The Psychological Impact of Attachment Anxiety on Childhood Trauma and Schizophrenia-Spectrum Psychosis

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Abstract

Introduction: Childhood trauma (CT) covers a broad variety of traumatic events that happen throughout childhood and adolescence, including physical, emotional, and sexual abuse as well as neglect. It is well established that people with schizophrenia-spectrum psychosis (SSP) experience more CT than others in a healthy state. The connection between CT and SSP has been linked to a sense of insecurity, which has been suggested as a possible mediator.

Objectives: By examining the roles of 2 relationship characteristics, relationship anxiety, and relationship avoidance, in the CT-SSP correlation, this study aims to improve our knowledge of this link.

Methods: A medical sample of 132 inpatients with SSP and a healthy control group make up the study's participant population. Standardized tests are used to evaluate individuals for CT, and validated tools are used to examine individuals' relationship types. Hallucinations intensity is also assessed. The links among CT, relationship characteristics, and psychopathology are investigated using statistical techniques, such as correlation analysis and mediation evaluation.

Results: The findings suggest that compared to the healthy control group, people with SSP had greater rates of CT and a sense of insecurity. Both relationship anxiety and the intensity of parent antagonism are connected with the degree of illusion. According to a mediating study, the only factor influencing the relationship between CT and SSP is anxiety about the relationship.

Conclusions: This study provides that persons with acute CT in the past, schizophrenia-spectrum psychosis, and elevated anxiety about relationships constitute a vulnerable population needing immediate professional intervention. Ongoing surveillance and specialized therapy therapies targeted at lessening the psychological effects of trauma should be provided to these people.

Keywords: Childhood trauma (CT), schizophrenia-spectrum psychosis (SSP), attachment anxiety

1. Introduction

A pattern of interpersonal interactions known as relationship anxiety is characterized by a persistent need for comfort and intimacy as well as fears of rejection and abandonment. The development of mental health conditions, such as schizophrenia-spectrum psychosis, can be influenced by relationship anxiety and childhood trauma. Nevertheless, it's crucial to keep in mind that mental health issues are complex and multidimensional, and no one component can adequately explain how they arise (Brañas et al., 2022). A person's mental health may be significantly impacted by childhood trauma, including neglect, abuse of any kind, or sexual, emotional, or physical assault. Numerous mental health problems, including schizophrenia-spectrum psychosis, have been linked to childhood trauma, according to studies. Trauma survivors are particularly vulnerable to these diseases. Traumatic events can interfere with healthy brain development, change the way the body reacts to stress, and cause mental symptoms (Chatziioannidis et al., 2021).

A certain relationship theory, a person's early encounters with providers has an impact on their ability to build and maintain relationships during their entire lives. When a kid receives care that is inconsistent or unpredictable, relationship anxiety can develop, creating emotions of uncertainty and dread in interpersonal connections. These nervous relationship patterns can last into adulthood and have an impact on how people see and interact with others. Childhood trauma's detrimental impacts on mental health might be exacerbated by relationship anxiety. A kid with relationship anxiety may become more fearful of abandonment and rejection if they endure trauma, such as abuse or neglect. They could have trouble trusting others, building solid connections, and enduring emotional suffering. These elements raise the possibility of developing mental health disorders, including schizophrenia-spectrum psychosis, and can lead to the emergence of psychological symptoms (Cui et al., 2019).

Hallucinations, delusions, disorganized thinking, and social disengagement are some of the symptoms of schizophrenia-spectrum psychosis, a collection of mental health conditions. Although the precise origins of these illnesses remain unclear, it is thought that environmental, psychological factors, and a mix of genetics play a role in their emergence (Dye, 2018). There are various ways in which relationship anxiety may make someone more susceptible to developing schizophrenia-spectrum psychosis. First of all, relationship anxiety raises the likelihood of developing psychotic symptoms because it is linked to chronic stress and dysregulation of the stress response system, both of which have negative effects on brain function. Second, relationship anxiety may result in issues with interpersonal interactions and functions that are typical of schizophrenia-spectrum illnesses. Finally, those who have relationship anxiety may experience increased degrees of worry and hypervigilance, which may help to maintain and develop psychotic symptoms (Finzi-Dottan et al., 2020).

