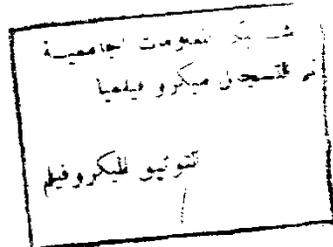


RADIOIMMUNOASSAY OF HORMONAL CHANGES IN YOUNG ADOLESCENTS WITH DIFFERENT EMOTIONAL DISPOSITIONS

THESIS



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Ph.D. Degree
In Medical Childhood Studies

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

سُبْحَانَكَ يَا عَلْمَ لَنَا إِلَّا بِهَا عَلِمَتْنَا

إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

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God Bless Them All.

DEDICATION

This work is dedicated

To my Parents, my Husband

and my 2 Daughters.

LIST OF ABBREVIATIONS

ADD	Attention deficit disorder.
ADD/H	Attention deficit disorder with hyperactivity.
ADD/R	Residual type of Attention deficit disorder.
ADD/Wo	Attention deficit disorder without hyperactivity.
APA	American Psychiatric Association.
ASD	Androstenedione.
CBG	Corticosteroid binding globulin.
CPM	Count per minute.
DHAS	Dehydroandrosterone sulfate.
DHEA	Dehydroepiandrosterone.
DHEA-S	Dehydroepiandrosterone sulfate.
DHT	Dihydrotestosterone.
DNA	Deoxyribonucleic acid.
E₂	Estradiol.
FSH	Follicle stimulating hormone.
GnRH	Gonadotropin-releasing hormone.
hCG	Human chorionic gonadotropin.
LH	Luteinizing hormone.
MDD	Major depressive disorder.
mRNA	messenger ribonucleic acid.
NSB	Non specific binding.
Prog.	Progesterone.
RIA	Radioimmunoassay.
SMR	Sex maturity rating.
SSBG	Sex steroid bound globulin.
TeBG	Testosterone binding globulin.

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**INTRODUCTION
AND AIM OF THE WORK**

INTRODUCTION

AND

AIM OF THE WORK

Puberty is a period of physical development accompanied by dramatic increase in the circulating levels of many hormones (Williams, 1981). Puberty is also a period of psychological development characterized by increase in aggressive and rebellious behavior in most cultures. The relationship between hormonal changes and emotional differences at puberty is studied through two main points:-

- 1- The first point is hormonal:

It is known that hormonal changes during puberty are associated with behavior changes (Susman et al., 1987). The mechanisms whereby hormones influence emotions and behavior have been conceptualized in terms of organizing and activating influences of hormones (Hays, 1981).

Organizational influences stem from prenatal and perinatal hormone exposure which affects the structure or functioning of the central nervous system (CNS) such that development and functioning are altered. Activational

influences stem from the effect of hormones at the same time of the behavior.

Gonadal steroids are involved prenatally and perinatally in the organization of the CNS during and after puberty, they serve primarily an activating function (Rubin et al., 1981).

Nottleman et al., (1987a) found a relation between the high level of gonadal steroids and the delinquent and rebellious behavior problems. Susman et al., (1987) reported that there is a complete absence of relation between hormonal level and emotional disposition in girls.

2- The second point is psychological:

This part includes the psychological, social and cultural factors that interact together with the hormonal and biological factors to influence the emotional state of the adolescent (Rubin et al., 1981).

Several investigators reported that there are certain emotions that predispose the adolescents to overt aggressive behavior. These emotions include rage, sadness

and fear or anxiety (Bouissou, 1983). Fear can have an activating as well as inhibitory effects on aggression.

AIM OF THE WORK:

The primary objective of the present research is to clarify the relationship between different behavioral disorders and emotional dispositions and sex steroids (androstenedione, dehydroepiandrosterone sulfate, progesterone and estradiol) by using radioimmunoassay.

REVIEW OF LITERATURE

CHAPTER I

CHILDHOOD AND YOUNG ADOLESCENT

EMOTIONAL DISORDERS

In spite of the fact that child psychiatric clinics attend large numbers of children for a wide array of psychiatric, behavioral and developmental conditions, research regarding this population is itself in its infancy. The fact that research into childhood disorders has only recently begun to yield useful information may be explainable in part by difficulties inherent in evaluating members of this extremely heterogenous group (Last, 1989).

A child who may be demonstrating emotional disturbance must be evaluated in terms of two basic parameters. The first is the child's developmental level. Is there a discrepancy between the child's behavior and his or her age, intelligence or social status? Secondly, the adaptive or functional level of the child must be evaluated. In other words, does the problematic behavior interfere