Transgenerational transmission of psychological trauma

Parezanović, Chloe Sibylle Maya

University of Zagreb

School of Medicine

Chloe Sibylle Maya Parezanovic

Transgenerational Transmission of Psychological Trauma

Graduate Thesis

Zagreb, 2023.

Abbreviations

DSM-5 - Diagnostic and Statistical Manual of Mental Disorders

PTSD - Posttraumatic Stress Disorder

BPD - Borderline Personality Disorder

MDD - Major Depressive Disorder

MBT - Mentalization-Based Therapy

DID - Dissociative Identity Disorder

Table of Contents

Abstract

Transgenerational Transmission of Psychological Trauma
Chloe Parezanovic

In order to better understand many psychiatric disorders, one can turn to the very beginning of life and evaluate one's development and interpersonal relations to gain answers and knowledge about the present condition. Attachment starts immediately after birth, and based on different attachment styles, an individual will develop different ways of coping with trauma throughout their lifetime. These coping mechanisms can eventually lead to psychopathology. Therefore, it is crucial to understand the origins of these behaviors and how to effectively treat them.
Through a process called mentalization, which is natural to most human beings already, one can deal with many of life's difficulties, both past and present. This tool is useful for individuals to use on their own, as well as with a therapist during psychotherapy.
Learning about these attachment styles, trauma, and possible treatment options is beneficial, as every single person in this world will have to deal with some kind of trauma, and obtaining the proper tools to do so will help tremendously.

Key words: Transgenerational trauma, mentalization, attachment

Sažetak

Transgeneracijska Transmisija Psihološke Traume

Chloe Parezanovic

Kako bi se bolje razumjeli mnogi psihički poremećaji, potrebno je okrenuti se samom početku života i vrednovati svoj razvoj i međuljudske odnose kako bi dobili odgovore i saznanja o sadašnjem stanju. Privrženost počinje odmah nakon rođenja, a na temelju različitih stilova privrženosti pojedinac će tijekom života razviti različite načine nošenja s traumom. Ovi mehanizmi suočavanja mogu na kraju dovesti do psihopatologije. Stoga je ključno razumjeti podrijetlo ovih ponašanja i kako ih učinkovito liječiti.

Kroz proces koji se zove mentalizacija, koji je već prirodan većini ljudskih bića, čovjek se može nositi s mnogim životnim poteškoćama, kako prošlim tako i sadašnjim. Ovaj alat je koristan za pojedince za samostalno korištenje, kao i s terapeutom tijekom psihoterapije. Učenje o ovim stilovima privrženosti, traumama i mogućim opcijama liječenja je korisno, budući da će se svaka osoba na ovom svijetu morati suočiti s nekom vrstom traume, a dobivanje odgovarajućih alata za to će uvelike pomoći.

Ključne riječi: transgeneracijska trauma, mentalizacija, privrženost

1. Introduction

Trauma is a very heavy topic that many tend to avoid and cover up rather than face. With good reason, as it brings up many emotions, feelings and perhaps memories that one has difficulty dealing with. Every single person on this planet has to deal with some kind of trauma, even if one hasn't experienced trauma directly, but rather inherited it from their parents who suffered. This inheritance can start from infancy, and can affect an individual in many ways - including their interpersonal relationships, possible future psychopathology, and even their future children. Luckily, the research being conducted on the infant mind, encompassing various fields such as psychoanalysis, neurology, and biology, serves as a source of hope. It reminds us of the profound significance of nurturing the next generation. We need to keep close attention to different attachment styles and how they can lead to different outcomes, as well as what the ideal parent-child relation should look like. There is also hope for those who did not break the trauma cycle as an infant, one does not need to continue carrying this trauma and passing it onto future generations. We will discuss the concept of mentalizing and how useful it can be in healing from traumas and as a psychotherapy tool. This is all a very new topic and more research needs to be done, but it is crucial to understand and practice what we know so far to improve people's suffering.

2. Definition of trauma

As defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), trauma requires "actual or threatened death, serious injury, or sexual violence". According to this definition, other life stressors that do not pose immediate danger to life or physical injury would not fall under trauma (i.e. divorce, loss of job, etc.) (1) If a trauma is not worked through or dealt with properly, there can be many consequences, on the individual and on his offspring. A possible aftereffect of disregarded traumatic events in adults is PTSD. The definition of Posttraumatic Stress Disorder (PTSD) is "a trauma and stress-related disorder

that is characterized by four clusters of symptoms: intrusion, avoidance, negative alterations in cognition and mood, and alterations in arousal and reactivity." (1) The symptoms must be present for at least one month, and must cause significant impairment in functioning of the individual, whether in social, occupational, or other life situations. It is crucial to understand and delineate these definitions to discuss this topic. What is perhaps even more surprising is the effect unresolved trauma can have on future generations and offspring of the affected individual. Transgenerational transmission means passing down behaviors, attitudes, beliefs, and experiences from one generation to the next, which can occur with traumatic events. The children can experience a variety of symptoms, psychopathologies, emotions, memories, thoughts, etc. that they may not even be aware of or understand where it is all coming from. (2) There can also be behaviors passed down to one generation due to trauma, that gets passed onto the next generation, and continues to sneak through to the next generations if ignored, which can be harmful for everybody involved. Compulsiveness, abusive relationships and self-destruction are just a few examples of these unfavorable behaviors that become part of a cycle and which could be avoided if these patterns are recognized.

3. Attachment theory

Attachment begins, and is most crucial, in infancy. It can be secure or insecure, changes throughout an individual's life, and affects how one depends (or doesn't) on others to manage distress. (3) Attachment relationships share similarities with other close relationships that involve affectional bonds, as noted by Ainsworth (4). These similarities can be observed through common experiences such as a longing for closeness, feelings of distress upon separation, joy upon reunion, and grief in response to loss. However, attachment relationships possess unique qualities in their ability to provide a sense of security and comfort during times of distress. This distinctive feature is crucial in the context of trauma, as attachment relationships play a fundamental role in providing support and solace to individuals in the face of adversity and traumatic experiences. They

serve as a foundation for resilience and healing, helping individuals navigate and cope with the challenges posed by trauma.

