Austin Journal of Psychiatry and Behavioral Sciences

Open Access

Austin Publishing Group

Review Article

Developmental Psychological Trauma, Stress, and Revictimization: A Review of Risk and Resilience Factors

Holliday RP[1,2]*, Clem MA[1], Woon FL[1] and Surís AM[1,2]

[1]Department of Psychiatry, University of Texas Southwestern Medical Center, USA

[2]Mental Health Service, Veteran Affairs North Texas Health Care System, USA

***Corresponding author:** Holliday RP, Department of Psychiatry, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard Dallas, TX 75390, USA

Received: August 25, 2014; **Accepted:** October 03, 2014; **Published:** October 14, 2014

Abstract

The extant literature has denoted that traumatic as well as stressful experiences can negatively affect a child's developmental process. In particular, multiple researchers have documented how developmental trauma and stressors can dispose one to future revictimization. Researchers have also identified multiple risk and resiliency factors that interplay with one's developmental trauma and stress history. Despite the interrelationships of these concepts, there is no current compilation of the literature summarizing this information into one empirically-reviewed manuscript. As such, this paper serves as a current review of how developmental trauma and stressors can affect an individual's neurological, physical health, mental health, socioeconomic functioning as well as lead to subsequent revictimization. Additionally, this paper illustrates current gaps in our empirical understandings, as well as necessary future directions for research. Implications are discussed in terms of treatment in survivors of childhood trauma and stress.

Keywords: Developmental trauma; Developmental stressors; Revictimization; Risk; Resilience

Abbreviations

CBT: Cognitive Behavioral Therapy; DSM-5: Diagnostic and Statistical Manual of Mental Disorders 5; EBT: Evidence-Based Treatment; HPA: Hypothalamic-Pituitary-Adrenal; OCD: Obsessive-Compulsive Disorder; PTSD: Posttraumatic Stress Disorder

Introduction

Researchers continue to publish prevalence statistics indicating that a significant portion of children are exposed to at least one traumaticor stressful psychological experience (for a comprehensive review please see Finkelhor, Turner, Shattuck, & Hamby [1]). Furthermore, a sizable portion of these individuals will experience multiple traumas or stressors during their development (polyvictimization *or* polytrauma) [2,3]. Researchers largely cite revictimization as rationale for an individual experiencing polyvictimization during their life [4,5]. These traumatic and stressful experiences result in psychological distress affecting an individual's development as well as their future functioning in adulthood [6]. As such, this paper will delineate the affected domains of functioning, as well as risk and resiliency factors that can mediate the likelihood and impact of traumatic and/or stressful experiences.

To better understand the effect of a traumatic or stressful experience, it is first important to define what a traumatic or stressful experience is. The current edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [7] defines a traumatic experience as a direct or indirect (e.g., witnessing, learning of) exposure to actual or threatened death, serious injury, or sexual violence. Additionally, the DSM-5 defines a stressor as a single or chronic event resulting in clinically significant emotional or behavioral symptoms. Commonly cited developmental stressors in the literature include chronic illness, living in a crime-ridden neighborhood, economic hardship, maltreatment (e.g., neglect, harassment), parental conflict, and parental illness [8,9]. For the purpose of this paper, research examining the impact of both trauma and/or stressors will be discussed in order to develop a more encompassing conceptualization of the detriment trauma and stress has upon a developing individual.

Consequences of developmental trauma and stressors

The existing literature has identified multiple domains that developmental trauma and stress affects. In particular, neurological, physical health, mental health, socioeconomic, and revictimization domains are among the most commonly discussed. Each domain is further elucidated below.

Neurological

Life stressors and trauma can immediately alter the development and function of a child and adolescent's brain, which can elicit long lasting repercussions [10-13]. One aspect emphasized in the current literature is the role traumatic and stressful exposure can play in amygdala size and hypothalamic-pituitary-adrenal (HPA) axis activation. Both the amygdala and HPA axis play a role in negative emotional arousal (e.g., fear and anger) as well as stress activation [14]. However, with the experience of developmental trauma and stress, some individuals tend to show increases in amygdala size and over-activation of the HPA axis [11,12]. This is related to multiple negative consequences including lower threshold to negative emotions from stressors, impaired coping ability, and a more negative appraisal of challenging situations [10,15].

