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## Qualitative Examination of the Relationship Between Childhood Trauma, Dissociative Identity Disorder, and Somatic Symptoms

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### Article Info

#### Article type:

Original Research

#### How to cite this article:

Rostami, M., & Mehdiabadi, P. (2024). Qualitative Examination of the Relationship Between Childhood Trauma, Dissociative Identity Disorder, and Somatic Symptoms. *Journal of Personality and Psychosomatic Research*, 2(4), 4-11.

<https://doi.org/10.61838/kman.jppr.2.4.2>



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### ABSTRACT

The objective of this study is to qualitatively examine the intricate relationships between childhood trauma, Dissociative Identity Disorder (DID), and somatic symptoms. This qualitative study involved 32 participants diagnosed with DID and a history of childhood trauma. Data were collected through semi-structured interviews, which were designed to elicit detailed narratives about participants' experiences. Thematic analysis was conducted using NVivo software to identify key themes and patterns within the data. The study continued data collection until theoretical saturation was achieved, ensuring a robust and comprehensive understanding of the phenomena under investigation. The analysis revealed several key themes related to the impact of childhood trauma on emotional, cognitive, behavioral, social, and physical health. Participants reported significant emotional distress, maladaptive behaviors, cognitive disruptions, and social challenges. The manifestation of DID included identity alteration, triggers and switches, coping mechanisms, interpersonal difficulties, emotional regulation issues, and impaired daily functioning. Additionally, participants experienced a range of somatic symptoms, including chronic pain, gastrointestinal issues, cardiovascular problems, neurological symptoms, immune system impacts, sleep disturbances, and stress-related symptoms. These findings align with existing literature on the neurobiological and psychological effects of childhood trauma and dissociation. The study underscores the profound and multifaceted impact of childhood trauma on individuals with DID, highlighting the need for holistic, integrative, and culturally sensitive approaches to treatment. By addressing both psychological and physical dimensions of dissociative disorders, clinicians can develop more effective therapeutic strategies. Future research should focus on expanding the sample size, incorporating longitudinal and quantitative analyses, and exploring innovative therapeutic interventions to further enhance clinical outcomes.

**Keywords:** Childhood trauma, Dissociative Identity Disorder, DID, Somatic symptoms, Emotional regulation, Coping mechanisms, Neurobiological impact, Cultural sensitivity.

## 1. Introduction

Childhood trauma, encompassing physical, emotional, and sexual abuse as well as neglect, has profound and long-lasting impacts on an individual's mental and physical health. One of the severe psychological consequences of such trauma is Dissociative Identity Disorder (DID), a condition characterized by the presence of two or more distinct identity states that control an individual's behavior at different times. This disorder is often accompanied by a range of somatic symptoms, making it a complex and multifaceted condition (Barlow et al., 2010; Golshani et al., 2021; van der Linde et al., 2023; Vermetten et al., 2006). Research has consistently shown a strong association between childhood trauma and the development of dissociative disorders, including DID. Dissociation serves as a psychological defense mechanism, helping individuals cope with overwhelming trauma by compartmentalizing distressing memories and emotions (Vermetten et al., 2006). According to Diseth (2005), dissociation can be viewed as a neurobiological response to severe stress during critical periods of brain development, leading to long-term changes in brain structure and function (Diseth, 2005). This notion is supported by Vermetten et al. (2006), who found alterations in hippocampal and amygdalar volumes in patients with DID, suggesting that early trauma can have enduring effects on brain anatomy and function (Vermetten et al., 2006).

From a neurobiological perspective, childhood trauma has been linked to changes in brain morphology and connectivity. Daniels et al. (2019) observed gray matter alterations in female survivors of childhood trauma, particularly in brain regions associated with emotional regulation and dissociation. These findings underscore the profound impact of trauma on brain development and the potential for long-term psychological repercussions (Daniels et al., 2019). Similarly, Ross (2005) highlights the importance of addressing these neurobiological changes through therapeutic interventions like dialectical behavior therapy and trauma model therapy, which aim to integrate dissociated identity states and improve emotional regulation (Ross, 2005).