To provide a broad overview of attachment theory, we can consider four fundamental findings (5) that serve as key tenets. First, it has been observed that all infants, unless significantly impaired neurobiologically, form attachments with one or more caregivers, even in cases where the caregivers may be abusive or neglectful. Second, the majority of infants develop secure attachments, which indicates a healthy and positive bond with their caregivers. Third, infants are more likely to form secure attachments with caregivers who display sensitivity and responsiveness to their needs. Fourth, the presence of secure attachment contributes positively to children's emotional, interpersonal, and cognitive development, enhancing their overall competence in various areas. (5) These findings underscore the significance of attachment security in shaping the well-being and functioning of individuals from early infancy throughout their lives.

The image of a mother holding a scared or upset baby in her arms represents the standard for attachment. This model demonstrates the main purpose of attachment: giving the baby a secure environment that offers protection from harm. As suggested by Bowlby (6), attachment has evolved in a number of species- mammals being the prototypical example- to provide protection from predation: infants naturally want to be close to their mothers, and mothers naturally want to stay close to their babies. When mothers and babies are separated, for instance, the baby's screams of pain can bring them back together. (7) Despite the fact that providing physical protection is still a key aspect of caregiving, attachment research has placed more emphasis on the importance of reestablishing a sense of security (8), which is connected to the primary function of attachment: emotional regulation. The scenario of a toddler and his mother at a playground vividly illustrates the dynamics of attachment. As the toddler engages in play, he periodically checks back with his mother, ensuring her availability and presence. This secure base allows the toddler to explore the playground confidently, knowing that his mother is nearby. However, if the toddler loses sight of his mother, he may stop playing, become distressed, and actively search for her. (3) Alternatively, encountering a potentially threatening situation, such as a

barking dog, may trigger a similar response. In both instances, the toddler seeks the safe haven of his mother's comforting presence to regain a sense of security and alleviate distress. This innate drive to seek proximity and seek solace in the attachment figure highlights the fundamental role of attachment relationships in providing a secure base from which individuals can navigate the world and find comfort in times of need. (3) The infant who has a safe-haven is more likely to explore, have higher confidence, and trust others more easily.

The experiments done by Mary Ainsworth (9) can be used to understand the three types of attachment - secure, ambivalent, and avoidant. The “Strange Situation” scenario involved the following steps: first the mother and infant are brought into an unfamiliar but comfortable room filled with toys, where the infant is allowed to play with the toys, potentially with the mother’s aid. Next, a stranger enters and plays with the infant. Then, the mother leaves the room, leaving the infant with the stranger. The mother returns after a brief period, pausing to allow the infant to react to her return, while the stranger leaves the room. The mother leaves the room a second time, leaving the infant alone. Finally, the stranger returns into the room and interacts with the child until the mother comes back. (10) There were two separations - one of the mother only, and the other of the mother and the stranger. (9) However, the most important moments to analyze were the two reunions of the child with the mother - how does the infant react to her return? How does it affect his levels of distress? These answers are the difference between secure and insecure attachment. (10) Trained investigators observed the infant’s reactions and from all this data, the three forms of attachment were established.

In secure attachment, when the infant is first introduced to the room accompanied by his mother, he examines the toys and plays with them, occasionally with his mother’s help and possibly in interaction with the stranger. He will display different levels of concern if left alone with the stranger, probably along with a loss of interest in play. Although the infant may to some extent seek solace from the stranger, he much prefers his mother’s comfort when she returns. In the third part of the experiment, when left fully alone, he is likely to become more distressed and need comforting more deeply. Following both separations, he craves proximity to his mother upon reunion, generally wanting physical contact. He settles

down and resumes exploring and playing once his mother successfully comforts and reassures him. (9) These reactions and behaviors are therefore considered healthy and normal for secure attachment.

In the ambivalently attached infant, the separations from the mother seem to be incredibly upsetting. The infant avoids the stranger, and shows fear of the stranger. When reunited with the mother, he approaches the mother and demands care, but rejects contact. He can ask to be picked up and then push his mother away or wriggle free of her arms while still clinging to her. He is therefore upset, but his annoyance makes him unconsolable.

The avoidant infant will appear extremely independent, as he is playing alone and completely ignoring his mother. With the departure of his mother, there is little to no distress displayed by the infant. Likewise, with her return, the infant is indifferent, shows no wish for contact, and prefers to continue playing than to be held by her. Ainsworth noticed that mothers of avoidant children were slightly rejecting, uncomfortable with physical touch, and sometimes even angered by their child but kept their anger under control. She also saw that the women were inflexible and compulsive, not wanting the baby to interfere with their activities and becoming angry easily when the baby didn't immediately do as they were told. (9) The mothers' behaviors therefore provide a clear reasoning to the infants' reactions and conduct.

