Evaluation of anthropometric measures and dietary pattern in attention deficit hyperactive disorder children

Thesis

Submitted for partial fulfillment of M .Sc Degree in Medical Childhood Studies (Special needs)

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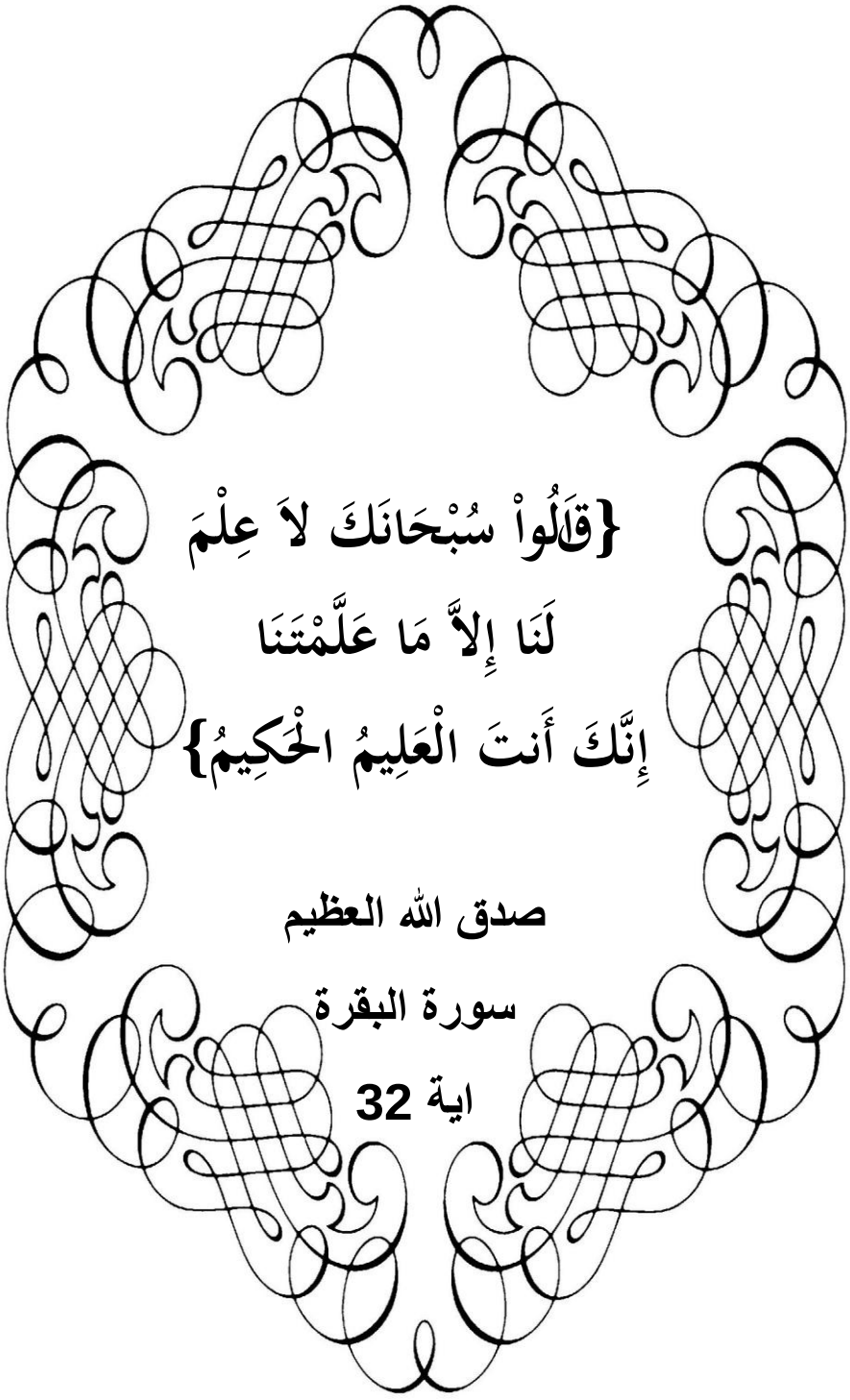
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LIST OF ABBREVIATIONS

ADHD	Attention deficit hyperactivity disorder
ADHD-NOS	ADHD Not Otherwise Specified
BMI	Body Mass Index
CBT	Cognitive behavioral therapy
CD	Conduct Disorder
CDC	Center of communicable disease
CNV	Copy number variants
CSF	Cerebrospinal fluid
DCC	Developmental coordination disorder
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders - 4th Edition
EEG	Electroencephalography
EFA	Essential fatty acids
GHD	Growth hormone deficiency
GxE	Gene-environment
ICD-10	International Classification of Diseases-10th Edition
Ig	Immunoglobulin
IQ	Intelligence quotient
MD	Mood disorder
NICHD	National Institute of Child Health and Human Development
ODD	Oppositional Defiant Disorder
PCBs	Polychlorinated biphenyls
PDD	Pervasive Developmental Disorder
PDD-NOS	PDD Not Otherwise Specified
PUFA	Polyunsaturated fatty acids
RCTs	Randomized controlled trials
RED	Restricted elimination diet
SUD	Substance use disorders
TS	Turner's syndrome
WHO	World Health Organization

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Abstract:

Background: Balanced nutrition is very important during childhood, for development of body functions and social cognitive ability. ADHD is defined as a neurobehavioral developmental disorder characterized by continuous inattention, hyperactivity, and impulsiveness and is especially prevalent in childhood. The etiology of ADHD involves genetic, dietary, and environmental factors. Especially, dietary factors have been determined to increase the risk of ADHD.