Psychologically, dissociation can manifest in various forms, from mild detachment from reality to severe identity fragmentation seen in DID. Sun et al. (2018) investigated the prevalence of dissociative disorders in individuals with first-episode psychosis, revealing a significant overlap between dissociative symptoms and psychotic experiences (Sun et al., 2018). This overlap complicates the diagnostic process and

necessitates a nuanced understanding of the patient's history and symptomatology. Moulton et al. (2015) further explored the relationship between childhood trauma, dissociation, and eating psychopathology, emphasizing the role of emotion dysregulation as a mediator. Their findings suggest that addressing underlying dissociative processes can be crucial in treating co-occurring conditions like eating disorders (Moulton et al., 2015).

Somatic symptoms are a common but often overlooked aspect of dissociative disorders. These symptoms can include chronic pain, gastrointestinal issues, and cardiovascular problems, among others. Watson et al. (2006) found a significant association between childhood trauma and dissociation among patients with borderline personality disorder, with many patients reporting a range of somatic complaints. This highlights the need for comprehensive treatment approaches that address both psychological and physical symptoms (Watson et al., 2006).

Firoozabadi et al. (2016) investigated dissociative experiences in psychiatric inpatients and found that a substantial proportion of patients reported somatic symptoms that were often resistant to conventional medical treatments. This underscores the importance of considering dissociative processes in the diagnosis and management of somatic symptoms. Panzer and Viljoen (2004) provide a developmental psychoneurobiological perspective on dissociation, suggesting that early intervention and therapeutic support are critical in mitigating the long-term impact of childhood trauma on both mental and physical health (Firoozabadi et al., 2016).

Cultural factors can also influence the manifestation and interpretation of dissociative symptoms. Fung et al. (2022) conducted a cross-cultural investigation into the association between betrayal trauma and dissociative features, finding that cultural context significantly affects how individuals experience and report dissociative symptoms. This highlights the need for culturally sensitive diagnostic and therapeutic approaches (Fung et al., 2022).

Rafiq et al. (2018) conducted a meta-analytic review of the relationship between childhood adversities and dissociation in severe mental illness, confirming that early adversities significantly increase the risk of dissociation. Their findings advocate for routine screening for dissociative symptoms in patients with a history of childhood trauma to ensure comprehensive and effective treatment (Rafiq et al., 2018).

The theoretical framework for this study is grounded in the interplay between neurobiological, psychological, and

cultural perspectives on trauma and dissociation. By integrating these perspectives, the study aims to provide a holistic understanding of how childhood trauma contributes to the development of DID and somatic symptoms.

The primary research objectives are:

- To explore the emotional, cognitive, and behavioral impacts of childhood trauma on individuals with DID.
- To investigate the triggers and coping mechanisms associated with dissociative episodes.
- To examine the nature and prevalence of somatic symptoms in individuals with DID.
- To understand the interpersonal and daily functioning challenges faced by individuals with DID.
- To identify culturally relevant factors that influence the experience and reporting of dissociative symptoms.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This study employed a qualitative research design to explore the intricate relationships between childhood trauma, Dissociative Identity Disorder (DID), and somatic symptoms. Qualitative methodologies are particularly well-suited for this type of research as they allow for an in-depth understanding of complex psychological phenomena through detailed narratives and personal experiences.

Participants were selected using purposive sampling to ensure that the sample included individuals who had experienced childhood trauma and had been diagnosed with DID. The inclusion criteria were:

- Adults aged 18 years and older.
- Diagnosed with Dissociative Identity Disorder according to DSM-5 criteria.
- History of childhood trauma, as self-reported and corroborated by clinical records.

