Resiliency Factors and PTSD in Children

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Abstract

Resilience is the ability to sustain a level of physical and psychological health, as well as the ability to overcome stressful and challenging situations. The more resilience that one has, the better equipped he or she is to overcome emotionally threatening situations such as trauma. There are many factors that contribute to a person’s resiliency, including gender, age, environment, and the circumstances of the specific situation. This paper will review many different resiliency factors in children, and discuss some possible ways to increase a child’s resiliency.
Resiliency can be defined as “the ability to maintain a relatively stable, healthy level of psychological and physical functioning in the face of highly disruptive events and the capability to recuperate from such challenges” (Dahan et. al, 2008, p.183). Personal resilience plays a large role in how a person reacts to and copes with trauma. Resilient people tend to be good at problem solving, are realistic and reflective, have a positive outlook on challenging situations, focus on the good, and have the mindset that they are ready to master any situation. These qualities provide them with the ability to better cope with traumatic situations. In children, resiliency can be improved by helping them learn and improve their coping skills. In addition to coping skills, resiliency factors provide one explanation as to why some people overcome trauma much easier than others. The more personal resilience one has, the less likely she or he is to develop PTSD and other trauma-related psychological problems (Dahan et. al, 2008).

Generally, children are more sensitive to trauma, and develop more symptoms of Posttraumatic Stress Disorder (PTSD), than adults. Because children are much more sensitive to trauma than adults to begin with, developing resiliency plays an important role in a child’s personal growth and ability to successfully cope with adversity (Dahan et. al, 2008).

One example of a situation that can easily be traumatic for children is living in a dangerous environment. El-Sarraj, Punamaki, & Quota (2001) examined the psychological effects of children living in dangerous environments. In this study, the researchers wanted to determine if the psychological problems associated with trauma would decrease once the
violence and danger decreased, and if so, what factors caused this to happen (El-Sarraj et. al, 2001, Resiliency).

When the peace agreement between Israel and the Palestine Liberation Organization (PLO) was signed, the Israeli troops were withdrawn. This lead to safer lives and living conditions for Palestinian children as their lives returned to what the children had previously known. For example, there was no longer a curfew, schools were re-opened, and there was less violence in their communities. The goal of this study was to determine how resiliency and vulnerability factors during military violence affect long-term psychological adjustment of the children involved, after the violence was gone. Cognitive capacity was measured through intelligence and creativity, other measures included passive versus active responses to violence (the Intifada), gender, age, perceived family relations, and sociopolitical issues, such as the loss of property or a loved one, economic hardship, or military confrontation (El-Sarraj et. al, 2001, Resiliency).

Participants in this study participated in two trials. The first, T1, took place in 1993 during the Intifada, while the second, T2, took place in 1996. Forty-two boys and 44 girls participated in the study, with a mean age at T2 of 14.04 (SD = 0.79) (El-Sarraj et. al, 2001, Resiliency).

This results of this study showed that intelligence was linked to creativity, a low level of perceived parental hostility, less life stressors, and fewer Intifada-related traumatic events experienced. Active coping was associated with males, a perceived hostile mother, multiple Intifada-related traumatic events, and more current life stressors. More sociopolitical stress was linked to more symptoms of PTSD, $R^2 (2, 71) = 6.11, p<.005$. Intellectual children had more emotional disorders when they also had both rejective fathers and loving mothers. In these
cases, it was thought to be the difference between the parenting styles of the mother and father that caused the vulnerability to developing PTSD. The more traumatic events that a child experienced during the Intifada, the more symptoms of PTSD they were suffering from at T2, which was the only significant predictor of PTSD found in this study. Passive responses to the violence of the Intifada were not associated with high levels of PTSD, if children perceived their mothers as loving, beta = -0.26, t = -2.14, p<.04.

Active responses to the military violence, creativity, and having a good family dynamic were found to be resiliency factors for children in this study. Children with active coping styles developed less symptoms of PTSD and less emotional disorders than children with passive coping styles. However, they also had more psychological symptoms of PTSD. Trauma exposure primarily led to the development of PTSD, and a mixture of the child’s characteristics and his family dynamic were what determined if the child would develop emotional disorders. Children’s attempts to deal with the memories that haunted them manifested into the symptoms of PTSD.

