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MSc in Pscyhology, Neuroscience and Human Sciences

Antisocial Behavior and Childhood Trauma

Supervisor: Prof. Gabriella Bottini
Co-supervisor: Gabriele De Maio

Thesis written by
Anastasija Dordevic

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Abstract

Antisocial behavior, characterized by persistent lack of moral responsibility, breaking of social norms, inadequate behavior, and often breaking of the law, is closely related to childhood maltreatment and childhood trauma. This review shows how childhood trauma and maltreatment are closely linked with the development of antisocial behavior in later life. Different types of abuse are explained, which can be sexual, physical, emotional and neglect, and can affect a child's overall development. Beneficial tests and treatment methods for measuring and treating antisocial behavior and childhood trauma are explained, as well as coping strategies, such as Trauma-Focused Behavioral Therapy (TF-CBT), Psychopathy Checklist Revised, EMDR therapy, Holding therapy, etc. It is concluded that genetics and environment of the child have a significant influence on child's development and potential development of antisocial behavior. Extreme neglect and abuse in childhood changed the brain structure of those children.

Contents

Trauma

Trauma is deeply rooted into the memory of an individual who has experienced an adverse event. A traumatized individual responds emotionally or physically to specific triggers that reminds them of that adverse event that they experienced.

Trauma does not necessarily have to be directly related to the individual. Trauma may occur indirectly, for example: when witnessing a murder, domestic violence, abuse, which can be physical, sexual, emotional, neglect, or any sort of violence and negative experience.

We do not process trauma in the same way as other people. It is an individual experience. It depends on how sensitive a person is and what scares them.

For example, a breakup might be traumatic for an individual, and for other people it is not. Just because it seems minor it does not mean that it did not leave a deep scar on the individual and that they can recover from it easily.

Trauma can control an individual's life, meaning that it has affected them so much that they feel a lot of stress and fear in everyday life. For example, if a person had a traumatic breakup, they will probably have difficulties in their future relationships because they will constantly ''live in the past'' and fear that the same scenario will occur in the other relationship. This leads to self-destruction and to the destruction of a relationship with their partner.

Trauma can also be the result of a response to chronic experiences such as repeated childhood abuse, neighborhood crime, child neglect, an abusive relationship, permanent deprivation...

Some people say that they ''have a hole in their memory'' when something traumatic happened to them, meaning that they do not remember exactly the traumatic event that has

occurred. That is because our brain is trying to protect us from a traumatic event by stopping to remember right before the onset of a negative event and continues to remember after it. So, by doing this, the trauma cannot be treated as reality. The sensory aspects of the event such as touch, what we heard, emotions, are all ‘’frozen’’, and we do not remember them. It is a protective function that is taking place in our brain.

In today’s world, where almost everyone has access to technology, everyday there are more and more cases of traumatic experiences that are not direct but indirect, often through the media. According to the study done by (Abdalla et. al. 2021), a lot of people showed signs of post-traumatic stress disorder after being continuously exposed to media and news about the crimes happening around them.

In my bachelor’s degree, I did a study that measured anxiety linked to media, and we found a positive correlation between those two. So, the media has a powerful effect on the society. It is almost impossible to find a person who has not experienced something in their life as a trauma.

A study was done by (Tortolero et. al., 2014), measuring the relationship between violent videogames in preadolescent years and depression. There was a positive correlation between the two. Some of these children also express aggression and violent behavior because of the exposure to those video games.

There are more video games created to scare people, and they are successful at doing so. For example: putting on virtual glasses and being in a dark room, where a frightening scene occurs and scares an individual, especially children.

Trauma is experienced differently among individuals. It is a subjective experience caused by a traumatic event. Whether something will be experienced as traumatic or not is not determined by the event itself, but by our experience of that event. Two or more people can be in the same situation and there is a great possibility that they will experience this situation differently. Some may experience trauma, and others may not.

How a certain situation will be experienced depends on the individual line of sensitivity to a certain event. People who are sensitive to a certain type of experience will be far more affected and the experience will be much more intense, and therefore the emotional response will be more pronounced. Our individual sensitivity is determined by previous experiences that may originate from an earlier period of our life, perhaps from childhood or from the natal or prenatal period, etc.

Some of the most common behaviors and symptoms of a person who has experienced trauma are the feeling of hopelessness, fear, anxiety, confusion, panic attacks, they might freeze in certain situations and increase their heartrate. A person may re-experience the negative feelings caused by the traumatic event via nightmares or flashbacks. They can have problems with sleeping, avoidance and depression.

Trauma manifests through intrusive thoughts and memories; after a traumatic event, it is common to have some intrusive thoughts and memories of the traumatic event. This will happen more often if something reminds us of that event, for example, a person, place, image, etc.

Individuals who have experienced trauma, especially at a young age, have difficulties in controlling their anger. They may react impulsively and aggressively to certain triggers, they feel anxiety and sadness without consciously thinking about the traumatic event, also panic attacks

are often present without conscious thinking about the traumatic event. These individuals also may feel shame, and they often blame themselves for the trauma that has happened to them. They can put themselves down and feel worthless because they think that they are the reason for this negative event that occurred to them.

Another way that we try to protect ourselves from experiencing trauma is hypervigilance.

It is natural to be more alert and aware of our surroundings after a traumatic event. This is our organism's attempt to protect us from potential danger. (Rollman, 2009). A person may tend to look around when they are walking by themselves and be more cautious than before the traumatic event.

A person may experience excessive adrenaline as a natural defense mechanism. Fear and anxiety indicate the existence of some kind of danger, because after a traumatic event, the body's alarm system is more sensitive in an attempt to protect us from future traumatic events.

Also, feeling insecurity is common after a traumatic event. People may feel as if any situation or place is potentially dangerous. This will most often happen in situations or places reminiscent of a traumatic event.

Those who have a heightened line of sensitivity to certain perceptions can, due to a traumatic event, trigger certain biological programs. Certain health problem may occur. For example, heart attack due to excessive stress. It is known that many diseases appear immediately after certain traumatic events.

To reduce the stress and to minimize the memories of a traumatic event, people use different emotional coping strategies, which are often proven to only cause more problems for the individual.

For example, the individual who is traumatized may self-medicate themselves when they feel the anxious, which may lead to substance abuse. Because the individual decided to take medication without consulting the professional first or is taking higher dosage than recommended, he or she can develop an addiction problem and these medications can harm them.

Also, one of the coping strategies is emotional eating. Some people tend to eat when they feel negative emotions, some may eat very little and not have an appetite because of the stress they are experiencing, and this often leads to eating disorders.

Because of high levels of stress and negative emotions, some people may want to harm themselves, so they need to be hospitalized and get help from a mental health professional.

These actions occur when the person is experiencing ‘’too much’’ emotions. However, when a person experiences ‘’too little’’ emotions, this leads to antisocial behavior, which will be the main topic of this review.

Activation of amygdala, hippocampus and PFC

One of the most important brain areas that activate while experiencing trauma are the amygdala, hippocampus and the prefrontal cortex.

According to (Goddard, 1964) the amygdala is part of the limbic system. It is very small in size, but it is very powerful because it is meant to regulate our emotions.

It is mainly responsible for regulating fear and telling us what is good for us, and what is not. Therefore, it protects us from potential danger. It works very fast and it activates our fight or flight mode.

The amygdala also allows us to remember the emotions that we felt in a certain situation, so it is the connection between our emotions and memory. That is why we tend to avoid situations that we have gone through in the past and remember that we did not have a positive experience in those situations. This can become problematic in people who have experienced trauma. Exposure to triggers that remind them of the trauma can trigger an overactive response, leading to re-experiencing the event as if it's happening in the present.

Amygdala is also responsible for our anger and impulses. When we are angry and express aggressive behavior, that behavior activates the amygdala.

It is not always accurate, it might activate when it notices a potential danger. But it is better to be hypervigilant and to pay attention to potential threats, than not pay attention at all.

For individuals who have experienced trauma and who have developed post-traumatic stress disorder, a study done by (Bremner, 2006) showed that hippocampus was much smaller, and that the activation of the amygdala was increased. So, even though these individual are not experiencing trauma at that moment, the rapid functioning of the amygdala is still present because of the severity of stress that a person went through, caused by a traumatic event. This individual is in an alert state, even though the threat is gone.

Amygdala

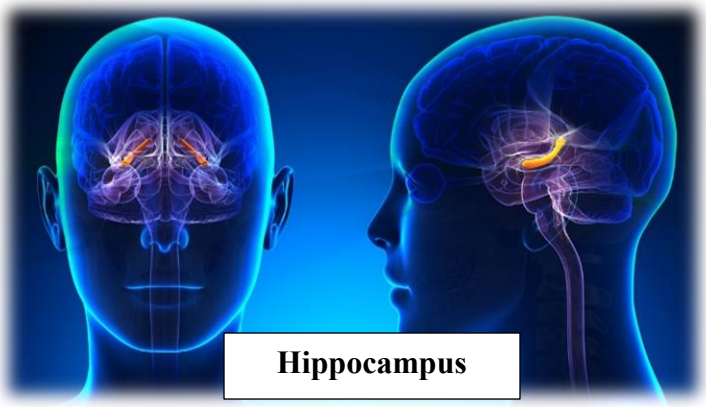
According to (Anand and Dhikav, 2012) hippocampus is located in the temporal lobe, it has several functions and it is complex. However, it is very important in memory and learning, which seems to be its primary role.

The hippocampus helps us remember the traumatic event, therefore is activated when we are in a similar situation.

For example, if a person was in motorcycle accident, the next time he or she gets on the motorcycle, after the accident, it can be very traumatic because the hippocampus remembers the accident and the motorcycle triggers the trauma; for an ex-soldier who went to war, a war movie or news about the war can cause post-traumatic stress to occur, etc.

The hippocampus works closely with the amygdala. When experiencing trauma, the amygdala becomes hyperactive, while the hippocampus may become less effective at regulating these emotional responses and even reduces in size.

Hippocampus can shrink due to huge amount of continuous stress exposure and trauma. It physically becomes smaller, but also its function is reduced. Study by (Sherin and Nemeroff, 2011) showed that people with PTSD often have a smaller hippocampus, which can have a negative effect on managing stress, processing memories, and emotional regulation.



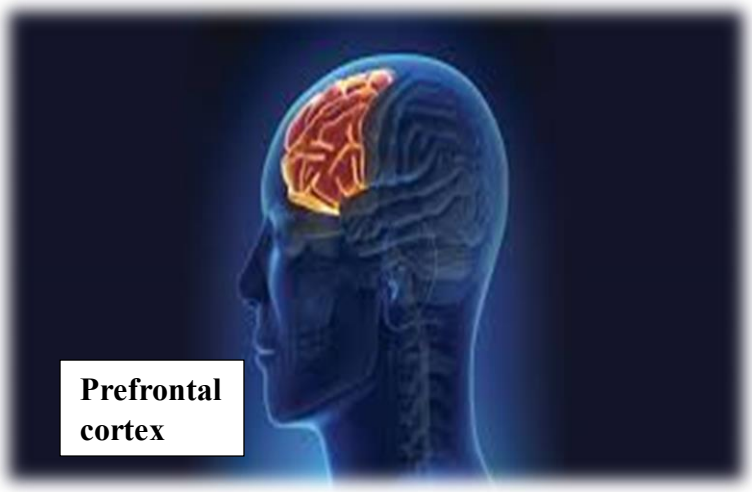
Hippocampus

According to (Siddiqui et. al., 2008), prefrontal cortex is classified as multimodal association cortex, which means that it has many functions in the brain. It leads us in our executive functions and helps us in making decisions.

It is called a ‘’rational’’ part of the brain because it helps us make correct decisions throughout our life.

It is common that because of our fear and trauma, the PFC may not react adequately in traumatic situation, meaning that we might ‘’freeze’’, making it harder to regulate emotions. This can lead to symptoms such as hyperarousal, anxiety, and difficulty calming down after the traumatic event. (Arnsten et. al., 2015).

