



Impact of Childhood Trauma on Patients with Schizophrenia

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

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List of Abbreviations

ACC	: Anterior cingulate cortex
ACEs	: Adverse childhood experiences
APA	: American Psychiatric Association
APSAC	: American Professional Society on the Abuse of Children
ASI	: Attachment style interview
AVP	: Arginine vasopressin gene
BDNF	: Brain derived neurotrophic factor
(χ)	: Chi - square test of significance
CT	: Childhood trauma
CSA	: Child sexual abuse
CPA	: Child physical abuse
CDC	: Centers for Disease Control and Prevention
CECA -Q	: Childhood experience of care and abuse questionnaire
COMT	: Catechol-O-methyltransferase
CRF	: Chronically elevated
CT	: Childhood trauma
CTQ	: Childhood trauma questionnaire
DID	: Dissociative identity disorder
DMN	: Default mode network
DSM-5	: Diagnostic and statistical manual of mental disorders

DSM-IV-TR	: Diagnostic and statistical manual of mental disorders four text revised
DUP	: Duration of untreated psychosis
EE	: Expressed Emotion
ET	: Early trauma
(F)	: Fisher's exact test of significance
FKBP5	: Factors including genes
GPS subscale	: General psychopathology subscale
HPA	: Hypothalamic pituitary adrenal
IQR	: Interquartile range
MMPI	: Multiphase Personality Inventory
mPFC	: Medial prefrontal cortex
NAA	: N-acetyl aspartate
NR3C1	: Neuron-specific glucocorticoid receptor
PANSS	: Positive and Negative Syndrome Scale
PBI	: Parental Bonding Instrument scale
PD	: Personality disorder
PFC	: Prefrontal cortex
PTSD	: Post-traumatic stress disorder
SCID-I	: Structured Clinical Interview for DSM-IV-TR Axis I Disorders
SCID-II	: DSM-IV-TR Axis II personality Disorders
SCL-90-R	: Symptom Checklist-90-Revised
SES	: Socio-Economic Status
SN	: Salience networks

SNS	: Sympathetic nervous system
SZ	: Schizophrenia
T	: Student t-test of significance
WHO	: World Health Organization

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Introduction

Traumatic childhood experiences are major public health problem with a lifelong adverse effect on victims if there is no proper treatment. It is defined as any act (s) or failure of act (s) by parent or caregiver that results in actual or potential harm to a child's health or development, including neglect and abuse [physical, psychological, and sexual abuse] (***World Health Organization, 2014***). It also includes peer victimization (bullying), domestic violence and experiences of parental loss and separation. They are common experience worldwide, with some estimates suggesting that about a third of the general population may be affected. CT occurs in different forms and is deeply rooted in cultural, economic and social practices (***Matheson et al., 2013***).

Modern studies explain how childhood trauma interacts with genes and environmental factors to affect the developing brain and neuronal network (***Hart and Rubia, 2012; Bair-Merritt et al., 2013; Matheson et al., 2013***).

There is a wealth of evidence suggestive of an association between childhood trauma and psychosis (***Matheson et al., 2013***). And this is important because

schizophrenia is considered one of the world's top ten causes of disability (*Matheson, 2018*).

Moreover patients with psychotic disorders who suffered from childhood trauma had a more persistence of psychotic symptoms, higher number of suicide attempts, poor medication adherence, and increased risk of readmission and relapse (*Alvarez et al., 2011, Garino et al., 2005, Lecomte et al., 2008, Trotta et al., 2016*). In terms of social and vocational functioning, childhood trauma is linked with a higher rate of unemployment and increased service costs (*Álvarez-Jiménez et al., 2012, Davidson et al., 2009*).

The relationship between different types of child abuse and psychosis symptom dimensions in adulthood suggests that distinct pathways may be involved in the child abuse psychosis association. These potentially different routes to developing psychosis merit further empirical and theoretical exploration (*Trotta et al., 2016*). All 5 types of child abuse and positive and negative symptoms of psychosis are connected through symptoms of general psychopathology. These findings are in line with the theory of an affective pathway to psychosis. After exposure to child abuse, with anxiety as a main connective