

# **Brain Derived Neurotrophic Factor in Protein Energy Malnutrition Patients: Effect of Nutritional Rehabilitation**

**Thesis Submitted for Partial Fulfillment of the M.D. Degree in  
Pediatrics**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا  
مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ  
الْحَكِيمُ (32))

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## *Dedication*

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## **LIST OF ABBREVIATION**

<b>ALT</b>	Alanine transferases
<b>AIDS</b>	Aquired immune deficiency disease
<b>AST</b>	Aspartate transferases
<b>BSID-II</b>	Bayley Scales of Infant Development
<b>BRS</b>	Behavior Rating Scale
<b>BMI</b>	Body mass index
<b>BDNF</b>	Brain derived neurotrophic factor
<b>BF</b>	Breast feeding
<b>CERB</b>	cAMP-response element binding protein
<b>CNS</b>	Central nervous system
<b>CSF</b>	Cerebrospinal fluid
<b>CCHIP</b>	Community Childhood Hunger Identification Project
<b>CBC</b>	Complete blood count
<b>CT</b>	Computed tomography
<b>DG</b>	Dentate gyrus
<b>DR</b>	Dietary restriction
<b>DHA</b>	Docosahexaenoic acid
<b>ECG</b>	Electrocardiography
<b>Emot. Reg.</b>	Emotional Regulation

<b>EFAs</b>	Essential fatty acids
<b>FGF-2</b>	Fibroblast growth factor 2
<b>Hb</b>	Hemoglobin
<b>HIV</b>	Human immune deficiency virus
<b>IBR</b>	Infant Behavior Record
<b>IQ</b>	Intelligence quotients
<b>KWO</b>	Kwashiorkor
<b>LC-PUFA</b>	long-chain polyunsaturated fatty acids
<b>LTP</b>	Long-term potentiation
<b>MRI</b>	Magnetic resonance imaging
<b>MKWO</b>	Marasmic kwashiorkor
<b>MDI</b>	Mental development index
<b>MAC</b>	Midarm circumference
<b>Motor q.</b>	Motor quality
<b>NCHS</b>	National Center for Health Statistics
<b>NGF</b>	Nerve growth factor
<b>NSCs</b>	Neural stem cells
<b>NT-3</b>	Neurotrophin-3
<b>NT-4/5</b>	Neurotrophin-4/5
<b>NT-6</b>	Neurotrophin-6
<b>NA</b>	Noradrenaline
<b>Orient. and Eng.</b>	Orientation and Engagement



<b>PNS</b>	Peripheral nervous system
<b>PLT</b>	Platelet count
<b>PEM</b>	Protein energy malnutrition
<b>PDI</b>	psychomotor development index
<b>SERT</b>	serotonine transporter
<b>OFC</b>	Occipitofrontal circumference
<b>CLNBAS</b>	Clinical Newborn Behavioral Assessment Scale
<b>S.alb</b>	Serum albumin
<b>S.BDNF</b>	Serum BDNF
<b>S.creat</b>	Serum creatinine
<b>SPECT</b>	Single Photon Emission Computed Tomography
<b>SFT</b>	Skin fold thickness
<b>SES</b>	Socio economic scoring
<b>SD</b>	Standard deviation
<b>SGZ</b>	Subgranular zone
<b>SVZ</b>	Subventricular zone
<b>TLC</b>	Total leucocytic count
<b>TP</b>	Total serum proteins
<b>TrK</b>	Tropomyosin receptor kinase
<b>WHO</b>	World Health Organization

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