According to (Hathaway and Newton, 2023) prefrontal cortex is responsible for our unique personality because it helps us decide how we are going to act in certain situations based on our past experiences.



In addition to amygdala, PFC and hippocampus, people with post-traumatic stress disorder also activate brain areas such as the orbitofrontal cortex, insula, and anterior cingulate.

These brain areas also help in emotion regulation and managing fear. (Sherin and Nemeroff, 2011).

Childhood Trauma

Childhood maltreatment and trauma leaves a deep scar on a child, in different aspects of his or her life.

A maltreated child is fragile. His/her brain is not fully developed and is suitable for plasticity. Therefore, if the child is abused verbally, physically, sexually, emotionally, or neglected, that child's brain will shape according to those actions.

If a child is always criticized and insulted by a parent or someone who is raising them, that child develops a sense of guilt, feeling that he or she is not good enough because they were told so.

This can trigger a chain of negative emotions. A child might become depressed, aggressive, frightened, anxious, etc. If a child is not seen and treated by a mental health professional, there is a great possibility and potential for development of psychological and behavioral problems.

Also, regressive behavior can be present in traumatized children, for example, thumb sucking or bedwetting.

Another problem these children could face are cognitive problems. Maltreated children can have problems in school because they may have learning disabilities, they can be slow in understanding certain things that other children understand easily, they can have difficulty in decision making, and problems with being focused and paying attention. Also, traumatized

children can have difficulty in speaking and their language development. Stuttering can be a sign of a trauma.

Trauma can have an effect on child's social life. They might have problems forming relationships and express avoidant behavior, withdraw to themselves, stop trusting other people, fearing that people could hurt them, etc.

Due to excessive amount of stress, a traumatized child can also experience physical health issues such as headaches, chronic pain, etc.

It is crucial to understand exactly what the child went through, in order to create an adequate treatment plan for the child's recovery.

Tests for childhood trauma

There are several tests that measure childhood trauma. The tests are crucial elements and tools for determining the diagnosis and the treatment plan.

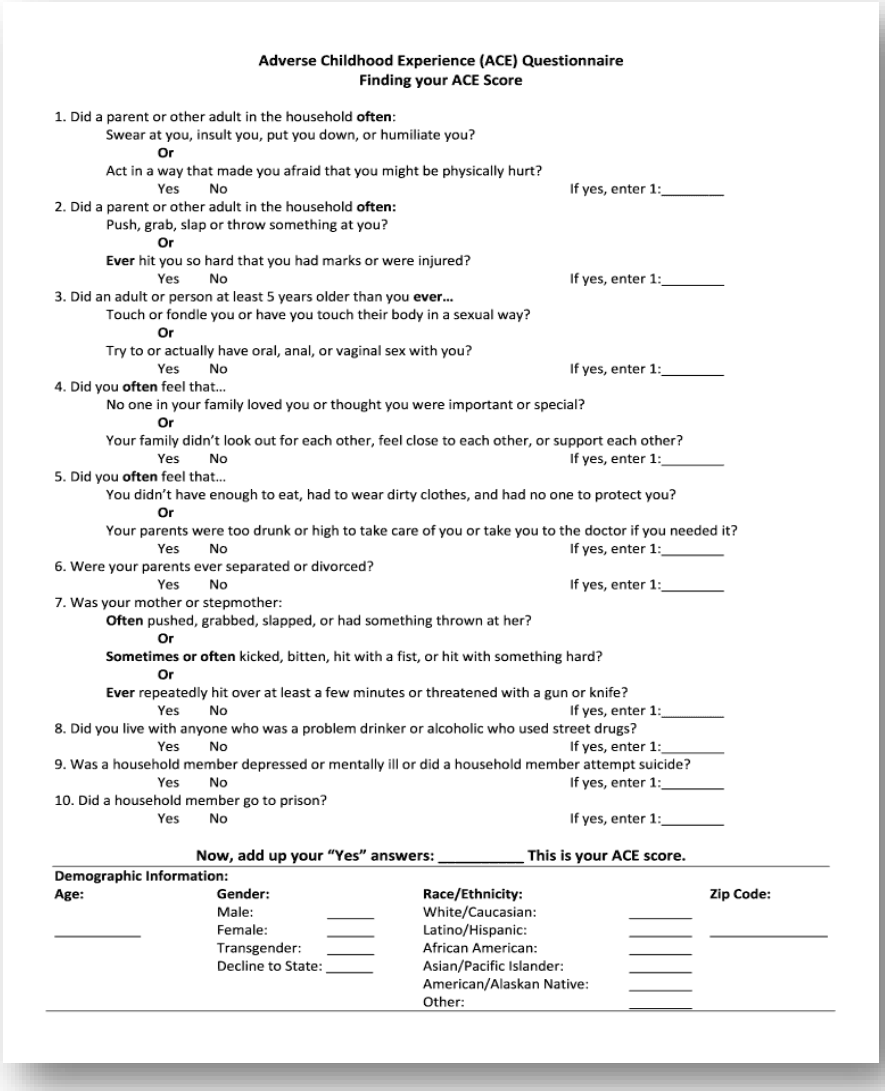
First, the clinicians need to conclude the type of abuse and trauma that occurred, in order to give them understanding of the adverse situation, and to find the most suiting tests.

The following tests are most commonly used when measuring childhood trauma:

The Adverse Childhood Experiences (ACEs) Questionnaire, created by Anda and Felitti in 1998, is 17-item measure used to measure childhood abuse and the family relationships. (Felitti et. al. 1998).

This test cannot be done by a person below the age of 18. Seventeen questions are asked about the behavior of their parents and other adults towards them during their childhood.

For example, one of the question is: Did a parent or other adult in the household o often or very often swear at you, insult you, put you down, or humiliate you? Or Act in a way that made you afraid that you might be physically hurt? (Felitti et. al. 1998).



Adverse Childhood Experience (ACE) Questionnaire
Finding your ACE Score

1. Did a parent or other adult in the household **often**:
   Swear at you, insult you, put you down, or humiliate you?
   Or
   Act in a way that made you afraid that you might be physically hurt?
   Yes No If yes, enter 1:_____
2. Did a parent or other adult in the household **often:**
   Push, grab, slap or throw something at you?
   Or
   Ever hit you so hard that you had marks or were injured?
   Yes No If yes, enter 1:_____
3. Did an adult or person at least 5 years older than you **ever…**
   Touch or fondle you or have you touch their body in a sexual way?
   Or
   Try to or actually have oral, anal, or vaginal sex with you?
   Yes No If yes, enter 1:_____
4. Did you **often** feel that…
   No one in your family loved you or thought you were important or special?
   Or
   Your family didn't look out for each other, feel close to each other, or support each other?
   Yes No If yes, enter 1:_____
5. Did you **often** feel that…
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
   Or
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   Yes No If yes, enter 1:_____
6. Were your parents ever separated or divorced?
   Yes No If yes, enter 1:_____
7. Was your mother or stepmother:
   Often pushed, grabbed, slapped, or had something thrown at her?
   Or
   Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
   Or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   Yes No If yes, enter 1:_____
8. Did you live with anyone who was a problem drinker or alcoholic who used street drugs?
   Yes No If yes, enter 1:_____
9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes No If yes, enter 1:_____
10. Did a household member go to prison?
    Yes No If yes, enter 1:_____

Now, add up your "Yes" answers: _____ This is your ACE score.

Demographic Information:

Age:	**Gender:**		**Race/Ethnicity:**		**Zip Code:**
	Male:	_____	White/Caucasian:	_____	
_____	Female:	_____	Latino/Hispanic:	_____	_____
	Transgender:	_____	African American:	_____	
	Decline to State:	_____	Asian/Pacific Islander:	_____	
			American/Alaskan Native:	_____	
			Other:	_____	

A study by (Felitti, 1998), tested around 17,000 individuals by using the ACE Questionnaire. They found a significant positive relationship between the number of ACEs and different health problems in adulthood, including antisocial behavior.

Another tests widely used for trauma is **The Trauma Symptom Checklist for Children (TSCC).** Created by (Briere, 1996), it is a self-report measure designed to assess trauma-related symptoms in children aged 8-16.

The TSCC evaluates various symptom domains, including anxiety, depression, anger, post-traumatic stress, dissociation, and sexual concerns. (Briere, 1996).

Child Trauma Symptom Checklist

Caregivers: Use the following chart for eight weeks. At the end of each week rank the severity of each symptom from 0 to 3:

0 = never
1 = a little bit, once per week or less, once in a while
2 = half the time, 2-4 times per week, somewhat
3 = almost always, very much, 5 or more times per week

Symptom	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Upsetting thoughts about what happened								
Nightmares								
Feeling as if what happened is happening again								
Physical symptoms like sweating, heart beating fast, upset stomach								
Avoiding things that remind them of what happened								
Negative thoughts about self								
Saying negative things about others								
Feeling like the world is unsafe								
Feeling like they can't trust other people								
Can't stop talking about what happened								
Feeling afraid								
Feeling guilty or ashamed								
Not wanting to do things they used to do								
Unhappy								
Numb								
Angry								
Doing unsafe or risky things								
Jumpy/Fidgets more than usual								

The third test that measures childhood trauma is **The Child Trauma Questionnaire (CTQ)**.

This test was developed by Bernstein and Fink in 1998, who wanted to put accent on the type of the abuse and the severity of it. Therefore, this test measures the severity of different types of childhood maltreatment. (Bernstein et. al., 1994).

It is made of 28 items, and 25 of them are focused on childhood maltreatment, including five subscales: sexual abuse, physical abuse, emotional abuse, physical neglect, and emotional neglect.

Q	QUESTION	NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	OFTEN TRUE	VERY OFTEN TRUE
When I was growing up						
1	I didn't have enough to eat.	1	2	3	4	5
2	I knew that there was someone to take care of me and protect me.	1	2	3	4	5
3	People in my family called me things like "stupid", "lazy", or "ugly".	1	2	3	4	5
4	My parents were too drunk or high to take care of the family.	1	2	3	4	5
5	There was someone in my family who helped me feel important or special	1	2	3	4	5
When I was growing up						
6	I had to wear dirty clothes	1	2	3	4	5
7	I felt loved.	1	2	3	4	5
8	I thought that my parents wished I had never been born	1	2	3	4	5
9	I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	1	2	3	4	5
10	There was nothing I wanted to change about my family.	1	2	3	4	5
When I was growing up						
11	People in my family hit me so hard that it left me with bruises or marks.	1	2	3	4	5
12	I was punished with a belt, a board, a cord (or some other hard object).	1	2	3	4	5
13	People in my family looked out for each other.	1	2	3	4	5
14	People in my family said hurtful or insulting things to me.	1	2	3	4	5
15	I believe that I was physically abused.	1	2	3	4	5
When I was growing up						

16	I had the perfect childhood.	1	2	3	4	5
17	I got hit or beaten so badly that it was noticed by someone like a teacher, neighbour, or doctor.	1	2	3	4	5
18	Someone in my family hated me.	1	2	3	4	5
19	People in my family felt close to each other.	1	2	3	4	5
20	Someone tried to touch me in a sexual way or tried to make me touch them.	1	2	3	4	5
When I was growing up						
21	Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22	I had the best family in the world.	1	2	3	4	5
23	Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24	Someone molested me (took advantage of me sexually).	1	2	3	4	5
25	I believe that I was emotionally abused.	1	2	3	4	5
When I was growing up						
26	There was someone to take me to the doctor if I needed it	1	2	3	4	5
27	I believe that I was sexually abused.	1	2	3	4	5
28	My family was a source of strength and support.	1	2	3	4	5

The link between childhood trauma and antisocial personality disorder

According to (Fisher et. al., 2024), antisocial personality disorder is a disorder which starts developing in childhood or early adolescence and is characterized by a behavior that is breaking the social norms.