Ainsworth also observed infants in their homes, and the similarities are striking: securely attached infants exhibited less crying, likely because they have trust in their caregiver, knowing their needs will be met promptly. They have minimal distress during brief separations, lower levels of anxiety, they enjoy close physical contact with their mothers, and they tend to be more cooperative and compliant with their mother's requests. (10)

Based on the responsiveness of the parent, the child's attachment style differs. Sensitive responsiveness means the mother is warm and loving, as well as sensitive to the child's distress signals, understanding them accurately and responding to them immediately and effectively. (3) It also means being actively involved in the baby's activities in a way that demonstrates cooperation and synchronicity, which is to say, seamlessly integrating one's actions into the baby's interests, activity, and mood without interfering with the infant's

goal-directed behavior. (10) It should be noted that the mother's psychological awareness of the infant is crucial to providing not only a safe refuge but also a secure basis with accompanying delicate encouragement for exploration and play. (10) This psychological awareness is also called mentalizing and will be discussed later. The result of such responsiveness is secure attachment, which causes a safe space for the infant to explore.
In contrast, when faced with limited responsiveness from the parent, the infant must decide between putting in more effort or giving up and doing it alone. This leads to ambivalent and avoidant attachment, respectively. (3) The infant, who is ambivalently attached, clings to the inadequately secure haven, with attachment taking precedence over exploration. Due to the lack of responsiveness by the parent, the infant compensates by hyperactivating their attachment needs, which can appear as tantrums, intense distress, etc. This is done in an attempt to receive more attention and care from the parent, which is clearly lacking. As the name suggests, this type of attachment is contradictory, and causes resentment in the relationship while the need for care is intertwined with feelings of deprivation and dissatisfaction. The simultaneous need for warmth and closeness on the one hand, and the frustrated aversion to care and comfort on the other, are manifestations of ambivalence. (10) As opposed to ambivalent attachment, an infant with avoidant attachment will deactivate his attachment needs and exploration becomes the primary focus. He is trying to manage his emotional dilemma on his own, as the caregivers of these children usually appear emotionally unavailable. The two insecure attachment styles are methods of regulating emotional distress in opposite ways - ambivalent infants *hyper-activate* their attachment needs, and avoidant infants *deactivate* their needs. (10)

A fascinating experiment conducted by Johnson, Dweck, and Chen (11) sheds light on how implicit internal working models of attachment manifest in the expectations of twelve-month-old infants regarding caregiver responsiveness. The experiment involved infants who had previously undergone attachment security assessments using the Strange Situation procedure. The infants were divided into two groups: securely attached and insecurely attached.
In the experiment, the infants were shown visual scenes featuring animated geometric characters, specifically two ellipses representing a large one (intuitively perceived as the

"mother") and a small one (the "child"). Initially, both ellipses were positioned at the bottom of an incline. The "mother" then traveled halfway up the incline to a small plateau and remained there, while the "child" at the bottom exhibited pulsating and bouncing movements accompanied by the sound of an infant crying. (11) Following this setup, two different scenarios unfolded: In one scenario, the "mother" returned to the bottom, reestablishing proximity with the "child" (referred to as the "responsive mother"). In the other scenario, the "mother" continued ascending the incline, moving away from the "child" (referred to as the "unresponsive mother").

The intriguing finding of the experiment was that securely attached infants, unlike their insecurely attached counterparts, showed a longer gaze duration towards the "unresponsive mother" who continued up the incline. This extended gaze suggested that the behavior of the "unresponsive mother" violated the securely attached infants' expectations based on their prior experiences of sensitive responsiveness, as inferred from their secure attachment in the Strange Situation. The securely attached infants found the unresponsiveness of the "mother" puzzling and perplexing, as it contradicted their anticipated patterns of sensitive and responsive caregiving. (11) This experiment highlights how securely attached infants possess implicit internal working models of attachment that influence their expectations of caregiver responsiveness. Their prolonged gaze at the "unresponsive mother" signifies their surprise and confusion when faced with a departure from their familiar experience of sensitive and responsive caregiving. It demonstrates how infants' attachment experiences shape their implicit expectations and their ability to detect deviations from those expectations, even at a young age. (11)

However, the mother’s responsiveness - or lack of towards their infant is a very complex and puzzling topic that merits more explanation. It was found that responsiveness does not occur in isolation. Caregiving and attachment are influenced by a variety of circumstances, including parental psychiatric problems, age, education, and socioeconomic level, as well as stressful situations at home. (3) This means that environmental factors affect attachment security just as much, if not more, than genetic and physiologic components of temperament. Although there were longitudinal studies done that proved that the attachment styles at age 1 from Ainsworth’s experiments matched the attachment styles

when assessed at ages 19 (Main et al. 2005), 21–22 (Crowell and Waters 2005), and 26 (Sroufe et al. 2005), this is not the case for everybody. Trauma, traumatic life events, divorce, parental death, and major disease in the offspring or parent are all linked to negative, unfavorable alterations in attachment security.

4. Mentalizing

Mentalizing is a human ability that comes naturally and that we frequently take for granted - we all develop a natural desire to understand ourselves and others as psychologists. It involves awareness in the sense of being aware of one's own and other people's mental states. (3) It also involves “more complex understanding of behavior in relation to the mental states” (10), that is, finding out the why to the emotion or feeling. It is complicated as there are multiple components to the term. (12) Fundamentally, we make a distinction between ourselves and others; understanding our own thoughts is distinct from understanding those of others. Additionally, we separate mentalizing into explicit (controlled) and implicit (automatic) modes. As the names suggest, explicit mentalizing is conscious and purposeful, and can be expressed with language (speaking of experiences, emotions, etc.) Implicit mentalizing is nonconscious and innate, it involves movements and behaviors we find ourselves doing without thinking about them or forcing ourselves. (for example, shifting our body language and tone of voice when comforting a friend in distress) One can mentalize thoughts, which are more cognitive and intellectual, or feelings, which are noncognitive. We can also make a difference between an external (physical) or internal focus - such as how a person appears on the outside, and why they appear that way or why they are feeling this. We can mentalize in the present, about the past, about the future, and it can be based on a current situation or more broadly about life events. (3) Mentalizing is a skill, and as with any skill, we can work on it or lose it without practice. It is constantly fluctuating, even among one individual. For example, most people cannot mentalize when angry, frustrated, ashamed - instead they get defensive. In addition, one can be better at mentalizing others than themselves, or better with certain emotions than others, etc. (10)