The current study seeks to build on prior findings that indicate a significant relationship between CT, a style of relationship that is insecure, and psychosis via:

- Assessing the adult relationship style and CT of a medical set of SSP individuals in comparison to a control group that is in good health.

- To examine the relationships between CT, connection characteristics, and insane indication in the SSP group.

- Analyzing the role played by the two connection proportion in the CT-SSP collaboration mediated effect.

The remainder of the paper is divided into subsequent parts. Part 3 contains the method explained. Part 4 contains the results and analysis. Part 5 discusses the conclusions.

2. Literature Review

Chatziioannidis et al., 2021 examined the concurrent validity and test-retest reliability of retrospective CT reports in schizophrenia spectrum psychosis (SSP) to determine their short-term dependability (i.e., stability). Measures of report similarity such as concurrent validity and temporal stability such as test-retest reliability were employed. Mørkved et al., 2017 compared the prevalence of CT between individuals with a spectrum of schizophrenia and those who have other psychological conditions. Comparing the proportions of the various CT variants in these categories is another goal. Herstell et al., 2021 determined if a sense of insecurity is a major transdiagnostic risk indicator for bipolar disorder, depression, and schizophrenia spectrum disorders. By comparing patients with serious depression, schizophrenia spectrum disorders, and bipolar disorder to healthy controls (HC), they conducted a PRISMA-based systematic quantitative review to investigate the incidence of a sense of insecurity between individuals with these three indicative mental health conditions. Finzi-Dottan and Segev, 2020 analyze psychosocial indicators of SSD patients' health and determine if it is less than or equivalent to that of non-clinical individuals. They predicted that those with SSDs would express less happiness, less secure connection, and greater parental overprotection based on the research.

The objective is to update information on the incidence and forms of CT experienced by FEP individuals, to contrast them to other populations, to investigate the influence of gender, and to look at the association between CT and symptoms and functional results (Vila-Badia et al., 2021). The data supporting a link between unfavorable life events and psychosis, particularly in SCZ, Inyang et al., 2022 was examined in this systematic

review. The following five databases—PubMed, ScienceDirect, Semantic Scholar, JSTOR, and Cochrane Library—were used in a systematic search that produced repeatable findings. Dye, 2018 examined the detrimental long-term effects of early childhood trauma, which can result in permanent physiological and psychological deficits. Childhood trauma, particularly complicated trauma, can result in neurobiological alterations that affect human growth and alter brain activity significantly. Kong et al., 2018 were to determine if relationship insecurity, especially about certain types of childhood abuse, modulates the association between childhood trauma and adult dissociation. They looked into whether these methods alone or in conjunction could distinguish between a person with SSD and someone who has a psychotic bipolar illness with enough precision (Palaniyappan et al., 2019). Hjelseng et al., 2022 examined, in a sizable sample (N = 1039) that included diagnostic groups for SZS, BDS, and healthy controls (HC), the link between childhood trauma and functioning in society in adults.

2.1 Hypotheses Development

Hypotheses 1 (H1): Comparing SSP cases to healthy subjects, we anticipate greater levels of CT.

Hypotheses 2 (H2): We anticipate that patients will exhibit higher degrees of sense of insecurity than normal.

Hypothesis 3 (H3): The CT-SSP link will likely be mediated by anxiety about the relationship and/or avoiding the relationship.

3. Methods

In patients with SSP (n = 132; 104 male, 28 female) and 129 age- and gender-matched normal controls (n = 102 male, 27 female) were selected. Sufferers were chosen from the Second Division of Psychiatric at the Aristotle University of Thessaloniki, while healthy volunteers were chosen from the public, primarily from the identical geographic region as the patients, through word-of-mouth. Every individual submitted informed permission, which the Aristotle University Ethics Committee approved of.