Antisocial behavior can be detected in childhood, however, the official diagnosis for antisocial personality disorder cannot be given before the age of 18. The signs of antisocial behavior usually start to show before the age of 15, according to (Black, 2015).

A person with antisocial personality disorder does not care for the rules and does not follow them. They are good at manipulating people, in order to get want they want and to pretend to be charming and pleasing. Pathological lying is something that is present in ASPD,

and those individuals do not think that there is a problem with lying, it is only important that they are satisfied and to please themselves.

They only care about themselves, and do not show empathy or sympathy for others. When they are not successful at manipulating others and getting what they want, they can become very hostile and aggressive.

People with antisocial personality disorder do not care about the consequences of their impulsive actions. They will act in the moment when aggression and impulses take over, that is why they often have problems with the law and end up behind bars.

According to American Psychiatric Association (2022), it is estimated that about 9 percent of the adult population suffers from personality disorders. Of these, almost 4 percent have antisocial personality disorder.

If a child grew up in a dangerous environment, especially in a home where the child was abused or neglected, there is a risk for developing antisocial personality disorder due to the maltreatment, neglect, lack of parental love and care.

According to (Tuvblad and Beaver, 2013), both environment and genetics play a major role in developing antisocial personality disorder, meaning that it is likely that if a parent has ASPD and the child lives in a dysfunctional environment, that child will also develop antisocial personality disorder.

They also did a study on prevalence of antisocial behavior, and the researchers found that most of the individuals with the antisocial behavior did have trouble with the law and ended up in prison. They found that 1-3% had antisocial behavior in community settings, and 30% in prison. (Tuvblad and Beaver, 2013).

Environment, in which the child is raised, is a major risk factor for developing antisocial behavior.

Parents or guardians are supposed to be the role models for children. They are someone who a child looks up to, and children are very likely going to model the behavior of parents or guardians. If a child grew up in the dysfunctional household, it is more likely that this child will follow the footsteps of his or her parents and engage in similar behavior in adulthood.

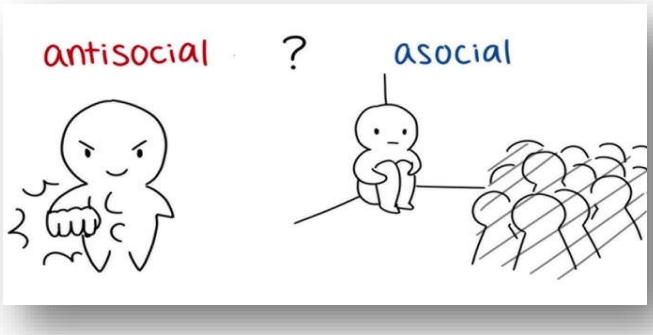
For example, a child grew up in a poor, ghetto neighborhood, and that child's parents are engaged in criminal activities such as selling drugs or doing drugs, or both, and this behavior became regular for them and it is not explained to the child as a negative behavior. The child will grow up with the belief that this kind of a behavior is normal, and will probably engage in the same or similar activity when he or she grows up. This will lead to their constant troubles with the law. (Bountress and Chassin, 2015).

Antisocial behavior involves aggressive behavior such as verbal or physical abuse towards others, bullying, maltreating, shouting, swearing, yelling, threatening, vandalism, etc.

They often lie, make impulsive negative decisions, they think of themselves as being smarter than everybody else, have a grandiose belief about themselves, and think that they are better than others and smarter, they do not accept responsibility for their actions, and have problems with alcohol and drug abuse. (Fisher et. al., 2024).

It is important to note that antisocial behavior is not the same as being asocial because the two often get confused with one another.

Antisocial people have an unacceptable behavior, breaking the rules and social norms. And asocial behavior can have a person who is simply not friendly, or an introvert. This may occur due to less self-confidence, or something similar.



I will mention some of the most common triggers for developing antisocial behavior:

The lack of positive emotional and affective relationship between parent and child. This kind of a relationship is established already in the first moments of a child's life, especially between mother and child. This happens by physical touch between a baby and mother, through breastfeeding, and the calmness and security in mother's voice. (Krol and Grossmann, 2018).

Indifference, rejection and avoidance of the child can have a negative impact on the overall further development of the child's personality.

The lack of organization and troubles in family functioning. This factor is activated when parents are unable to organize daily family activities through which they will perform their parental role. Distancing from a child can be crucial. For example, preoccupation with work can contribute to this, or if parents are in a poor financial situation, so they have to do several jobs in order to provide for the family. In this situation, the parent is not present for the child when needed. A parent should be present to encourage the child, motivate, support, praising the child for good behavior, teaching them wrong from right, etc.

There is also inconsistent parenting, which manifests itself through the absence of clear rules of conduct or, if they exist, inconsistency in their implementation. Parents can also disagree with one another about what should the rules, boundaries and punishments be. One parent can be very strict when it comes to following and setting the rules, and the other can be lenient, so there will be many disagreements. All this further leads to failure in establishing discipline, and reduced control over children's behavior.

Research has shown that parents of children who behave violently often are not engaged enough in child's life, they do not know who their child spends time with and how they behave.

Parents should notice and respond to child's needs. They need to put themselves in a child's position and realize what their child needs. Some parents often dismiss the needs of their children, thinking that the child is exaggerating and that what the child is asking for is unnecessary.

Parents need to show interest in the child's activities, through constructive care and support, providing warmth, and at the same time consistent, effective implementation of rules. Poor responsiveness is related to the risk of developing unacceptable behaviors.

Witnessing arguments between parents can influence child's behavior. Parents are children's role models, and if they see parents arguing often, children will most likely adopt that behavior as normal and mirror it.

Marital conflicts also lead to parents being dissatisfied with their lives and preoccupied with personal problems, so they often do not pay attention to their children.

Divorce or separation of parents can be very traumatic to children. Parents are occupied with their own problems and are not performing basic family functions. (D'Onofrio and Emery, 2019).

The separation of parents before the child reaches the age of five increases the chance of behavior disorder. However, this does not need to necessarily happen, not all children whose parents divorced are problematic. Parents who adequately perform their parental roles even after the divorce, go through the divorce in an adequate way and continue to take care of the children together will significantly reduce the likelihood of developing negative behavior.

Also, I have to mention parents who do not recognize that their child has an unacceptable behavior. Sometimes this happens because parents have a high opinion about themselves and about their parenting, so they cannot accept that their child has flaws.

It is of great importance to mention the psychopathology of parents and how it affects children. Poor behavior from parents such as addiction to alcohol, psychoactive substances, criminality and aggressiveness offer the child a negative model for dealing with problems. (Lander et. al., 2013)

When parents engage in such behavior, the child normalizes it and therefore models it as he or she gets older, but sometimes even as young children.

It has also been proven that the chance of children exhibiting antisocial behavior is higher when one or both parents are dealing with depression. The depressive state affects the reduction of parental control, as well as the energy and will to take care of the child.

Because of the parental depression, the child will be neglected, and will not develop the same as children whose parents took care of them properly.

The study was done on neglected children vs. children with proper parenting, and it was discovered that cognition and language abilities of the neglected children were not as developed as controls. (Spratt, 2012).

Treatment for abused children

Child maltreatment and abuse is a major problem that affects millions of children worldwide. The abuse can be physical, emotional, sexual, and neglect, which can lead to disturbing behavior of the children and severe psychological and physical damage.

According to (Lippard and Nemeroff, 2020), the maltreatment of the child can affect a child's development, leading to various mental health disorders, such as post-traumatic stress disorder (PTSD), depression, anxiety, and antisocial behavior.

The appropriate and effective treatment needs to be set as soon as possible for abused children, in order to prevent or help manage the psychological and physical consequences from the abuse.

The type of abuse needs to be determined before creating a treatment plan, in order to have a clear picture about what the child went through, and therefore create an effective treatment plan.

Types of abuse and how they affect the child:

- Physical Abuse:

Physically harming a child. This can hitting, pinching, kicking, shaking, burning, or other forms of physical abuse.

These children, who experience physical abuse may suffer from external or internal injuries, such as bruises, cuts, scars, chronic health problems, disturbing behavioral problems, and severe emotional damage. (Valle and Lutzker, 2006).

- Sexual abuse:

According to (Melmer and Gutovitz, 2023), sexual abuse involves engaging a child in sexual activities that they do not consent to.

The consequences of sexual abuse are severe, leading to long-lasting psychological and emotional trauma, also causing children to have trust issues with other people, and sexual dysfunction in their later life.

- Emotional abuse:

Emotional abuse includes humiliating a child, telling the child that he or she is worthless, shaming them, constantly criticizing them, yelling at them, rejecting them, threatening them, etc.

This kind of abuse can make a child believe that he or she is worthless. They feel rejected and unloved, causing them to feel anxious, depressed, and have behavioral problems.

They often try to impress their abuser with their behavior, in order to be ‘’good enough’’ for the abuser’s standards.

- Emotional and physical neglect:

According to (Cohen et. al., 2017), neglect occurs when a child's basic needs are not met. The basic physical needs include providing food and water for a child, hygiene, providing home and shelter for them, providing medical care when a child is sick or injured, and providing education for the child.

This can lead to malnutrition, infections, health problems, developmental delays, emotional and behavioral problems.

Emotional neglect refers to not showing love and support for the child, this leads to feeling unloved and unwanted, which can lead to undeveloped emotional stability in their later life.

The following therapeutic approaches have shown to be effective in treating children who have been maltreated and abused:

- Trauma-Focused Cognitive Behavioral Therapy (TF-CBT):

Trauma-Focused Cognitive Behavioral Therapy is a widely used evidence-based treatment for children who have experienced trauma, including abuse.

Trauma-Focused Cognitive Behavioral Therapy helps children and their caregivers process the trauma, develop coping skills, and reduce symptoms of post-traumatic stress disorder, depression, and anxiety.

According to (Cohen and Mannarino, 2015), it is crucial for the parent or the caregiver to be a part of the Trauma-Focused Cognitive Behavioral Therapy and to spend the same amount of time in therapy as the traumatized child.

Trauma-Focused Cognitive Behavioral Therapy sessions are usually divided into spending 30 minutes individually with the child, and 30 minutes individually with the parent, at the begging of the treatment. Later, there are conjoint sessions, where both the parent and the child are included together in the session, in order to develop a better communication between the parent and the child. The conversations are focused on the child's trauma and the healing process. (Cohen and Mannarino, 2015).

This method, with the individual sessions, is preferred over family sessions because it is good for the child-parent relationship if they both heal and focus on their own trauma, which will benefit their relationship and create a better communication when they meet in conjoint sessions.

In the parent-therapist sessions, the therapist provides guidance to the parent for helping the child use the appropriate TF-CBT skills, when the child is outside therapy.

Trauma-Focused Cognitive Behavioral Therapy skills are reported to be very beneficial for the parents, and that seeing how helpful the skills are to them, it is easier to encourage the child to practice those skills. It is important that the parent also uses these skills. (Cohen and Mannarino, 2015).

The practice of the skills outside the therapy, usually happens in the home environment of the parent and the child, which creates a positive and safe environment, where the child is motivated to practice. The child and the parent create routines and rituals to practice skills, and continue doing so for a long time after the therapy is competed. (Cohen and Mannarino, 2015).

Another important reason why the individual sessions are necessary, is that the therapist can see the way the parent talks about their child, and how the parent describes the way they discipline their child.

Some parents may say hurtful things to the child, or discipline them harshly, without realization that this kind of behavior is negatively impacting their child, so this gives room for the therapist to teach the parent new ways of discipline, and to make the parent realize that their disciplining methods are not appropriate. (Cohen, and Mannarino, 2015).

- Play therapy:

Play therapy is a therapeutic approach that uses play to help children express their feelings, thoughts, and experiences. (Bratton et. al., 2008).