Mentalization of a parent can directly influence the child's attachment style, which was proven by Fonagy and colleagues (13), who showed that "parental mentalizing in the adult interview was the strongest predictor of infant attachment security." (13) If we assume that parents who are able to mentally represent their own attachment history (i.e., to reflect in a clear and emotionally invested manner) are likely to be more competent of mentally representing their infant's attachment demands and feelings, this is sensible. Multiple researchers have concluded similar, with the most important theme being that securely attached parents mentalize their infants. They communicate about their children in a psychologically attuned manner, paying attention to their needs, wants, and feelings (Slade et al. 2005). Infants then naturally turn to them for support when they are in trouble because they are securely bonded to them and intuitively anticipate a mentalizing reaction. Additionally, these infants have stronger mentalizing abilities later on in life. For instance, they can understand what other kids are experiencing and thinking. (3)

Failure of mentalizing, also known as psychological unavailability, is what causes emotional neglect. This is the center of attachment trauma, which is trauma in attachment relationships, as well as the detrimental effects that such trauma has on the ability to form secure attachment relationships. It simultaneously provokes emotional discomfort and hinders the growth of the capacity to control distress, which is a dual liability created by attachment trauma. (3) The opposite of this is seen with secure attachment, which lays the groundwork for emotional regulation. It was Main and colleagues' (14) identification of a fourth attachment type in the Strange Situation, discussed earlier, that led to the development of the concept of attachment trauma. This pattern was named *disorganized* attachment, and it was found to arise from maltreatment. It is hard to identify this pattern, as their disorganized behavior occurs in short bursts - as short as 10-30 seconds. Interestingly, a brief bout of abnormal behavior can signal substantial problems with the attachment relationship and significant developmental issues that persist into adulthood. (10) This means that this behavior is superimposed on the main three behaviors (secure, ambivalent or avoidant). Disorganized behavior lacks a clear objective or goal, making it look incomprehensible. In the most obvious cases, the abusive attachment figure is

frightening, and the infant's primary method of relieving anxiety—seeking proximity—only makes the fear worse, as Main and colleagues concluded was the cause of this perplexing behavioral pattern. Main therefore believed that disorganized attachment was a result of "fear without solution". The child searches for a sense of security from the parent when afraid, but evidently the fear comes from the parent, and therefore this situation can leave the child confused, upset, and lead to dissociation or attempted compartmentalization by the child. (10) Examples of this could be a frozen, lost look immediately after a happy greeting, a child holding onto the parent yet turning away and averting gaze, unexpected outbursts of terror or rage during otherwise peaceful play, etc. (3)

This disorganized behavior pattern identified in the Strange Situation prompted research to be done to recognize possible influencing factors that could lead to this surprising pattern. It began with Main and colleagues (14) making a connection between their finding of disorganized behavior to maltreatment, and subsequent research has confirmed this (15). Maltreatment was observed in a longitudinal study and there were three main types that correlated to infant disorganization: physical abuse (physical injuries, beating, etc.), neglect (malnutrition, health issues, etc.) and psychological unavailability (parental withdrawal, passive aggression, detachment, etc.) (16). The prevalence of infant disorganization was calculated based on different criteria; it was found in 48-77% of maltreated children, 43% of children of addict mothers, and a mere 15% in an average middle-class family (17). These criteria all result in the child feeling fearful, invoking a need for comfort and closeness, which cannot be met by the parent. (10) Certainly, abuse and neglect can place a significant strain on the coping abilities of even the most resilient individuals, as anyone has the potential to be traumatized.

There also exists a less obvious process that leads to this behavior in children - the parent might *indirectly* frighten the child by being frightened themselves. This behavioral pattern comes from the parents' own unresolved attachment trauma, which is what causes intergenerational transmission of trauma. (10) For instance, the terrified parent may be uneasy, timid, disorganized, or in a dissociatively detached condition, all of which would disturb or scare the nervous infant who needs security and comfort. Numerous researches

have supported the link between infant disorganization in the Strange Situation and parents' unresolved trauma and loss, which can be seen in the Adult Attachment Interview (17). In this interview, parents are asked about their attachment relationships and past traumas, and their responses are observed. A narrative coherence indicates a secure attachment, where the individual can discuss their past with detail, emotional maturity, and that the interviewer can easily follow. The opposite, narrative incoherence, indicates disorganized attachment. For example, if the interviewer inquires about loss or abuse, there is obvious lack of coherence, such as dissociating and seeming “spaced out”. Most often, these are momentary gaps, rather than continuous incoherence, similar to how newborn disorganization is detected in brief bursts of abnormal behavior (10). This disruption in coherence can be understood as impaired mentalizing in the adult, as it is triggered by bringing forth memories and feelings associated with attachment. This was proven by Arietta Slade and colleagues (18) when they assessed parents in the “90-minute Parent Development Interview”. The parent's perspective on their child, their experience of being separated from their child, their perception of themselves as a parent, and their awareness of how their parents have influenced their parenting style are all covered in the interview. The results of this research were exactly as expected and as discussed previously; infant disorganization in the Strange Situation and poor mentalization of the parent in the interview were a result of parental unresolved disorganized attachment. It is crucial to understand that the mothers of disorganized children are not lacking empathy or engagement with their child, but rather a “failure of attunement during moments of infant distress.” (10) When this happens, the mother fails to give them mindful attention to their emotional experience, which is a failure of mentalizing. This leads to the infant feeling alone, while in emotional pain, unable to alleviate their distress themselves, and unable to count on their mothers to alleviate it. Disorganized attachment further exacerbates an individual's reactivity to stress and increases their vulnerability to becoming overwhelmed by distress. This is due to impaired emotion regulation and compromised mentalizing capacities, which hinder their ability to effectively manage and understand their own emotions and the emotions of others.