Creativity was also associated with good psychological adjustment in children after the Intifada had ended, even though it was not very helpful to them while the violence was occurring. Because creativity can be a resiliency factor in children, interventions for kids often incorporate creativity to increase self-esteem. This can be done through many different means, such as drawing, playing, acting, or dream-telling. However, interventions for children should focus not only on the child’s emotional responses, but his cognitive ones as well (El-Sarraj et. al, 2001, Resiliency).

One limitation of this study is that because it was a longitudinal study, twenty-two of the children involved in T1 (N = 108) could not be reached because of illness or relocation. If all
children from T1 had been present for T2, the results may have been different. Also, the study does not specify whether the illnesses or reasons for moving are related to the trauma that took place, which could have changed the results as well (El-Sarraj et. al, 2001, Resiliency).

El-Sarraj et. al, 2001, also conducted a study involving children affected by the violence of the Intifada examining mental flexibility (vs. mental rigidity) as a resiliency factor in children who have experienced traumatic events and how the children adjusted psychologically after the traumatic event. This study also aimed to determine if developmental age, intelligence, and exposure to traumatic events contribute to a child’s level of mental flexibility (El-Sarraj et. al, 2001, Mental).

Children who experience trauma and easily adjust and recover from the traumatic stress of these experiences are described as resilient. Mental flexibility is determined by both environmental and cognitive factors, and is thought to be one factor that contributes to a child’s level of resiliency. Examples of mental flexibility include having a sense of reality, the ability to mentally plan for the future, having many different coping skills or ways to handle difficult situations, and the ability to creatively problem solve and adapt to new situations in a timely manner. Resilient children with mental flexibility are able to act and communicate with others in more than just one way. Mental flexibility in children is associated with characteristics such as playfulness, humor, optimism, intelligence, good mental health, and the ability to learn quickly. It involves the way a child perceives the world around him, including his or her emotional responses, and influences his or her behaviors in stressful situations (El-Sarraj et. al, 2001, Mental).

From previous research, the experimenters of this study learned that in humans as an entire population, mental flexibility, or flexible perception, was beneficial in safe environmental
conditions, or after trauma is no longer being experienced. However, in situations where trauma is present, mental rigidity was more beneficial because it shields people from the traumatic details. The experimenters of this study based their research upon this information, but wanted to determine if these effects were the same for children who were experiencing, or had experienced trauma (El-Sarraj et. al, 2001, Mental).

Examples of the most common types of trauma that the children in this study experienced were tear gas attacks (82%), night raids (74%), and having a family member sent to prison (53%). The least common types of trauma experienced by these children were injury (17%) and being detained (9%) (El-Sarraj et. al, 2001, Mental).

This study found that boys displayed more psychological adjustment problems than girls, but also experienced more trauma than girls. Children with mental rigidity that experienced traumatic events developed more emotional disorders than the sample as a whole. Mental flexibility did not eradicate the negative symptoms of trauma either during the Intifada or PTSD symptoms during the follow-up. Increased exposure to trauma during the Intifada was associated with lower self-esteem and more neurotic symptoms. However, children with mental flexibility experienced less neurotic symptoms during the violent times than children with mental rigidity, r = .27, p < .05 (El-Sarraj et. al, 2001, Mental).

Mental flexibility can be considered a resiliency factor in children, but only as a long-term benefit, and in terms of their psychological adjustment back to mental “normalcy”. Children with mental flexibility experienced better psychological adjustment than children with mental rigidity once the environment was safe, or normal, but not while the violence was occurring. Children with mental rigidity were more vulnerable to the long-term symptoms of PTSD. Mental flexibility was beneficial in preventing children from developing emotional
disorders, but not PTSD. Development of PTSD predominantly depended on the extent of exposure to trauma. Children with mental rigidity did not experience significantly less traumatic symptoms than mentally flexible children during the violent times of the Intifada. Intelligent kids who experienced a high level of trauma had high scores of mental rigidity, whereas intelligent children who experienced a low level of trauma had high scores of mental flexibility. This shows that the extent of mental flexibility a child has can change, and be influenced by external factors, such as amount of traumatic exposure (El-Sarraj et. al, 2001, Mental).