Play therapy is especially beneficial for small children, whose verbal skills are not yet developed adequately to explain their emotions.

A child is provided with a safe and supportive environment, so the child is observing the surrounding and engaging with the toys provided. In the meantime, the therapist is observing their behavior, searching for signs of disturbances.

For example, a four year old girl, who experienced physical maltreatment, is going through the play therapy. While playing, she expresses her emotions. The therapist can notice when she is expressing sadness, fear, and anger. The child is given toys, storytelling by the therapist, and art materials during the therapy session.

The child will most likely, show improvement in regulating her emotions, and improvement in her behavior, over several months in the play therapy.

The play therapy is beneficial, however, the healing process takes time. The trauma cannot be overcome quickly. It is a process that takes time, patience and persistence, in order to completely heal from the trauma.

- Eye Movement Desensitization and Reprocessing (EMDR)

EMDR is a trauma-focused therapy that helps individuals process and integrate traumatic memories. EMDR involves a structured protocol that includes bilateral stimulation, such as eye movements, tapping, or auditory tones, to help reprocess traumatic memories and reduce their emotional impact. (Gainer et. al., 2020).

Eye Movement Desensitization and Reprocessing (EMDR) is a psychotherapeutic treatment designed by Francine Shapiro, to decrease distress associated with traumatic memories.

When the EMDR sessions are completed, the patient should feel a relief and decreased emotional distress. Their negative thoughts about themselves are no longer present, and the feeling of anxiety and discomfort that they felt earlier in their body will be reduced.

In the EMDR sessions, the patient is faced with their trauma and deals with it emotionally, while focusing in the fingers of the therapist (external stimulus).

This kind of therapy focuses on the patient's traumatic memory network.

EMDR therapy has a positive outcome very quickly and early in the sessions. The patients often report a great emotional improvement and a change in the self-image already in the

first session, which means that the amount of therapy sessions will be reduced because of the early and rapid benefits of the therapy. (Shapiro, 2014).

Trauma and emotional pain takes time to heal in psychotherapy, but EMDR is an approach that speeds up healing process.

EMDR therapy demonstrates that the mind can heal from psychological trauma, like the body can heal from the physical trauma.

We can view trauma as a wound that needs to be healed. The physical wound is visible, and the healing process can happen naturally or with the medical help. Emotional, psychological and cognitive wound (trauma) is not visible, but Eye Movement Desensitization and Reprocessing therapy shows that a similar sequence of events occurs with mental healing processes.

It is important to note which kind of psychological and emotional trauma Eye Movement Desensitization and Reprocessing therapy can heal. For example, lack of self-confidence and negative thoughts about oneself, which often are the result of a toxic environment and a bad relationship with parents or caregivers.

Individuals who are dealing with anxiety can benefit greatly from EMDR therapy. During the process of the therapy, because EMDR is based on retrieving past memories, the therapist can conclude at what moment in the past the patient became anxious and what triggers their anxiety. Whether the patient experienced some sort of abuse, bullying, or witnessed violence that made him or her anxious, all of this can be seen if the patient shares their past memories with the therapist. Therefore, it will be much easier for the therapist to use EMDR on the specific trauma and focus on the healing process more precisely. (Gainer et. al., 2020).

EMDR therapy can also be used when treating depression, panic attack disorder, phobias, generalized anxiety disorder, grieving process when losing a loved one, healing from a divorce or a break-up, healing from physical or sexual abuse, post-traumatic stress disorder, accidents, etc.

- Attachment-Based Therapy

Attachment-based therapy focuses on improving the child's attachment relationships with their caregivers. Neglected children and children who have suffered from emotional abuse will benefit from this therapy because they have not experienced proper attachment from the parent.

A study done by (Diamond et. al., 2021), investigated the importance of a good and healthy relationship between parents/caregivers and their children. They found that a major risk factor for adolescents committing suicide is the quality of the relationship with their parents/caregivers.

Adolescents who are exposed to physical or emotional violence within their household, lack of tolerance, poor communication, poor parenting, poor attachment, are more prone to depression and suicide.

In order to prevent adolescent suicide and depression, it is important to form good attachment with the children, when they are young.

Attachment based therapy is also known as ‘’Holding therapy’’, which means that a child is held during the therapy session by the parent or the therapist, in order to make the child feel safe. The therapist is trying to evoke emotions from the child, such as despair and anger, in order for the child to release all those negative emotions and comes to the state of relief.

- Group Therapy and Support Groups

Group therapy and support groups are created to help abused children feel supported and noticed. In this kind of environment, children can share what they went through and hear from other peers what they have experienced, this is also a way to develop social skills. (Malhotra and Baker, 2022).

Group therapy is held by trained mental health professionals, who make sure that children feel safe and welcomed when they arrive, and that they feel supported throughout the sessions. This kind of therapy involves one or more therapists working with multiple children at the same time.

Group therapy can be especially beneficial for children because they may feel more comfortable when there are other children around them, who are also sharing similar experiences. Some children may withdraw to themselves because of the trauma that they have experienced or are simply shyer than other children, so being a part of the group can help them feel more relaxed and help them open up. (Malhotra and Baker, 2022).

Children and therapists usually do a lot of fun activities for the children together, such as drawing, crafting, playing, using puzzles, etc. While they are engaging in these activities, they are also having a conversation with the therapist, and are feeling more comfortable and relaxed when sharing their traumatic experience.

Children are also presented with music and art therapy, yoga, practicing mindfulness, learning some breathing exercises, etc. All of these are taught by a therapist, in order for a child to process their emotions and feel more comfortable.

Sessions are usually once a week, for about one hour or longer. (Malhotra and Baker, 2022). Each week, the session is structured on focusing on different emotions and learning how to process them. Children introduce themselves in the sessions, and share something about themselves. When listening to other children speak and introduce themselves, this will help the child feel more comfortable with other peers, early in the session.

Overall, group therapy is highly recommended and beneficial for children who survived trauma. Group therapy encourages them, makes them feel supported, and have more self-confidence.

A study done by (Westbury and Tutty, 1999) examined how the group treatment affects people who have survived abuse as children. And they found that the group therapy was a lot more beneficial for the survivors than the individual therapy sessions, when it comes to anxiety and depression.

Another study done by (Deblinger et. al., 2016), created a group therapy program for children who were maltreated and sexually abused.

The sessions were once per week, and the children were engaged in various fun activities. They had conversations with the therapists and their peers, and have completed exercises given by the therapists.

The outcome of the group therapy was very successful, as children learned how to manage their emotions, new coping skills, developed social skills, and their self-confidence increased.

- Family Therapy

Family therapy usually includes the immediate family members of the child who went through trauma and also the child himself or herself. The therapist gets to know the family and their family dynamics, then teaches them how to improve their communication and relationships. (Ford, 2020).

This approach is especially beneficial when abuse occurs within the family, so the therapy will help the family members rebuild trust and start the healing process.

Family therapy is usually held once a week, and in each session the therapist gives each member of the family a chance to express and explore their difficult thoughts and feelings in a safe way, without being judged.

They are being guided by the therapist on their bonding and healing journey, and are learning new approaches and ways of being thoughtful and respectful to one another, attending each other's needs, expressing love and patience in their relationship.

Learning to respect each other and improve communication, automatically improves the entire family relationship.

Family therapy is focused on looking at the problem and the family as a group and a whole, rather than focusing on one individual. (Varghese et. al., 2020).

A study was done on the effectiveness of psychosocial interventions in abused children and their families by (Derakhshanpour et. al., 2017), and they concluded that this kind of intervention significantly improved the relationship between a child and the parent, also showing that it positively affected the mental health of the parent.

- Multidisciplinary Approach

This kind of approach is very important when helping abused child in overcoming trauma.

Multidisciplinary Approach means that group of professionals, such as therapists, nurses, social workers, educators, medical workers collaborate together in order to provide the best treatment for the abused child. (Ludwig, 1981).

They share each other's experiences with the child, and consult one another to determine the most beneficial way of working with this child.

Programs for prevention and identification of abuse

There are several programs where both the child and the parent can learn how to identify abuse and prevent it. Early prevention is crucial.

For example, there are parent training programs for abused children, where parents are provided with support, learning parenting skills, new problem-solving techniques, promoting positive parenting practices and reducing the risk of child abuse. These programs often focus on improving parenting skills, stress management, and effective discipline strategies.

A study by (Vlahovicova et. al., 2017), suggests that these kind of programs are significantly effective in preventing and reducing physical abuse within families.

A program called ‘’Head Start’’, which is developed in the United States, and is also accessible to families that are not wealthy, provides essential education, support, and health care for children and their family.

Head Start program focuses on child development, support of the families, and help identify and address early signs of abuse or neglect. Therefore, this program is beneficial when it comes to early prevention of child abuse and neglect.

Prevalence of antisocial personality disorder

According to the study ‘’ The Epidemiology of Antisocial Behavioral Syndromes in Adulthood’’, prevalence of antisocial personality disorder were 4.3% and 20.3%, highest among male, white, people who had lower level of education and low income.

The antisocial personality disorder was linked with alcohol and substance abuse, depression, bipolar disorder, PTSD, and schizophrenia. ASPD was additionally associated with 12-month agoraphobia and lifetime generalized anxiety disorder. (Goldstein et. al., 2017).

According to (Werner, 2015) 1-4% of the general population was identified with antisocial personality disorder. They also found that psychopathy is strongly linked with the individuals who have been committing crimes.

One of the interesting theories is that we can notice ASPD in children with three specific behaviors. Three signs that antisocial behavior and dysfunctional environment is present may be detected if the Macdonald triad (sociopathy or homicide triad) is present in childhood.

The Macdonald triad includes three behaviors, which happen in childhood: bedwetting, torturing animals, and pyromania.

There are many studies who critique this hypothesis, therefore, more research is needed to confirm whether these three behaviors are signs of a potential sociopath.

It was defined by psychiatrist J. M. Macdonald, who was a psychiatrist, in 1963. The triad is still mentioned by many psychologists, but many other researchers think that it is not valid.

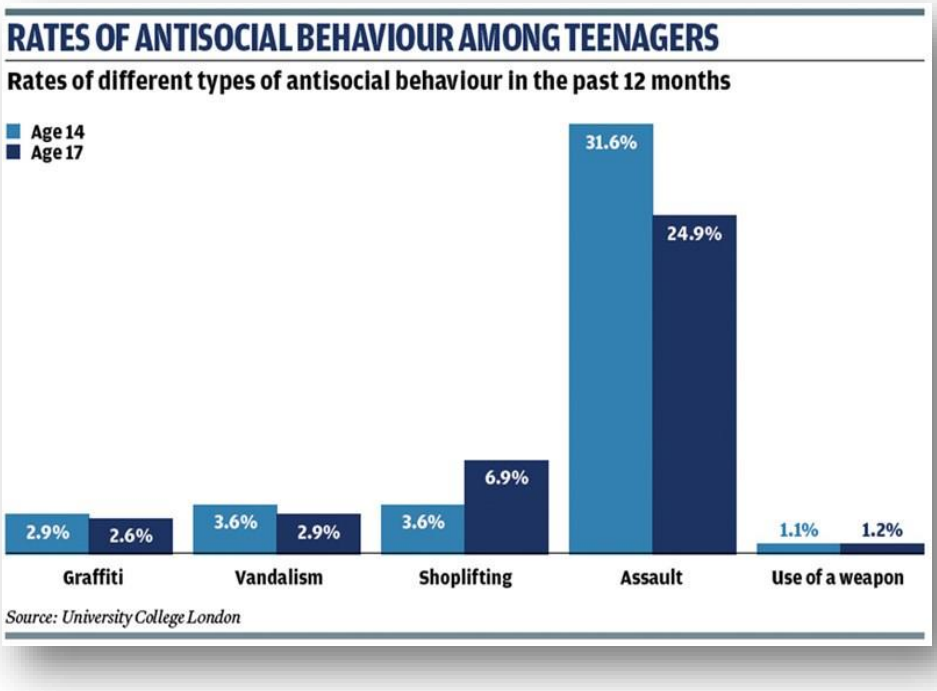
Adolescents and antisocial behavior

I would like to mention that adolescents are prone to engage in bad behavior because they act through affect, most of the time, due to their emotional part of the brain being dominant, and

the frontal cortex, which is responsible for decision making and rational thinking is still developing.

