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Developmental Stage of Onset, Poly-Victimization, and Persistence of Childhood Victimization: Impact on Adult Well-Being in a Rural Community–Based Study

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Abstract

The current study examines the persistence of victimization and poly-victimization (i.e., count of multiple types of victimization) across various stages of development (ages 0–5, 6–12, and 13–18) and the related impact on adult well-being. Participants were 2,098 adults from the Appalachian region of three Southern states. Eighty-two percent of participants reported at least one type of victimization during childhood. Among adult victims, 22.6% reported one victimization in one developmental stage (i.e., one stage, but no poly-victimization), 45.8% reported one victimization in more than one stage (i.e., persistent victimization, but no poly-victimization), 20.5% reported multiple types of victimization in one stage (i.e., poly-victimization), and 11.2% reported multiple types of victimization at more than one stage (i.e., persistent poly-victimization). Results indicated a linear decline in subjective well-being, mental health, and number of healthy days as victimization becomes more persistent across childhood and more diverse in types (i.e., poly-victimization). Study findings provide support for models of victimization that take both developmental trajectories and poly-victimization into account.

Keywords

child abuse, child victims, exposure to violence, long-term effects, psychosocial issues, repeat victimization, poly-victimiation

Children and youth report experiencing high rates of victimization in the United States (Finkelhor, Turner, Shattuck, Hamby, & Kracke, 2015; Hamby, Finkelhor, Turner, & Ormrod, 2011). In a recent study, two thirds of children (67.5%) reported experiencing at least one incident of violence during their lifetime, including physical assault, maltreatment, sexual violence, property crimes, and witnessing victimization, and 50.5% had more than one exposure (Finkelhor et al., 2015). Exposure to violence during childhood can lead to negative consequences, including poor health and well-being, substance abuse, academic problems, post-traumatic stress, and delinquent behavior (Bensley, Van Eenwyk, & Simmons, 2003; Danese et al., 2009; Finkelhor, Turner, Ormrod, Hamby, & Kracke, 2009; Widom, DuMont, & Czaja, 2007). Recent research has focused on the importance of poly-victimization (i.e., experiencing multiple types of victimization) on these consequences. However, key questions regarding patterns of victimization remain less explored, such as the relative impact of age of onset, persistence of victimization, and poly-victimization, across developmental stages of childhood.

Developmental Victimology

Previous research suggests that youth victimization rates vary across developmental stages (Finkelhor, 1995, 2007; Finkelhor & Dziuba-Leatherman, 1994). Indeed, each period of development is characterized by its own set of experiences, capabilities, and environments, which all influence the risk and impact of victimization (Finkelhor, 2007). According to this research, the risk of victimization varies as children grow for several reasons. For example, children experience changes in their

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cognitive abilities, personality (e.g., openness to experience), and physical size and strength (including sexual maturation) over time, which may make them more or less susceptible to victimization (Finkelhor, 1995). Children also experience environmental changes as they age, including their school, home, and work life (Finkelhor, 1995, 2007; Finkelhor & Dziuba-Leatherman, 1994). Although young children generally depend on adults to provide for them and do not have the freedom to leave their environment if it becomes violent or abusive, older children are more independent and have more options to explore other environments. Unfortunately, exploring new environments also opens up youth to the possibility of new types of victimization (e.g., workplace harassment).

Cascade effects help to explain why some problems in childhood predict difficulties in adulthood. The developmental cascade model suggests that cumulative consequences resulting from multiple interactions and transactions that occur in developing systems alter the course of development (Masten & Cicchetti, 2010). Victimization is one such factor that interferes with developmental processes and the attainment of specific developmental achievements (Grasso, Greene, & Ford, 2013; Masten, Burt, & Coatsworth, 2015). For instance, victimization can interfere with psychological functioning, cognitive abilities, development of self-esteem, onset of puberty, and formation of interpersonal relationships (Bolger, Patterson, & Kupersmidt, 1998; Carlson, Cicchetti, Barnett, & Braunwald, 1989; English, Graham, Litrownik, Everson, & Bangdiwala, 2005; Finkelhor, 1995; Kaplow, Dodge, Amaya-Jackson, & Saxe, 2005; Keiley, Howe, Dodge, Bates, & Pettit, 2001). Therefore, this interference has important consequences across the life span. It is likely that the earlier that a victimization occurs, the more potential there is to alter developmental trajectories of children. This may not only put them at risk of future victimization but also lead to poorer mental and physical health problems in adulthood.

