Resilience after Trauma in Early Development

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Introduction

The construct of resilience has been reviewed in the psychology literature for the past several decades. Only recently has this construct been applied to younger children, ages 0-5. One of the most useful conceptualizations was proposed by Masten[1] who described resilience as "ordinary magic," that is, the idea that resilience does not require something rare or special. Rather, children and adults, even young children who are able to "bounce back" after adversities have more resources within themselves, their families and communities. Other scholars have described "minimal-impact resilience," when there is little or no disturbance in function following an acute traumatic event.[2] For a young child, protective factors that enable a rapid recovery to pre-event adaptation levels include good functioning of key adaptive systems that normally protect child development. Although most children will show resilience and the ability to recover relatively quickly after a significant traumatic event, ongoing trauma and cumulative traumatic experiences challenge a young child's ability to recovery.

Subject

Resilience has been described in young children following traumatic events such as witnessing community violence, domestic violence, loss of a parent due to death, multiple disruptions including frequents moves and changes in caregivers, entering into child protection systems, exposure to wars and military violence, and following natural disasters such as hurricanes, earthquakes, tsunamis, and technological disasters such as oil spills or nuclear fallout. With different types of trauma, expected reactions from young children will differ depending on the circumstances surrounding the trauma, physical and emotional availability of caregivers, and developmental factors including the age of the child.

There is increasing knowledge that brain development in early childhood is negatively impacted by exposure to trauma and neglect;[3-6] therefore, intervening in early childhood soon after a trauma can have lasting effects for the rest of a child's lifetime. Children who have been traumatized and/or neglected have been shown to have more limited dendritic branching and less efficient neuronal pruning later in life when compared to their same-aged peers not impacted by trauma.[4] It is possible that promoting resilience in young children exposed to trauma and supporting recovery from trauma with sensitive interventions will allow them to recover and continue a normal trajectory of brain development.

Problems

The problems in studying resilience in young children come from several sources. First, many believe that young children are not impacted by trauma because they are too young to know what is happening and do not have the cognitive capacity to understand. The DSM-5 has made progress over the previous version in identifying traumatic reactions in young children.[7] The DSM-5, in acknowledging that the experience and reaction to trauma may be different for young children than it is for older children, adolescents and adults includes criteria for posttraumatic stress disorder that are specific to children under six years of age. Authors of the DSM-5 also note that although the prevalence of PTSD in young children was lower than that of adults, this may have been due to problems with the criteria in the DSM-IV not being sensitive enough to the experiences of young children. In DSM-5, additions such as irritable behaviour, expressions of reenactment through play and limitations of young children in explaining their feelings and reactions have been included to better describe this diagnosis for this younger age group. The task force for ZERO TO THREE Diagnostic Classification 0-3R,[8] among other sources, has noted that the previous definition of trauma in DSM-IV did not adequately account for situations that may be experienced by young children as traumatic, such as multiple moves, instability in the home environment and loss of a primary caregiver. As the new DSM-5 is used, it will be important for clinicians to do a careful evaluation to determine whether a young child has a traumatic response to a situation. Their disorganized or agitated responses may still be more easily overlooked than those in older children or go unnoticed until they demonstrate problem behaviours or noncompliance when confronted with reminders of the event in the future.[9-10]

Similar questions arise when defining resilience in young children. Research on understanding resilience in younger children has primarily come from downward extensions of resilience work with older children.[2,11-12] Young children are adept at resilience; however, more information about the expected trajectories of normal, traumatic, and resilient response patterns in young children following trauma are needed.[13]

Research Context

Although authors have written about resilience and response to trauma in young children,[13-14] there are only few empirical studies on resilience patterns.[15-16] Non-empirical publications have typically been based on case studies and observations[17] or downward extensions of work with older children.[1,18] Empirical studies have typically been downward extensions of studies with older children with inconsistent operational definitions and measurement of resilience.[19-21]

Key Research Questions

Research questions and areas of study regarding resilience following exposure to trauma in young children include:

- Defining trauma and resilience in young children.
- Identifying protective factors that promote resilience in young children.
- Describing the trajectories of normal, traumatic, and resilient reactions to traumatic events in young children.
- How patterns of resilience may differ across different ages and developmental levels.
- Measurement of resilience in young children.
- Best practices for promoting resilience in young children following exposure to traumatic events.