Another neurological issue related to developmental trauma and stressors is decreased hippocampal volume [16]. Researchers have already denoted that hippocampal volume may play a role in depressive symptomatology [17]. Vythilingam et al. [18] was the first

Citation: Holliday RP, Clem MA, Woon FL and Surís AM. Developmental Psychological Trauma, Stress, and Revictimization: A Review of Risk and Resilience Factors. Austin J Psychiatry Behav Sci. 2014;1(6): 1032.

to conduct a controlled study to assess this theorization. The authors found that within their sample only participants who experienced developmental trauma or stressors had reduced hippocampal volume. Moreover, the reduction in volume was significantly associated with their later in life depressive symptomatology.

Another neurological issue discussed in the literature is impairment of right hemisphere functionality. Schore [19] notes that individuals who experience developmental trauma or stressors tend to experience dysfunction of their orbitofrontal cortex. Schore posits that this region plays a role in coping and regulation which he indicates may dispose the child to a higher likelihood of subsequent posttraumatic stress disorder (PTSD) in the event of subsequent traumatization [20].

Physical health

Early in life traumatic or stressful experiences are linked to a number of physical health conditions. In particular, researchers have associated these experiences with increased prevalence of lung disease, peptic ulcers, arthritis, cardiovascular diseases, diabetes, autoimmune disorders, gynecological issues, and sexually transmitted diseases [21-23]. Moreover, developmental trauma and stressors are also associated with negative health behaviors as well as an increased likelihood of disability status [24]. It is important to note that it is difficult to establish the point at which these health conditions and behaviors begin; thus, it is entirely plausible that the conditions/behaviors may have manifested in childhood, but did not begin exhibiting symptomatology until adulthood. However, there is currently a lack of research examining the accuracy of this notion.

Mental health

Similar to physical health, developmental trauma and stressors are associated with numerous mental health conditions. Researchers note that these experiences are associated with an increased incidence of depression, anxiety, dissociative identity, conduct, posttraumatic stress, adjustment reactive attachment, and obsessive compulsive disorders (OCD) in children and adolescents [25-31]. Moreover, researchers have also noted increased suicidal ideation, maladaptive relationship boundaries, and bullying (both in being the perpetrator and victim) within this population [13,32,33].

Carryover of mental health symptomatology from developmental periods to adulthood is often observed within adult survivors of childhood trauma. Noted adult mental health conditions that developmental trauma and stressors are associated with include: continued depressive and anxious symptomatology, increased susceptibility to anxiety and depressive disorders, PTSD, adjustment disorder, OCD, personality disorders, somatization of mental health symptomatology, and substance use disorders [25,27,28,30,34-37]. Suicidal ideation also continues to be positively associated with developmental trauma and stressors in adult survivors [32]. Moreover, there are associations between developmental trauma and stressors to difficulty in interpersonal relationships in adult survivors [38].

New research has also begun to emerge regarding childhood trauma and psychotic symptomatology. Although the research is relatively young, there is empirical backing to indicate an association in need of further elucidation [39-41]. This association has no causal definitiveness at the moment, but many of the authors posit that the relationship is possibly due to contextual and environmental factors associated with the traumatic and stressful experiences and the individual's upbringing.

Socioeconomic

Survivors of developmental trauma and stressors are also disposed to numerous deleterious socioeconomic factors. For instance, researchers have identified that developmental trauma is linked to lower quality of life and psychosocial functioning [23,42,43]. Often these items carryover into adulthood with level of education and average income later in life tending to be lower in survivors [43,44].