Age of Onset and Prevalence Across Types of Victimization

Research shows that children who are victimized earlier in life experience greater negative consequences in adulthood than children who were victimized later in life (Bolger et al., 1998; Carlson et al., 1989; English et al., 2005; Kaplow et al., 2005; Kaplow & Widom, 2007; Keiley et al., 2001). This is consistent across several types of victimization. For example, children who experience maltreatment at an earlier age often experience problems with adjustment, and have poor daily living skills and lower levels of self-esteem (Bolger et al., 1998; English et al., 2005; Keiley et al., 2001). Further, children who experience early onset of sexual abuse (i.e., between the ages of 0 and 5) report higher levels of anxiety and depression in adulthood (Kaplow et al., 2005; Kaplow & Widom, 2007). Lastly, children who witness family violence are more likely to experience mental distress later in life (Bensley et al., 2003).

Persistence of Victimization

In addition to examining the age of onset, researchers have examined repeated incidents of the same type of victimization over time, referred to here as persistence of victimization. Prior work suggests that individuals who are victimized once are more likely to experience revictimization (Finkelhor, Ormrod, & Turner, 2007; Weisel, 2005). This pattern is consistent across several types of victimization (Arata, 2002; DePanfilis & Zuravin, 1999; Finkelhor et al., 2007; Outlaw, Ruback, & Britt, 2002). For instance, in a national study, almost 20% of children experienced recurring victimization at a 1-year follow-up; 6.7% experienced repeated maltreatment, 6.9% repeated sexual violence, 2.2% repeated peer victimization, and 3.6% repeated witnessing violence (Finkelhor et al., 2007). Further, children who experience revictimization tend to report more adverse outcomes than those who experience single instances of violence (Finkelhor, Ormrod, Turner, & Holt, 2009; Kirby, Chu, & Dill, 1993; Turner, Finkelhor, & Ormrod, 2010). Experiencing revictimization has been associated with the age of onset. Specifically, children leading up to age 7 (i.e., between ages 3 and 7) experience the highest rates of persistent victimization over time. This could be reflective of environmental changes, as children around these ages are transitioning into elementary and high school, respectively (Finkelhor et al., 2009).

Poly-Victimization

Poly-victimization refers to experiencing multiple types of victimization (e.g., child maltreatment, witnessing family violence, sexual violence) and not just multiple episodes of the same kind of victimization (i.e., revictimization). Researchers found that such children are at particularly high risk of negative psychological and physical symptoms (Finkelhor et al., 2007; Finkelhor, Shattuck, Turner, Ormrod, & Hamby, 2011; Finkelhor, Turner, Hamby, & Ormrod, 2011) and are overrepresented among youth exhibiting problems such as school failure, delinquency, substance abuse, and entanglement with juvenile justice or child welfare systems (Cyr et al., 2012; Ford, Grasso, Hawke, & Chapman, 2013). The risks for poly-victims are more substantial than for youth experiencing any one particular type of victimization, even when serious and repeated (Finkelhor et al., 2007). The strong negative impact of poly-victimization on coping and well-being may result from the fact that the victimizations and threats to safety are experienced across a wide range of relationships and environments (Robinson, Mandleco, Olsen, & Hart, 2001). In addition, negative outcomes resulting from poly-victimization vary by the length of time the victimization occurred. Indeed, research suggests that adolescents experience more severe post-traumatic stress disorder (PTSD) when they experience poly-victimization for a greater number of developmental periods (Dierkhising, Ford, Branson, Grasso, & Lee, 2019; Grasso, Dierkhising, Branson, Ford, & Lee, 2016).