It is not unusual to see a teenager engaging in certain behavior that is not acceptable for the society.

However, the teenagers who keep engaging in delinquent and sociopathic behavior are more likely to be diagnosed with antisocial personality disorder.



This table was taken from the University College London's, where researchers have done a longitudinal study on students from ages 14 to 17, measuring antisocial behavior among teenagers.

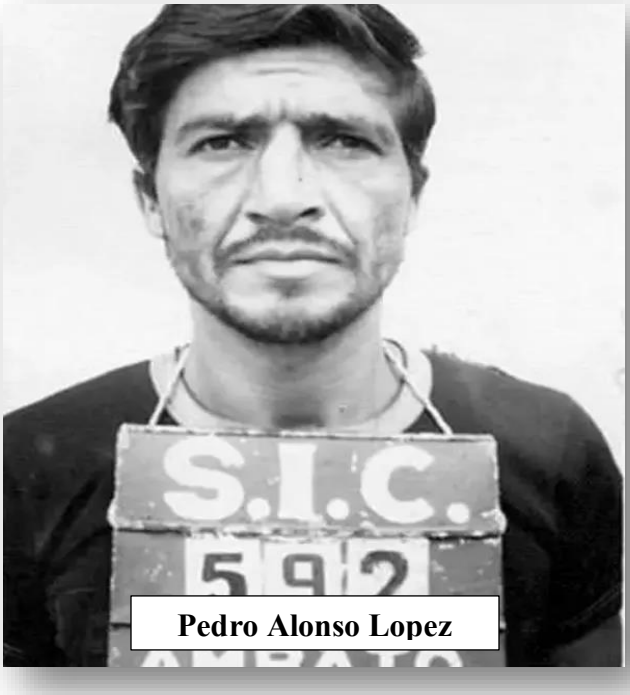
The most frequent behavior among these teenagers was the assault, which confirms that teenagers have a hard time controlling their impulsive behavior. And if not guided to the right

path, in these crucial years, this behavior can stick with them for the rest of their lives, and develop into severe problems.

Serial killers diagnosed with antisocial personality disorder

I want to point out a few people who suffered from antisocial personality disorder due to their rough childhood. These people suffered tremendously as children. They were emotionally, sexually, and physically abused.

In their later lives, they wanted vengeance for the pain they went through, so they had the urge to hurt other people. All of them became serial killers. Once they were caught, they told their life story, and it was very clear that all of their disturbed behavior can be traced back to their childhood.



Pedro Alonso Lopez

This is Pedro Alonso Lopez, Colombian serial killer. This picture was taken upon his arrest.

Pedro grew up without a father, and he claimed that his mother was a prostitute. He saw and experienced many wrong things, which no child should ever experience. He was sexually abused when he was a young boy.

Pedro was homeless, when some people saw him and offered him to stay in an orphanage, he agreed, but he had a terrible time there. He was sexually abused by a teacher in an orphanage, so he decided to run away from there.

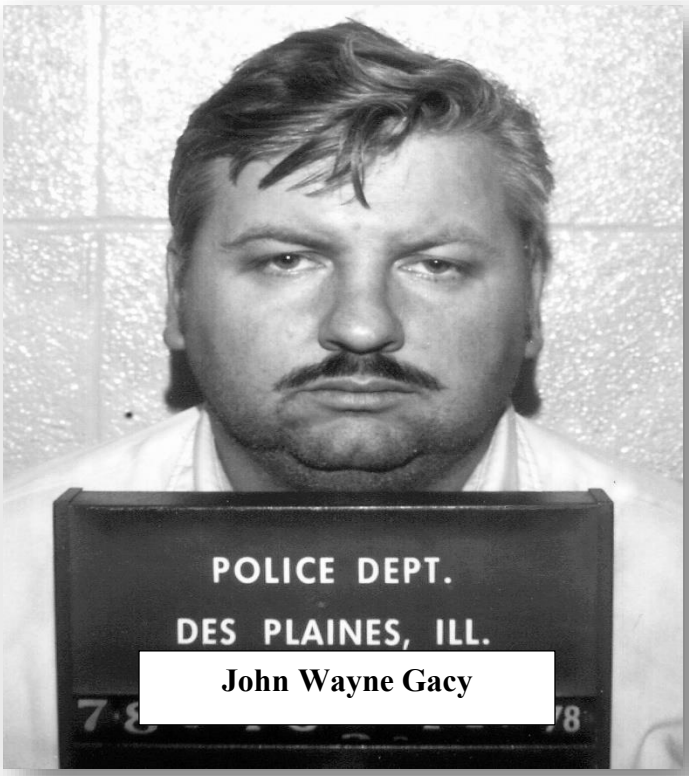
Ever since then, Pedro lived as a homeless person, and he engaged in a lot of criminal activities. He was first arrested for a car theft and was sentenced to 7 years in prison. While he was in prison, he was sexually abused by three inmates, and it is believed that this triggered a desire for revenge in him.

After he was released from prison, he started murdering and sexually assaulting people, especially young girls.

The number of his victim is unknown, but it is believed that he has murdered around 300 people. He was deported to Colombia to be sentenced, and what is most shocking about this case is that Pedro served a few years in prison and he was released on good behavior.

When he was released, he continued his killing spree and later was declared insane, and sent to a mental hospital, where he got out on 50 dollar bail. His current location is unknown.

This shows how some countries have a poor legal system. If Pedro is alive today, he should not be walking the streets as a free man.



This is John Wayne Gacy. He was an excellent example of how an antisocial person behaves. John was diagnosed with the antisocial personality disorder at the University of Iowa. He was a subject of many studies because of his condition.

John was one of the worst American serial killers, often referred to as the ‘’Killer Clown’’ because he liked to dress up and do his makeup as a clown and perform at children’ parties.

His targets were younger men, which he would lure into his home and sexually assault them, torture them, and murder them. Most of his victims’ remains were found buried underneath Gacy’s house.

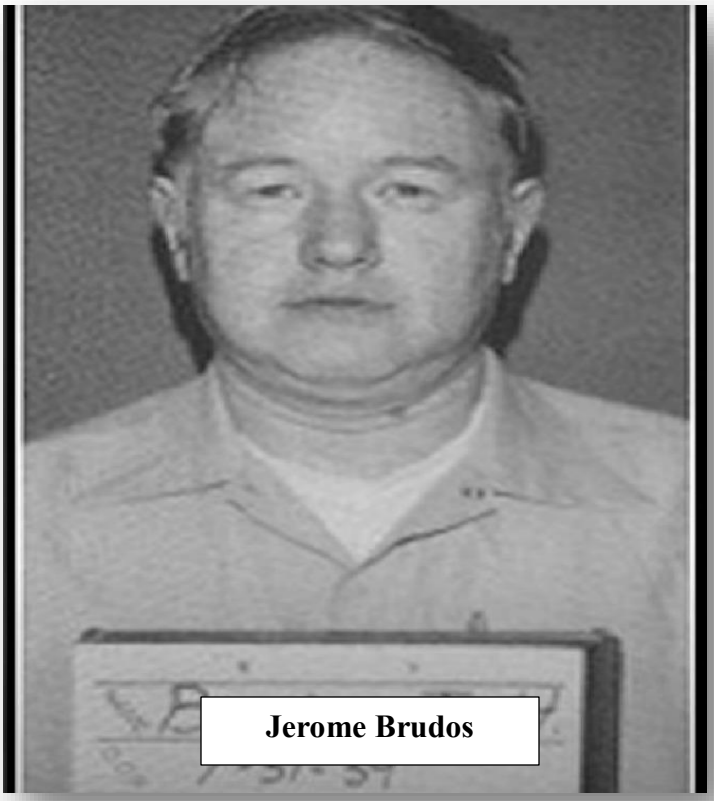
Gacy had a tough childhood. He was close to his two sisters and his mother, but he did not have a good relationship with his father. His father was an alcoholic and he would physically abuse John, his sisters and his mother. His father would always put John down, calling him ‘’stupid’’, telling him awful words, and making sure to tell John that he is worthless. John’s father often compared John to his sisters, which he thought were much better than John.

John was sexually assaulted as a young boy, approximately 10 years old, by a family friend. After that, John struggled with his self-esteem and his sexuality.

He always had troubles bonding with other children because of his poor health conditions. John has seizures and heart problems, so he was in and out of the hospital a lot.

He is an example of how an antisocial person is made. The psychosexual maltreatment in his childhood was the main reason why he became a serial killer.

In his later life, John presented himself as a great community member, a loving husband and father. He was well-liked by the community, so when he was first accused of sexually assaulting a young boy, the community believed him. However, he was charged and sentenced to 10 years in prison. After his release, he was committing heinous crimes. He was sentenced to death on March 13th, 1980.



Jerome Brudos

This is Jerome Brudos, known as “The Lust Killer”. Brudos had a troubled childhood. He was neglected and abused by his mother, who always wanted a daughter. Because his mother desperately wanted a daughter, she was dressing Jerome as a girl.

This kind of abuse shaped Jerry into having twisted fetishes’ and thoughts. He especially liked shoes and underwear. He suffered from antisocial personality disorder because of his trauma, which he experienced during his childhood.

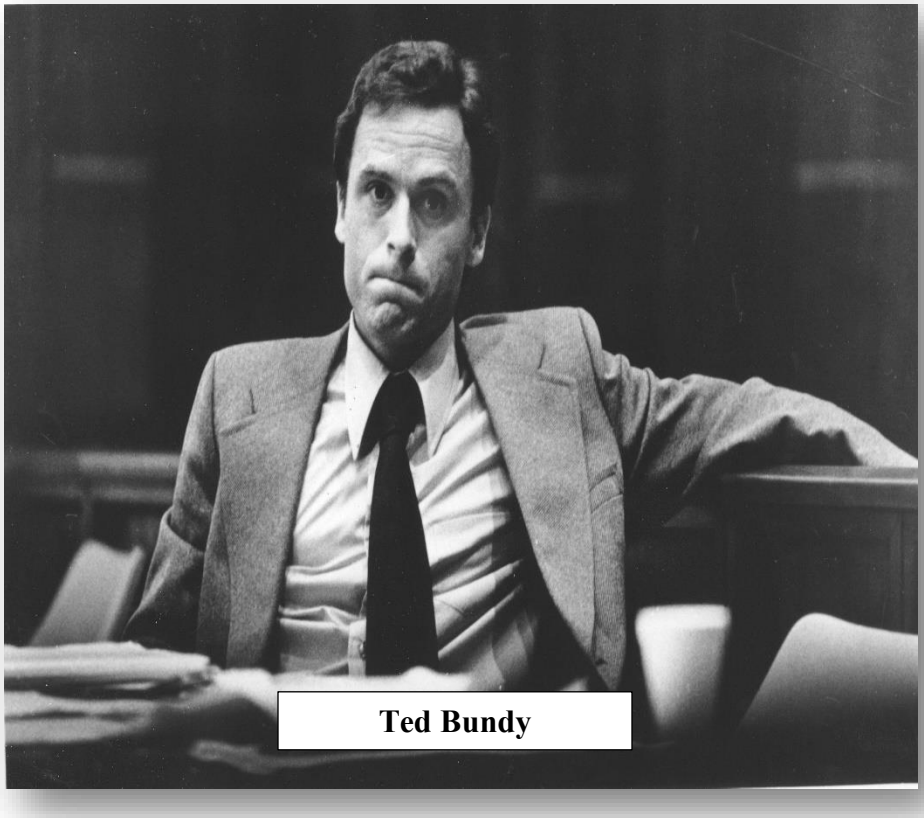
Aileen Wuornos is another example of how abusive childhood forms a serial killer. Aileen's disturbing childhood led to her prostitution as an adult, and hatred towards men who she murdered. She had murdered seven men who wanted to have intercourse with her, while she was a sex worker. She is also known as the "Damsel of Death''.

