

Abstract

Child abuse and neglect still occurs at overwhelmingly alarming rates, and clinicians can use technology to help assess, treat, and prevent it among their clients. By reviewing scholarly, peer-reviewed journals and articles, I have compiled extensive information regarding child abuse and neglect, including statistics, signs of abuse and neglect, effects on the victims, possible treatments, mental state of abusers and how the justice system handles these cases. With technology rising around the world, I wanted to know how technology can be used to effectively recognize and treat these child abuse and neglect cases. I looked at current research and applications of technology in clinical treatment, and also proposed some new ways we can use technology in this field in the future.

Introduction

An adverse childhood experience (ACE) is when a child experiences something traumatic in life that has an emotional effect on them. An important aspect of adverse childhood experiences is the ability to understand that trauma is unique to every individual. What is traumatic to someone, may not be traumatic to someone else. ACE's have a lasting effect on an individual that impacts them resulting in trauma responses to triggers. One terrible, and unfortunately common, type of ACE involves child abuse. There are four types of child abuse, including physical, emotional, sexual, and neglect.

Statistics

Child abuse is when a child is affected negatively or neglected in several possible different ways, including physically, emotionally or sexually. The age of the victim at the time of their abuse experience influences the severity of trauma and how it impacts the individual's life

(National Analysis of Official..). The National Analysis of Official Child Neglect and Abuse (NAOCNA) Reporting states that 0.5% of child abuse cases are fatal and 60% of these cases are victims under the age of two (National Analysis of Official..). Often, caregivers of a child are responsible for engaging in child abuse. Despite the common offenders being caregivers, any adults are capable in engaging in child abuse. The NAOCNA states that 87% of offenders are the child's natural parents, 7% are unnatural parents (step, foster, adoptive), 2% are relatives, and 4% falls under the category of "others".

Physical abuse of a child is when a child is physically hurt by an adult. This involves intense discipline, making a child bleed, leaving bruises on a child, and more. Physical abuse is the intention to hurt the child physically. When physical abuse is reported it becomes classified by the degree of injury; major injury, minor injury, and burns or scalding. According to the data collected by the National Analysis of Official Child Neglect and Abuse (NAOCNA) 73% of validated child abuse cases are classified as minor physical injury, 9% are classified as major physical injury, and 5% are classified as burns or scalding.

Sexual abuse is the act of an adult engaging in sexual acts with children. Sexual abuse represents 12.1% of all child abuse reports evident in the National Analysis of Official Child Neglect and Abuse. There are different types of abuse that are classified as sexual abuse. Molestation accounted for 28% of the cases, incest 22%, rape 9.4%, deviant as 12.5% and the remaining 28% was unknown. There are so many injuries that result from sexual abuse. This analysis states that 74% of victims who experience brain damage or skull fracture are infants (National Analysis of Official..). Children under three years old also represent the most internal injuries, bone fractures, hemorrhages, poisonings or drug addictions due to sexual abuse experiences. Although children under the age of three represent the most severe injuries due to

sexual abuse, the largest amount of cases fall between children the ages of twelve to fourteen, and 84% of these victims were female (National Analysis of Official..).

Neglect is a form of child abuse that is often overlooked. Neglect is when a parent or caregiver lacks the ability to meet the needs of a child. This involves situations such as not providing food for a child, not ensuring hygiene of a child, neglecting to provide emotional connection to the child, and more. Neglect can be narrowed down to physical neglect, emotional neglect, educational neglect, or medical neglect. According to the NAOCNA, physical neglect counts for 64% of neglect cases, emotional neglect counts for 19%, medical neglect counts for 10% of cases and educational neglect counts for 7% of cases. An example of physical neglect is not providing a shower or a place to sleep for your child. Medical neglect is not bringing your child to the doctor despite sickness, and educational neglect is not providing an education to your child. Emotional neglect is not forming proper bonds with the child, or constantly putting the child down rather than supporting them.

Signs of Abuse

There have been many organizations that have published ways for adults to recognize when a child is a victim of child abuse. In every state there are mandated reporters, where an adult has the responsibility to report suspected child abuse. Often among certain mandated reporters, such as therapists or teachers, there are legal consequences of not reporting suspected child abuse. If someone is suspected of ignoring child abuse and not reporting it, then they can be charged with a misdemeanor, and, “if an investigation of child harm proves you were aware you could be prosecuted,” (DoRightByKids.org). An accurate way of seeing what one should be able to recognize in order to prevent child abuse and neglect, is to look at a published, clinical questionnaire such as the “Child Abuse and Neglect Signs Scale,” published by PsycTESTS.

