EVENT RELATED EVOKED POTENTIAL IN OFFSPRING AT HIGH RISK FOR SCHIZOPHRENIA AND DEPRESSION

A THESIS

Submitted for Partial Fulfillment
of
Master Degree in Neuropsychiatry

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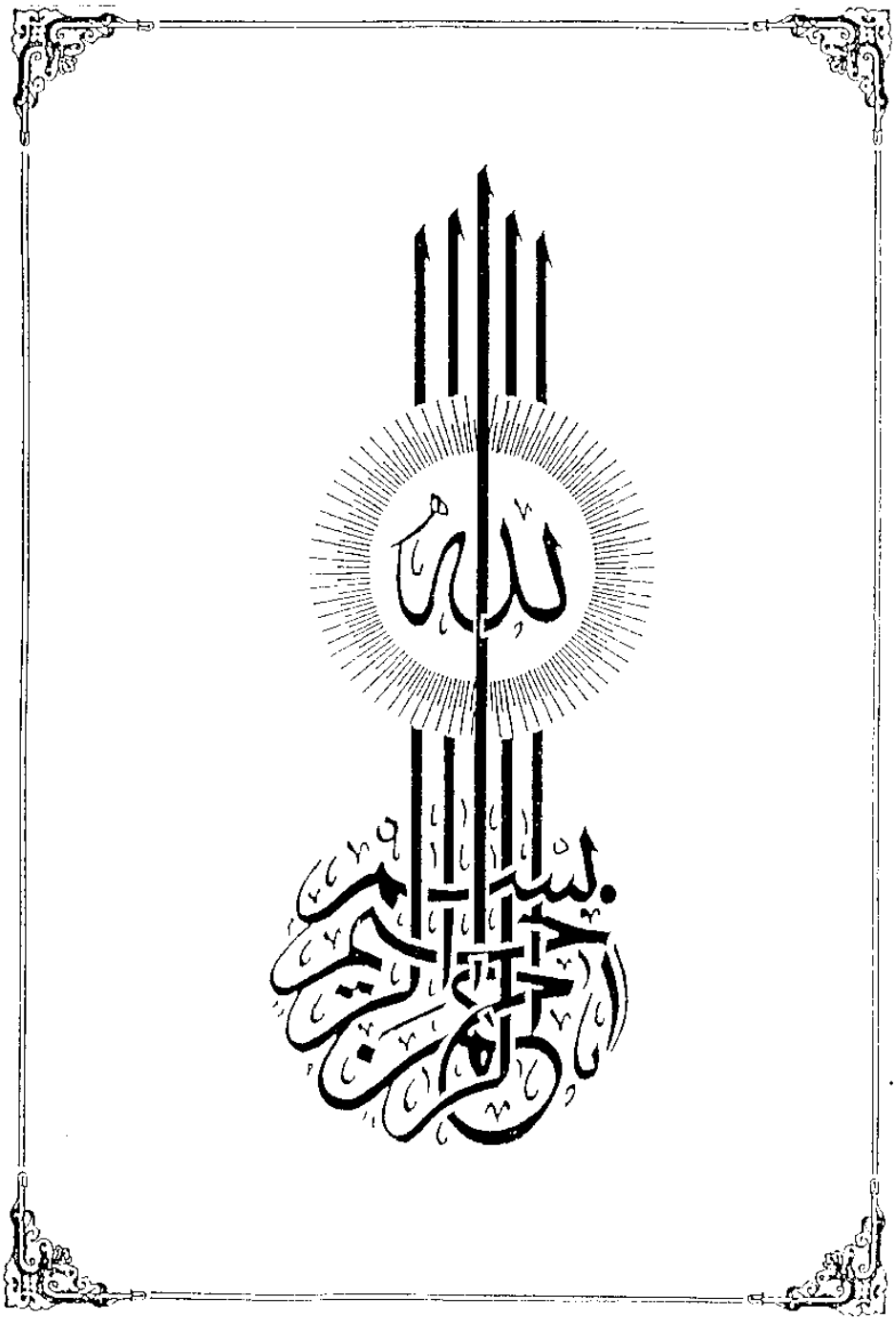
صدق الله العظيم

سورة طه : الآية ١١٤



Acknowledgment

First, I thank GOD for granting me the power to proceed and to accomplish this work.