Since the beginning of her life, Aileen found herself in a dysfunctional family. Her parents divorced right after her birth, she never knew her father, and she was abandoned by her mother. She later found out that her father was arrested for child abuse. She was adopted by her grandparents, which she did not know that they were her grandparents, and that only led to her frustration even more.

Aileen was emotionally, physically and sexually abused by her biological grandfather, who impregnated her. She also had intercourse with her brother at a young age.

At the age of 11, she had prostituted herself for cigarettes. And since then she has been offering her body to anyone, in order to make money.

Aileen's long history of psychosexual abuse led to her breaking point. She felt hatred towards the men who wanted her service, so she decided to murder them. When she was arrested, she claimed that she was murdering them out of self-defense. However, later she confessed that she felt hate towards men and that she wanted to steal their money, so that is why she decided to commit murders.



Ted Bundy

One of the best examples of an individual who has been diagnosed with antisocial personality disorder is Ted Bundy.

He was born in November, 1946, in Vermont. Ted's mother became pregnant at a young age and she never revealed the identity of Ted's father. Because she was so young, her parents were presenting themselves as Ted's parents, and his mother as his older sister.

Ted's mother married when he was 4 years old, and moved away from her parents. Ted did not have a good relationship with his stepfather, and did not see him as a father figure.

When Bundy was a child, he was introverted and shy. He did not have many friends, and other children thought of him as odd.

He began showing the signs of antisocial behavior even as a little boy. He had an obsession with knifes and would be often violent, he would also lie often. This behavior only got worse in his teenage years. He would be very aggressive and angry towards his mother because she never wanted to tell about his biological father and revealed his identity to him.

As he grew older, and went to college, it seemed as he was living a normal life. He had become more extroverted, had several girlfriends, but would always have trouble with controlling his anger and possessive behavior towards his partners. So his romantic relationships would not last very long.

In school, he was brilliant. His professors loved him and would have only good words about him. He had earned a psychology degree, and worked in suicide hotline crisis center, in Seattle.

Later in his life, he was interested in law and began studying it. He was very good at it, and showed great potential.

He became murdering and sexually assaulting women in 1974, in several states, across America. His victims were similar to one another physically. Some people argued that he was looking for victims similar to his mother, but I would disagree because these women were younger. His last victim was a 12 year old girl.

The number of his victims is unknown. He had confessed to murdering 36 women, however, the authorities think that there is a lot more of his victims.

Bundy was extremely good at manipulating people, even mental health professionals. He was called a ‘’charming psychopath’’. The psychologists had a difficult time in diagnosing Ted because he seemed very normal and emotionally stable, so he was given several different diagnosis because psychologists could not agree on the same diagnosis.

Ted showed many signs of antisocial personality disorder, including his deceitfulness, his ability to manipulate people with his charm, and having grandiose belief about himself.

The perfect example of his high beliefs about himself was when he decided to defend himself in his trial. He thought that he was better than his lawyer, so he fired his lawyer and continued the trial by being his own lawyer. This behavior can also indicate that he had a narcissistic personality disorder.

In later interviews, when he was finally charged with all those murders, he explained that he did not feel guilty for the murders, and that he was excited when he was committing those crimes and would feel euphoria.

It is common that psychopaths do not feel empathy for other people, and that people with psychopathy have low connections between the ventromedial prefrontal cortex (vmPFC) and the amygdala. (Blair, 2008).

He was finally diagnosed with antisocial personality disorder by psychiatrist Hervey M. Cleckley.

Empathy

I want to point out that these people, obviously, did not have empathy toward their victims and their families. It is not uncommon that people with antisocial personality disorder struggle with empathy and understanding the emotions of others.

Empathy is the ability to understand emotionally what another person is experiencing. Sometimes even feel the same emotions as the person we are observing. Empathy is best understood through practice and personal experience.

It is key to mention that emotional intelligence builds connections between us and other people. Therefore, empathy means that you as a person understand what others are experiencing, as if it were happening to you.

The word empathy implies the power to enter into another's personality and vividly experience another's experience. People who have empathy are better connected to other people and therefore have more friends and are more social.

Empathy is learned through examples from family, society, favorite cartoons, books, etc. That's why it's important to set the right example for children from an early age. Parents should

pay attention to their own behavior because children are mirroring them, but also pay attention to the actions of heroes from books, cartoons and comics that they watch and read.

Also, empathy in children develops to a significant extent within the school and educational system. As young children, they are taught by their teacher in school about good manners, how to show sympathy and empathy. The children also develop empathy by observing their peers in school, sharing with each other and comforting each other when something is wrong.

Empaths, when they are interacting with others, they enter the mind of a person they are talking to and observing, and see the world from their perspective. Empathy gives us the ability to adjust our verbal and non-verbal expression to the direction that is most effective for us.

Many people have great natural empathy, however, there are people who lack empathy and because of that they do not have a problem with hurting others.

For example, when someone has a problem and is feeling down because of it, while venting to another person, they expect empathy and understanding, instead of that, people without empathy will often not support the other person and sometimes switch the attention to them because they want to be the center of attention. They do not listen to the other person and they are not putting themselves in the other person's position.

According to (Chang et. al., 2021), people in the psychopathic group do not seem to be engaged in cognitive empathy, but people who were in antisocial-only group, do understand empathy, however, they do have a difficulty when it comes to accurately identify the emotions of other people.

Psychopathy vs. ASPD

Something similar to antisocial personality disorder that needs to be addressed is psychopathy.

Psychopathy and antisocial personality disorder are similar in some ways, for example, the main characteristics would be lack of morality, remorse and aggressive behavior. However, psychopathy is not considered a diagnosis and is not in any diagnostic manuals.

It does not necessarily mean that a person with antisocial personality disorder has to be a psychopath and meet the criteria for it. According to (Abdalla-Filho and Völlm, 2020), the third of patients with antisocial personality disorder are psychopaths and meet the criteria.

Research suggests that when an individual has psychopathy, their brain may also have physical differences compared to the brain of an individual without psychopathy. (Blair, 2008).

Regarding the difference between antisocial personality disorder and psychopathy, there are different approaches to classification, but what is common and what is considered is that these people have in common a personality disorder characterized by a lack of empathy, a lack of guilt and a low threshold for violence, aggressive behavior.

There are differences regarding terms. People with antisocial personality disorder, sometimes referred to as sociopaths, are usually said to develop the disorder mainly as a result of some traumatic experiences in childhood or adolescence, and psychopathy is generally thought to be either innate, genetic causes that cause the personality disorder. So, psychopaths are born and sociopaths are made.

Psychopaths are considered to be more calculative than sociopaths. For example, psychopaths are cold, without emotions, they are more inclined to plan and carry out some violent crimes, while sociopaths are associated with more impulsive, aggressive behavior and are prone to conflict, which is why they have problems with the law.

Antisocial personality disorder is difficult to treat. Many individuals with antisocial behavior do not see their behavior as problematic, therefore they refuse to go to treatment.

Certain symptoms can appear in childhood, so the parent can react and get their child adequate help.

The combination of talk therapy, pharmacotherapy, and social support is the best combination when treating ASPD, which will be explained later, in detail.

Current Studies

Link between Childhood Abuse and Psychopathy is a study by (Dargis, 2016), who explores how different types of childhood trauma are related to the severity of antisocial personality disorder in adulthood.

This study focuses on the direct impact of traumatic experiences like abuse and neglect on antisocial behaviors (Dargis, 2016).

The study was done to identify and clarify the link between childhood abuse and psychopathy. The participants were mail prisoners in Wisconsin prisons. They were able to participate if they were age between 18 and 55 and if they were not diagnosed before with psychopathy and were not taking any medication to treat psychopathy.

To assess psychopathy, the researchers used The Psychopathy Checklist-Revised (PCL-R) on the prisoners. It is a 20-item inventory of perceived personality traits and recorded behaviors. It is a semi interview and a review of already existing record of the patient, in this case, of the prisoners.

The researchers also measured Conduct Disorder, which is a very similar pattern of behavior to antisocial personality disorder. It includes behavior like lying, bullying, torturing animals, stealing, aggressive behavior, unreliable behavior. Antisocial personality disorder cannot be officially diagnosed before the age of 18, and CD can.

In this study, the researchers measured conduct disorder and antisocial personality disorder. They used the information already gathered in the psychopathy checklist to better understand each prisoner and their behavior.

The researchers decided that in order to meet the criteria for antisocial personality disorder, the prisoners had to have at least 3 out of 15 conduct disorder symptoms. Also, they needed to match at least 3 out of 7 symptoms for adult antisocial personality disorder.

The researchers analyzed childhood abuse using The Childhood Trauma Questionnaire (CTQ). It is a valid and reliable tool for measuring childhood abuse. It is a self-report, made up of 28 questions. It measures different traumas like emotional abuse, physical abuse, physical and emotional neglect, emotional abuse, and sexual abuse.

Also, IQ of the prisoners was measured with Wechsler Adult Intelligence Scale-Revised (Wechsler, 1981) and the Shipley Institute of Living Scale (Zachary and Shipley, 1986).

Socioeconomic status is also measured in this study because it is of great importance to understand how these people grew up and what kind of people raised them. Parent's educational

level was measured. Hollingshead (1975) guidelines were followed to measure the education levels.

The researchers found four main results. First, that psychopathy was significantly associated with childhood trauma and overall maltreatment severity. Conduct disorder was associated with sexual abuse, and psychopathy and antisocial personality disorder were not.

Antisocial personality disorder was strongly associated with physical abuse. No other association was found between antisocial personality disorder and childhood trauma.

Another interesting study by (Afifi, 2019) called ‘’Associations of Harsh Physical Punishment and Child Maltreatment in Childhood with Antisocial Behaviors in Adulthood’’ is a study that was done in the United States.

The researchers wanted to know whether harsh physical punishment and maltreatment in childhood are associated with antisocial behavior later in adult life. It was a cross-sectional study, done on 36 309 people in the United States.

In this study, the researchers used the National Survey on Alcohol and NESARC III. The study lasted for 10 months. The participants were people who were not diagnosed with a disorder and were not hospitalized. All the participants were adults from 18 years and older.

The researchers found a correlation between harsh punishment, maltreatment and antisocial behavior. Particularly in this study, approximately 45.5% of antisocial behaviors among men, and 47.3% antisocial behaviors among women in the US. (Afifi, 2019).

This means that if there would be less physical punishment and maltreatment, there would be significantly less people with antisocial personality disorder.

A study by (Jovev et. al., 2013) called ‘’Temperament and Maltreatment in the Emergence of Borderline and Antisocial Personality Pathology during Early Adolescence’’ talks about how childhood abuse impacts the development of antisocial personality disorder and borderline personality disorder.

Their results indicate that a great indicator for the development and increase of borderline personality disorder is childhood neglect, and that childhood abuse is increasing the risk and the development of antisocial personality disorder. (Jovev et. al., 2013).

The relationship between antisocial behavior and substance abuse

Antisocial behavior is characterized by a pervasive pattern of lack of respect and violation of the rights of others. Individuals with antisocial behavior often exhibit behaviors such as impulsivity, irritability, aggression, lying, and a lack of remorse for their actions. These actions happen when a person with antisocial behavior is sober, and when a person with this condition is abusing substances and is intoxicated, the behavior tends to be even worse and it is of a great concern for the clinicians and also for the society, as it can lead to uncontrollable and inadequate behavior.