The negative effect of socioeconomic variables on a youth's development is theorized as being bidirectional [45]. For instance, an unsafe developmental environment can dispose an individual to a greater likelihood of experiencing trauma or stressors due to higher exposure to random acts of violence and lower perceived bodily safety [46]. Conversely, subsequent to or during a traumatic or stressful experience, unsupportive developmental environments can contribute to poorer outcomes by not supporting or addressing the needs of the survivor. For example, individuals in low socioeconomic environments typically experience limited access to medical care and a lack of resources and education [47]. As such, it is important to conceptualize survivor's trauma and stress history from a biopsychosocial viewpoint [45].

Revictimization

Revictimization is the concept that individuals who experience one traumatic or stressful experience are at an increased incidence for a subsequent traumatic experience [48]. As such, revictimization disposes an individual to a more extensive polyvictimization history. In particular, researchers have denoted that in national samples a sizable portion qualified as having a polyvictimization history (operationalized as having at least 2 or more traumatic and/or stressful experiences) [7,49]. This is pertinent in our conceptualization of trauma history within an individual because researchers tend to agree that an increased number of traumatic and stressful experiences is associated with more severe physical, mental, and social outcomes [50-53]. Moreover, revictimization is present in both childhood and adulthood; thus, developmental trauma and stressors can further dispose individuals to both subsequent developmental trauma/stressors and/or adult trauma/stressors (e.g., interpersonal violence, assault, harassment; [48,51]). As such, researchers indicate that a comprehensive trauma and stressor history may be pragmatic in understanding and treating an individual [3,54].

Overlap of consequential domains

One important concept to note is that there is a large interdependence between all the aforementioned domains and experienced symptoms/conditions. Often the presence of one condition or symptom can catalyze or exacerbate another (e.g., nicotine use as a coping behavior can increase one's chance of lung cancer). As such, it is important to understand the high susceptibility survivors of developmental trauma and stressors have not only to just one specific condition/behavior (e.g., nicotine use), but also to the associated conditions that are associated with that specific condition/behavior as well (e.g., lung cancer).

Risk and resilience factors

The current literature clearly indicates the numerous negative biopsychosocial outcomes of developmental trauma and stressors. In order to best address these outcomes, it is pertinent to understand risk factors that may exacerbate the individual to worse outcomes as well as resiliency factors which may conversely facilitate in buffering.

A review of the literature found that survivors of developmental trauma and stressors experience numerous factors that are associated with an individual having an increased predisposition to an initial traumatic or stressful experience as well as subsequent revictimization. Cited risk factors include psychiatric health comorbidity, physical health comorbidity, minority status, female gender, social support, low socioeconomic status and resources, and previous traumatization(s)/ stressors [25,55]. In contrast to risk factors, the empirical research for resilience factors is far more limited with no current meta-analyses yet conducted. Despite this, researchers have denoted that good social support and economic resources are associated with better outcomes [25]. Moreover, Bonanno [56] indicates that perception of the traumatic/stressful experience(s) is highly important. Bonanno posits that individuals who are more optimistic and perceive their traumatic experiences as less deleterious tend to have better outcomes. Gillespie, Phifer, Bradley, and Ressler [57] also argue that there may be a genetic predisposition for ability to cope with developmental trauma and stressors. As such, gene-environmental factors may be present which are important to consider in an individual's ability to cope. In a systematic review by Hoge, Austin, and Pollack [58], the authors note that an individual's sense of control over their life and the traumatic experience in addition to having a positive self-concept provides additional resiliency.

One crucial resiliency aspect is early intervention for survivors of developmental trauma and stressors with an evidence-based treatment (EBT; [59]). Litz et al. [59] argues that treatment that takes place early can attenuate symptomatology, and thus associated negative consequences. Multiple therapeutic modalities have been assessed in survivors of developmental trauma and stressors. Zuber [60] argues that pharmacotherapy has only proven to be mildly successful. Zuber further indicates that psychotherapy has had marginally better results, but effect sizes remain small to moderate. Among psychotherapy, numerous modalities have been assessed. In particular, Silverman et al. [61] argues that CBT as well as trauma-focused CBT have shown to be among the most beneficial. However, CBT, despite efficacious, is not always effective in all populations. For example, researchers denote that behavioral modification may be more pragmatic in individuals who are young and unable to cognitively process information [62]. However, generalizability and translatability of behavioral modification into adolescents and adulthood can be challenging [63,64]. To address this, Salmon and Bryant theorize that the treatment of child survivors of trauma and stressors may be improved by implementing an additional emphasis on developmental factors (e.g., knowledge, language development, memory, emotional regulation, and social cognition) [65]. Despite Salmon and Bryant's novel notion, a lack of empirical research has been conducted to assess the utility of this theory in a clinical setting.