Current Study

Past research often focuses on the age of onset and past-year victimization but seldom covers all developmental stages of childhood. Frequency of child abuse and neglect is also often the focus but that is not the same as chronicity over developmental stages. The current study is also one of the first studies to look at how varying types of child victimization onset and persistence might lead to differential impacts in a sample of adults. Finally, the current study examines the age of victimization onset, persistence of victimization, and poly-victimization in combination across child development on adult well-being.

Specifically, we examine developmental stage of onset, persistence of victimization, and persistence of poly-victimization across stages (e.g., early childhood, childhood, adolescence) for multiple types of victimization (i.e., peer victimization, assault, child maltreatment, witnessing community violence, and witnessing family violence) in a sample of adults from rural, low-income communities. The relationship between stage of onset, persistence, poly-victimization, and adult well-being is examined through the following hypotheses:

Hypothesis 1: Across all types of victimization, individuals who experienced victimization at an earlier age of onset would report poorer adult well-being compared to individuals who experienced victimization onset during later developmental stages.

Hypothesis 2: Across all types of victimization, adults who experienced victimization that persisted across three developmental stages would report poorer well-being compared to individuals who experienced victimization across fewer stages of development.

Hypothesis 3: Individuals who experienced poly-victimization across multiple developmental stages of childhood will report the lowest levels of well-being in adulthood, more than individuals who reported persistent victimization during childhood that did not reach the poly-victimization level and those who reported poly-victimization during only one stage of childhood.

Method

Participants

This article consists of secondary data analysis of a subsample of participants from a larger study. This goal of this larger study was to understand resilience among adolescents and adults residing in one of the largest and most vulnerable regions of the United States—the Appalachian region of three Southern states (Hamby, Grych, & Banyard, 2018). Participants in the full study were 2,565 adolescents and adults aged 12 and over; 63.9% were female. The average age of participants was 30.0 years ($SD = 13.2$) with a median of 27. The analytic subsample for the current article consists of those participants, aged 18 and older at the time of data collection ($n = 2{,}098$) to assess the relationships between childhood victimization experiences and adult well-being. Thus, all participants had an equal opportunity to experience victimization across all three developmental stages. Descriptive statistics for age, relationship status, employment, sex, education, race and ethnicity, and household income are shown in Table 1.

Procedure

Participants were recruited through a range of advertising techniques. The majority of participants (76%) were recruited at local community events such as festivals and county fairs. Word-of-mouth was the second most productive recruitment strategy, accounting for 12% of participants. The remaining 12% were recruited through other strategies including flyers, newspaper and radio ads, and direct mail. This wide range of recruitment strategies allowed us to reach segments of the population who are rarely included in psychology research. Interviewers offered to meet participants in multiple locations throughout the community (including our research center, other campus locations, and their homes), during daytime or evening hours. This flexibility provided people with limited availability or transportation an opportunity to participate. The survey was self-administered using Snap10 survey software on laptops and iPads. An audio option was available. Overall, the completion rate was 85%, and the median completion time was 53 min. This is an excellent result by current survey standards, especially considering the survey length, with current completion rates often under 70% (Abt SRBI, 2012) and sometimes under 50% (Galesic & Bosnjak, 2009). All participants received a US$30 gift card and information on local resources. All procedures were conducted in accordance with American Psychological Association (APA) ethical principles and approved by the Univerity of the South Institutional Review Board (IRB).

