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Original Article

Adverse Childhood Experiences in Patients Admitted with Depression at A Tertiary Care Hospital in Pakistan

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ABSTRACT

Objective: To consider adverse childhood experiences in patients admitted to a tertiary care hospital in Pakistan with depressive disorder.

Study Design: Comparative cross-sectional study.

Place and Duration of Study: Fauji Foundation Hospital, Rawalpindi Pakistan from Sep 2018 to Aug 2020.

Methodology: All the patients who were admitted to the psychiatry ward of the hospital after being diagnosed with depression were included in the study. Detailed history and mental state examination were carried out on all patients by a psychiatrist, and the adverse childhood experience questionnaire was administered.

Results: Out of 400 patients admitted with a diagnosis of depressive episode in the hospital during the study period, 59(14.75%) were males, and 341(85.25%) were females. The mean age of the study participants was 39.49±8.926 years. 153(38.25%) did not have significant adverse childhood experiences, while 247(61.75%) had significant adverse childhood experiences. The severity of depressive episodes and substance use had a statistically significant relationship with the presence of significant adverse childhood experiences in our study participants (p-value<0.001).

Conclusion: The presence of significant adverse childhood experiences was alarmingly high in patients admitted with a depressive episode in our study. These experiences were associated with the more severe forms of depressive illness and co-morbid illicit substance use.

Keywords: Adverse childhood experiences, Depression, Severity.

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INTRODUCTION

Psychiatric disorders are emerging as some of the most commonly prevailing diseases in all parts of the world.[1] Epidemiological studies indicate that the diagnosis of depression and anxiety has increased in almost all clinical settings in the last few years.[2,3] Adverse childhood experiences (ACEs) cover a wide range of biological, psychological and social events which take place in the life of an individual during childhood.[4] These experiences may make the individuals more prone towards developing several physical and mental health problems.[5] These factors are frequently missed during the routine history-taking, and clinical interview and thus might hinder clinicians in understanding the etiological pattern for the current clinical presentation of the patient.[6,7]

Mental illnesses have been on the rise worldwide, and almost all age groups have been affected in one way or another.[8,9] A recent study published on ACEs and depression among women in rural Pakistan revealed that the magnitude of this problem was significant and that depression was related to these ACEs in several ways.[10] Limited local data has been available regarding this relationship in various population groups in Pakistan. We, therefore, planned this study with the rationale to look for the presence of adverse childhood experiences as well as other factors related to significant adverse childhood experiences, for example, illicit drug use, type of adverse childhood experience and gender of the patient, among others, in patients who were admitted with depression in a tertiary care hospital in Pakistan.

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METHODOLOGY

The comparative cross-sectional study was conducted at Fauji Foundation Hospital, Rawalpindi Pakistan, from September 2018 to August 2020. Ethical approval was taken from the Ethical Committee of the Hospital (letter number 215/FF/FUMC/ERC). The sample size was calculated using the WHO sample size calculation, using the population prevalence of adverse childhood experiences as 6.4%.[11] Non-probability consecutive sampling was used to gather the sample.

Inclusion Criteria: Patients of either gender, aged 18 to 60 years, who were admitted to the psychiatry ward with depressive illness, were included in the study.

Exclusion Criteria: Patients including any patients who lacked insight or had difficulty recalling due to intellectual disability, dementia or epilepsy. Patients with psychotic features were also not included.

Patients admitted to the psychiatry ward who agreed to participate in the study were interviewed with the help of a structured questionnaire after taking written informed consent. The presence and severity of depression were ascertained by a detailed clinical interview and mental state examination conducted by a consultant psychiatrist based on ICD-10 criteria.[12] Adverse childhood experiences were recorded with the help of a validated Urdu version of the adverse childhood experience questionnaire.[13] "Yes" to more than three questions of the tool was considered as the presence of significant childhood adverse experiences.[14]

Statistical analysis was done by Statistical Package for the social sciences (SPSS) version 23.00. The frequency and percentage were calculated for the qualitative variables, whereas mean and standard deviation were calculated for the quantitative variables. In addition, the chi-square test was used to examine the relationship between age, gender, use of illicit substances and significant adverse childhood experiences when compared with the severity of depression. The *p*-value less than or equal to 0.05 was considered significant.

RESULTS

Out of 400 patients admitted with a diagnosis of depressive episode in our hospital during the study period, 59(14.75%) were males, while 341(85.25%) were female. The mean age of the study participants was 39.49±8.926 years (Table-I).