It is not rare that a person with antisocial behavior is abusing psychoactive drugs and alcohol. Many of them grew up in a dysfunctional households and environment where their role models were abusing substances. So, the combination of antisocial behavior and substance abuse can be very dangerous.

Many studies have shown a high prevalence of substance abuse among individuals with antisocial behavior. According to the National Institute on Drug Abuse (NIDA), individuals with

antisocial behavior are more likely to develop substance use disorders compared to the general population.

Antisocial personality disorder is closely connected to substance abuse. (Mariani et. al., 2008). This may be due to their habit of breaking the law and seeking personal satisfaction, which they might get from using drugs.

Research by (Moeller, 2001) found that people with antisocial behavior are more likely to get involved with drugs and alcohol in order to lower and cope with stress, negative symptoms, and negative emotions. In this case, this information indicates that the clinicians should focus on helping individuals with antisocial behavior and substance abuse to regulate their emotions and practice developing necessary skills for emotion regulation.

The mixture of both antisocial behavior and substance abuse problem is very dangerous for both the patient and the society, therefore, the patient needs to start with the right treatment as soon as possible.

Treatment for antisocial behavior and substance abuse

The treatment for substance abuse in individuals with antisocial behavior is more challenging than the treatment for individuals without antisocial behavior.

Both antisocial behavior and substance abuse need to be the focus of the therapy, in order to successfully treat the co-occurring problem. The usual treatment for drug and alcohol abuse may not be beneficial and may not work for individuals with antisocial behavior because of their aggression and impulsive behavior.

Treatment for these patients is a slow process that requires time and patience from both the clinician and the patient. Some treatments that may be beneficial to start with are talk therapy and motivational interviewing.

Motivation is powerful, especially for those patients who have goals that they want to achieve in their life. Pointing out those dreams and goals and encouraging them to realize that those goals can only be achieved if the patient is healthy can be something that drives the patient towards change.

Cognitive behavioral therapy (CBT), is commonly used to treat these patients. This kind of therapy can help patients with developing coping mechanisms that they can use when going through withdrawal and crisis, the therapy can reduce their antisocial behavior and their impulsive and aggressive outbursts.

Medication for mood regulation needs to be considered for these patients. Giving the correct medication to the patient can stabilize their mood and impulsive reactions, however, trying to treat antisocial behavior and substance abuse only with medication will not work.

It is recommended by mental health professionals that both CBT therapy and medications are a good combination, when it comes to treating antisocial behavior and substance abuse.

And the last part of the successful treatment is social support. No human being is created to be alone, but unfortunately, these patients often do not have a good family and social support. So, there are support programs that the patients can be a part of. This will give them the sense of belonging, the realization that their lives matter, and the motivation to continue on their journey towards getting better.

Genetics in antisocial behavior

Genetics play a major role in developing antisocial behavior. There are different methods that measure this finding. For example, (Lyons, 1995) conducted a study that measures if it is more likely to develop antisocial behavior if one of the parents has it, or immediate relatives. And yes, the study confirmed that in this case, it is more likely that the person will inherit and develop antisocial behavior.

Another way to measure genetics involved in antisocial behavior is shown in the study of (Waldman, 2002), where they test the genes on twin siblings. They compared identical and non-identical twins to see how likely is it that they will inherit ASPD, and they found that heritability is 41%, which indicates that genetics play an important role in developing antisocial behavior.

A study by (Cadoret, 1995) showed how environment and genetic factor interact in the general development of the adopted child, and manifestation of aggression and antisocial behavior in their development. The study was done on adopted children, whose biological parents did have antisocial behavior, and that their adopted parents did not.

It was concluded that it is likely that these children will develop antisocial behavior because of their biological parents, and also that the aggressive behavior, conduct disorder, and antisocial behavior will be present in the adverse adoptive home environment.

I would also like to mention Genome-wide association studies (GWAS), they identified a large number of genetic variants, usually single nucleotide polymorphisms (SNP). However, many of these are limited in prediction because of their small effect. Studies demonstrated that for more accurate predictions it is beneficial to use polygenic risk score (PRS), which better shows us the likelihood of inheriting antisocial personality disorder only based on genes.

Lastly, the combination of the environment and genes shows great predispositions to develop antisocial behavior. The study by (Caspi, 2002) measured individuals' MAOA gene, and demonstrated that people whose MAOA gene had low activity and who experienced childhood maltreatment had more chances of developing antisocial behavior.

Diagnosis for ASPD

Since individuals with antisocial behavior have a tendency to be manipulative and to deceive other people, diagnosing antisocial personality disorder can be challenging.

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), published by the American Psychiatric Association, these are the criteria for antisocial personality disorder:

- A pervasive pattern of disregard for and violation of the rights of others, occurring since age 15 years, as indicated by three (or more) of the following:

- Failure to conform to social norms concerning lawful behaviors, as indicated by repeatedly performing acts that are grounds for arrest.
- Deceitfulness, repeated lying, use of aliases, or conning others for personal profit or pleasure.
- Impulsivity or failure to plan ahead.
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults.
- Reckless disregard for the safety of self or others.
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations.
- Lack of remorse, such as being indifferent to hurting, mistreated, or stealing from another.

- The individual is at least 18 years old.

- There is evidence of Conduct Disorder with onset before age 15 years.
- The occurrence of antisocial behavior is not exclusively during the course of Schizophrenia or Bipolar Disorder.

When making a diagnosis for antisocial personality disorder, these criteria have to be met. This information is gathered through the clinical interview, which happens between the clinician and the patient. The clinician gathers demographic information, medical history of the patient, observes and evaluates the patient's behavior patterns, social skills, relationships, and pays attention to the impairments.

The patient can be given a self-report questionnaire to report his or her behavior, the clinician cannot rely firmly on this questionnaire because of the tendency of a patient to be deceitful.

The two most commonly used tests for self-report are The Personality Diagnostic Questionnaire-4 (PDQ-4) and The Millon Clinical Multiaxial Inventory-IV (MCMI-IV).

Limitations in diagnosing ASPD

As mentioned before, one of the challenges and limitations in making a diagnosis for antisocial personality disorder can be the lying and manipulative nature of the person with this diagnosis.

They often want to present themselves as individuals who are functioning normally in the society, and therefore pretend as if they do not engage in any rule-breaking behavior and similar. The clinicians need to be very skilled and know how to detect deceitfulness.

According to (Griem, 2022), when an individual with antisocial personality disorder is given a questionnaire that they are supposed to answer by themselves, they might not be truthful.

Because of their nature to lie and not see themselves as problems, these self-induced questionnaires cannot be valid. Therefore, it is hard to give a diagnosis.

Another problem might be that some behaviors are similar in different disorders. For example, grandiose thoughts about oneself can indicate both to narcissistic personality disorder and the antisocial personality disorder. So, it is a crucial job of a clinician to pay attention when evaluating the patient, in order to give a correct diagnosis.

And the last limitation, could be bias towards physical appearance and sex. Clinicians need to stay professional and not make assumptions based on someone's appearance, especially nowadays, when fashion does not make sense anymore. A person could wear pajamas outside and it would be considered normal, for many people.

Sex bias was found in one of the studies, where male patients were misdiagnosed with antisocial personality disorder and female patients with histrionic personality disorder. (Ford and Widiger, 1989).

Treatment for antisocial behavior

The treatment for antisocial behavior is complex. It is usually a combination of several different treatments. Therefore, it is crucial to make a correct diagnosis, in order to treat it well.

The most common treatment plan is the combination of psychotherapy, medication, and social support.

The most used and the most effective are Cognitive Behavioral Therapy (CBT) and Dialectical Behavior Therapy (DBT). CBT helps patients to learn and adopt new coping skills and teaches them healthy ways of thinking. (DiGiuseppe et. al., 2019).

Dialectical Behavior Therapy is based on CBT therapy, and is very similar, and also focuses on intense emotions that the patients are feeling, and how to control and manage those emotions in a healthy way. (Swales, 2009).

Mood swings and impulsive behavior are common symptoms of antisocial personality disorder, so in addition to talk therapy, medications are used to stabilize the mood of the patient. Antidepressants, antipsychotics, and mood stabilizers are types of medications that can often be used when treating ASPD. (Khalifa et. al., 2010).

Social support is another piece of the treatment that cannot be neglected. Individuals with antisocial personality disorder need to have a good and strong support system to help them manage their disorder.

Social support needs to be given to these individuals, whether it is from family, community, friends, of in the best case scenario, all three sides. This would help the patient feel supported, motivated, and loved. The social support could boost the patient's will for change, as they set strong and positive example of how healthy behavior looks like.

It might be that the individual with antisocial personality disorder did not have a good role model when growing up, so they need to re-learn good and healthy behavior, and this is only possible if they are given an example of good and healthy behavior from their social support.

Each of these treatment methods are not as beneficial individually, as they are when they are combined. When psychotherapy, pharmacotherapy and social support are combined, they are powerful and have shown a positive effect in treating patients with antisocial personality disorder.

Tests for ASPD

There are several structured, semi-structured clinical interviews, and questionnaires for determining antisocial personality disorder, which allow the clinician to understand the behavior of the patient and potentially diagnose them with antisocial personality disorder.

One of the most used clinical interview is The Structured Clinical Interview for DSM-5 Personality Disorders (SCID-5-PD), which is a semi-structured interview that examines patient's personality disorders according to the DSM-5 criteria.

The Structured Clinical Interview for DSM-5 Personality Disorders (SCID-5-PD) examines personality disorders across Cluster A, Cluster B, and Cluster C. According to (Massaal-van der Ree et. al., 2022) they are:

Cluster A:

- Paranoid personality disorder

-Schizoid Personality Disorder

-Schizotypal Personality Disorder

Cluster B:

-Antisocial Personality Disorder

-Borderline Personality Disorder

-Histrionic Personality Disorder

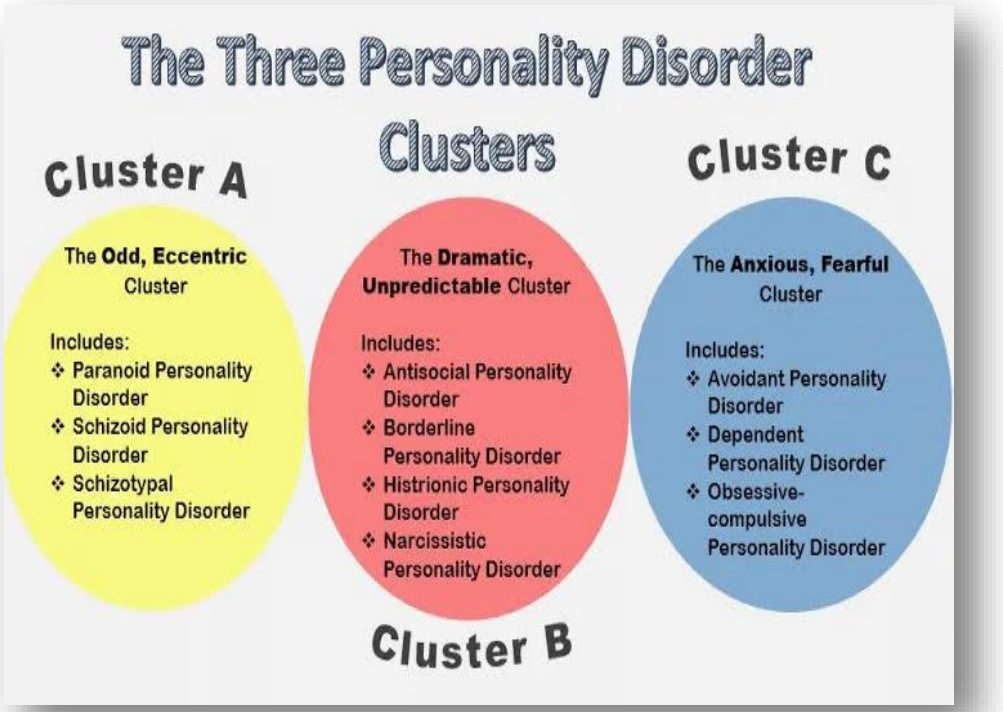
-Narcissistic Personality Disorder

Cluster C:

-Avoidant Personality Disorder

-Dependent Personality Disorder

-Obsessive-Compulsive Personality Disorder



The Millon Clinical Multiaxial Inventory-IV (MCMI-IV) is a tool that measures various personality disorders and their traits, as well as antisocial behavior of a patient. It has 195 true and false questions, and it takes approximately 30 minutes to complete.