Measures

Childhood violence exposure. The *Juvenile Victimization Questionnaire—Key Domains Form* includes 21 items assessing lifetime history of a range of interpersonal victimizations (adapted from Finkelhor, Hamby, Ormrod, & Turner, 2005; Hamby, Finkelhor, Ormrod, & Turner, 2004). *Peer victimization* was measured with 6 items including physical intimidation, social discrediting, or social exclusion by peers, or assault by a youth relative or nonrelated peer. *Assault* was measured using 2 items capturing physical assault by an adult or sexual assault by anyone. Six items measured *child maltreatment*, which was described as physical abuse by a caregiver (1 item), psychological or emotional abuse (1 item),and neglect (4 items. e.g., neglect from parental incapacitation, neglect from parental absence, neglect from having inappropriate adults in the home). *Witnessing community violence* was measured using 2 items covering witnessing assault with and without a weapon. Five items measuring *exposure to family violence* covered being verbally threatened, the object of displaced aggression, pushed, or severely physically assaulted by parents, or being exposed to other family violence. Within each of these five aggregate

Table 1. Demographic and Household Characteristics by Persistence of Poly-Victimization Across Developmental Stages.

Characteristic	All Adult Participants ($N = 2,098$), % (n)	Victimization Category					
		Not Poly-Victims			Poly-Victims		
		Not Victimized ($n = 372$), %	1 Stage ($n = 390$), %	2+ Stages ($n = 790$), %	1 Stage ($n = 353$), %	2+ Stages ($n = 193$), %	χ^2
Age (years)							
18–25	31 (646)	15	19	40	18	8	
26–35	24 (499)	20	16	34	19	11	
36–44	23 (475)	17	19	38	17	10	
45 or older	23 (478)	19	22	37	13	8	21.2*
Gender							
Female	65 (1,336)	18	19	38	17	7	
Male	35 (725)	18	18	38	16	10	3.7
Employment							
Employed full-time	44 (911)	18	19	41	14	7	
Employed part-time	11 (239)	16	20	35	21	9	
Unemployed	17 (350)	15	18	34	24	9	
Retired	2 (51)	25	27	31	10	6	
Student	10 (212)	15	15	43	16	10	
Homemaker	8 (161)	19	16	33	17	14	
Disabled/too ill to work	8 (161)	22	17	29	15	18	65.1***
Relationship status							
Married	40 (828)	17	21	40	15	7	
Living with partner	9 (182)	16	20	37	16	10	
Previously married	13 (264)	20	14	34	19	14	
Dating	17 (346)	17	16	35	21	10	
Single (never married)	22 (461)	18	19	37	16	9	25.4
Education							
Less than high school	14 (293)	20	21	30	17	12	
High school/GED	40 (833)	23	19	33	17	9	
Some college	22 (456)	11	18	40	22	10	
Associate's degree	9 (194)	17	15	46	14	8	
Bachelor's degree	9 (193)	12	19	49	11	9	
Some postgraduate work	6 (129)	12	20	46	15	8	72.5***
Race/ethnicity							
White, non-Latino	77 (1,557)	17	17	38	17	10	
Black, non-Latino	13 (264)	23	27	33	13	4	
Latino/a	6 (129)	22	19	36	16	6	
Multiracial	3 (65)	5	12	40	21	21	49.9***
Household income							
Less than US$5,000	19 (390)	20	22	33	16	10	
US$5,000–19,999	25 (514)	19	17	32	20	12	
US$20,000–49,999	33 (694)	18	18	39	18	7	
US$50,000–74,999	11 (221)	12	19	47	14	8	
US$75,000 or more	13 (279)	14	20	45	13	8	42.1***

Note. Row percentages. Rows that do not add to 100% are due to rounding.
GED = general equivalency diploma.
***$p \leq .001$. *$p \leq .05$.

types of victimization, a variable was constructed indicating any experience versus none (e.g., any peer victimization vs. none).

Stage of onset of abuse. For each of the above 21 victimization types, follow-up questions asked how old they were when this happened. Participants were provided with multiple categories (three of which were relevant for the current study) to identify: early childhood (birth to 5 years old), childhood (6–12 years old), and adolescence (13–18 years old). Multiple age categories could be chosen. Three new variables were constructed within each of the abovementioned five aggregate types (e.g., peer victimization, child maltreatment) indicating the stage of onset.