Alternative therapeutic modalities and adjunctive therapies for child and adolescent survivors of trauma and stressors also exist. Hobfoll et al. [66] stresses the importance of social support interventions at increasing self-efficacy and facilitating processing within survivors; however, there have been no randomized clinical trials to assess the efficacy of social support as an adjunct or intervention. Moreover, many commonly utilized forms of psychotherapy for survivors of developmental trauma and stressors (e.g., psychodynamic therapy) have not been assessed for efficacy within a child or adolescent trauma randomized controlled trial sample [59]. As such, there is a strong need to empirically support interventions and adjunctive therapies commonly used by practitioners for adolescents and children who have survived developmental trauma and stressors.

Gaps within the extant literature

One limitation of the present developmental trauma and stressor research is that most designs and statistical analysis are correlational. Thus, it is difficult to ascertain the causal nature of the traumatic/ stressful experience based upon one or more variables. This is largely because it is difficult to identify individuals before a traumatic or stressful experience, with most research being conducted subsequent to the traumatic or stressful exposure(s). Additionally, because co morbidity of physical and mental health conditions as well as socioeconomic variables tend to be highly associated with trauma and stressors, it is also difficult to assert that trauma or stressors alone are the casual variable resultant in any negative consequences. Moreover, researchers have identified that a sizable portion of individuals living with psychiatric disorders delay seeking treatment until their symptomatology is severe, or rather, do not access mental health care at all [67]. As such, an increased emphasis to target, study, and treat psychiatric disorders in research and clinical settings is necessary.

Also, most research has focused on the risk factors of traumatic and stressful experiences. Although this is crucial from both a research and clinical standpoint, it is also integral for research pertaining to resiliency factors to exist. As such, emphasis needs to be placed upon research pertaining to both risk and resiliency among survivors of developmental trauma and stressors.

Conclusion

There is a growing prevalence of psychological trauma and stressors among children and adolescents. These experiences have numerous negative consequences that affect neurological, physical health, mental health, and socioeconomic domains, as well as dispose individuals to poorer outcomes in adulthood. Although research has noted numerous risk and resiliency factors as well as established EBTs as effective forms of treatment, gaps in the literature remain present. Thus, it is crucial that future research focus on identifying resiliency factors. Additionally, it is imperative that researchers work towards validating currently utilized treatments within this population.

References

1. Finkelhor D, Turner HA, Shattuck A, Hamby SL. Violence, crime, and abuse exposure in a national sample of children and youth: an update. JAMA Pediatr. 2013; 167: 614-621.

2. Finkelhor D, Ormrod RK, Turner HA. Lifetime assessment of poly-victimization in a national sample of children and youth. Child Abuse Negl. 2009; 33: 403-411.

3. Finkelhor D, Ormrod RK, Turner HA. Poly-victimization: a neglected component in child victimization. Child Abuse Negl. 2007; 31: 7-26.

4. Finkelhor D, Ormrod RK, Turner HA. Re-victimization patterns in a national longitudinal sample of children and youth. Child Abuse Negl. 2007; 31: 479-502.

5. Pereda N, Gallardo-Pujol D. One hit makes the difference: the role of polyvictimization in childhood in lifetime revictimization on a southern European sample. Violence Vict. 2014; 29: 217-231.

6. Anda RF, Felitti VJ, Bremner JD, Walker JD, Whitfield C, Perry BD. The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. Eur Arch Psychiatry Clin Neurosci. 2006; 256: 174-186.

7. American Psychiatric Association. Diagnositc and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Publishing. 2013.