Aim of the study: To evaluate diet status and anthropometric measures of ADHD children and compare them with normal children of same school age, also to assess the relation of nutrition to growth and symptoms of ADHD children whereas the nutrition intervention may improve the symptoms.

Methodology: The present study involved 60 child diagnosed as having ADHD (40 (66.67%) were male and 20 (33.33%) were females), attending El Agouza Military Rehabilitation Center during the period between June 2012 and June 2013. A well matched (regarding age and sex) 60 normal children were included as a control group. *All patients were subjected to*: Full history taking, Diagnoses of the ADHD based on *DSM* 4TR, IQ Stanford bennet to exclude MR, genetic disorders, (Conner) ADHD scale. Dietary Intake: will be conducted in order to obtain qualitative

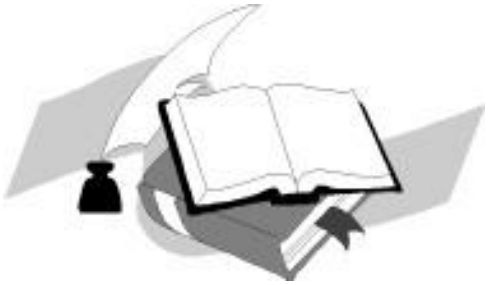
and quantitative information about the different items of food and beverage consumed by every child.

Results: Results of the current study show statistically significant higher weight and BMI in ADHD patients (group A) compared to controls (p=0.046, 0.001 respectively), also significantly higher weight for age and BMI for age in ADHD patients (group A) compared to controls (p=0.04, 0.03 respectively). Non significant difference was detected between both groups as regard height and height for age. Conners rating scale subscales shows statistically significant higher oppositional (p=0.02), cognitive problems/inattention (p=0.002), hyperactivity (p=0.001). In the current study we used a complete one day diet record; we examined the intake patterns of our ADHD subjects. Results of the current study demonstrate that ADHD subjects consumed higher levels of at least 10 different nutrients, than their control counterparts. This included 25% more energy, and more grams of carbohydrate, total fat and omega-6 fatty acids.

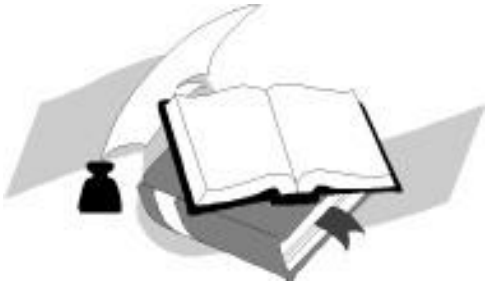
Conclusion: Weight and BMI were higher in ADHD children compared to control subjects. Weight for age for age and weight for BMI in ADHD children compared to control subjects. ADHD subjects consumed higher levels of at least 10 different nutrients, than their control counterparts. This included 25% more energy, and more grams of carbohydrate, total fat and omega-6 fatty acids.

Key words: *ADHD, Conners, PUFA, Anthropometric, BMI*

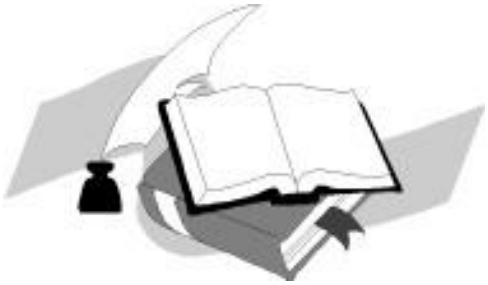
Introduction and Aim of the Study



Review of Literature



Chapter 1



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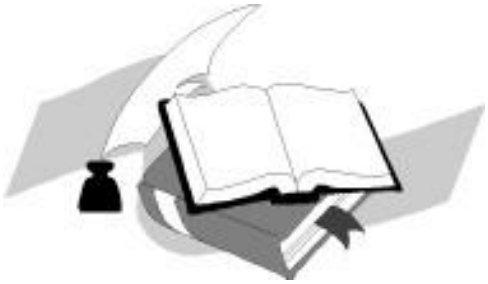

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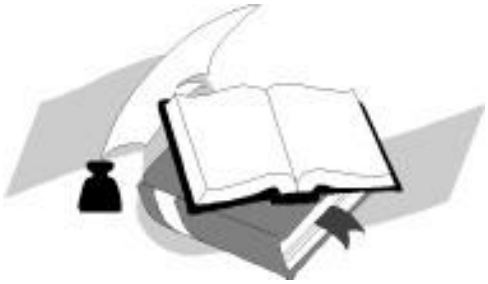

subjects and Methods