Some items listed on this include a child's intense fear of parents and other caregivers, inexplicable injuries for a child's age group, unsafe and unhealthy house conditions for a child, reported sleeping and/or eating problems, a child being sleepy and/or hungry when coming to school, and more. There are questions on these tests that will touch each aspect of child abuse or neglect. These are made so that mandated reporters can recognize what are issues among children and what are not. When recognized early, child abuse and neglect can be stopped and treated.

Effects on Victims

Research shows that victims of child abuse can experience significant long-term and short-term implications. Some physical risks of child abuse and neglect are malnutrition, diabetes, heart attack, brain damage and more. Poor mental and emotional health development is also more of a risk in children who are victims of child abuse. This can look like the inability to make relationships when the victim is older, or developing mental health disorders like depression and post-traumatic stress disorder. Some studies have shown that children who had been raised under neglect and abuse ended up with social issues like the inability to see situations from other perspectives, and cognitive issues like not being able to pay attention. There have also been many studies that showed a strong correlation between mistreated children and the likelihood of criminal delinquency and alcohol and drug use later in life. All of these things combined can even increase the risk of early death (ChildWelfare.gov). There have been multiple guides, training, and videos published to ensure that everyone is aware of when a child is a potential victim of these heinous crimes. The first step of correcting an issue and helping to prevent further damage, is to educate those who are around these victims, and that is every individual, everywhere. With all of the different effects children have, the development of the

child is bound to be affected by trauma in childhood. There are certain developmental milestones that are affected by these types of ACEs. While experiencing trauma like child abuse, the body becomes affected in many ways, which will end up affecting child development. This is especially true for victims who are experiencing abuse during proximal times of development. If children are suffering from neglect or abuse it is likely they aren't getting their proper social needs met. This will inevitably put a hindrance on the individual's social development. Their development of safety will not be reached, leading to a lifetime of anxiety and a flight or fight response. When someone is in a constant state of anxiety, a lot of areas of their lives are bound to be affected. This results in the development of mental disorders, and not attaining the proper experiences necessary for a child's growth and development. When a child goes through this in life, thriving and developing properly is influenced negatively. Not only can development be affected, but there is also a link between ACEs and physical and mental health. There has been a strong link proven by multiple studies in regard to age-related disease throughout the lifespan of those who have experienced ACEs. Certain health issues linked to ACEs are cardiovascular disease and type-2 diabetes over the lifespan of these individuals (Danese & McEwen, 2012). This is an important study because with such a strong link there is the potential for individuals to be given preventative care or to adapt their lifestyles when they have experienced ACEs earlier in life. Researchers believe this link is due to the constant stress that individuals who are experiencing these things in life are under. High stress in the body affects many regions of the brain and therefore affects the body. For example, if the body is overproducing the stress hormone cortisol, then the body won't be able to produce the necessary amount of insulin to maintain homeostasis, leading to development of metabolic disorders (Danese & McEwen, 2012). Memory and cognition is also a potential area that can become affected throughout the

lifetimes of these individuals. The oversecretion of cortisol has been linked to degeneration in the brain, shown by dementia and decreased cognitive ability (Danese & McEwen, 2012). There are many different areas of health that can be affected by adverse childhood experiences, including children who are victims of child abuse.

Treatments

Once child abuse and neglect are reported and found evident, treatment is necessary for the victims. Treatment will depend on the symptoms and severity that the child is experiencing. Treatment can be psychological, physical, or both, which is the most likely scenario. Cognitive behavioral therapy (CBT) is a common approach to begin treating psychological damage that comes with child abuse trauma. CBT is when a clinician focuses on the thought processes and feelings that their client is experiencing, and tries to alter their thinking patterns, which then would change how they feel. Certain things that CBT will cover while treating child abuse trauma are; “focusing on solving individual problems through skills training with child and parent, understanding behavior through three response channels of thinking, feeling and doing, tailor individual interventions to child, parents and family needs identified in clinical assessment,” (Kolko & Swenson, 2012). This shows that CBT with victims of abuse is focusing on family intervention to ensure that the child feels a sense of safety and an ability to rewire their thinking and feelings about their previous experiences. When using family intervention to treat abuse, one is helping the child to establish a safe place and emergence of new relationships. Trust is built through interventions and the child learns to open up to their family and depend on them. One clinical study shows that a group of parents and children only needed to attend 7 out of 23 available therapy sessions in order to feel relief of the abuse trauma present in the child (Greenwalt et. al., 1998). CBT has been referred to as the most ideal psychological treatment for

many mental health disorders and PTSD and trauma from experiencing child abuse is not an exception. This is studied, researched and proven, as well as referred to by many clinicians as an effective treatment for these victims.