The intergenerational transmission of trauma can be explained by realizing that the parents' behavior is a "posttraumatic stress response marked by reexperiencing trauma and hyperarousal, coupled with avoidance strategies." (10) In these moments in time, the parent loses touch with the present, starts feeling emotions from their past, and in turn becomes psychologically unavailable to their child. When a parent's traumatic memories are triggered by their infant's suffering, they are reacting to the past rather than the present. This is all caused by a failure of mentalizing their trauma, and therefore it also makes sense that they cannot mentalize their child's emotions, which in turn leads to the child having impaired mentalizing and into a vicious cycle. This attachment-related mentalizing impairment can be seen as struggle understanding emotions, inability to discuss mental states, inability to understand what other people are thinking or feeling, inability to empathize with suffering of other children, and difficulties controlling emotional distress. (19) All of these challenges run the risk of causing issues in relationships with parents, friends, teachers, and others.

If disorganization and its consequences continue, there is a potential risk for the child to experience subsequent difficulties in behavior and psychological well-being. (10) While disorganized attachment itself is not classified as a disorder, it can set in motion developmental trajectories that elevate the likelihood of experiencing disorders later in life (15). This risk is particularly heightened when disorganization coexists with other risk factors (20). A significant study investigating the connection between infant disorganization and the development of posttraumatic stress disorder (PTSD) during childhood deserves special attention (21). The research involved a group of seventy-eight eight-year-old children from low-income urban backgrounds, many of whom had been exposed to intrauterine cocaine. The assessment of attachment took place at twelve months using the Strange Situation procedure, while diagnostic interviews were conducted at the age of eight to evaluate the children's trauma history and associated symptoms. PTSD was examined in relation to the most distressing experiences reported by the children. Findings revealed that children with a history of disorganized attachment exhibited higher levels of the two core symptoms of PTSD: re-experiencing the traumatic events and avoidance. (21) The impact of infant disorganization reaches beyond childhood. In the Minnesota study

conducted by Sroufe and colleagues (15), it was discovered that disorganized attachment during infancy was the most robust predictor of overall psychopathology at seventeen and a half years of age. This encompassed the number and severity of diagnoses. Furthermore, infant disorganization was also linked to disorganized attachment at ages nineteen and twenty-six, which is significant as it suggests unresolved issues related to loss and trauma. (15) Based on these results, Carlson and colleagues (22) examined the correlation between comprehensive assessments conducted from infancy onwards and symptoms of borderline personality disorder diagnosed through structured interviews at the age of twenty-eight. Borderline personality disorder is notable for its combination of attachment difficulties and challenges in regulating emotional distress, which are often manifested through impulsive and self-destructive behaviors. The results of the study shed light on the relationship between early attachment experiences and the development of borderline personality disorder later in life. (22) Because Major Depressive Disorder (MDD) and BPD often occur together, and around 80% of individuals with BPD have at least one episode of MDD throughout their life, research has been done to see if impaired mentalizing has an effect on MDD. The findings conclude that impaired mentalizing was significantly associated with depressive symptoms, although it could also be that depression alters the ability of an individual to mentalize. (23) These are just a few of the many reasons clinicians need to be mindful of the impact of early trauma in order to recognize and address it effectively. It is crucial to identify and mitigate the effects of early trauma on individuals. In this regard, the promising effectiveness of parent-infant and parent-child interventions provides encouragement. These interventions can play a significant role in supporting and assisting parents in promoting healthy attachment relationships and addressing the consequences of early trauma. (10)

Attachment trauma poses a significant challenge in the field of psychotherapy because individuals who have experienced trauma often have a heightened need for secure attachment, which is also their greatest fear. The very thing they require for healing and growth is what they may find most difficult to embrace due to their past traumatic experiences. This complex dynamic can complicate the therapeutic process, requiring

therapists to approach attachment-related issues with sensitivity and skill, in order to help patients navigate their fears and develop healthier attachment patterns. (10)

There are three main outcomes of failure of mentalizing that have been described: *psychic equivalence,* the *pretend* mode, and the *teleological* mode. In the first, the individual equates mental state with reality, meaning they cannot properly distinguish thoughts and memories from facts. An example is in PTSD, when a memory is perceived and experienced as a present-day reality. These patients must learn to realize that they are recalling trauma, not reliving it, and mentalizing is essential to coping with these painful flashbacks. (3) In the *pretend* mode, the individual is disconnected from reality, and there is a clear disconnect between their thoughts and feelings, and they don't correspond to anything real. The person can feel as though they are "an actor in a play" (3). In the third mode, *teleological* mode, action takes the role of thought and feeling, i.e., goal-directed activity replaces undergoing and expressing mental states. As a result, impulses and emotions propel people to act without thought, reflection, or even emotional awareness. As a consequence of this, if an individual experiences intense emotions, it is not dealt with and is instead expressed in action such as substance abuse, nonsuicidal selfinjury, bingeing or purging, sexual promiscuity, suicide attempts, etc. (3)

5. Mentalization-based Therapy

Mentalization-based treatment is "a psychodynamic treatment rooted in attachment and cognitive theory" (3). The goal of therapy is to enhance patients' ability to comprehend their own and others' emotional and psychological states within attachment relationships. By doing so, therapy aims to address the challenges individuals face in regulating their emotions, impulses, and interpersonal interactions. These difficulties often serve as triggers for self-destructive behaviors such as suicide and self-harm. By strengthening their capacity for mentalizing in attachment contexts, therapy can help patients develop healthier coping mechanisms, improve emotional regulation, and promote more positive

and stable interpersonal functioning, thereby reducing the risk of self-harming behaviors. (3)