Several conditions were established for exclusion: insufficient Greek language proficiency, age over 69, neurocognitive, mental retardation disease, basic health issues with possible implications on cognitive function, and identification of an ongoing substance-related illness. Furthermore, patients who had been given a diagnosis of psychotic disorder brought on by substance abuse or psychotic disorder caused by an overall health problem were disqualified from participating in the investigation.

All individuals had SSP and other psychotic disorders, according to the requirements of the DSM-IV. A first examination of charts served as the foundation for the identification of SSP in the individual group. The Mini-International Neuropsychiatric Questionnaire (M.I.N.I.) 6.0.0 in Greek, which was translated and adapted into Greek by S. Beratis, was used to verify the diagnosis of schizophrenia. M.I.N.I. was also utilized to demonstrate that the control group was free from psychological disease. The SSP group included 69 individuals with schizophrenia, 17 individuals with insanity, 13 individuals with delusions, 7 individuals with brief psychosis, and 27 individuals with insane disorders not otherwise specified, according to the DSM-IV categorization. Individuals underwent evaluations following clinical stabilization (E1). All of these individuals were taking antipsychotic medicines at the point of the examination. CT and adult relationship types were evaluated in the individual group at E1. E2 was also assessed.

3.1 Precautions

3.1.1 Traumatic Events in Childhood

"The Childhood Experience of Care and Abuse Questionnaire (CECA.Q)", a self-report instrument that records negative occurrences through childhood and teenage years, was used to evaluate CT. Scales for Parents' antagonism, Parent's Ignorance, Physical Assault (screening), Sexual Assault (screening), and Severity of Sexual Assault were all part of the survey. Minimum scores showed serious Ignorance and abuse. The numerous forms of CT that were encountered were added up to create a total CT severity score. Internal consistency, test-retest reliability, and concurrent validity were all proven by CECA.Q. Translations were used to get a Greek version, and permission from the author was acquired for study purposes.

3.1.2 Adult-oriented style

Utilizing the avoiding and anxiety aspects, the "Experiences in Close Relationships-Revised Survey (ECR-R)" evaluated the Adult-oriented style. ECR-R is a confession test that yields scores for relationship anxiety and avoidance. The insecure relationship is indicated by high scores on these measures. The factor structure, stability, and validity of the ECR-R are all strong. The Greek translation utilized in this study has high psychometric qualities and has been verified. The Anxiety and Avoiding dimensions were dichotomized based on the 80th percentile scores of the control individuals to produce a four-category relationship model. High anxiety was defined as a rating of 2.76 or higher, while excessive avoiding was defined as a rating of 3.60 or higher.

3.1.3 Assessment of Psychopathology

The Positive and Negative Syndrome Scale (PANSS) in its Greek translation was used to gauge the degree of illnesses in the individual's group. The Structured Clinical Interview for the PANSS (SCI-PANSS) in Greek was used to perform the evaluation. We used the model of five factors to determine the negative (N), positive (P), depression (D), excitement (E), and cognitive (C) ratings from a Greek verification experiment. The PANSS P3 item as a measure of illusion and the five factorial ratings were employed in the correlation analysis. Because CT has a strong correlation with the intensity of hallucinations in psychosis, the PANSS P3 item was comprised. A professional rater performed and scored every discussion.

3.2 Analyses of Statistics

SPSS version 22.0 was used for statistical analysis. The Kolmogorov-Smirnov test assessed for normality and looked at the skewness and kurtosis of the data. The non-normal distributions necessitated the use of tests that are not parametric. The chi-squared study evaluated the frequencies of CT and insecure relationships among SSP inpatients in comparison to HCs. There were computed odds ratios. The deadline ratings were used to convert CECA.Q ratings into dichotomous variables. Mann-Whitney U tests examined psychopathology among inpatients with and without CT, as well as connection characteristics among SSP inpatients and HCs. The connections among CT severity, relationship characteristics, and psychopathology were investigated using Spearman's correlations. Utilizing the PROCESS program and bootstrapping, mediation studies looked at whether relationship factors were mediating the CT-SSP connection. Education was a correlate that had a negative correlation with the relationship qualities.