According to (Mohammadi et. al. 2022), further research needs to be done on the fourth version because they did not find any significant difference from the previous versions.

The Hare Psychopathy Checklist-Revised (PCL-R), which was mentioned before, is a beneficial tool that is used to detect many features and typical behaviors for of a person with antisocial personality disorder, such as being deceitful, sneaky, overly charming, have grandiose speech and thoughts about themselves (narcissistic behavior), do not show remorse, show lack of empathy, are aggressive and impulsive, etc. It is a 20-item checklist and a semi-structured interview.

BOX 1 The 20 items of the Psychopathy Checklist – Revised (PCL-R)

Factor 1

Interpersonal

- Glibness – superficial charm
- Grandiose sense of self-worth
- Pathological lying
- Conning – manipulative

Affective

- Lack of remorse or guilt
- Shallow affect
- Callous – lack of empathy
- Failure to accept responsibility

Factor 2

Lifestyle

- Need for stimulation
- Parasitic lifestyle
- Lack of realistic, long-term goals
- Impulsivity
- Irresponsibility

Antisocial

- Poor behavioural control
- Early behavioural problems
- Juvenile delinquency
- Revocation of conditional release
- Criminal versatility

Additional items 'Promiscuous sexual behaviour' and 'Many short-term marital relationships' do not load onto these two factors but contribute to an individual's score on this instrument.

(Hare 2003)

The Minnesota Multiphasic Personality Inventory-2 (MMPI-2) is the most commonly used test for assessing personality disorders and psychopathy.

Stuart Hathaway and Charley McKinley developed this test in the 1930s, and it was published through the University of Minnesota in 1942.

The Minnesota Multiphasic Personality Inventory-2 (MMPI-2) is a self-report inventory and has 567 true/false questions about oneself. The answers given on the test are helpful for the mental health professional to understand the patient's thoughts and behavior, and therefore detect if the patient shows any signs of personality disorder or other mental health issues. (Floyd and Gupta, 2023).

Neural basis of childhood trauma

Childhood trauma affects how children behave in stressful situations. It affects how they process information, and based on that, how they further act. Trauma affects how children react, how they feel, think, and how they behave.

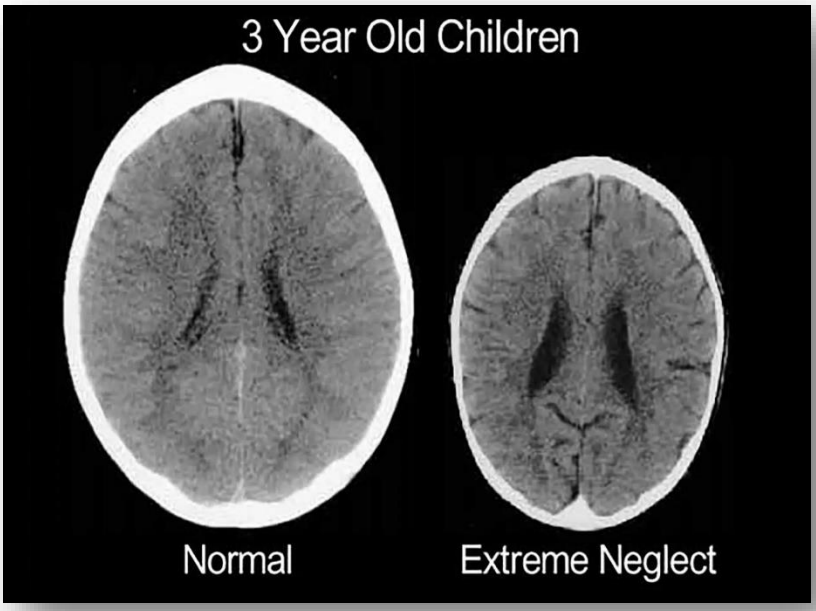
Children who experience maltreatment and trauma do experience the changes in their brain. Childhood maltreatment and trauma can significantly affect the brain's development and function.

The structure of the brain changes, changes in the corpus callosum which is responsible for connectivity and communication between right and left parts of the brain, and the changes in the function of the brain. (Goldstein, 2023). All of these changes occur because of the extreme stress that the child is going through and neglect of the child.

When a child experiences trauma and is under excessive stress, the child's prefrontal cortex can be affect, as well as amygdala and hippocampus. (Peverill et. al., 2023).

A maltreated and neglected child will have difficulties in learning how to manage their emotion because of the continuous stress that they are going through. Trauma can also cause the brain to shrink and the volume of corpus callosum to decrease. (Bremner, 2006). Extreme neglect and abuse leads to memory problems of children, learning difficulties and behavioral problems.

The following image shows how a normal child's brain looks like, compared to the brain of extremely neglected child. It is demonstrated how the brain of a neglected child is drastically smaller and underdeveloped compared to the brain of a non-neglected child.



However, not all types of abuse affect the child's brain development the same. Further studies need to be done on this topic.

Brain structure of adults abused in childhood

There was a study done by (McCrory et. al., 2011) on twenty-six women who experienced sexual abuse during their childhood. These women were 18-24 years old and the researchers compared them to women who were not sexually abused.

The researchers found that different brain areas were affected in different ages of life. For example, they found that hippocampal volume was reduced at the ages 3-5 and 11-13.

The other finding was that corpus callosum volume was affected between the ages of 9 and 10. And the third part of the brain was the frontal cortex, whose volume was reduced at the ages of 14-16.

Another study was done by (Lu et. al., 2017) on young healthy adults, who have experienced trauma in childhood. The researchers wanted to determine how childhood trauma affects executive functions in these subjects.

Twenty-four participants were recruited, who have experienced childhood trauma and they were compared to the controls who have not experienced childhood trauma. Each of the participant matched the age and gender of the control subject.

The researchers used Wisconsin Card Sorting Test to measure executive functioning. Participants are tested in how well they shift their attention, rule switching, reversal, and they are tested on their working memory. The researchers also used Stroop Color Word Test to measure executive functions, where they name the color of a word, and do not read the word

They found that childhood trauma is associated with difficulties in executive functions deficits and abnormal default mode network.

Problems with executive function are significantly related to childhood trauma. The impairment in emotion regulation in traumatized children is evident.

They have difficulty in emotion regulation, which is, according to Gross, 2002 '' encompasses physiological, cognitive, and behavioral processes and that enable individual to control the type of emotions and the degree of the emotions they are experiencing''. (Gross, 2002).

These individuals also have poor self-control, and are prone to impulsive behavior, which leaves severe negative consequences.

Since major depressive disorder in one of the most common disorders, a few researchers wanted to find out whether childhood maltreatment and the brain changes in childhood are associated with depression later in adulthood.

A study done by (Chaney et. al., 2014) investigates whether patients with major depressive disorder, who were maltreated as children show more changes in the brain structure than control subjects who were not maltreated in their childhood.

Patients and controls were examined in the MRI and data were analyzed using voxel-based morphometry. The researchers found that there were differences in the brain structure between the controls and the patients who were maltreated in childhood. They found that early childhood maltreatment is associated with brain structural changes irrespective of history of depression, age and sex. (Chaney et. al., 2014)

Another study done by (Heany et. al., 2018) has shown how the changes structure of the brain due to maltreatment in childhood often leads to developmental of mental illness.

Since these children have difficulties in emotion regulation and self-control, and they are not taught how to manage their emotions and behavior in early childhood, there is a great chance that they will distribute some form of mental illness.

Childhood maltreatment represents a significant risk factor for psychopathology.

Research by (McCrory et. al., 2011), studied how childhood maltreatment and abuse affects the child's emotional and psychological development.

The researchers found that due to extreme stress that a maltreated child is experiencing, there is association between abuse and atypical development of the hypothalamic–pituitary–

adrenal axis. This can lead to the development of psychiatric issues later in adulthood. (McCrory et. al., 2011).

The examiners used magnetic resonance imaging (MRI) on adults and children who have experienced maltreatment, and found that the structure of in the corpus callosum was changed in children who have experienced abuse, and they also found changes in the hypothalamus in adults who have experienced maltreatment in their childhood. There is also evidence of amygdala hyperactivity and atypical activation of frontal regions.

Because of these adverse experiences, these individuals are in high risk for psychopathology.

Another example of high activity of the amygdala, but also the anterior insula, is in the study of (McCrory, 2011), where it is shown how the abused child's brain reacts the same as a soldier's brain who has experienced trauma during combat.

It is very alarming when a child's brain is producing the same amount of stress as a soldier, who is an adult, with a fully developed brain.

Anterior insula and amygdala are responding to fear, and are the brain regions for anxiety disorders. Therefore, it is almost impossible that a child who is experiencing this amount of stress will not develop anxiety disorder and other psychological problems in adulthood.

If the problem is not detected early in the childhood, and the child is not put into treatment, it is very likely that that child will have problems in their early and late adulthood with post-traumatic stress disorder, anxiety, depression, etc.

Conclusion

Childhood trauma is an extreme risk factor for the development of antisocial behavior in adulthood. Therefore, early intervention is necessary in order to prevent the development of antisocial behavior.

Both genetics and environment play an important role in the development of the child. If the child is neglected or abused physically, emotionally or sexually, there is a great chance that this child will go down the wrong pathway in their later life, and involve themselves in various negative situations.

There are several approaches in treating antisocial behavior, especially when it is triggered by childhood trauma. The focus needs to be on helping a child heal psychologically, physically and emotionally from the trauma, and also the focus needs to be on the child's surrounding, and creating a healthy and safe environment for the child's further development.

As I mentioned before, there is an extreme need for early intervention: Meaning to detect early that a child is in danger, and provide the necessary help for the child and his or her caregiver.

Also, early intervention in detecting child's antisocial behavior. When children are in their teenage years, or even earlier, that is a good period to start the intervention, and prevent their negative behavior from developing.

Interventions for abused children should be Trauma-Focused Behavioral Therapy (TF-CBT)- for processing trauma and learning coping skills; Play Therapy -for helping encouraging children to express their thoughts, feelings, and experiences; Eye Movement Desensitization and Reprocessing (EMDR)- for processing traumatic memories; Attachment-Based Therapy or

Holding Therapy- for building a secure attachment and improving child's regulation and social functioning; Group- therapy-for supportive environment and building child's confidence; Family Therapy- for improving overall family dynamic and focusing on the child and the parent individually; and Multidisciplinary Approach- involving a group of professionals who will communicate with each other about the child's needs and finding the best way to help the child.

For the treatment of the individual with antisocial personality disorder, the best solution is to combine Cognitive behavioral therapy (CBT) - for sharing their thoughts and feelings with the mental health professions and finding new coping strategies; Pharmacotherapy- for regulating their mood; and social support- for encouraging the patient and making sure that they know that they are not alone and that they have the support needed to overcome their issues.

In conclusion, there needs to be an individualized treatment plan because not all patients process trauma in the same way, early intervention, family and group support, and consistency from both the patient and their support system.

Healing from a childhood trauma and antisocial behavior caused by the trauma in childhood in not easy, nor fast. It takes time, patience, and consistency from the patient, the therapist, and the patient's family and support.

If all of these treatment steps are respected, followed, and implemented, long-term success and healing is possible.

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