FAILURE TO THRIVE ESSAY

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Submitted for the Partial Fulfilment of Master Degree in Pediatrics.

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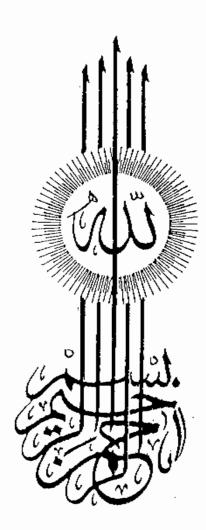
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### Abreviations:

CNS = Central nervous system.

D.I. = Diabetes insipidus.

ECG = Electrocardiogram.

EEG = Electroencephalogram.

EMG = Electromyogram.

FTT = Failure to thrive

G.I. = Gastrointestinal

MCT = Medium chain triglyceride\$

NFTT = Non-organic failure to thrive.

T.B. = Tuberculosis.

# INTRODUCTION AND AIM OF THE ESSAY

### INTRODUCTION

Failure to thrive is a common problem in pediatric practice, which is characterized by declination of growth from an established pattern (Silver, et al. 1982).

Failure to thrive may result from psychosocial deprivation, inadequate dietary intake, as well as from innumerable organic disorders (Oates, et al. 1985).

When failure to thrive is associated with poor social interaction, it indicates psychosocial deprivation, which underlines the need for close and prolonged therapeutic follow-up of the children and their families.

And which necessitates a social program for detecting the at-risk families before the children fail to thrive (Goldbloom, 1982).

### AIM OF THE ESSAY

The aim of the essay is to detect the deviant pattern of growth at an early stage, as many cases may benifit from early diagnosis and appropriate management of the underlying causes.

# REVIEW OF LITERATURE

#### REVIEW OF LITERATURE

It is difficult to ascertain who first applied the term "failure to thrive" in pediatrics. It was certainly mentioned as early as 1915 by Dr. Henry Dwight Chapin of New York. He recognized that the fault in this condition realy lies in deficient and inefficient parenting. He also recognized that nutrition and environment played crucial synergistic roles in recovery (Goldbloom, 1982).

37 years later Rene Spitz reported his classic observations of anaclitic depression, malnutrition and growth failure in infants kept in foundling homes with lack of emotional stimulation, he applied the term (hospitalism).

Nathan Talbot and Edna Sabel in (1947) suggested that caloric insufficiency might be the final common pathway of growth delay with or without organic disease. They also raised the possibility that the energy requirements for growth recovery might exceed the need for normal growth. (Goldbloom, 1982).

In 1949 Dr. Harry Bakwin elaborated on the characteristic behaviour of emotionally deprived failing to thrive infants. He found that they are thin, pale even with normal hemoglobin level. They are unhappy, look miserable, not interested in environment rarely cry and move very little and slowly. He commented on the role of the mother in her provision, and stated that when the infant needs hospitali-

There were successive changes in nomenculature of the syndrome. Initially the emphasis was on the role of institutional care, hence the term (hospitalism). Soon it was recognized that the exposure to an environment deprived of appropriate stimulation can give rise to this syndrome, hence the term (emotional deprivation) was used. In 1957 Coleman and Provence found that this syndrome could also occur in children living at home, and noticed the influence of parental behaviour. Bowlby introduced the term "maternal deprivation" (Coleman and Provence, 1957). Also Elmer, Patton and Gardner explored the role of the mother in the syndrome (Goldbloom, 1982).

Prader, et al (1963) discribed the phenomenon of "catch-up growth" following this illness. During the same year Dr. Nathan Talbot found that psychological malnutrition became the commonest nutritional disorder in pediatric practice.

Leonard, et al (1966) observed that some of the infants with failure to thrive showed unusual watchfullness, minimal smiling, decreased vocalization and lack of cuddliness others commented on the frightened apathetic and withdrawn behaviour.

Over the past two decades the understanding of the etiology and the approach to the diagnosis and management of these children has been refined (Goldboom, 1982).

### DEFINITION

Failure to thrive is present when there is a perceptible declination of growth from an established pattern, or when the patient's height and weight plot consistently below the third percentile. The term is reserved for infants who for various reasons fail to gain weight (Silver, et al., 1982).

To some physicians, it means that a child fails to gain weight, others intend it to include failure to grow, indeed it is widely assumed that a failure to gain weight entails inevitably a failure to grow. The term "organic failure to thrive" has been introduced for its distinction from "failure to thrive" because of emotional deprivation (Stickler, 1984).

So the term failure to thrive is used for infants and children who, without superficially evident cause, fail to gain or even lose weight, which can occur in infancy and childhood (Barbero and McKay, 1983).

It is a descriptive rather than a diagnostic term. For some authors this term has become synonymous with "maternal deprivation" (Campbell, 1984).

It is also defined as growth failure in infants due to a combination of nutritional and emotional deprivation (Oates, et al. 1985).

## INCIDENCE

### INCIDENCE

Approximately 5% of hospital admissions are for failure to thrive, with preponderance of low birth weight infants (Campbell, 1984).

The incidence is 9.6% during the first year of life in the U.S.A. (Mitchell, et al. 1980).

Non organic causes represent 15% to 58% of hospital admissions for failure to thrive in Australia (Oates, et al. 1985).

Inadequate feeding is responsible for over half of the children hospitalized for failure to thrive in U.S.A. (Burrengton and Janik, 1982).

Undetermined etiology was found in about 24% of failure to thrive cases (Sills, 1978).

In a larger proportion there are cases of mixed organic-non organic causes (Rosenn et al, 1980; Casey et al, 1984).

### **GROWTH &, DEVELOPMENT**