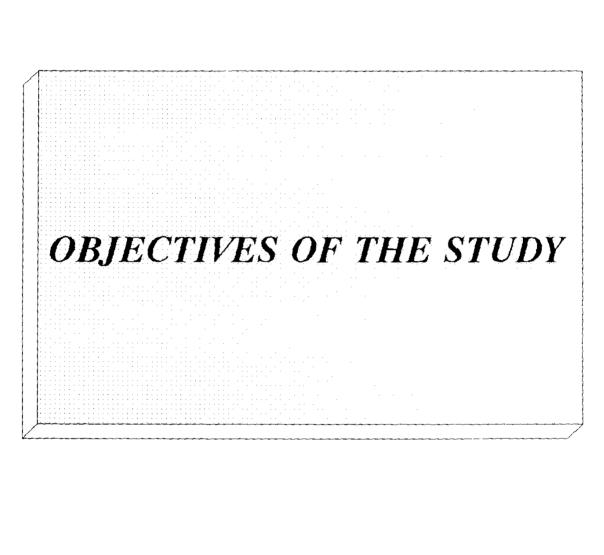
Previous studies (Gordon et al., 1964, Feldman et al., 1970) of the epidemiology of diarrheal diseases in children in developing countries have been able to detect an enteropathogen in less than 20 percent of stool specimens from children with diarrhea. This lack of information about the cause of diarrhea had precluded the complete exposition of the epidemiology of the diarrheal syndromes. Furthermore, it led some to conclude inaccurately that a sizable proportion of the diarrhea in children in developing countries was the

result of malnutrition, rather than a series of infectious illnesses (Black et al., 1982).

Using new techniques to detect bacterial and viral agents, it is now possible to identify an enteropathogen from over half of the diarrheal episodes in young children in developing countries ( Black et al., 1980, Black et al., 1981).

In response to the high incidence of diarrheal disease recorded in some parts of Egypt (*Zaki et al.*, 1986) identification of microbial agents as well as the risk factors responsible for the transmission of the disease would be an interesting field to study.

Moreover one of the most important UNICEF mid-decade goal is the raise of oral rehydration therapy (ORT) use with three major strategies for reduction of mortality due to diarrhea. These strategies are; ORT and continued feeding will be a practice in every family, every child seeking care outside the home will receive ORS, and lastly every health provider/facility (both government and private) will offer correct case management for diarrhea (UNICEF, 1993).



## **OBJECTIVES OF THE STUDY**

This study is intended to determine:

- 1- The causative microbial agents of diarrhea, among diarrheal cases and controls attending pediatric outpatient clinics of Ain-Shams University Hospitals.
- 2- The host and non-host factors associated with that disease, among the studied children.