Dahan et. al, 2008, also conducted a study on children living in dangerous environments. In their study, they examined sense of hope and perceived social support as resiliency factors in children who were affected by the rocket attacks during Israel’s Second Lebanon War, in 2006, compared to children that were not directly affected by the conflict.

The participants in this study were 331 children, between the ages of nine and eleven, who were from four schools in Israel. The children, from two of these schools from areas that were not directly affected by the conflict, made up the control group. This group consisted of 54% of the entire sample. The children from the remaining two schools were from a town that had been hit by severe rocket attacks during the war, and made up the experimental group. This group consisted of 46% of the entire sample. Of the 331 children involved in this study, 51% were female, 38% were male, and 11% chose not to disclose their gender. Eighty-nine percent were Israeli-born, while 11% had migrated to Israel from other countries (Dahan et. al, 2008).

For the study, which was conducted seven months after the end of the war in order to be consistent with the DSM-IV requirements for the development of PTSD, each child completed a questionnaire that gathered four different types of information. The first type of question on the questionnaire dealt with the children’s background and demographic information. The second
type of questions involved the PTSD Reaction Index, which is a twenty question survey that measured the child’s emotions about specific traumatic events. The third type of question involved the Multidimensional Scale of Perceived Social Support (MSPSS), for which the child rated his or her perceived level of social support on a scale of one (strongly agree) to seven (strongly disagree). The last type of question on the questionnaire that participants filled out was based on the Children’s Hope Scale, which included six questions about the child’s goals and thoughts about the present and future (Dahan et. al, 2008).

The researchers found that the children who lived in towns that were directly attacked in the war showed significantly higher levels of PTSD than children who lived in towns not directly involved in the conflict, $t(df = 250) = -3.795, p<0.001$. This suggests that physical proximity to violence significantly affects the overall levels of PTSD ($r = 0.219, p<0.01$). Another finding was that gender significantly correlated with PTSD ($r = 0.201, p<0.001$), as females had more symptoms of PTSD than males, $t (df = 296) = -3.535, p<0.001$. Children with more hope had lower levels of PTSD ($r = -0.154, p<0.01$). Higher perceived family support also significantly correlated with hope ($r = 0.488, p<0.01$). In this study, females generally had more perceived social support than males ($r = 0.149, p<0.01$). A positive relationship between discussing the war and sense of hope was also found. This shows that discussion of a traumatic experience in a supportive environment can be helpful to children, giving them a sense of control, hope, and helping them realize that even difficult situations can be overcome. However, for some participants, more social support had a negative effect on short term PTSD symptoms. Contrary to previous research, some of the children that discussed their experiences with teachers and parents showed more symptoms of PTSD. This positive relationship between discussion and PTSD symptoms suggests that the relationship between PTSD and sense of support is much
more complex than was previously believed, especially when it comes to children (Dahan et. al, 2008).

Violence is not the only factor in children’s lives that can cause trauma. Children’s lives today are filled with periods of transition and constant change in many areas of their lives. These transitional periods can put a lot of stress on children and can be a dangerous time for them emotionally. Rutter’s resiliency model offers insight on how resiliency can be enhanced in children, which will help them to make it through these tough transitional periods in a state of emotional well-being. Improved resiliency, along with the coping skills they develop will stay with them and help them to cope with other stressful situations or potentially traumatizing experiences throughout their lives (Erdman & Seymour, 1996).

Rutter’s Resiliency Model focuses on turning points in children’s lives and ways to build skills to adapt and change the outcome of situations that are high risk. These high risk situations are times that involve risk, but also the opportunity for change. The model includes four protective processes that promote this adaptation to improved resiliency. These processes are altering the risk, reducing the negative chain reactions that can occur, enhancing self-esteem and self-efficacy in the children, and opening opportunities for them to overcome stressful situations (Erdman & Seymour, 1996).

The first process alters and reduces risks by changing the perception of the risk and by rehearsing risk responses. In the area of family play therapy, children use stuffed animals or other toys to reenact situations in their lives, so they can change their perception of the situation through the toys. Repeatedly reenacting the situation with a toy can also help lessen the emotional impact of the situation for children and give them a sense of control. An important part of altering the perception of risk is making sure the child understands cause and effect. If
the child doesn’t understand a situation, they may feel as if they are to blame for something, which can limit their ability to perceive their own ability to influence the situation. By altering the types of questions from phrases such as “who is to blame?” to questions such as “how is this happening?”, the focus is shifted away from blame towards productive, interactional terms that are much easier to work with (Erdman & Seymour, 1996).