Recent Research Results on Resilience in Young Children Following Trauma

Recent research in the area of resilience in young children has focused on the areas described above. Sapienza and Masten[12] describe four waves of research on resilience in children, which can be applied to young children as well. The first wave described patterns of resilience in children. The second wave examined how some children show patterns of resilience while others were adversely affected by trauma, and the third wave sought to promote resilience through intervention and treatment. Finally, the fourth wave of research in childhood resilience attempts to achieve system level changes to promote resilience. Howell et al. recently studied differences in ratings of social competence, an index of resilience, by mothers and child therapists of preschoolers exposed to intimate partner violence in their households.[22] The authors measured resilience using the Social Competence Scale (SRS) parent and teacher versions.[23] Mothers and therapists were found to rate young children consistently for prosocial skills; however, mothers consistently rated children as having less emotion regulation than their therapists.[22] This study highlights the importance of seeking ratings of resilience from multiple informants, as well as the need for questionnaires and standardized measures for resilience, specifically.

Many empirical studies of resilience in young children infer resilience by a lack of symptoms on scales of posttraumatic stress and better adjustment following exposure to traumatic events. Feldman and Vengrober examined posttraumatic stress symptoms in children ages 1.5 to 5 years exposed to war-related trauma living near the Gaza strip.[24] Children and their mothers were interviewed and videotaped for later coding. Videos were coded for maternal sensitivity, child secure base behaviour, and child avoidant behaviour according to a standardized and valid coding system. Children's exposure and posttraumatic symptoms were rated by their mothers; however, the scales used for the study were not standardized or shown to be valid due to a lack of prior research in this population. Posttraumatic stress disorder (PTSD) was diagnosed in 38% of children exposed to war-related trauma. Children described as resilient were those who were exposed to trauma, but did not meet full criteria for PTSD. Resilient children were found to have mothers with less symptomology for PTSD, depression and anxiety. Mothers of resilient children also rated themselves as having more social support. In coding, mothers of resilient children were found to have more sensitivity to their children during the trauma interview, and resilient children actively sought maternal support and demonstrated less avoidance during the interview than trauma-exposed children with PTSD. This study demonstrated a pattern of resilience that has been discussed in the literature for some time—resilient children often have resilient parents or

caregivers with fewer psychological symptoms and strong social support networks. Parents of resilient children are also physically and emotionally available for their children and respond sensitively when their children are in distress.

Much of the extant literature describing resilience in young children arises from treatment of childhood trauma and descriptions of best practices for promoting resilience in young children exposed to trauma.[13,17,20,25-26] Treatment of young children is typically based in attachment theory. Zeanah and colleagues reviewed attachment therapies for young children[25] and found that nearly all of these treatment approaches involve both the parent and child in the treatment. Child-Parent Psychotherapy (CPP)[10] has been shown in several randomized clinical trials to be effective in helping children who have been exposed to trauma recover.[27-29] CPP involves play therapy with the parent and child in the same room and techniques individualized for each dyad designed to promote resilience and recovery in line with goals of: 1) Encouraging a return to normal development, 2) Fostering capacity to appropriately respond to threats, 3) Establishing regular levels of affective arousal, 4) Reestablishing trust in body sensations, 5) Restoring reciprocity in intimate relationships, 6) Normalizing traumatic responses, 7) Differentiating between reliving and remembering trauma, and 8) Placing the traumatic experience in perspective.[9]

Research Gaps

While research on reactions to trauma in young children has been well-established, studies focusing specifically on resilience is still in its infancy. There have been few studies and a comprehensive review of research in the area has not been done to establish interventions and guidelines for how to promote resilience. There are no standardized measures of resilience for young children as there are for older children and adults, which makes empirical research difficult to conduct. Empirical research also has yet to examine individual differences variables that can affect resilience in young children, such as temperament and functioning level before the traumatic event. These areas are important to examine since they have been found to significantly predict resilience and development of posttraumatic stress in adults and older children.[2,30-31]

Conclusions

Factors that promote resilience following traumatic exposure include individual, situational, and caregiver variables. Caregiver variables that promote resilience include healthy psychological functioning, emotional and physical availability, and the caregiver's sensitivity to the child's emotional needs.[18,24,32-33] Situational variables that promote resilience and recovery from traumatic exposure include establishment of safety, return to normal routines following the trauma, and helping children to put the traumatic experience into a more general context of the world being a safe place.[18,34] Research has yet to fully examine the impact of individual child variables as risk or protective factors for resilience in young children following traumatic exposure. This area is potentially important given research on older children showing that anxiety symptoms prior to experiencing trauma is a risk factor for later PTSD development,[30,34] and individual strengths serve as protective factors against the development of PTSD.[19] Finally, psychotherapies based in attachment theory have been shown to help promote recovery and resilience in young children following traumatic exposure, with CPP having the strongest evidence-base.[10,27-29]