4. Results

The CECA.Q's symmetry within and spatial constancy were evaluated to confirm its psychometric accuracy. The internal consistency of the antagonism and Ignorance utilizing Cronbach's alpha, measurements were assessed. Cronbach's alpha values for the two evaluations were both high: 0.90 for antagonism and 0.86 for Ignorance. To examine the temporal stability of the individual group's results, CECA.Q was given on two different occasions: E1 was the first testing, and E2 was 90 days later. All trauma ratings had significant levels of convergence when reliability between tests was evaluated using Spearman's correlation coefficients, as shown in Figure 1. The control group's test-retest reliability was not investigated.
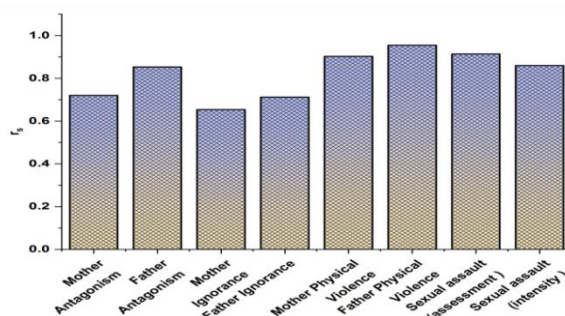

Figure 1: CECA.Q's test-retest dependability

4.1 Primary analysis

The scores obtained at E1 were utilized for the primary analysis.

4.1.1 Standard demographics

Age and gender did not differ among patients and healthy controls, but as indicated in Table 1, the two groups had different educational levels. Compared to healthy controls, psychotic individuals had lower levels of schooling.

4.1.2 Hypotheses 1 (H1)

All CT types showed significantly greater rates for SSP individuals compared to controls; these findings are shown in Table 2. As indicated in Table 2, the case-control analysis showed that individuals had an 11.7 times greater likelihood of having been confronted with CT than controls.

Only the P3 (hallucinations) rating distinguished between the two SSP subspecies, those who have and don't have a history of CT. The P3 ratings of SSP patients with CT were greater than those of SSP individuals without CT. Psychopathology analyses found only variations in mother antipathy and mother neglect among certain CT types. Those with SSP who had a history of either their mother's antagonism or ignorance had higher hallucinations than those without such a history. In Supplementary Figure 1, these outcomes are displayed. According to the data in Supplemental Table 1, only the intensity of Mother Antagonism was linked to psychotic symptoms, and in particular, hallucinations.

Table 1: Baseline clinical traits and demographics

Characteristics	Test	Patients (n = 132)	Controls (n = 129)	p
PANSS total score		89.86 (16.89)		
Age of SSP onset		29.7 (9.08)		
Level of education in years (Mean; SD)	t = 8.672	11.15 (3.2711)	15.91 (2.838)	.000*
Chlorpromazine equivalent dose mg/d (Mean; SD)		1024.3 (669.9)		
Age (Mean; SD)	t = - .634	40.46 (10.004)	39.34 (9.623)	529
Duration of illness (months)		130.16 (121.12)		
Gender (% male)	$\chi 2$ = .007	69.85	70.48	.938

4.1.3 Hypotheses 2 (H2)

Table 3 shows that SSP patients had considerably greater rates of concerned and scared connection than HCs. Individuals were shown to be 15 times more probably to have an insecure relationship style compared to controls using the odds ratio estimation, as shown in Table 3. Figure 3 and Table 5 display the findings of our comparison of individuals and groups along the two facets of connection, showing that individuals exhibited significantly greater levels of relationship anxiety and avoidance of relationships.

Supplemental Table 2 shows that only Relationships Anxiety was associated with psychopathology, and in particular, the P3 (hallucinations) rating.

Table 2: Prevalence of CT presents in SSP patients vs. healthy controls (HCs).