Reducing negative chain reactions involves a change in behavior. Stress triggers a negative chain reaction in both children and adults. When a child is stressed, his or her body experiences increased anxiety, which can easily overwhelm a child and alter their mood, concentration, and sleep patterns. This also affects how the child reacts to stress the next time around, usually in a negative way. When adults initiate and respond to a child’s anxiety-related behaviors in a negative way, such as with anger, frustration, or criticism, they are joining the negative chain reaction, and adding more risk factors the child must deal with. However, if the adult takes careful actions to react to the child’s stress in a positive way, such as staying calm, a similar chain reaction can occur, but this time in a positive direction that leads to the child being better able to cope with stress the next time, rather than having more difficulty, by breaking the negative feedback loop and introducing positive feedback (Erdman & Seymour, 1996).

Enhancing self-esteem and self-efficacy in a child can be achieved through positive reinforcement and recognition of successfully completed tasks and accomplishments, along with many other things. Good relationships in a child’s life can also improve his self-esteem (Erdman & Seymour, 1996). One way to help build a child’s confidence and self-efficacy is to have the child think of things that they used to be afraid of, that no longer frighten them. Doing this will help the child realize that they have the ability to overcome challenges and tough situations, and that they ended up even stronger after facing those challenges (Perry, 2002).
The fourth process in Rutter’s Resiliency Model, the reinforcement of opportunities, helps children broaden their ability to choose positive/beneficial environments that enhance growth, encourages them to connect with resources such as family, friends, community, and social supports, helps them improve their flexibility in problem solving everyday issues, and helps them improve their ability to problem solve and seek new and innovative solutions to other problems or situations they may be dealing with. Children can better deal with transitions and constant change when there is constancy in support and resources (Erdman & Seymour, 1996). Gradual exposure to stress and challenges is one of the best ways for a child to build problem-solving and coping skills. The more challenging situations a child overcomes, the more confidence and self-efficacy they will develop, which leads to increased resilience. An example of this would be to give children opportunities to speak in front of groups. This allows them to become more confident, comfortable in normally uncomfortable situations, and resilient (Perry, 2002).

Many factors can contribute to a child’s resiliency. Age is one of these factors. When children are younger, their cognitive processes are not as developed as older children’s, and they are not able to comprehend why the traumatic experience is happening. When children are older, they may be able to conceptualize and understand the traumatic events a little better. This allows them to somewhat mentally handle the situation and actively deal with their emotions more effectively than younger children. Because of this, older children are more resilient to trauma than younger children (El-Sarraj et. al, 2001, Resiliency).

Infants and children that spend time in a pediatric intensive care unit (PICU) are also at risk for the symptoms of PTSD or ASD, whether their stay is the result of a severe illness or injury. This is another example of how age can influence a child’s resiliency. However, parents
of children that become sick or injured are also at risk for these symptoms, because trauma can occur not only by experiencing a traumatic event, but by observing others go through a traumatic experience as well (Ward-Begnoche, 2007).

Children in PICU are generally more anxious about routine, non-painful medical procedures, more anxious in general, more detached from staff, and weep more, or act more uncomfortable compared to pediatric patients who are not in intensive care. In this study, children that experienced more invasive procedures and extreme illnesses had a decreased sense of control over health, more fears and anxieties related to medical issues, and more PTSD 6 months after being discharged from a hospital. These symptoms lasted even after the patients had a full physical recovery. For example, thirty percent of burn patients still had posttraumatic stress symptoms 6 months after discharge.

Of participants that were involved in motor vehicle accidents (MVA), 25% experienced posttraumatic symptoms that were still present at follow-up (pediatric), and 14% had developed moderate to severe PTSD 3 months after MVA (children & adolescents). Of the participants that had been involved in an MVA, 75% had high amounts of ASD/PTSD symptoms after a MVA that resulted in them going to the emergency room, and 50% also had depressive or anxiety disorders (children & adolescents). Seventeen percent of these participants had symptoms that persisted and developed into PTSD 3 months after the accident. Female children and adolescents were more likely to develop posttraumatic stress symptoms after a MVA than males. According to this study, high pain tolerance is a resiliency factor, as uncontrolled pain is a predictor that the child will develop ASD or PTSD (Ward-Begnoche, 2007).