Mentalizing is a very powerful tool that can be used for a variety of reasons, such as to promote resilience, to heal from traumatic experiences, and to help cope with stress. In an experiment by Fonagy et al., mothers were divided based on their stress levels (determined by interviews about their childhood adversities and adult stressors). The results were astounding: all 10 of the highly stressed mothers who had preserved mentalizing had securely attached infants, whereas only 1 out of 17 of the highly stressed mothers without preserved mentalizing had a securely attached infant. (24) Research on therapeutic interventions, such as parent-infant and parent-child psychotherapy, provides some of the strongest support for the impact of parental behavior and mentalizing on the formation of attachment. In one program, designed for high-risk parents and their infants, home visitors came to help the mother in mentalizing by speaking for the baby, which increased the mothers' awareness to how their baby is feeling and their emotions. This resulted in infants becoming securely attached, and mothers improving their mentalizing capacity. (25) In the last twenty years, professionals and scholars have developed various programs aimed at aiding parents in managing their emotional reactions to their children's distress. These interventions are designed to enhance parents' responsiveness to their infants' attachment needs, ultimately fostering a stronger sense of attachment security. This is very important and can lead to important changes in the field, as for at least the past fifty years, it has been widely recognized that the most effective approach to addressing mental health problems is through prevention. (3) The literature on attachment offers promising insights into the potential for early interventions that focus on promoting secure parent-child interactions. These interventions, which can commence as early as pregnancy, prioritize the cultivation of a nurturing and supportive environment. By incorporating mentalizing into early interventions, there is a greater potential to foster healthy attachment relationships and provide a solid foundation for the child's socioemotional development. This approach holds considerable promise in promoting secure attachments and positively influencing the well-being of both parents and children. (3)

5A. Borderline Personality Disorder

The implementation of Mentalization-Based Therapy (MBT) was first carried out by Bateman and Fonagy (2006a) in a day-hospital program. In this program, patients initially attend the hospital for five days a week, and the maximum duration of their participation is typically 18 to 24 months. The primary treatment approach involves a combination of individual and group psychotherapy. Additionally, the day treatment program incorporates crisis management and medication management to provide comprehensive care. Structured activities, such as expressive writing and art, are also included to encourage and facilitate the development of mentalizing skills. In a more recent development, Bateman and Fonagy (2009) introduced an intensive outpatient version of Mentalization-Based Therapy (MBT). This implementation involves one individual psychotherapy session lasting 50 minutes and one group psychotherapy session lasting 90 minutes per week. This treatment schedule is maintained consistently over a period of 18 months. (3) In the initial outcome research, a comparison was made between the day-hospital implementation of Mentalization-Based Therapy (MBT) and the standard treatment provided in the community. The assessment points were conducted at 18 months (Bateman and Fonagy, 1999) and 36 months (Bateman and Fonagy, 2001) after the initiation of treatment. The findings indicated notable benefits associated with MBT when compared to the usual community-based treatment. These results highlighted the effectiveness and advantages of implementing MBT in terms of therapeutic outcomes and patient well-being.

The most remarkable aspect of Bateman and Fonagy's (2008) study is the 8-year follow-up evaluation, conducted 5 years after the completion of treatment (and 8 years after its initiation). This study stands out as the longest follow-up investigation of treatment for Borderline Personality Disorder (BPD). Notably, during the 5-year period following the completion of active treatment, patients in the MBT group demonstrated significant improvements in various areas compared to the control group. These improvements included a substantial reduction in suicide attempts (23% versus 74%), fewer visits to the emergency room, decreased inpatient admissions, reduced utilization of outpatient

treatment and medication, lower rates of meeting diagnostic criteria for BPD (13% versus 87%), decreased impulsivity, improved interpersonal functioning, and a greater ability to maintain employment. The sustained progress observed after the conclusion of treatment is particularly noteworthy, indicating the long-term efficacy of MBT in the treatment of BPD. (7)

5B. Post-traumatic Stress Disorder

Without a question, a history of attachment trauma enhances the likelihood of getting PTSD following future traumas, and many patients who have experienced trauma in early attachment relationships proceed on to acquire PTSD at various periods in their lives. (10) Reminders of prior trauma are well known for inducing intrusive memories and related avoidance behaviors; frequently, these reminders take the shape of upsetting events in current attachment relationships. In the middle of great anguish and feeling completely out of control, feeling abandoned, let down, left behind rejected, and psychologically invisible is likely to bring the past back into the present, whether consciously or unconsciously. (10) Failure to mentalize in attachment relationships after a stressful experience is linked to PTSD risk. Flashbacks, the most recognisable symptom of PTSD, also represent the paradigmatic failure of mentalizing, or the psychic equivalence-mode in which mental processes (memories) are confused with external reality (traumatic events), according to Brewin (26). The most fundamental defense against bothersome memories, separating the present from the past, implicitly calls for mentalizing. This treatment applies to mentalizing in present attachment relationships; it is important to distinguish between a somewhat unremarkable present fight and a deeply devastating betrayal in the past. (10) According to Lewis, Kelly & Allen (27), the analogy of “90-10” response can be used to stimulate mentalization. This means that the individual should separate the suitable 10% of emotion stemming from the present moment, and acknowledge that 90% of it comes from the past.

5C. Dissociative Disorders

Dissociative detachment is characterized by sensations of unreality (such as dreamy experiences) as well as feeling "spaced-out" or even "gone," as if "in the void." (10) Dissociative detachment is in some ways a natural byproduct of extreme fear, as demonstrated by the freeze response. Research (28) found that dissociative detachment is a substantial risk factor for the development of PTSD after trauma. Dissociative detachment, though it resembles a reflexive feature of the fear response, can also be deliberately used as a defense against a variety of unpleasant or unwanted emotions. Patients can practice detaching, for instance, by focusing on a specific area of the wall or withdrawing into reverie. (10) The non mentalizing *pretend* mode is exemplified by dissociation; it prevents the individual from integrating the trauma into their consciousness. This detachment prevents emotional exchange, depriving the individual of the advantages of establishing security in attachment relationships. (10) Dissociative identity disorder (DID) is an extreme example of compartmentalization since it involves abrupt changes in sense of self that are accompanied by amnesia and frequently involve traumatic events that are hidden from regular consciousness. (10) The development of fragmented consciousness lays the groundwork for trauma, such as sexual assault, to stay compartmentalised. For instance, a child cannot remember both a normal attachment bond and a sexual relationship at the same time (29).