Poly-victimization. For each developmental stage, we created a count score of the number of different types of victimization experienced. Although a variety of different weighting and

scoring strategies to measure poly-victimization have been applied, none consistently show more predictive power than a total count, especially if comprehensive measures of violence are used (Finkelhor et al., 2005). We also created dichotomous variables to indicate whether the participant was a poly-victim within each stage. Poly-victims were identified as the top 11–12% of the total victimization count within each developmental stage. Since the total number and types of victimization that children are exposed to tend to change with age (Finkelhor, Shattuck, et al., 2011), the threshold for poly-victimization varied by developmental stage in the current study. For the stage covering ages 0–5, participants experiencing three or more different types of victimization were coded as poly-victims; for the stage covering ages 6–12, nine or more types were coded as poly-victimization; and for the stage covering ages 13–18, seven or more types were coded as poly-victimization. The inclusion of different or additional forms of victimization in future research may result in different counts by developmental stage.

Persistence of abuse across developmental stage. A variable was constructed indicating the total number of developmental stages the participant experienced *any* victimization, regardless of type, ranging from 0 to 3 (i.e., 0 = *not victimized*, 1 = *one stage*, 2 = *two stages*, and 3 = *three stages*). This was also done for persistence across stages within each aggregate type.

Poly-victimization by persistence of abuse across developmental stage. Finally, to examine the influence of poly-victimization across multiple stages of childhood, we created a categorical variable to reflect this overlap. Specifically, participants were coded into one of five groups: not victimized, victimization in one stage of development (not poly-victim status), victimization in more than one stage of development (not poly-victim status), victimization of multiple types in one stage of development (poly-victim status), and victimization of multiple types in more than one stage of development (poly-victim status in more than one stage).

Psychosocial indicators

Subjective well-being. Thirteen items assessed satisfaction with life and how well one's life is going (adapted from Battista & Almond, 1973; Diener, Emmons, Larsen, & Griffin, 1985; Turner, Shattuck, Hamby, & Finkelhor, 2013).

Mental health. Ten psychological symptoms were adapted from the National Survey of Children's Exposure to Violence (Hamby, Finkelhor, Turner, & Ormrod, 2011) which has been sufficiently modified from the Trauma Symptom Checklist (TSC; Briere, 1996) to be considered a different instrument. The scale has been found to have excellent psychometric properties in the current study (Hamby et al., 2018) and in national samples (Turner, Finkelhor, & Ormrod, 2006). Trauma symptoms were assessed on a 4-point scale from "never" to "almost all the time.". The scale was reverse-scored, where higher scores indicate fewer symptoms.

Health-related quality of life. Five items adapted from the Healthy Days Measure (U.S. Department of Health and Human Services, 2000) assessed health-related quality of life. For 1 item, participants rated their overall health (from "excellent" to "poor" on a 5-point scale), and for the remaining items participants indicated how many days (roughly) during the past month a health item applied to them; a mean score was created for the average number of healthy days. For all psychosocial indicators, higher scores indicate better well-being and mental and physical health.

Statistical Analysis

First, we compared the percentage of participants in our five-category poly-victimization-persistence classification across demographic characteristics using chi-square cross-tabulations (Table 1). Next, we reported descriptive statistics for the developmental stage of onset, persistence across three different developmental stages, and percentage of poly-victims for any victimization and for each type of abuse (Table 2). Next, mean scores for subjective well-being, mental health, and number of healthy days by age of onset for each type of child victimization are compared bivariately using analysis of variance and then adjusted for persistence of any victimization across developmental stage in Table 3. Finally, linear regressions were performed for the three well-being outcomes to examine the influence of poly-victimization by persistence across developmental stages adjusting for demographic and family characteristics (Table 4). Mean scores for the above are visually depicted in Figure 1.