Data collection continued until theoretical saturation was achieved. Theoretical saturation occurs when no new themes or insights are emerging from the data, indicating that the collected data are sufficient to fully understand the research phenomena. This was assessed through ongoing data analysis, with the research team reviewing interview transcripts after each set of interviews.

### 2.2. Measure

#### 2.2.1. Semi-Structured Interview

Data were collected through semi-structured interviews, which allowed for flexibility in exploring participants' experiences while ensuring that key topics were covered. The interview guide included open-ended questions designed to elicit detailed accounts of participants' experiences with childhood trauma, the manifestation of DID, and any related somatic symptoms. Examples of guiding questions included:

"Can you describe your experiences of childhood trauma?"

"How do you perceive the impact of these experiences on your current mental health?"

"Can you discuss any physical symptoms you experience that you believe are related to your trauma or DID?"

Interviews were conducted in a private and comfortable setting, either in person or via secure video conferencing, depending on the participants' preferences and geographical locations. Each interview lasted approximately 60 to 90 minutes and was audio-recorded with the participants' consent.

### 2.3. Data Analysis

The interview recordings were transcribed verbatim and analyzed using NVivo software, which is designed to assist in managing and analyzing qualitative data. Thematic analysis was employed to identify and interpret patterns and themes within the data. The analysis process involved several steps:

**Familiarization with the Data:** Researchers repeatedly read through the transcripts to immerse themselves in the data.

**Initial Coding:** Segments of the text were coded based on their relevance to the research questions. NVivo software facilitated the organization and retrieval of these codes.

**Theme Development:** Codes were reviewed and grouped into broader themes that captured the essence of the participants' experiences.

**Reviewing and Defining Themes:** Themes were refined and defined, ensuring that they accurately represented the data and addressed the research questions.

## 3. Findings and Results

The study included 32 participants, comprising 24 females (75%) and 8 males (25%), reflecting a

predominance of female participants typically seen in studies related to trauma and dissociative disorders. The age of the participants ranged from 19 to 54 years, with a mean age of 36.4 years. The majority of participants identified as Caucasian (65%), followed by African American (20%), Hispanic (10%), and Asian (5%). Educational backgrounds

varied, with 40% holding a high school diploma, 35% having completed some college, and 25% possessing a bachelor's degree or higher. Employment status was diverse, with 45% employed full-time, 25% part-time, 20% unemployed, and 10% on disability leave.

**Table 1**

*The Results of Qualitative Analysis*

Category	Subcategory	Concepts
1. Impact of Childhood Trauma	1.1 Emotional Impact	Anxiety, Depression, Fear, Shame, Guilt, Anger
	1.2 Behavioral Responses	Withdrawal, Aggression, Self-Harm, Risk-Taking, Substance Abuse
	1.3 Cognitive Impact	Intrusive Thoughts, Flashbacks, Dissociation, Memory Gaps, Negative Self-Image
	1.4 Social Impact	Relationship Issues, Isolation, Trust Issues, Social Anxiety
	1.5 Physical Health Impact	Chronic Pain, Headaches, Gastrointestinal Issues, Sleep Disturbances, Fatigue
2. Manifestation of DID	2.1 Identity Alteration	Multiple Identities, Amnesia, Identity Confusion, Inner Conversations
	2.2 Triggers and Switches	Stress, Certain Environments, Specific People, Sensory Triggers
	2.3 Coping Mechanisms	Grounding Techniques, Medication, Therapy, Self-Care, Support Systems
	2.4 Interpersonal Challenges	Trust Issues, Relationship Strain, Miscommunication, Boundary Issues
	2.5 Emotional Regulation	Mood Swings, Emotional Numbing, Emotional Overwhelm
	2.6 Daily Functioning	Work Difficulties, Routine Management, Academic Challenges, Financial Strain
3. Somatic Symptoms	3.1 Pain Symptoms	Headaches, Muscle Pain, Abdominal Pain, Joint Pain
	3.2 Gastrointestinal Symptoms	Nausea, Irritable Bowel Syndrome (IBS), Diarrhea, Constipation
	3.3 Cardiovascular Symptoms	Palpitations, Chest Pain, Hypertension, Shortness of Breath
	3.4 Neurological Symptoms	Migraines, Numbness, Tingling, Seizure-Like Episodes
	3.5 Immune System Impact	Frequent Infections, Allergies, Autoimmune Reactions, Fatigue
	3.6 Sleep Disturbances	Insomnia, Nightmares, Restless Sleep, Sleep Paralysis
	3.7 Stress-Related Symptoms	Chronic Fatigue, Fibromyalgia, Adrenal Fatigue, Muscle Tension