Implications for Parents or Caregivers, Services, and Policy

Current literature on resilience has implications for informing practices for children following exposure to traumatic events in early childhood. The strongest evidence for resilience supports parental characteristics, especially support and emotional availability as being most important to help young children. Following a traumatic event, parents should be encouraged to take care of themselves and their own psychological well-being, since parental psychological resilience and strong parental support systems are protective factors for young children. Parents should also try to re-establish some sense of normalcy and routine as soon as possible, although after some disasters and trauma, this may require establishment of a "new normal" if return to previous patterns and routines is not possible.[35] Parents should also ensure they provide not only physical availability, but also emotional availability and sensitivity to their children's emotional reactions. If they are able to do so supportively, parents should listen to their children, discuss the traumatic event with them at an age-appropriate level when they are ready, and allow children to ask questions. This approach gives parents the opportunity to re-establish safety and provide reassurance for children. If parents feel unable to handle these tasks on their own and provide needed support for their children, they should seek professional help from a counselor who is trauma-informed who can help support the parent and child and, if needed, provide appropriate therapeutic treatment.

Services for children and policies affecting children after a trauma should promote the same goals described above to the extent possible. Traumatized children should be encouraged to remain with or return to their primary caregivers as soon as possible when it is safe to do so. Their environment should be one in which routines and establishment of normalcy is built into the system. If parents and primary caregivers are unable to be emotionally available to their children due to their own traumatization or stress following the traumatic experience, policies need to recognize the need for interventions both for individuals and for the child and parent together (dyadic) in order to support the relationship.

References

1. Masten AS. Ordinary magic.*Am Psychol.* 2001; 56(3): 227-238.
2. Bonanno GA and Diminich, E.D. Annual research review: Positive adjustment to adversity – trajectories of minimal-impact resilience and emergent resilience. *J Child Psychol Psychiatry*. 2012; 54(4): 378-401. Am Psychol. 2004; 59(1): 20-28.
3. Carrion VG, Weems CF, Bradley T. Natural disasters and the neurodevelopmental response to trauma in childhood: A brief overview and call to action. *Future Neurology*. 2010; 5: 667-674.
4. Glaser D. Effects of child maltreatment on the developing brain. In: Garralda ME, Raynaud JP, eds. Brain, Mind, and *Developmental Psychopathology in Childhood.* Lanham, MD: Jason Aronson; 2012:199-218.
5. Gunnar M, Quevedo K. The neurobiology of stress and development. *Annu Rev Psychol.* 2007;58:145-173.
6. Pollak SD, Cicchetti D, Klorman R, Brumaghim JT. Cognitive brain event-related potentials and emotion processing in maltreated children. *Child Dev*. 1997;68(5): 773-787.
7. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. text revision. Arlington, VA: American Psychiatric Association; 2013.
8. Zero to Three. *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (DC:0-3R).* Revised ed. Washington, DC: Zero to Three Press; 2005.
9. Lieberman AF, Van Horn P. *Don't Hit My Mommy!: A Manual for Child-Parent Psychotherapy with Young Witnesses of Family Violence*. Washington DC: Zero to Three Press; 2005.
10. Lieberman AF, Van Horn P. *Psychotherapy with infants and young children.* New York: Guilford Publishers; 2008.
11. Vernberg EM, La Greca AM, Silverman WK, Prinstein MJ. Prediction of posttraumatic stress symptoms in children after hurricane andrew. *J Abnorm Psychol*

. 1996;105(2): 237-248.

