

# **Evaluation of Post traumatic Stress Disorders in Long-term Childhood Cancer Survivors**

**Essay**

Submitted for the partial fulfillment of Master Degree in Pediatrics

**By**

**Hussam El Din Mohammed Ghuname**

M.B.,B.Ch

**Supervised by**

**Prof. Dr. / Mohamed Abul AssrarMohamed**

Professor of Pediatrics

Faculty of Medicine, Ain shams University

**Dr./ Heba Hamed El Shahawy**

Ass. Professor of Neurology and Psychiatry

Faculty of Medicine, Ain shams University

**Dr./Amira Abd El Monem Adly**

Lecturer of Pediatrics

Faculty of Medicine, Ain shams University

Faculty of Medicine

Ain Shams University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"قُلْ إِنَّ صَلَاتِي وَنُسُكِي وَمَحْيَايَ

وَمَمَاتِي لِلَّهِ رَبِّ الْعَالَمِينَ (١٦٢)

لَأَشْرِيكَ لَهُ وَبِذَلِكَ أُمِرْتُ وَأَنَا أَوَّلُ

الْمُسْلِمِينَ (١٦٣)"

صدق الله العظيم

سورة الانعام

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## List of Abbreviation

AL:	Acute leukemia
ALL:	Acute lymphoblastic leukemia
AML:	Acute myeloblastic leukemia
ANLL:	Acute nonlymphocytic leukemia
APA	American Psychiatric Association
BMA	Bon Marrow Aspirate
BMI :	body mass index
Ch. :	children
Chemo.	chemotherapy.
Chemo.& others :	chemotherapy and radiotherapy or surgery.
CMT:	combined modality treatment
CMV:	Cytomegalovirus
CNS:	Central Nervous System
CSF:	Cerebrospinal fluid
CT	computed tomography
DNA :	deoxy ribo nucleic acid
DSM-III-R:	diagnostic criteria of posttraumatic stress disorder in the revised third edition of the diagnostic and manual of mental disorders statistical
DSM-IV:	diagnostic criteria of posttraumatic stress disorder in the fourth edition of the diagnostic and statistical manual of mental disorders
ECG:	Electrocardiographic
F	female.
“F”	family functioning
FDA :	Food and Drug Administration
Fig. :	Figure
GPA	Global Psychological Assessment
HD:	Hodgkin's disease
HIV:	Human immunodeficiency virus

hTERT : human telomerase reverse transcriptase  
 IES Impact of Event Scale  
 IFRT : involved field radiotherapy  
 KSAD : Kiddie Sads present and life time version interview  
 LP : Lumber puncture  
 M male  
 MIBG: Metaiodobenzylguanidine  
 Mod.: moderate  
 Mon months  
 MRI Magnetic resonance imaging  
 n number  
 NHL: Non-Hodgkin lymphoma  
 OCD: obsessive- compulsive disorder  
 Par.: parents  
 Percentage %  
 PCR: Polymerase chain reaction  
 PTSD: Post traumatic stress disorder  
 PTSD-RI Post Traumatic Stress Disorder Reaction Index

PTSS: Post traumatic stress syndrome

*P* value

(\*) is significant(<0.05)

(\*\*) is highly significant (<0.01)

(\*\*\*) is very highly significant(<0.001)

SCT: Stem Cell Transplantation

SES: socioeconomic status

SLE systemic lupus erythematosus

SPSS Statistical package of the Social science.

SSRIs : serotonin specific reuptake inhibitors

STAI State-trait Anxiety Inventory

S.D. Standard of Deviation

“T”:, psychological maturity

"T") transplant process

t            t –Student test; used to detect significance of numeric

values

VIP :    vasoactive intestinal peptide

WBCs    white blood cells

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## *Introduction*

## **Introduction**

Childhood cancer- survival rates have increased dramatically over the past 30 years. In 1970, the five-year survival rate was less than 30%, whereas today more than 75% of children who are diagnosed with cancer are expected to survive their disease. As this population has grown the quality of its long-term survival has become increasingly more important. **(Greenlee et al, 2001)**

A significant number of medical late effects, such as cognitive impairment, second malignant neoplasms, cardiomyopathy and growth failure have been well documented in survivors of childhood cancer. **(Meeske et al, 2001)**

These medical late effects are the result of toxicities from treatment (radiation, chemotherapy, or surgery) or disease sequelae that emerge months or years after completion of therapy. **(Brad et al, 2002)**

The psychological sequelae of childhood cancer are less well understood. Some studies have found childhood cancer survivors functioning at normative levels, leading lives not unlike their siblings and peers **(Stam et al, 2006 )** , while others described significant

maladjustment and psychosocial difficulties. **(Taïeb et al,2003)**

Studies of young adult survivors have identified and described a wide range of psychosocial adjustment difficulties, such as delayed social maturation, mood disturbances, academic difficulties, job and insurance discrimination, increased health concerns, and relationship problems. **(Schwartz et al,2006)**

Cancer diagnosis during childhood continues to interfere with the ability of many survivors to master the developmental tasks of the young adult .The recent conceptualization of cancer as a psychological trauma has furthered our understanding of the long-term psychological effects of cancer and its treatment. **(Stuber et al, 2003)**

Diagnosis of cancer evokes feelings of intense fear, helplessness, or horror and can precipitate a full cluster of symptoms (reexperiencing the traumatic event, arousal, numbing and avoidance of event reminders) that fulfill the criteria for PTSD. PTSD symptoms have been documented in both pediatric and adult patients with cancer while on active therapy and many years after the successful completion of therapy. Prevalence estimates for PTSD

in patients with cancer and survivors range from 2.5% - 20%. **(Ozono et al, 2007)**

The provision of psychosocial support for patients and their families is of major importance. Early identification and management of psychiatric manifestations can enhance the quality of life for families of childhood cancer survivors. **(Kazak et al, 2004)**

Preliminary evidences suggest that support group in addition to improvement of the emotional and social well-being of the participants, may improve the immunologic competence and prolong survival. **(Stuber et al, 2003)**

## **Aim of the work**

To investigate prevalence, risk factors and comorbidity of posttraumatic stress disorder (PTSD) and post traumatic stress syndrome (PTSS) in long-term childhood cancer survivors. So the following objectives will be fulfilled:

- 1- Detection of PTSD in childhood cancer survivors.
- 2- Detection of PTSS and its severity.
- 3- Detection of comorbid psychiatric disorders

# *Review of literature*