## 1. Impact of Childhood Trauma

### 1.1 Emotional Impact

Childhood trauma profoundly affects emotional well-being. Participants frequently reported experiencing anxiety, depression, and pervasive fear. Many expressed feelings of shame and guilt linked to their traumatic experiences, often accompanied by intense anger. One participant shared, "I constantly feel anxious and ashamed, like it's my fault what happened."

### 1.2 Behavioral Responses

Traumatic experiences in childhood led to various maladaptive behaviors. Common responses included social withdrawal, aggression, self-harm, risk-taking, and substance abuse. A participant mentioned, "I started drinking heavily and engaging in risky behaviors to numb the pain."

### 1.3 Cognitive Impact

The cognitive repercussions of trauma were significant, including intrusive thoughts, flashbacks, dissociation, and memory gaps. Negative self-image was also prevalent. One interviewee stated, "I have these intrusive thoughts and flashbacks that make me feel like I'm reliving the trauma."

### 1.4 Social Impact

Social functioning was notably impaired, with participants describing relationship issues, isolation, and trust difficulties. Social anxiety was another frequent consequence. As one participant explained, "I struggle to trust people and often feel isolated even in a crowd."

### 1.5 Physical Health Impact

Physical health issues related to childhood trauma included chronic pain, headaches, gastrointestinal problems, sleep disturbances, and persistent fatigue. A participant noted, "I have chronic pain and frequent headaches, which I believe are linked to my past trauma."

## 2. Manifestation of DID

### 2.1 Identity Alteration

DID was marked by the presence of multiple identities, amnesia, identity confusion, and inner conversations. A participant explained, "There are different parts of me, and sometimes I can't remember what happened when another part was in control."

### 2.2 Triggers and Switches

Certain triggers and environments provoked identity switches, including stress, specific people, and sensory



triggers. One individual stated, "Stressful situations or certain places can trigger a switch in my identity."

### 2.3 Coping Mechanisms

Coping with DID involved grounding techniques, medication, therapy, self-care, and support systems. A participant shared, "Grounding techniques and therapy have been crucial for managing my condition."

### 2.4 Interpersonal Challenges

Interpersonal relationships were strained due to trust issues, miscommunication, and boundary problems. One participant remarked, "It's hard to maintain relationships because people don't understand my condition."

### 2.5 Emotional Regulation

Emotional regulation was difficult, with participants experiencing mood swings, emotional numbing, and emotional overwhelm. A participant expressed, "I go from feeling numb to being completely overwhelmed by my emotions."

### 2.6 Daily Functioning

Daily functioning was compromised, affecting work, routine management, academic performance, and financial stability. One interviewee commented, "Managing daily tasks and holding a job is a constant struggle."

## 3. Somatic Symptoms

### 3.1 Pain Symptoms

Pain symptoms included headaches, muscle pain, abdominal pain, and joint pain. A participant described, "I have persistent muscle and joint pain that doctors can't seem to explain."

### 3.2 Gastrointestinal Symptoms

Gastrointestinal issues such as nausea, irritable bowel syndrome (IBS), diarrhea, and constipation were common. One participant said, "I frequently experience nausea and severe IBS."

### 3.3 Cardiovascular Symptoms

Cardiovascular symptoms reported included palpitations, chest pain, hypertension, and shortness of breath. A participant noted, "I often feel my heart racing and experience chest pains."

