

## **A study of impact of childhood maltreatment on depressive disorder in adults**

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### **Abstract**

Childhood maltreatment (CM), also known as early life stress or childhood trauma, is a major risk factor for the onset of mental illnesses, including Major Depressive Disorder. The purpose of the research was to determine how common CM was among people who had been diagnosed with a depressive condition and to analyse the cumulative impact of several forms of CM that often occurred together. The study compared 150 patients diagnosed with major depressive disorder to 150 age- and sex-matched healthy controls. The purpose of the SCIDI was to confirm a diagnosis of depression and rule out other possible mental health problems. Depressive symptoms were also evaluated using the Beck Depression Inventory. Prevalence of childhood abuse was measured using the Childhood Trauma Questionnaire (CTQ). The findings showed that more than 80% of those diagnosed with depression also had CM. The strongest link was found between emotional maltreatment and both an earlier start and greater severity of major depressive disorder. More impairment is shown when many CMT kinds are present at once. Ultimately, this study adds to our knowledge of CM and its severe link to depression. There is a strong correlation between childhood maltreatment and adult depression, with more than 88% of depressed people seeking treatment for their condition reporting some kind of abuse.

**Key words:** Childhood maltreatment, co-occurred type, major depression disorder, Beck depression.

### **1.Introduction:**

One of the most important risk factors for the development of mental illnesses is exposure to a history of childhood maltreatment (CM), also known as early life stress or childhood trauma. WHO defines CM as "any kind of physical, sexual, emotional abuse, neglect or negligent treatment, economic or other exploitation that results in real or prospective damage to the child's health, life, development, or dignity in the context of a relationship of responsibility, trust, or authority." (17).

There may be as high as a 1 in 4 chance that a youngster would be abused or neglected. All forms of caregiver inaction or action that put a child at danger of physical or mental damage or death constitute maltreatment. And is associated with a high risk of injury and a wide range of unfavourable health and behaviour effects in later life (8).

Children who have experienced maltreatment and the ensuing trauma often struggle with short- and long-term emotional and behavioural issues. (2). Physical and psychological harm, as well as changes in behaviour and academic performance, are all serious consequences of child maltreatment. There have been a lot of research done to try to pin down all the many ways in which abuse may manifest itself in a person's life (16).

Affect dysregulation and impulsivity are widespread in health problems. Anxiety, depression, and sleep difficulties in children; impulsive, violent, and rebellious behaviour; ADD/ADHD; and other similar conditions (12). Abuse in childhood has been linked to both major depressive disorder and schizophrenia as well as other psychotic diseases (11). Furthermore, there is mounting evidence that those who have had CM are at a higher risk of engaging in intentional self-harm behaviour, having suicidal thoughts, and attempting suicide (3).

People who have had CM are two to four times more likely to acquire MDD than those who have not. Multiple clinical, epidemiological, and twin research in

different countries have shown an association between CM exposure and MDD (7). The clinical presentation of MDD in adults who also suffer from CM is worse than that of adults with MDD but no CM, namely in terms of the start of MDD and the severity of depressive symptoms. (6).

Communities may mitigate the long-term effects of child abuse and neglect by implementing basic preventive strategies and providing trauma-informed treatment for victims. Many protective characteristics for children may be fostered in communities. Conditions or characteristics of people, families, communities, or society that foster flourishing and mitigate risk for adverse outcomes, such as the potential for the long-term repercussions outlined in this factsheet, are known as protective factors (1).

### **2.Patients and Methods:**

One hundred and fifty (150) depressed patients and one hundred and fifty (150) healthy controls with similar demographics (age, sex, residence, marital status, and employment status) participated in this cross-sectional research to facilitate comparison. Patients were recruited from the Benha University Hospital's outpatient psychiatric clinic. We employed the SCIDI to rule in or out other mental disorders in both the case and control groups, as well as to confirm the diagnosis of major depressive disorder. Depressive symptoms were also evaluated using the Beck Depression Inventory. Prevalence of childhood abuse was measured using the Childhood Trauma Questionnaire (CTQ).