Mental State of Abusers

Alcoholism of the parent is a big influential factor in child abuse cases. One study performed in seven districts in South India surveyed the standards of care children of 4,133 parents with alcoholism were living with, and how it affected them. The results found that children experiencing poor standards of care under alcoholic parents externalized their abuse and neglect, seen through ADHD and behavioral disorders. (Jose & Cherayi, 2020).

Another survey performed in Germany surveyed 8,063 families that had infants and/or toddlers aimed to see if there were any outreaches made to Child Protective Services prior to finding out any child maltreatment cases. The surveyors also wanted to look at which risk factors were evident in these child maltreatment cases. Results showed multiple prominent risk factors for child neglect, including distress in the parents as a couple, adverse childhood experiences, young maternal age, cramped housing, and migration history. Risk factors for child abuse included the age of the child and the stress of the parent. (Liel et. al., 2020).

Technology & Capstone Goal

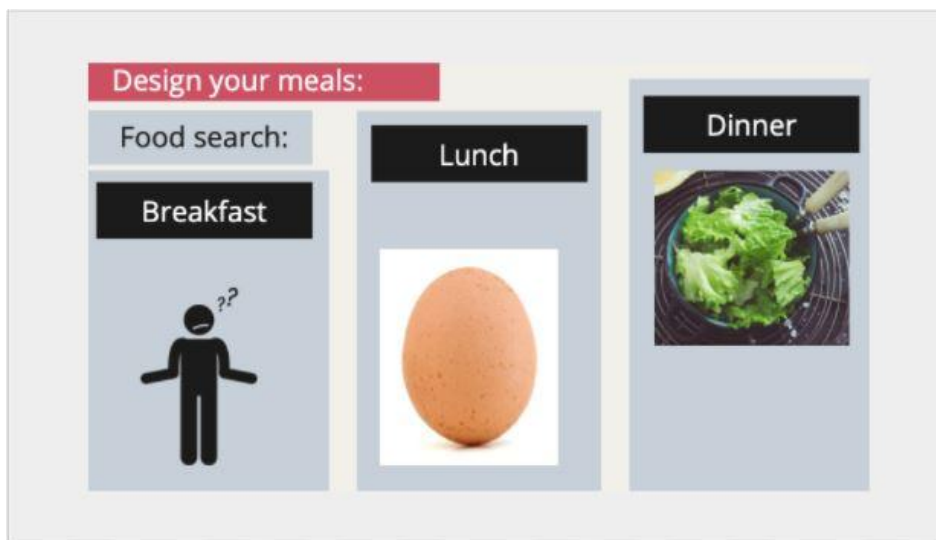
The goal of my honors capstone was to be able to research all possible mental health issues that children may experience throughout their lifetime. I have intentions of pursuing a career as an elementary or middle school guidance counselor, and I want to be as educated as possible in this area. As mentioned before, the first step to prevention and treatment is education, and unfortunately trauma is very common among children. Through thorough research of

multiple sources, I feel very confident in my level of education about child abuse and how to identify and treat child abuse victims. It is important for everyone to be as educated as possible when it comes to child abuse and neglect. In one way or another, almost every individual encounters children in their day to day life, whether through a personal relationship or not. Even just being aware of the signs of child abuse can save a child's life if you happen to witness a sign in public. It may sound challenging to bring awareness to such a big topic and responsibility, but it can be done in many ways. I personally think the best way to bring awareness to the community would be by publishing videos on social media that talk about this difficult topic. Social media is such a prevalent method of communication, especially now with the pandemic. This would ensure the information is at the fingertips of every individual just by logging online. It is also important to be passionate about what you care about. If you are informed and know a lot about child abuse and neglect that others can benefit from knowing, then don't hold back on sharing what you know. This is essential as a clinician or anyone working with children. My end goal of my Honors Thesis is developing an application that can be used when working with children to try to get insight into their personal lives, to potentially see signs of child abuse where children may not be vocalizing. One example of this in my application could be when assessing for neglect. In my application this would look like a blank screen with sidebars full of clipart or images of furniture, food, drinks, people, clothes, and more that is involved with a child's daily life. The clinician or counselor would then ask the child to show them what it is like at home, or to draw what dinner time is like at their house, there is a chance that children experiencing neglect would show signs in their final "design" of their home. This could look like an empty table at dinner, or their parents sleeping throughout the whole day. Just as research shows, there are many different signs that suggest child abuse or neglect within a child's life, and there are