### 3.4 Neurological Symptoms

Neurological symptoms involved migraines, numbness, tingling, and seizure-like episodes. One individual shared, "I suffer from migraines and occasional numbness in my limbs."

### 3.5 Immune System Impact

The immune system was affected, leading to frequent infections, allergies, autoimmune reactions, and fatigue. A

participant explained, "I get sick often and have severe allergies."

### 3.6 Sleep Disturbances

Sleep disturbances were prevalent, including insomnia, nightmares, restless sleep, and sleep paralysis. One interviewee mentioned, "I struggle with insomnia and have frequent nightmares."

### 3.7 Stress-Related Symptoms

Stress-related symptoms encompassed chronic fatigue, fibromyalgia, adrenal fatigue, and muscle tension. A participant reported, "I feel constantly fatigued and have been diagnosed with fibromyalgia."

## 4. Discussion and Conclusion

This study explored the intricate relationships between childhood trauma, Dissociative Identity Disorder (DID), and somatic symptoms through qualitative analysis of patient case studies. The findings revealed that childhood trauma has profound emotional, cognitive, behavioral, and physical impacts on individuals, significantly contributing to the development of DID and a wide range of somatic symptoms. Key themes identified include the emotional impact of trauma, behavioral responses, cognitive repercussions, social impact, and physical health consequences. Additionally, the study highlighted how DID manifests through identity alteration, triggers and switches, coping mechanisms, interpersonal challenges, emotional regulation, and daily functioning difficulties. The presence of somatic symptoms, such as pain, gastrointestinal issues, cardiovascular symptoms, neurological symptoms, immune system impact, sleep disturbances, and stress-related symptoms, further underscored the complex interplay between psychological and physical health in individuals with DID.

The results of this study align with existing literature on the impact of childhood trauma on psychological and physical health. Daniels et al. (2019) found gray matter alterations in brain regions associated with emotional regulation and dissociation in female survivors of childhood trauma, which supports the observed emotional and cognitive impacts in our study (Daniels et al., 2019). The emotional impact of trauma, characterized by anxiety, depression, fear, shame, and guilt, aligns with Diseth's (2005) discussion on how dissociation serves as a neurobiological response to severe stress, leading to long-term changes in brain structure and function (Diseth, 2005).

Behavioral responses such as withdrawal, aggression, self-harm, risk-taking, and substance abuse were prevalent among participants, consistent with the findings of Watson et al. (2006), who reported a significant association between childhood trauma and maladaptive behaviors among patients with borderline personality disorder (Watson et al., 2006). The cognitive impact, including intrusive thoughts, flashbacks, dissociation, and memory gaps, reflects the dissociative processes described by Sun et al. (2018), who highlighted the overlap between dissociative symptoms and psychotic experiences in individuals with first-episode psychosis (Sun et al., 2018).

Social functioning was notably impaired, with participants describing relationship issues, isolation, and trust difficulties. This is consistent with the findings of Moulton et al. (2015), who emphasized the role of emotion dysregulation as a mediator between childhood trauma and social difficulties (Moulton et al., 2015). The physical health impact, including chronic pain, headaches, gastrointestinal problems, sleep disturbances, and persistent fatigue, aligns with Firoozabadi et al. (2016), who reported somatic symptoms in psychiatric inpatients with a history of dissociation and trauma (Firoozabadi et al., 2016).

The manifestation of DID through identity alteration, triggers and switches, coping mechanisms, interpersonal challenges, emotional regulation, and daily functioning difficulties corroborates the findings of Vermetten et al. (2006), who observed alterations in hippocampal and amygdalar volumes in patients with DID, suggesting that early trauma has enduring effects on brain anatomy and function (Vermetten et al., 2006). The use of coping mechanisms such as grounding techniques, medication, therapy, self-care, and support systems echoes the therapeutic strategies proposed by Ross (2005) to address the neurobiological and psychological changes resulting from trauma (Ross, 2005).