8. Grant KE, Compas BE, Thurm AE, McMahon SD, Gipson PY, Campbell AJ. Stressors and child and adolescent psychopathology: evidence of moderating and mediating effects. Clin Psychol Rev. 2006; 26: 257-283.

9. Strain JJ, Friedman MJ. Considering adjustment disorders as stress response syndromes for DSM-5. Depress Anxiety. 2011; 28: 818-823.

10. Lupien SJ, McEwen BS, Gunnar MR, Heim C. Effects of stress throughout the lifespan on the brain, behaviour and cognition. Nat Rev Neurosci. 2009; 10: 434-445.

11. Heim C, Nemeroff CB. The role of childhood trauma in the neurobiology of mood and anxiety disorders: preclinical and clinical studies. Biol Psychiatry. 2001; 49: 1023-1039.

12. Perry B, Pollard R, Blaicley T, Baker W, Vigilante D. Childhood trauma, the neurobiology of adaptation, and "use-dependent" development of the brain: How "states" become "traits." Infant Mental Health Journal. 1995; 16: 271-91.

13. Putnam F. The impact of trauma on child development. Juvenile and Family Court Journal. 2006; 57: 1-11.

14. Tsigos C, Chrousos GP. Hypothalamic-pituitary-adrenal axis, neuroendocrine factors and stress. J Psychosom Res. 2002; 53: 865-871.

15. Urry HL, van Reekum CM, Johnstone T, Kalin NH, Thurow ME, Schaefer HS, et al. Amygdala and ventromedial prefrontal cortex are inversely coupled during regulation of negative affect and predict the diurnal pattern of cortisol secretion among older adults. J Neurosci. 2006; 26: 4415-4425.

16. Woon FL, Sood S, Hedges DW. Hippocampal volume deficits associated with exposure to psychological trauma and posttraumatic stress disorder in adults: a meta-analysis. Progress in Neuro-Psychopharmacology & Biological Psychiatry. 2010; 34: 1181-1188.

17. Heim C, Newport DJ, Mletzko T, Miller AH, Nemeroff CB. The link between childhood trauma and depression: insights from HPA axis studies in humans. Psychoneuroendocrinology. 2008; 33: 693-710.

18. Vythilingam M, Heim C, Newport J, Miller AH, Anderson E, Bronen R. Childhood trauma associated with smaller hippocampal volume in women with major depression. Am J Psychiatry. 2002; 159: 2072-2080.

19. Schore A. The effects of early relational trauma on right brain development, affect regulation, and infant mental health. Infant Mental Health Journal. 2001; 22: 201-269.

20. Schore AN. Dysregulation of the right brain: a fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorder. Aust N Z J Psychiatry. 2002; 36: 9-30.

21. Goodwin R, Stein M. Association between childhood trauma and physical disorders among adults in the United States. Psychological Medicine. 2004; 34: 509-520.

22. Messina N, Grella C. Childhood trauma and women's health outcomes in a California prison population. Am J Public Health. 2006; 96: 1842-1848.

23. Surís A, Holliday R, Weitlauf J, North C. Military sexual trauma in the context of a veteran's life experiences. Federal Practitioner. 2013; 30: 16s-20s.

24. Walker EA, Gelfand A, Katon WJ, Koss MP, Von Korff M, Bernstein D, et al. Adult health status of women with histories of childhood abuse and neglect. Am J Med. 1999; 107: 332-339.

25. Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. J Consult Clin Psychol. 2000; 68: 748-766.

26. Ellason JW, Ross CA, Fuchs DL. Lifetime axis I and II comorbidity and childhood trauma history in dissociative identity disorder. Psychiatry. 1996; 59: 255-266.

27. Hovens JG, Wiersma JE, Giltay EJ, van Oppen P, Spinhoven P, Penninx BW, et al. Childhood life events and childhood trauma in adult patients with depressive, anxiety and comorbid disorders vs. controls. Acta Psychiatr Scand. 2010; 122: 66-74.