many different experiences that child abuse and neglect consist of, so this is just one example of identifying child abuse or neglect through an application. These things are hard for children to talk about or vocalize to anyone, especially a new clinician they are just meeting. With the rise of children using technology, my aim is that children will see this application as just another game where they can comfortably engage in, with the goal of recognizing these situations as early as possible.

I created a few examples of what this would look like in a clinical mental health session where a provider is looking for child abuse and neglect, as well as a few other different mental health diagnoses:

Signs of Neglect & Eating Disorders



Attention Deficit Hyperactive Disorder

"Here's a cool video! Play along!"



By playing an interactive video, you can set the camera to record the child's movements and interactions with the video. Children with ADHD will likely become very distracted with the video.

Depression & Family Life

-Looking at different types of risk factors that play into depression

-Looking into different types of symptoms demonstrated in children

-Also an example of how this is an easier approach to starting a conversation with children

How are you feeling right now:



At School:



At Home:



How tired are you?



How many friends do you have?



What is your mom like?



Anxiety

-Allows patient to check off different feelings or emotions

-Useful because some patients at a young age may not want to talk about these things

-Shows separation anxiety or generalized anxiety

-Provides a starting point for discussion



These are all examples of ways that applications can be used on a device given to a young child to detect mental disorders and recognize signs of child abuse and neglect. This is especially necessary today as technology usage is rising dramatically. This can also be used during the current state of the world where everything is electronic and over the internet due to the global pandemic. This is helpful working with children especially since they cannot always express what they are going through, but they are use to playing games like these.

References

- ChildAbuseReporting. (2021). *What Can Happen to Me if I Don't Report? - Preventing and Reporting Child Abuse: Do Right by Kids*. Preventing and Reporting Child Abuse | Do Right by Kids.
<https://www.dorightbykids.org/am-i-a-mandated-reporter/what-can-happen-to-me-if-i-do-nt-report/#:~:text=Any%20mandated%20reporter%20who%20has,it%2C%20you%20could%20be%20prosecuted.>
- ChildWelfare.gov. (2019, April). *Long-Term Consequences of Child Abuse and Neglect*. Fact Sheet: Child Abuse and Neglect Consequences.
https://www.childwelfare.gov/pubPDFs/long_term_consequences.pdf.
- Denese, A., & McEwen, B. (2012, April 12). *Adverse childhood experiences, allostasis, allostatic load, and age-related disease*. *Physiology & behavior*.
<https://pubmed.ncbi.nlm.nih.gov/21888923/>.
- Greenwalt, B., Sklare, G., & Portes, P. (1998, January 22). *The therapeutic treatment provided in cases involving physical child abuse: a description of current practices*. *Child abuse & neglect*. <https://pubmed.ncbi.nlm.nih.gov/9526670/>.
- Jose, J., & Cherayi, S. (2020, June 25). *Effect of parental alcohol abuse severity and child abuse and neglect on child behavioural disorders in Kerala*. *Child abuse & neglect*.
<https://pubmed.ncbi.nlm.nih.gov/32593842/>.
- Kolko, D., & Swenson, C. (2012, May 31). *Assessing and Treating Physically Abused Children and Their Families: A Cognitive-Behavioral Approach*. SAGE Knowledge.
<https://sk.sagepub.com/books/assessing-and-treating-physically-abused-children-and-their-families>.
- Liel, C., Ulrich, S., Lorenz, S., Eickhorst, A., Fluke, J., & Walper, S. (2020, May 21). *Risk factors for child abuse, neglect and exposure to intimate partner violence in early*

childhood: Findings in a representative cross-sectional sample in Germany. Child abuse & neglect. <https://pubmed.ncbi.nlm.nih.gov/32447140/>.