I would like to express my feelings of gratitutde and indebtedness to Prof. Dr. Zeinab Bishry, *Professor of Psychiatry, Ain Shams University, for her motherly guidance, help, support and supply of recent literature not available elsewhere.*

I am profoundly grateful to Prof. Dr. Mona Raafat, *Professor of Neurology, Ain Shams University, for her great support, close supervision, constructive criticism, miticulous revision of the thesis and continuous advice throughout this work.*

My sincere thanks and deep appreciation goes to Dr. Maha Mohamed, *Lecturer of Psychiatry, Ain Shams University, for her guidance, valuable comments and careful supervision without which this work would have not been possible. She gave me much of her time, her effort and her personal enthusiam.*

I am indebted to the following for their invaluable assistance; Dr. Heba El-Essawy and Dr. Tarek Okasha.

Last but not least I would like to express my feelings of admiration, love and respect to my family whose support was overwhelming. Also, I am most appreciative to my lovely fiancee Dr. Eman Abd El Karim *for her greatest help, patience and precious encouragement.*

DEDICATED TO ..

MY FAMILY

WITHOUT THEIR HELP, SUPPORT, AND SACRIFICE THIS WORK WOULD NOT HAVE BEEN POSSIBLE

Khaled A. Abd El Azim

1997

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LIST OF ABBREVIATIONS

BO	Erythrocyte Blood Groups.
EPs	Auditory-Evoked Potentials.
ERP	Auditory Event Related Potential.
NA	Anti-Nuclear Antibodies.
AEP	Brain-stem Auditory Event Related Potential.
EAM	Brain Electeric Activity Mapping.
PRS	Brief-Psychiatric Rating Scale.
RMS	Bech-Rafaelsen Melancholia Scale.
AMP	Cyclic-Adenosine Mono-Phosphate.
OMT	Catecholamine-0-Methyl-Transferase.
PK	Creatinine Phosphokinase.
SF	Cerebrospinal Fluid.
T	Computerized Tomography.
BH	Dopamine-ß-Hydroxylase.
RD$_2$	Dopamine D_2 Receptor gene.
ST	Dexamethazone-Suppression Test.
Z	Dizygotic.
CT	Electro-Convulsive Therapy.
EG	Electro-Encephalography.
RP	Event-Related Potential.
SH	Follicular Stimulating Hormone.
GABA	Gamma-Amino-Butyric Acid.
GH	Growth Hormone.
GHQ	General Health Questionnaire.
-HIAA	5-Hydroxy-Indole-Acetic Acid.
HLA	Human Leukocyte Antigens.
HRSD	Hamilton Rating Scale for Depression.
MP	^{123}I-labelled Iodoamphetamine.
LH	Leutinizing Hormone.
MAO	Mono-Amine Oxidase.

INTRODUCTION

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Event related potentials (**ERP**) are series of positive and negative waves that are generated above the brain stem and have a widespread scalp distribution. There are two naming systems for these waveforms, the negative (**N**) and positive (**P**) waves can be labelled in numerical order, or can be labelled by their average latency in group of healthy subjects. The major waves are the **N100, P200, N200** and **P300** ***(Oken et al., 1989)***. These event related potentials are also referred as cognitive evoked potentials or endogenous event related potentials ***(Oken, 1989).***

Many researchers studied the implication of these event related potentials in different psychiatric disorders. ***Cohen, (1990)*** found significant attentuation in the amplitude of **N100**, and /or **P300** in schizophrenics. Moreover, also the latencies of both **N100** and **P300** were found to be increased ***(Roth et al., 1986)***.

Rimpel et al., (1995) studied the event related potentials in the course of antidepressant treatment, they mentioned that the latency of **N100** seemed to be increased significantly with therapy and the latency of **P300** was decreased significantly with therapy.

As schizophrenia and depression are genetically inherited diseases and because there are many vulnerability markers in offsprings of schizophrenia and depression categories, so, many researchers started to study the importance of event related potentials in early detection of children at high risk for schizophrenia and depression.

AIM OF THE WORK

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1. To review the different correlates of schizophrenia and depression including event related potential.
2. To determine whether changes in event related potential, when present, can provide a distinction to be made among those common disorders.
3. To assess the value of ERPs as a diagnostic aid in early detection of subjects genetically at risk for schizophrenia and depression.