Childhood trauma	HCs (n = 129)		Between-group comparisons		SSP (n = 132)		
	n	%	χ2	p	N	%	ORs (95% CI)
Sexual Abuse	2	1.7	11.3	.002*	14	20.7	15.61 (1.98–123.43)
Father Neglect	2	1.7	8.8	004*	12	17.6	12.68 (1.59–101.64)
Mother Physical Abuse	4	4.8	7.9	006*	15	22.3	5.53 (1.51–20.35)
Mother Neglect	-	-	11.8	.002*	12	17.6	
Mother Antipathy	-	-	16.6	.000*	16	23.9	
Father Physical Abuse	6	8.1	4.8	030*	15	22.3	3.21 (1.06–9.53)
Father Antipathy	4	4.8	12.4	000*	19	28.7	7.74 (2.13–27.88)
Physical Abuse	7	9.9	14.8	000*	24	39.8	
Total[a]	8	14.9	34.6	.000*	43	66.8	11.56 (4.78–27.88)

Table 3: Comparison of relationship style rates between SSP patients and healthy controls (HCs).

Attachment style	HCs (n = 129)		Between-group comparisons		SSP (n = 132)		
	n	%	χ2	p	N	%	ORs (95% CI)
High anxiety-Low avoidance (Preoccupied)	8	11.6	19.4	.000*	31	47.7	7.02 (2.78–17.78)
High anxiety-High avoidance (Fearful)	6	8.3	13.1	.103	23	34.8	6.02 (2.11–17.21)
Low anxiety-Low avoidance (Secure)	42	67.3	38.6	.000*	9	12.8	0.08 (0.04–0.19)
Low anxiety-High avoidance (Dismissing)	9	13.2	2.8	.000*	4	4.9	0.34 (0.09–1.32)
Total	21	32.9	38.6	.000*	87.4	56	14.08 (5.66–35.17)

4.1.3   Hypotheses 3 (H3)

The relationship styles of anxiety and avoidance were included as potential arbitrators, while the uncorrelated dichotomous factor CT was input. The SSP outcome factor was similarly dichotomous and categorized. Our research showed that the link between CT and SSP was mediated exclusively by relationship anxiety. Relationship avoidance was not found to play a mediating function in this study using the parallel mediation paradigm. In Figure 2 we see the sum of the impacts as well as the direct and indirect ones.
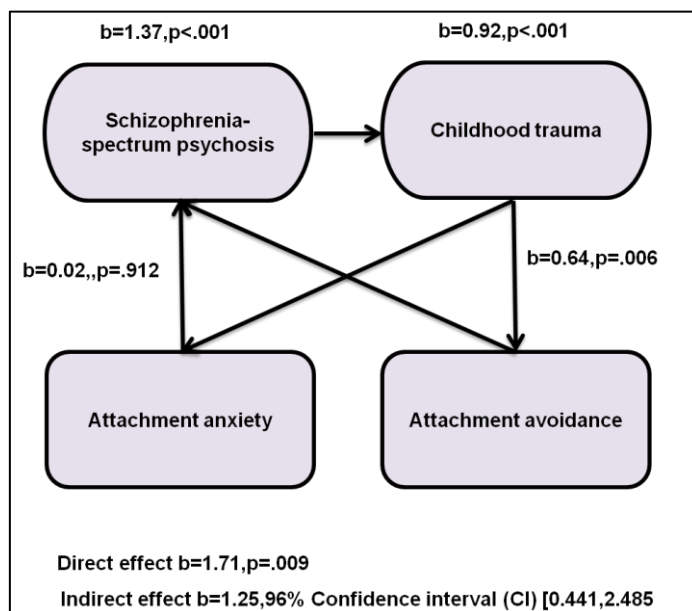