In addition to age, other factors that can contribute to the nature and severity of a person’s reactions to trauma include culture, proximity to violence, social and psychological
factors, and the degree of violence that a person observed (Dahan et. al, 2008). Because the lifetime prevalence rate of PTSD is two women to every one man, and women experience the symptoms of the disorder for a longer time span than men, it follows that gender can be a resiliency factor in males, but a vulnerability factor in women (Ward-Begnoche, 2007).

Temperament is another factor that affects resiliency in children. Each child is born with certain traits that are determined by factors such as genetics and pre-natal care. Some children are born with a high tolerance to stress, are easy to comfort, and react well in chaotic situations. Other children are born very sensitive to stress and get easily overwhelmed. The children that naturally have a higher tolerance for stress are more resilient than those born with a sensitivity to stress (Perry, 2002).

Another resiliency factor in children is attuned care giving. The relationship between a child and his caregiver can shape the way the child reacts to situations and can also help develop resiliency (Perry, 2002). Many studies have been conducted dealing with perceived family or parental support as a resiliency factor in children. One study, conducted by Reyes, 2008, examined the resiliency factors of self-concept, perceived parental support and their relationship with abuse factors that impact psychological functioning. Participants for this study included 61 kids, consisting of 22 boys and 39 girls. Fifty-three percent of the entire sample was Latino, 41% was Caucasian, 2% was Asian American, and 2% consisted of non-white races not already specified. Ages of the participants ranged from 7.3 to 16.6 years, with a mean of 10.8 (SD = 2.5) years. Nineteen of the participants reported being threatened at the time the abuse was taking place (Reyes, 2008).

Sixteen participants reported their abusers to be immediate family members, while 22 reported the abuser as a non-family member. However, not all participants disclosed information
about their abuser. The reported duration of abuse ranged from one incident up to 7 years of abuse, with a mean duration of 1.2 (SD = 1.75) years. Fourteen people said that the abuse occurred just one time, 6 said it happened twice, 2 reported monthly abuse, 23 reported weekly abuse, 5 said it happened on a nightly basis, and 3 reported other frequencies (Reyes, 2008).

This study found that children who experience more trauma symptoms, and who have endured abuse for longer periods of time, have a more negative sense of self and have lower levels of perceived parental support. One limitation of this study was that it had a small sample size. Another limitation was that much of its data was self-reported (Reyes, 2008).

An additional resiliency factor is the formation of healthy attachments. A child’s ability to form meaningful relationships is an important resiliency factor because social support is so crucial to overcoming trauma. The ability to connect with and relate to others, and knowing how to take advantage of this support when needed, will tremendously help a child facing adversity. Children that have a difficult time creating healthy attachments are more vulnerable to stress, including traumatic stress. These kids tend to develop maladaptive coping styles and show symptoms like depression, aggression, inattention, and impulsivity (Perry, 2002).

One factor that may affect a child’s ability to form healthy attachments is how the child has been previously treated. A study conducted by Cicchetti et. al (2005), examined the impact that maltreatment of Latino children had on their resiliency. This study involved 133 Latino children with a mean age of 8.68 (SD = 1.78) years old. It consisted of 30.8% female and 69.2% male participants. Seventy-six participants were maltreated children, 56 boys and 20 girls, and 57 participants were nonmaltreated children, 36 boys and 21 girls. Results indicated that maltreated Latino children had significantly less resilience than nonmaltreated Latino children, \( t(131) = 2.79, p<.01 \) (Cicchetti et. al, 2005).
Personal resilience plays a large role in how people, especially children, react to traumatic situations in their lives. The amount of resiliency factors that one has helps to explain why for some people, traumatic events are so dramatically life changing, while others’ lives can be minimally affected by the same event. The more resiliency factors a child has, such as family support, confidence, and self-efficacy, among many other things, the more easily he or she will be able to overcome trauma and carry on a psychologically healthy life.
References