People of both sexes over the age of 18 were welcome to participate. Patients with comorbid medical disorders (e.g., seizures, major head trauma), major illnesses (e.g., cancer, IHD, renal failure, or liver cell failure), endocrine diseases (e.g., hypopituitarism, hyperprolactinemia, and thyroid disorders), and neurological disorders which may affect mood, such as D.S., are excluded.

**2.1.Tools:**

All participants (cases & control) were subjected to the following:

1. Psychometric test measuring psychiatric disorders (Structured Clinical Interview for DSM Disorders) (SCIDI) for diagnosing the major Axis I DSM-IV disorders for all participants) (22).

The Arabic version of the SCID-I was used in this study (21)

2. Beck Depression Inventory (BDI-II) for assessment of depression (19) The Arabic version of the BDI-II used in this study was translated and validated by (18).

3. Childhood Trauma Questionnaire (CTQ). A 28-items short form used to determine experiences of childhood trauma experiences (20).

The Arabic version used in this study was translated by us with the help of Professors of Medical Translation at Benha Faculty of Arts.

**2.2Ethical consideration:**

A consent was obtained from the patients and care givers, including data about the aim of the work, study design, site of the study, tool used in it. It was explained to both groups that they can withdraw from the study at any time without any consequences and it will not affect the type of care they are receiving from the facility. It was also assured to all participants regarding the confidentiality of results.

**2.3Statistical analysis:**

The collected data was revised, coded and tabulated using Statistical package for Social Science (17). Shapiro test, Mean Standard deviation ( $\pm$  SD), Student T Test, Mann Whitney Test (U test), The Kruskal-Wallis test, Chi-Square test, Fisher's exact test, Correlation analysis: and Regression analysis was used. All reported *p* values were two-tailed and *p* < 0.05 was considered to be significant (18).

**3.Results:**

Table (1). Demographic characteristics of studied sample (depressive cases and controls).

Sociodemographic data		Cases N=150		Control N=150		P
Age	Age (years)	31.3	9.1	30.8	10.4	0.646
Gender	Males	45	30.0%	47	31.3%	0.802
	Females	105	70.0%	103	68.7%	
Marital status	Single	61	40.7%	71	47.3%	0.245
	Married	82	54.7%	70	46.7%	0.166
	Divorced	4	2.7%	9	6%	0.156
	Widow	3	2%	0	0%	0.082
Residence	Rural	81	54.0%	70	46.7%	0.204
	Urban	69	46.0%	80	53.3%	
Educational level	Illiterate	7	4.7%	0	0%	0.007
	primary school	15	10%	0	0%	<0.001
	Secondary	15	10%	31	20.7%	0.010
	technical graduate	13	8.7%	10	6.7%	0.515
	bachelor graduate	79	52.7%	67	44.7%	0.166
	master degree	19	12.7%	33	22%	0.033
Occupation	PhD	2	1.3%	9	6%	0.032
	Unemployed	38	25.3%	10	6.7%	<0.001
	Student	39	26.0%	31	20.7%	0.275
	clerk job	24	16.0%	15	10.0%	0.122
	Handicraft	10	6.7%	3	2.0%	0.047
	Business	16	10.7%	7	4.7%	0.520
	Employee	6	4.0%	3	2.0%	0.309
Professional	17	11.3%	81	54%	<0.001	

**Table (2). CM prevalence among studied depressive cases and healthy controls.**

		Cases N=150		Control N=150		P
CM	Absent	17	11.3%	44	29.3%	<b>&lt;0.001</b>
	Present	133	88.7%	106	70.7%	

**Table (3): Comparison of childhood maltreatment severity grades among studied depressive cases and control groups assessed by Childhood Trauma Questionnaire.**