Table-I: Characteristics of Study Participants (n=400)

Parameters	n(%)
Age(years)	
Mean±SD	39.49±8.926 years
Range(min-max)	18 years-60 years
Gender	
Male	59(14.75%)
Female	341(85.25%)
Presence of Significant Adverse Childhood Experiences	
No	153(38.25%)
Yes	247(61.75%)
Severity of Depression	
Mild	25(6.25%)
Moderate	100(25.00%)
Severe	275(68.75%)
Illicit Substance use	
No	332(83.00%)
Yes	68(17.00%)

153(38.25%) participants did not have significant adverse childhood expe-riences, while 247(61.75%) had significant adverse childhood experiences. The severity of depressive episodes and substance use had a statistically signi-ficant relationship with significant adverse childhood experiences in our study participants (*p*-value <0.001) shown in Table-II.

Table-II: Relationship of Various Factors with Adverse Childhood Experiences (n=400)

Factors Studied	No Significant Adverse Childhood Experiences (n=153)	Significant Adverse Childhood Experiences (n=247)	*p*-value
Age			
18-30 years	79(51.6%)	106(42.9%)	0.089
>30 years	74(48.4%)	141 (57.1%)	
Use of illicit substance			
No	144(94.1%)	188(76.1%)	<0.001
Yes	09(5.9%)	59(23.9%)	
Gender			
Male	28(18.3%)	31(12.5%)	0.119
Female	125(81.7%)	216(87.5%)	

Table-III shows the relationship between the severity of depression and the presence of significant adverse childhood experiences, revealing a strong association between severe depression and adverse childhood experiences (*p*-value<0.001).

Table-III: Relationship of Severity of Depression with Significant Adverse Childhood Experiences (n=400)

	No significant Adverse Childhood Experiences (n=153)	Significant Adverse Childhood Experiences (n=247)	*p*-value
Mild to moderate depression	70(45.7%)	55(22.3%)	0.119
Severe depression	83(54.3%)	192(77.7%)	<0.001

DISCUSSION

Our study generated significant and alarming results regarding the epidemiology of adverse childhood experiences in patients suffering from depression. Furthermore, a strong association of these experiences with the severity of depression was also noteworthy. Depression is a highly prevalent mental health condition in developed and developing countries.[1,15] It is, therefore, very important to understand the risk factors that may make individuals prone to developing this disorder and factors that might lead to increased severity. Furthermore, recalling childhood adverse events may be traumatic for the patients, and

many clinicians may find it difficult to explore this area in many of their patients. We, therefore, conducted this study intending to look for adverse childhood experiences and factors related to significant adverse childhood experiences in patients admitted with depression in a tertiary care hospital in Pakistan.

Wang *et al.*[16] published a nationwide study in 2021 regarding classes on childhood adversities and their associations with the mental health of college undergraduates. They concluded that most of their patients who suffered from depression had adverse childhood experiences in one way or another. Adverse childhood experience patterns, major depressive disorder, and substance use disorder in older adults were studied by Kim *et al*. in 2021.[17] They revealed that mental health problems in older adults have their roots in adversities faced by the individual in childhood. Substance use disorder and depressive illness had a strong association with the presence of adverse childhood experiences in their study participants. They also emphasized the importance of trauma-focused therapies for these patients. Our results were not very different from theirs, and we also concluded that significant adverse childhood experiences were alarmingly high in patients admitted with a depressive episode in our study. Furthermore, these experiences were associated with more severe depressive illness and co-morbid illicit substance use.

Another similar study in 2021 analyzed the rural population of Uganda regarding the relationship between adverse childhood experiences with adult depression and suicidal behaviour.[18] It was concluded that around 90% of their patients reported adverse childhood experiences, and the risk of having depressive illness and suicidal ideation increased manifold in patients with these adverse experiences in childhood compared to those who had a childhood without significant adverse effects experiences. Around 60% of our patients reported significant childhood adverse events. This lower reporting may recall bias or underreport by patients for various reasons. Even then, the number of patients with ACEs was significantly high. Reporting these events in all cultures warrants mental health physicians to devise universal strategies for such patients.

The relationship between the presence and severity of depression with adverse childhood experiences in school-going adolescents was studied by Tsehay *et al.* in 2020.[19] They came up with the findings that around half of the school-going adolescents they included reported one or more adverse childhood experiences. Furthermore, the presence and severity of depression were also significantly related to these adverse childhood experiences. Our results supported their findings, and depression and illicit substance use had a statistically significant relationship with ACEs.

CONCLUSION

Significant adverse childhood experiences were alarmingly high in patients admitted with a depressive episode in our study. Furthermore, these experiences were found to be associated with the more severe form of depressive illness and with co-morbid illicit substance use. The findings reflect what has so far been proven with other similar research throughout the world. However, more research is required to establish the role of adverse childhood experiences in diseases not related to mental health and to eventually use primary prevention strategies in order to reduce the global healthcare burden.

Conflict of Interest: None.

Author's Contribution

Following authors have made substantial contributions to the manuscript as under:

SR & NA: Study design, drafting the manuscript, approval of the final version to be published.

SM & NA: Data acquisition, data analysis, data interpretation, approval of the final version to be published.

KH & UBZ: Critical review, concept, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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