Compartmentalization represents a severe breakdown in the process of mentalizing, which is essential for constructing a cohesive autobiography. Mentalizing involves integrating various aspects of one's experiences and emotions into a coherent narrative. In contrast, compartmentalization involves isolating and separating different aspects of oneself or one's experiences, resulting in a lack of narrative coherence, as discussed earlier. (10)

In therapeutic settings, addressing compartmentalization and amnesia requires a dedicated and lengthy treatment process. The therapist takes on the crucial role of holding the patient's fragmented mind in mind. This means that the therapist maintains an awareness of the patient's fragmented experiences, emotions, and relationships while providing a stable and secure therapeutic environment. (10) Over time, this climate of stability and

security allows the patient to gradually expand their awareness and integrate their painful emotions, experiences, and relationships. Through this process, the goal is to promote the development of a more cohesive and integrated sense of self and narrative coherence.

5D. Nonsuicidal self-injury

Defined by "the absence of suicidal intent, nonsuicidal self-injury includes self-cutting, banging, burning, inserting sharp objects into skin or ingesting them, interfering with wound healing, and the like," (30) or it can include behaviors such as substance abuse, bingeing and purging, etc. (10) Individuals who have experienced a history of childhood trauma are more vulnerable to engaging in self-injurious behaviors as a way to cope with emotional pain and distress. (31) Additionally, a common trigger for nonsuicidal self-injury is the feeling of emotional neglect, where individuals may engage in self-harming behaviors as a means to express and alleviate their emotional pain when they perceive a lack of emotional support and connection from others. In the teleological mode, the patient's actions take precedence over verbal communication. For example, if a patient becomes enraged by the perceived insensitivity of the therapist, they may resort to non-verbal expressions to convey the intensity of their emotional distress. One such expression could involve the patient deliberately revealing recent self-inflicted wounds on their arms. This act serves as a powerful statement, visually demonstrating the depth of their pain and the desperate need for understanding and support. (10) It is important for patients to recognize the impact of their self-injurious behaviors on their partners, highlighting the likelihood that these actions generate intense pain and distress in their loved ones. Such behaviors can contribute to their partner's insecurities within the relationship, leading to a vicious cycle of escalating distress for both individuals. (10) It is important to recognize that these dynamics can also manifest within the therapeutic relationship. Therefore, mentalizing these processes, rather than enacting them, becomes a crucial pathway to interrupting and breaking free from these destructive patterns. (10) By developing the ability to reflect on and understand these dynamics, patients can gain insight into their own behaviors, as well as their impact on others, fostering healthier and more secure relationships both within and outside the therapy setting.

6. Conclusion

There are numerous factors that can affect an individual throughout their lives, beginning with the care they receive (or lack of) as infants. Three forms of attachment exist - secure, ambivalent and avoidant. These forms are produced by the parent's responsiveness to their infant, which in order to be secure, needs to come with the parent's ability to mentalize. As the parent is mentalizing, they can better understand their child's wants, needs, emotions, etc. and will be more receptive to their child in the moment. This creates a secure attachment and a stable parent-child bond that will have a positive impact on the child throughout their lives.

On the other hand, if the parent is not capable of mentalizing properly, which can come from their own childhood experiences, traumas, or interpersonal relationships, this will be clear to the infant very quickly. The lack of responsiveness will trigger the infant to either become ambivalent or avoidant, which will cause further issues for them in the future. Furthermore, at the extreme, if a child is maltreated by their parent, they can develop disorganized behavior on top of the insecure pattern. This can unfortunately lead to different psychopathologies if not identified and treated on time.

Luckily, there is a tool and treatment that can be used for any stage in the trauma cycle, and can be used by anyone, with or without their psychotherapist. This is mentalization, which is being aware of one's and other's emotions, mental states, thoughts, etc. It is very powerful, and when used correctly, can help heal people of their past trauma, fears, and broken relationships. Concurrently, it can aid individuals in raising their children with secure attachment, ensuring the best outcomes possible for them.

Understanding attachment styles, mentalization and how to use it as treatment, is revolutionary in the psychiatry field, and can further improve people's mental health.

"*Mentalizing begets mentalizing, non mentalizing begets non mentalizing"* - Jon G. Allen

7. Acknowledgment

I want to thank my mentor, Dr. Milena Skocic-Handzek for helping me write this paper. I want to thank the University of Zagreb for allowing me to complete my medical education. Lastly, I want to thank my family and friends for their continuous support and help throughout the years.

8. References

1) Pai A, Suris AM, North CS. Posttraumatic Stress Disorder in the DSM-5: Controversy, Change, and Conceptual Considerations. Behav Sci (Basel). 2017 Feb 13;7(1):7. doi: 10.3390/bs7010007. PMID: 28208816; PMCID: PMC5371751.
2) Coles, P. (2011) *The Uninvited Guest from the unremembered past: An exploration of the unconscious transmission of trauma across the generations*. London, UK: Karnac Books.

3) Allen, J. G. (2013). *Restoring mentalizing in attachment relationships: Treating trauma with plain old therapy*. American Psychiatric Publ.
4) Crittenden, P. M., & Ainsworth, M. D. S. (1989). Child maltreatment and attachment theory. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 432–463). Cambridge University Press. https://doi.org/10.1017/CBO9780511665707.015
5) van Ijzendoorn, M. H., & Sagi-Schwartz, A. (2008). Cross-cultural patterns of attachment: Universal and contextual dimensions. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 880–905). The Guilford Press.
6) Bowlby, J. (1958). The nature of the child's tie to his mother. *The International Journal of Psychoanalysis, 39,* 350–373.
7) Bowlby J: Attachment and Loss, Vol 1: Attachment. London, Hogarth Press and the Institute of Psycho-Analysis, 1969
8) Sroufe, L.A., & Waters, E. (1977). Attachment as an Organizational Construct. *Child Development, 48*, 1184-1199.
9) Mary D. Salter Ainsworth, & Bell, S. M. (1970). Attachment, Exploration, and Separation: Illustrated by the Behavior of One-Year-Olds in a Strange Situation. *Child Development*, *41*(1), 49–67. https://doi.org/10.2307/1127388
10) Allen, J. G. (2018). *Mentalizing in the development and treatment of attachment trauma*. Routledge, Tayler & Francis Group.
11) Johnson SC, Dweck CS, Chen FS. Evidence for infants' internal working models of attachment. Psychol Sci. 2007 Jun;18(6):501-2. doi: 10.1111/j.1467-9280.2007.01929.x. PMID: 17576262.
12) Fonagy, P., & Allison, E. (2012). What is mentalization? The concept and its foundations in developmental research. In N. Midgley & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 11–34). Routledge/Taylor & Francis Group.
13) Fonagy P, Steele H, Steele M. Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age.