		Cases N=150		Control N=150		P
physical abuse	None	80	53.3%	108	72%	<b>0.001</b>
	Low	31	20.7%	18	12%	<b>0.042</b>
	Moderate	16	10.7%	15	10%	1
	Severe	23	15.3%	9	6%	<b>0.009</b>
Emotional abuse	None	63	42%	99	66%	<b>&lt;0.001</b>
	Low	46	30.7%	39	26%	0.370
	Moderate	17	11.3%	12	8%	0.329
	Severe	24	16.0%	0	0%	<b>&lt;0.001</b>
Sexual abuse	None	74	49.3%	110	73.3%	<b>&lt;0.001</b>
	Low	29	19.3%	37	24.7%	0.265
	Moderate	30	20%	3	2%	<b>&lt;0.001</b>
	Severe	17	11.3%	0	0%	<b>&lt;0.001</b>
Physical neglect	None	76	50.7%	114	76.0%	<b>&lt;0.001</b>
	Low	49	32.7%	15	10.0%	<b>&lt;0.001</b>
	Moderate	13	8.7%	18	12.0%	0.343
	Severe	12	8.0%	3	2.0%	<b>0.017</b>
Emotional neglect	None	72	48.0%	105	70.0%	<b>&lt;0.001</b>
	Low	44	29.3%	36	24.0%	0.296
	Moderate	17	11.3%	6	4.0%	<b>0.017</b>
	Severe	17	11.3%	3	2.0%	<b>0.001</b>

**Table (4). Comparison of co-occurring types of CM among studied groups.**

	Cases N=150		Control N=150		P
No CM	17	11.3%	44	29.3%	<b>&lt;0.001</b>
1 CM type	27	18.0%	49	32.7%	
2 CM types	31	20.7%	24	16.0%	
3 CM types	26	17.3%	18	12.0%	
4 CM types	26	17.3%	12	8.0%	
5 CM types	23	15.3%	3	2.0%	

P<0.05 significant

p<0.01 highly significant

P<0.001 very highly significant

Table (1) shows that the present study was conducted on 150 depressed adult cases. Their mean age was 31.3 years. They were 45 males (30%) and 105 females (70%). Regarding marital status, 40.7% were singles, 54.7% were married, 2.7% were divorced, 2% were widows. Regarding residence, 54% resided in rural areas, and 46% resided urban areas. Regarding educational level, 4.7% were illiterates, 10% had primary school educational level, 10% had secondary school educational level, 8.7% were technical graduates, 52.7% were bachelor graduates, 12.7% had master degree, 1.3% had PhD. Regarding occupation, 25.3% were unemployed, 26% were students, 16% were clerks, 6.7% had handcraft job, 10.7% had business, 4% were employees, 11.3% were professionals.

In addition to 150 healthy subjects of matched age and gender. Marital status, residence did not differ between both groups. In comparison between Cases and control, there were high statistical significant difference regarding education as cases associated with significantly higher incidence of illiterate and primary school. As well as significantly lower incidence of master degree and PhD. As regard occupational state cases show significantly higher incidence of Unemployed and Handicraft while show significantly lower incidence of Professionals.

Table (2) shows that prevalence of CM had a high significant association with depressive cases when compared to healthy control group (P<0.001).

It's apparent from table (3) that severe physical, emotional and sexual abuse, severe physical and emotional neglect were highly significantly associated with depressive cases when compared to control group. In particular, emotional abuse had the strongest association. As well as low physical abuse and neglect, moderate

#### 4. Discussion:

The purpose of this research was to determine how common childhood abuse is among those who have been diagnosed with major depression. Most research has only looked at how one form of CM is linked to mental illness. Since the five forms of CM commonly co-occur, this makes it difficult to distinguish between their correlations with depression. To fill this vacuum in the literature, we analysed the five forms of maltreatment in MDD patients and healthy controls to see which one is most strongly associated with the disorder.

In this research, there were no statistically significant differences between the two groups in terms of age, sex, marital status, or place of residence. A greater prevalence of illiteracy, primary school, and secondary school dropouts was shown to be related with depressive illness when comparing the two groups' levels of education. Possible contributors to mental health issues include poor socioeconomic status and a lack of formal education. The findings corroborated those of a cross-sectional research by Bjelland et al. (10) on the topic of whether or not a higher degree of education offers protection against anxiety and/or depression. They discovered mild but highly significant links between poor education and both anxiety and depression.