Results

Age of Onset, Persistence across Stages, and Poly-victimization for Different Types of Victimization

Eighty-two percent ($n = 1{,}726$) of participants reported at least one type of victimization during childhood. Over half (54%) of all adults ($n = 1{,}129$) had witnessed violence as a child, 76% ($n = 1{,}600$) experienced peer victimization, 29% ($n = 607$) were assaulted as a child, 43% ($n = 912$) were exposed to family violence, and 33% ($n = 698$) experienced child maltreatment (not shown in table). Twenty-five percent of all adults experienced some form of victimization between the ages of 0 and 5, 71% when they were of ages 6–12, and 68% when they were 13–18 years old. Twenty-one percent of all adults experienced victimization during one developmental stage of childhood, 41% across two stages, and 20% across all three stages examined. Seventeen percent of all adults experienced poly-victimization during one stage of childhood, 6% during two stages, and 3% during all three stages.

As seen in Table 2, *among adults experiencing any childhood victimization* ($n = 1{,}726$), 31% ($n = 535$) reported victimization when they were between the ages of 0 and 5, 86% ($n = 1{,}492$) had been victimized when they were of ages 6–12, and 82% ($n = 1{,}423$) when they were of ages 13–18. The

Table 2. Developmental Stage at Which Adult Participants Experienced Different Types of Childhood Victimization and Persistence.

	Any Victimization % (*n*)	Witnessed Violence % (*n*)	Peer Victimization % (*n*)	Assault % (*n*)	Exposure to Family Violence % (*n*)	Child Maltreatment % (*n*)
Any victimization	82 (1,726)	54 (1,129)	76 (1,600)	29 (607)	43 (912)	33 (698)
Developmental stage of experience[a]						
0–5	31 (535)	13 (147)	16 (252)	20 (122)	30 (273)	25 (178)
6–12	86 (1,492)	54 (610)	83 (1,326)	60 (364)	72 (656)	74 (516)
13–18	82 (1,423)	72 (810)	70 (1,118)	55 (333)	53 (485)	65 (451)
Persistence						
One stage	25 (431)	68 (767)	31 (41,652)	72 (437)	58 (525)	50 (352)
Two stages	50 (866)	25 (286)	50 (800)	21 (128)	30 (272)	35 (245)
Three stages	25 (429)	7 (76)	9 (148)	7 (42)	13 (115)	14 (101)
Poly-victimization						
None	68 (1,180)	57 (644)	67 (1,064)	40 (245)	47 (428)	40 (249)
One stage	20 (353)	27 (307)	21 (345)	33 (203)	33 (302)	35 (244)
Two stages	7 (123)	10 (111)	7 (121)	16 (100)	13 (114)	16 (110)
Three stages	4 (70)	6 (67)	4 (70)	10 (59)	7 (68)	9 (65)

[a]Reporting across multiple stages was possible.

highest rates of victimization types experienced between the ages of 0 and 5 were exposure to family violence and child maltreatment. During the ages of 6–12, adults reported experiencing high rates of all types of victimization from a low of 54% for those who had witnessed violence to a high of 83% for those who reported peer victimization. Witnessing violence was most likely experienced during the ages of 13–18 years, although all forms of victimization were common among this developmental stage.

Half (50%, $n = 866$) of victimized adults said they experienced some form of victimization that covered two developmental stages, followed by 25% ($n = 431$) that covered one stage and 25% ($n = 429$) that covered all three developmental stages of childhood. Assault was the most common type of victimization to occur during one developmental stage, with 72% of adults experiencing assault during one stage. Adults who experienced peer victimization in childhood commonly reported such victimization across two developmental stages. The types of victimization most likely to be persistent across all three developmental stages were exposure to family violence (13%) and child maltreatment (14%).

Thirty-two percent of adults with histories of childhood victimization were poly-victims during at least one stage of their childhood: 20% in one stage, 7% in two stages, and 4% across all three stages (Table 2). Sixty percent of participants who experienced any assault during childhood, as well as those who experienced child maltreatment, were classified as poly-victims during at least one stage of childhood. Approximately, one in four participants who reported these experiences were poly-victims during more than one stage of development.