Child Dev. 1991 Oct;62(5):891-905. doi: 10.1111/j.1467-8624.1991.tb01578.x. PMID: 1756665.

14) Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 121–160). The University of Chicago Press.

15) Sroufe LA. Attachment and development: a prospective, longitudinal study from birth to adulthood. Attach Hum Dev. 2005 Dec;7(4):349-67. doi: 10.1080/14616730500365928. PMID: 16332580.

16) Carlson, E. A. (1998). A Prospective Longitudinal Study of Attachment Disorganization/Disorientation. Child Development, 69, 1107-1128. https://doi.org/10.1111/j.1467-8624.1998.tb06163.x

17) van Ijzendoorn MH, Schuengel C, Bakermans-Kranenburg MJ. Disorganized attachment in early childhood: meta-analysis of precursors, concomitants, and sequelae. Dev Psychopathol. 1999 Spring;11(2):225-49. doi: 10.1017/s0954579499002035. PMID: 16506532.

18) Slade A. Parental reflective functioning: an introduction. Attach Hum Dev. 2005 Sep;7(3):269-81. doi: 10.1080/14616730500245906. PMID: 16210239.

19) Fonagy P, Gergely G, Target M. The parent-infant dyad and the construction of the subjective self. J Child Psychol Psychiatry. 2007 Mar-Apr;48(3-4):288-328. doi: 10.1111/j.1469-7610.2007.01727.x. PMID: 17355400.

20) DeKlyen, M., & Greenberg, M. T. (2008). Attachment and psychopathology in childhood. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 637–665). The Guilford Press.

21) MacDonald HZ, Beeghly M, Grant-Knight W, Augustyn M, Woods RW, Cabral H, Rose-Jacobs R, Saxe GN, Frank DA. Longitudinal association between infant disorganized attachment and childhood posttraumatic stress symptoms. Dev Psychopathol. 2008 Spring;20(2):493-508. doi: 10.1017/S0954579408000242. Erratum in: Dev Psychopathol. 2008 Fall;20(4):1351. PMID: 18423091; PMCID: PMC2430632.

22) Carlson EA, Egeland B, Sroufe LA. A prospective investigation of the development of borderline personality symptoms. Dev Psychopathol. 2009 Fall;21(4):1311-34. doi: 10.1017/S0954579409990174. PMID: 19825270.

23) Rifkin-Zybutz RP, Moran P, Nolte T, Feigenbaum J, King-Casas B; London Personality and Mood Disorder Consortium; Fonagy P, Montague RP. Impaired mentalizing in depression and the effects of borderline personality disorder on this relationship. Borderline Personal Disord Emot Dysregul. 2021 May 4;8(1):15. doi: 10.1186/s40479-021-00153-x. PMID: 33947477; PMCID: PMC8097991.

24) Fonagy P, Steele H, Steele M, Leigh T, Kennedy R, Mattoon G, Target M. Attachment, the reflective self, and borderline states: The predictive specificity of the Adult Attachment Interview and pathological emotional development. In: Goldberg S, Muir R, Kerr J, editors. *Attachment Theory: Social, Developmental and Clinical Perspectives.* New York: Analytic Press; 1995. pp. 233–278.

25) Sadler, L. S., Slade, A., & Mayes, L. C. (2006). Minding the baby: A mentalization-based parenting program. In J. G. Allen & P. Fonagy (Eds.), *The handbook of mentalization-based treatment* (pp. 271–288). John Wiley & Sons, Inc.. https://doi.org/10.1002/9780470712986.ch14

26) Brewin CR. The nature and significance of memory disturbance in posttraumatic stress disorder. Annu Rev Clin Psychol. 2011;7:203-27. doi: 10.1146/annurev-clinpsy-032210-104544. PMID: 21219190.

27) Lewis, L., Kelly, K., & Allen, J. G. (2004). *Restoring Hope and Trust: An Illustrated Guide to Mastering Trauma*. Sidran Institute Press, 2004.

28) Ozer EJ, Best SR, Lipsey TL, Weiss DS. Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis. Psychol Bull. 2003 Jan;129(1):52-73. doi: 10.1037/0033-2909.129.1.52. PMID: 12555794.

29) Freyd, J. J., DePrince, A. P., & Gleaves, D. H. (2007). The state of betrayal trauma theory: Reply to McNally--Conceptual issues and future directions. *Memory, 15*(3), 295–311. https://doi.org/10.1080/09658210701256514

30) Nock, M. K. (2009). Why Do People Hurt Themselves?: New Insights Into the Nature and Functions of Self-Injury. Current Directions in Psychological Science, 18(2), 78–83. https://doi.org/10.1111/j.1467-8721.2009.01613.x

31) Yates, T. M. (2009). Developmental pathways from child maltreatment to nonsuicidal self-injury. In M. K. Nock (Ed.), *Understanding nonsuicidal self-injury: Origins, assessment, and treatment* (pp. 117–137). American Psychological Association. https://doi.org/10.1037/11875-007

9. Biography

Chloe Parezanovic was born in Calgary, Canada on December 12th 1997, and was raised there. She moved to Zagreb, Croatia at age 19 to pursue her dream of studying medicine.