12. Sapienza JK, Masten AS. Understanding and promoting resilience in children and youth. *Curr Opin Psychiatry*. 2011;24:267-273.
13. Osofsky JD, ed. Clinical Work with Traumatized Young Children. New York, NY: The Guilford Press; 2011.
14. Osofsky JD, Lieberman AF. A call for integrating a mental health perspective into systems of care for abused and neglected infants and young children. *Am Psychol*. 2011;66(2):120-128.
15. Kithakye M, Morris AS, Terranova AM & Myers SS. The Kenyan political conflict and children's adjustment. *Child Dev*. 2010;81:1114-1128.
16. Masten AS. Resilience in developing systems: progress and promise as the fourth wave rises. *Dev Psychopathol*. 2007;19:921-930.
17. Appleyard K, Osofsky JD. Parenting after trauma: supporting parents and caregivers in the treatment of children impacted by violence. *Infant Mental Health Journal.* 2003; 24(2):111-125.
18. Masten AS, Osofsky JD. Disasters and their impact on child development: introduction to the special section.*Child Dev*. 2010;81:1029- 1039.
19. Griffin G, Martinovich Z, Gawron T, Lyons JS. Strengths moderate the impact of trauma on risk behaviors in child welfare. Residential Treatment for Children & Youth. 2009;26:105-118.
20. Sossin KM, Cohen P. Children's play in the wake of loss and trauma. *Journal of Infant, Child, and Adolescent Psychotherapy.* 2011;10:255-272.
21. Vaage AB, Thomsen PH, Rousseau C, Wentzel-Larsen T, Ta TV, Hauff E. Parental predictors of the mental health of children of Vietnamese refugees. *Child and Adolescent Psychiatry and Mental Health.* 2011;5:2.
22. Howell KH, Miller LA, Grahan-Bermann SA. Inconsistencies in mothers' and group therapists' evaluations of resilience in preschool children who live in households with intimate partner violence.*Journal of Family Violence*. 2012;27:489-497.
23. Conduct Problems Prevention Research Group (CPPRG). Psychometric properties of the social competence scale- teacher and parent ratings. Fast Track Project Technical Report. 2002.
24. Feldman R, Vengrober A. Posttraumatic stress disorder in infants and young children exposed to war-related trauma. *J Am Acad Child Adolesc Psychiatry.* 2011;50(7):645-658.
25. Zeanah CH, Berlin LJ, Boris NW. Practitioner review: clinical applications of attachment theory and research for infants and young children. *J Child Psychol Psychiatry*. 2011;52(8):819-833.
26. Osofsky JD, Cohen G, Drell M. The effects of trauma on young children: a case of 2-year-old twins. *Int J Psychoanal*. 1995;76:595-607.
27. Cicchetti D, Rogosch FA, Toth SL. Fostering secure attachment in infants in maltreating families through preventative interventions. *Dev Psychopathol*. 2006;18:623-649.
28. Lieberman AF, Ghosh Ippen C, Van Horn P. Child-parent psychotherapy: 6 month follow-up of a randomized control trial. *J Am Acad Child Adolesc Psychiatry*. 2006;45:913-918.
29. Toth SL, Maughan A, Manly JT, Spagnola M, Cicchetti D. The relative efficacy of two interventions in altering maltreated preschool children's representational models: implications for attachment theory. *Dev Psychopathol*. 2002;14:877-908.
30. La Greca AM, Silverman WK, Wasserstein SB. Children's predisaster functioning as a predictor of posttraumatic stress following hurricane andrew. *J Consult Clin Psychol*. 1998;66(6):883-892.
31. Masten AS, Narayan AJ. Child development in the context of disaster, war, and terrorism: pathways of risk and resilience.*Annu Rev Psychol* . 2012; 63: 227-257.
32. Masten AS, Gewirtz AH., Sapienza, JK. Resilience in development: The importance of early childhood. In: Tremblay RE, Barr RG, Peters RDeV, eds. *Encyclopedia on Early Childhood Development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development; 2011:1-7. Available at: http://www.child-encyclopedia.com/documents/Masten-GewirtzANGxp.pdf. Accessed March 8, 2011.
33. Narayan AJ, Masten AS. Children and adolescents in disaster, war, and terrorism: pathways to psychopathology and resilience. In: Widom C, ed. *Trauma, psychopathology, and violence*. New York: Oxford University Press; 2012: 131-158.
34. La Greca AM, Silverman WK, Lai B, Jaccard J. Hurricane-related exposure experiences and stressors, other life events, and social support: concurrent and prospective impact on children's persistent posttraumatic stress symptoms. *J Consult Clin Psychol.* 2010;78(6):794-805.
35. Osofsky JD, Osofsky HJ, Harris WW. Katrina's children: social policy considerations for children in disasters. *Social Policy Reports, Society for Research in Child Development.* 2007;21(1):1-20.