Figure 2: Diagrammatic representation of CT and SSP

Table 4: Mann–Whitney U test results

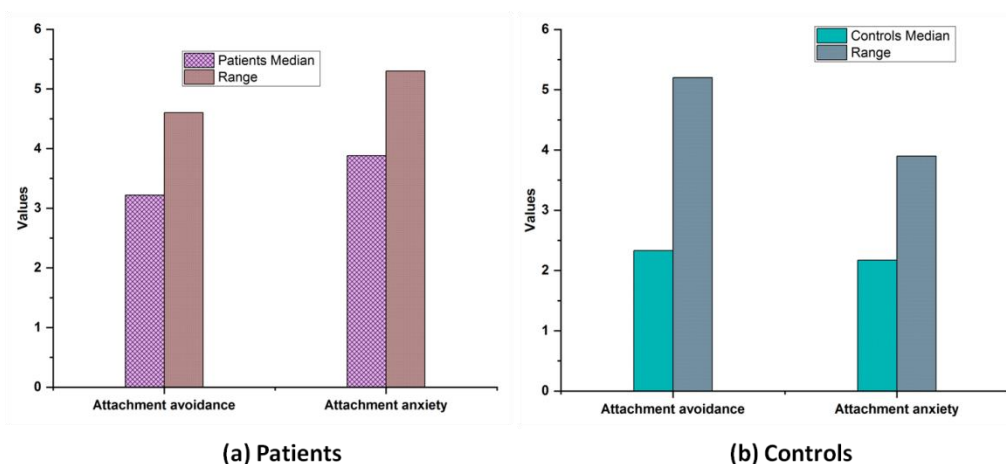| Variable	*r*	*U*	*P*
Attachment Anxiety	656	462.6	.000*
Attachment Avoidance	.331	1184.0	.000*

Figure 3: Mann–Whitney U test results

5.   Conclusion

To fill up some of the gaps in our understanding of the CT-SSP link, the current study investigated the part played by relationship anxiety and avoidance. In this study, we compared the medical data of 132 SSP inpatients to a healthy control group on evaluations of CT and affiliation type. Psychopathology, relationship style characteristics, and CT were all studied for possible correlations. The connection between CT and SSP was also analyzed via a mediation lens to see if anxious or avoidant relationship behavior played a role. Higher rates of CT and insecure relationships were seen among individuals compared to controls. The intensity of hallucinations was related to relationship anxiety and Mother Antagonism. The link between relationship anxiety and CT-SSP was identified as the only moderator of the relationship. Our results highlight a group at risk, including those with severe CT and elevated relationship anxiety, who might benefit from early clinical attention, ongoing monitoring, and individualized therapy treatments to mitigate the psychological effects of trauma.

5.1 Limitations

Our study contains drawbacks common to case-control studies, including recollection bias, selection bias, and the difficulty to prove causality. The restricted generalization may be a result of the short sample size and male predominance. Although studies have shown that self-reported retrospective assessments of childhood trauma (CT) are reliable, they may contain mistakes. Consistency may be impacted by the use of the Greek translation of the CECA.Q, an unpublished measure for CT evaluation. However, the clinical data that we used to demonstrate the validity of our findings had great internal coherence and test-retest reliability. It would have been more thorough for evaluating test-retest reliability in both patients and controls. Self-report, which examines conscious evaluations but does not fully reflect unconscious processes, was used to gauge adult relationship type. Although CT and relationship style assessments may have been impacted by psychopathology when the patient was hospitalized, the reports' trustworthiness is strengthened by being confirmed while the patient was on outpatient status. Our results would have been strengthened much more if the effect of mediation had been replicated during the clinical remission period.

5.2 Strengths

Our work complements the more recognized sources on the subject, especially Anglo-Saxon, with data from the Eastern Mediterranean data. The addition of two requirements for the assessment of CT and grownup connection type, as well as a medical and non-clinical control group, all add to the validity of our results. The dependability of the retrospective CT reports was first verified using a test-retest approach. Second, a 2 dimensional compute of connection that was verified across cultures was adopted since it is believed to be more effective than a category model for examining individual variations.

5.3 Implications

According to our research, those who had severe childhood trauma (CT) and had an anxious adult relationship style may be more likely to have psychosis. The needs of this vulnerable group should be taken into consideration by mental health services, especially prevention programs. To resolve or lessen these problems, psychotherapeutic therapies should be created aimed at the relationship-related consequences of CT. Successful therapies including cognitive processing therapy and trauma-focused CBT are promising and may be modified to address the unique requirements of people with CT and anxious relationship issues.

It is necessary to do further study in this area, especially using longitudinal data, to better understand the relationship between CT and insecure relationships and to look at potential interactions with other environmental, social, and neurobiological risk variables.

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