There was a statistically significant increase in the number of people who were unemployed or engaged in a handicraft, whereas the number of people who were professionals dropped dramatically. It's reasonable to assume that being out of work lowers a person's sense of worth, puts more pressure on their minds, makes it more likely that they'll have to make do with substandard housing and inadequate access to medical care, and so on. These findings corroborated those of a previous research by Fan et al. (4), which looked at the correlation between occupation and rates of both present depression and frequent mental discomfort (FMD). Significant correlations were found between depression and FMD, as well as other mental disorders, and demographic factors. People with less resources are more likely to suffer from FMD or depression. Health care attendants, truck drivers, and machine operators/assemblers/inspectors all had a current depression prevalence rate double the national average. Current depression and FMD were less common among engineers, architects, surveyors, and other scientists, as well as among healthcare providers and therapists. In addition, Nurmela et al. (15) shown that more than two-thirds of the long-term jobless who were thought to have a diminished capability for employment were in fact disabled. It turned out that depression was the most pressing health issue. More than half of the people in the research were diagnosed with depression, and of

sexual abuse and emotional neglect were also significantly associated with depressive cases when compared to healthy controls.

Table (4) shows that increased number of co-occurred CM types was significantly associated with depressive cases when compared to healthy control group. Those, more than half had not previously received a diagnosis.

Researching the incidence of CM revealed that 88.7 percent of depressed people had experienced some kind of abuse. This study suggests that more exposure to maltreatment, regardless of its intensity or duration, may have the same effect as chronic stress in raising the risk of MDD in the group investigated. This is higher than the percentages reported by Nelson et al. (14), who found that 46% of those with MDD also had at least one kind of CM.

When we compared the depressed population to a healthy control group, we discovered that CM was considerably more common in the former. These findings corroborate those of a 2013 research by Medeiros et al. (13) that found those who experience CM had a two- to fourfold increased chance of developing MDD.

We found that greater degrees of physical, emotional, and sexual abuse, as well as greater degrees of physical and emotional neglect, were significantly associated with cases of depression compared to the control group. Emotional abuse was reported by the largest percentage of study participants (58%). These findings are consistent with those of Humphreys et al. (9), who used the same tools to measure depressive symptomatology and CM and found an increased risk for higher symptom scores and depressive disorders (typically meeting criteria for MDD) in proportion to the reported severity of child maltreatment.

Parents who are unaware of how their child's development affects the possibility for several forms of maltreatment were shown to have a higher prevalence of depressive cases compared to the control group. Depressive disorders were linked to all types of child maltreatment, according to a comprehensive review and meta-analysis conducted by Gardner et al. (5). Several kinds of child maltreatment were also linked to increased risk for developing mood problems as an adult.

#### 5. Conclusion

In conclusion, the results of the current study corroborate those of the previous ones and add to our knowledge of CM and its substantial link to depression. More than 88% of depressed people who seek therapy at an outpatient clinic report having experienced some kind of abuse when they were children. The findings indicate an upward trend in the probability of higher depression symptom scores in proportion to the reported degree of childhood abuse. Important findings from this research include the fact that emotional abuse (reported by 58% of participants) and emotional neglect (reported by 52% of participants) were more often experienced and had stronger links to the development of MDD than other forms of CM. The clinical presentation was worse for individuals with any kind of CM, and those with many

types had the most impairment. Seventy percent or more of people with depression have experienced many CM kinds simultaneously, and this is becoming more evident.

#### 6.Limitations:

We caution readers to take into account the constraints of our research when interpreting our findings. As a first issue, there is the potential for bias in the assessment of CM based on the use of a self-report questionnaire completed after the fact. In particular, the emotional neglect scale may overestimate relationships with present psychopathology since it examines more abstract concepts of parenting than specific parental action. Secondly, CTQ fails to distinguish between sexual abuse by a family member or by a stranger, and the effects of educational neglect and witnessing violence.

#### 7.Recommendation:

Taking into mind the study's limitations, it is suggested that bigger studies be conducted in order to replicate and expand the present study's results; to acquire more appropriate power to test the hypothesis; and to allow previously insignificant associations to become significant. These results emphasise the need for well studied CM preventive initiatives. In order to end needless suffering, lower societal expenses, and lessen the psychopathology linked with CM, its prevention should be made into a global political priority. Also, if CM were more well known, it may aid in the selection and administration of treatments.

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#### Conflicts of interest:

There are no conflicts of interest.

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