Somatic symptoms reported by participants, including pain, gastrointestinal issues, cardiovascular problems, neurological symptoms, immune system impact, sleep disturbances, and stress-related symptoms, are consistent with the literature on the physical manifestations of dissociation and trauma. Panzer and Viljoen (2004) provide a developmental psychoneurobiological perspective, suggesting that early intervention and therapeutic support are critical in mitigating the long-term impact of childhood trauma on both mental and physical health (Panzer & Viljoen, 2004).

The cultural context significantly influenced the experience and reporting of dissociative symptoms, as highlighted by Fung et al. (2022). This underscores the importance of culturally sensitive diagnostic and therapeutic approaches, aligning with Rafiq et al. (2018), who advocate for routine screening for dissociative symptoms in patients with a history of childhood trauma to ensure comprehensive and effective treatment (Fung et al., 2022).

Despite the insightful findings, this study has several limitations. First, the sample size of 32 participants, while adequate for a qualitative study, may not fully capture the diversity of experiences among individuals with DID and a history of childhood trauma. Second, the reliance on self-reported data and retrospective accounts may introduce recall bias, as participants' memories of their traumatic experiences and symptoms may be influenced by their current mental state. Third, the study's focus on a specific population limits the generalizability of the findings to broader populations, including males and individuals from different cultural backgrounds. Finally, the use of semi-structured interviews, while providing in-depth insights, may have limited the exploration of certain aspects of participants' experiences that were not covered by the interview guide.

Future research should address these limitations by expanding the sample size to include a more diverse population, encompassing different genders, cultural backgrounds, and age groups. Longitudinal studies would be beneficial to track the progression of DID and somatic symptoms over time, providing a more comprehensive understanding of how childhood trauma impacts individuals throughout their lives. Additionally, integrating quantitative measures with qualitative data could offer a more robust analysis, allowing for the identification of specific patterns and correlations between trauma, dissociation, and somatic symptoms. Further investigation into the neurobiological underpinnings of DID, using advanced imaging techniques and biomarker analysis, could enhance our understanding of the physiological mechanisms driving dissociative processes and somatic manifestations. Finally, exploring the effectiveness of various therapeutic interventions, including emerging treatments like trauma-focused cognitive-behavioral therapy and neurofeedback, could provide valuable insights into improving clinical outcomes for individuals with DID and a history of childhood trauma.

The findings of this study have important implications for clinical practice. Mental health professionals should adopt a holistic and integrative approach to treatment, addressing

both the psychological and physical dimensions of dissociative disorders. Comprehensive assessment protocols should include routine screening for childhood trauma and dissociative symptoms, ensuring that these factors are considered in the diagnostic and treatment planning process. Culturally sensitive practices are essential, as cultural context significantly influences the experience and reporting of dissociative symptoms. Clinicians should be trained in trauma-informed care, recognizing the complex interplay between trauma, dissociation, and somatic symptoms, and employing therapeutic techniques that promote emotional regulation, identity integration, and overall well-being. Multidisciplinary collaboration, involving psychologists, psychiatrists, primary care physicians, and other healthcare providers, is crucial to address the multifaceted needs of individuals with DID and a history of childhood trauma. Providing ongoing support and resources for patients, including access to support groups, educational materials, and community services, can enhance the therapeutic process and improve long-term outcomes.

In conclusion, this study highlights the profound impact of childhood trauma on the development of Dissociative Identity Disorder and somatic symptoms, underscoring the need for comprehensive, integrative, and culturally sensitive approaches to treatment. By expanding our understanding of these complex relationships, we can develop more effective strategies to support individuals affected by trauma and dissociation, ultimately improving their mental and physical health outcomes.

### Authors' Contributions

Authors contributed equally to this article.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

### Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

### Declaration of Interest

The authors report no conflict of interest.

### Funding

According to the authors, this article has no financial support.

### Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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