28. Lochner C, du Toit PL, Zungu-Dirwayi N, Marais A, van Kradenburg J, Seedat S, et al. Childhood trauma in obsessive-compulsive disorder, trichotillomania, and controls. Depress Anxiety. 2002; 15: 66-68.

29. Lyons-Ruth K, Block D. The disturbed caregiving system: Relations among childhood trauma, maternal caregiving, and infant affect and attachment. Infant Mental Health Journal. 1996; 17: 257-275.

30. Mulvihill D. The health impact of childhood trauma: an interdisciplinary review, 1997-2003. Issues Compr Pediatr Nurs. 2005; 28: 115-136.

31. Newcorn JH, Strain J. Adjustment disorder in children and adolescents. J Am Acad Child Adolesc Psychiatry. 1992; 31: 318-326.

32. Seedat S, Stein M, Forde D. Association between physical partner violence, posttraumatic stress, childhood trauma, and suicide attempts in a community sample of women. Violence and Victims. 2005; 20: 87-98.

33. Kelleher I, Harley M, Lynch F, Arsenault L, Fitzpatrick C, Cannon M, et al. Associations between childhood trauma, bullying and psychotic symptoms among a school-based adolescent sample. British Journal of Psychiatry. 2008; 193: 378-382.

34. Horwitz AV, Widom CS, McLaughlin J, White HR. The impact of childhood abuse and neglect on adult mental health: a prospective study. J Health Soc Behav. 2001; 42: 184-201.

35. Johnson JG, Cohen P, Brown J, Smailes EM, Bernstein DP. Childhood maltreatment increases risk for personality disorders during early adulthood. Arch Gen Psychiatry. 1999; 56: 600-606.

36. Triffleman EG, Marmar CR, Delucchi KL, Ronfeldt H. Childhood trauma and posttraumatic stress disorder in substance abuse inpatients. J Nerv Ment Dis. 1995; 183: 172-176.

37. Waldinger RJ, Schulz MS, Barsky AJ, Ahern DK. Mapping the road from childhood trauma to adult somatization: the role of attachment. Psychosom Med. 2006; 68: 129-135.

38. Roesler TA, McKenzie N. Effects of childhood trauma on psychological functioning in adults sexually abused as children. J Nerv Ment Dis. 1994; 182: 145-150.

39. Arseneault L, Cannon M, Fisher H, Polanczyk G, Moffitt T, Caspia A. Childhood trauma and children's emerging psychotic symptoms: A genetically sensitive longitudinal cohort study. American Journal of Psychiatry. 2011; 168: 65-72.

40. Read J, van Os J, Morrison AP, Ross CA. Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. Acta Psychiatr Scand. 2005; 112: 330-350.

41. Spauwen J, Krabbendam L, Lieb R, Wittchen HU, van Os J. Impact of psychological trauma on the development of psychotic symptoms: relationship with psychosis proneness. Br J Psychiatry. 2006; 188: 527-533.

42. Bradley RH, Corwyn RF. Socioeconomic status and child development. Annu Rev Psychol. 2002; 53: 371-399.

43. Lysaker PH, Meyer PS, Evans JD, Clements CA, Marks KA. Childhood sexual trauma and psychosocial functioning in adults with schizophrenia. Psychiatr Serv. 2001; 52: 1485-1488.

44. Mock SE, Arai SM. Childhood trauma and chronic illness in adulthood: mental health and socioeconomic status as explanatory factors and buffers. Front Psychol. 2011; 1: 246.

45. Anderson NB, Armstead CA. Toward understanding the association of

socioeconomic status and health: a new challenge for the biopsychosocial approach. Psychosom Med. 1995; 57: 213-225.

46. Bradley RH, Corwyn RF. Socioeconomic status and child development. Annu Rev Psychol. 2002; 53: 371-399.

47. Briere J, Elliott DM. Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women. Child Abuse Negl. 2003; 27: 1205-1222.

48. Koenig L, Doll L, O'Leary A, Pequegnat W. Child Sexual Abuse to Adult Sexual Risk: Trauma, Revictimization, and Intervention. In: Association AP, editor. Washington, D.C. 2004.

49. Finkelhor D, Ormrod RK, Turner HA. Polyvictimization and trauma in a national longitudinal cohort. Dev Psychopathol. 2007; 19: 149-166.

50. Lopes Cardozo B, Vergara A, Agani F, Gotway CA. Mental health, social functioning, and attitudes of Kosovar Albanians following the war in Kosovo. JAMA. 2000; 284: 569-577.

51. Follette VM, Polusny MA, Bechtle AE, Naugle AE. Cumulative trauma: the impact of child sexual abuse, adult sexual assault, and spouse abuse. J Trauma Stress. 1996; 9: 25-35.

52. Schumm JA, Briggs-Phillips M, Hobfoll SE. Cumulative interpersonal traumas and social support as risk and resiliency factors in predicting PTSD and depression among inner-city women. J Trauma Stress. 2006; 19: 825-836.

53. Cloitre M, Stolbach BC, Herman JL, van der Kolk B, Pynoos R, Wang J, et al. A developmental approach to complex PTSD: childhood and adult cumulative trauma as predictors of symptom complexity. J Trauma Stress. 2009; 22: 399-408.

54. Turner HA, Finkelhor D, Ormrod R. Poly-victimization in a national sample of children and youth. Am J Prev Med. 2010; 38: 323-330.

55. Coker AL, Weston R, Creson DL, Justice B, Blakeney P. PTSD symptoms among men and women survivors of intimate partner violence: the role of risk and protective factors. Violence Vict. 2005; 20: 625-643.

56. Bonanno GA. Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? Am Psychol. 2004; 59: 20-28.

57. Gillespie CF, Phifer J, Bradley B, Ressler KJ. Risk and resilience: genetic and environmental influences on development of the stress response. Depress Anxiety. 2009; 26: 984-992.

58. Hoge EA, Austin ED, Pollack MH. Resilience: research evidence and conceptual considerations for posttraumatic stress disorder. Depress Anxiety. 2007; 24: 139-152.

59. Litz B, Gray M, Bryant R, Adler A. Early intervention for trauma: Current status and future directions. Clinical Psychology: Science and Practice. 2002; 9: 112-134.

60. Zuber N. Treatment in childhood trauma. The Residents' Journal. 2011; 6: 12-13.

61. Silverman WK, Ortiz CD, Viswesvaran C, Burns BJ, Kolko DJ, Putnam FW, et al. Evidence-based psychosocial treatments for children and adolescents exposed to traumatic events. J Clin Child Adolesc Psychol. 2008; 37: 156-183.

62. Grave J, Blissett J. Is cognitive behavior therapy developmentally appropriate for young children? A critical review of the evidence. Clin Psychol Rev. 2004; 24: 399-420.

63. Grella C, Stein J, Greenwell L. Associations among childhood trauma, adolescent problem behaviors, and adverse adult outcomes in substance-abusing women offenders. Psychology of Addictive Behaviors. 2005; 19: 43-53.

64. Sulzer-Azaroff B, Roy M. Behavior analysis for lasting change. New York: Hold, Rinehart & Winston.; 1991.

65. Salmon K, Bryant RA. Posttraumatic stress disorder in children. The influence of developmental factors. Clin Psychol Rev. 2002; 22: 163-188.

66. Hobfoll SE, Watson P, Bell CC, Bryant RA, Brymer MJ, Friedman MJ, et al. Five essential elements of immediate and mid-term mass trauma intervention: empirical evidence. Psychiatry. 2007; 70: 283-315.

67. Kohn R, Saxena S, Levav I, Saraceno B. The treatment gap in mental health care. Bull World Health Organ. 2004; 82: 858-866.

Austin J Psychiatry Behav Sci - Volume 1 Issue 6 - 2014
ISSN : 2381-9006 | www.austinpublishinggroup.com

Citation: Holliday RP, Clem MA, Woon FL and Surís AM. Developmental Psychological Trauma, Stress, and Revictimization: A Review of Risk and Resilience Factors. Austin J Psychiatry Behav Sci. 2014;1(6): 1032.