Age of Onset of Childhood Victimization and Adult Well-Being

Average well-being scores based on the earliest developmental stage of onset for each type of victimization indicate significant differences for virtually all types of victimization and each of the three forms of well-being examined—subjective well-being, mental health, and number of healthy days in the past month when examined bivariately (Table 3). Experiencing victimization between the ages of 0 and 5 was related to significantly worse well-being compared to those who first experienced victimization between the ages of 6 and 12 or 13 and18. When further taking into account persistence of any victimization across developmental stages, the difference in means was eliminated for most of these comparisons. A few remained significant but were attenuated: (a) *any* early onset victimization and (b) exposure to family violence specifically with mental health; and (c) witnessing violence and (d) assault with number of healthy days.

Poly-victimization by persistence of victimization across developmental stages. Among adults reporting at least one victimization during their childhood ($n = 1,726$), 22.6% reported one victimization in one developmental stage (i.e., one stage, but no poly-victimization), 45.8% reported one type of victimization in more than one stage (i.e., revictimization, but no poly-victimization), 20.5% reported more than one victimization in one stage (i.e., poly-victimization), and 11.2% reported more than one victimization at more than one stage (i.e., persistent poly-victimization). Participants who identified with more than one race, those living with less household income, had less education, and were disabled or too ill to work were more likely to report poly-victimization across multiple stages of development (Table 1).

Intersection of Poly-Victimization and Persistence of Victimization Across Developmental Stages and Impact on Adult Well-being

Figure 1 depicts the mean scores for adult well-being based on poly-victimization by persistence classification. Results

Table 3. Differences in Self-Reported Subjective Well-Being, Mental Health, and Healthy Days for All Adults and by Developmental Stage of Onset of Different Types of Victimization During Childhood With and Without Adjustment for Persistence of Victimization Over Time.

	Subjective Well-Being			Mental Health			Healthy Days		
	Mean	*SE*	*F*	Mean	*SE*	*F*	Mean	*SE*	*F*
Total sample	0.006	0.02	—	0.06	0.02	—	−0.02	0.02	—
Any victimization									
Stage of onset									
0–5	−0.13	0.05		−0.31	0.04		−0.28	0.05	
6–12	0.01	0.03		0.06	0.03		0.03	0.03	
13–18	0.15	0.06	7.27***	0.23	0.06	35.52***	0.24	0.06	25.75***
With persistence	—	—	0.78	—	—	3.13*	—	—	1.91
Witnessing violence									
Stage of onset									
0–5	−0.27	0.10		−0.35	0.08		−0.49	0.10	
6–12	−0.11	0.05		−0.12	0.04		−0.08	0.05	
13–18	0.02	0.05	4.8**	−0.03	0.05	6.25**	0.01	0.04	13.64***
With persistence	—	—	1.9	—	—	0.84	—	—	5.08**
Peer victimization									
Stage of onset									
0–5	−0.15	0.07		−0.31	0.06		−0.28	0.07	
6–12	−0.003	0.03		−0.02	0.03		−0.04	0.03	
13–18	0.06	0.06	2.99*	0.09	0.06	12.4***	0.13	0.06	10.37***
With persistence	—	—	0.03	—	—	0.89	—	—	0.58
Assault									
Stage of onset									
0–5	−0.39	0.11		−0.33	0.09		−0.58	0.11	
6–12	−0.18	0.06		−0.19	0.06		−0.23	0.07	
13–18	−0.08	0.07	3.26*	−0.26	0.07	0.96	−0.03	0.07	9.10***
With persistence	—	—	1.49	—	—	0.42	—	—	6.21**
Family violence									
Stage of onset									
0–5	−0.15	0.07		−0.45	0.06		−0.40	0.07	
6–12	−0.16	0.05		−0.11	0.04		−0.10	0.05	
13–18	−0.03	0.07	1.0	−0.08	0.07	12.62***	−0.04	0.07	8.66***
With persistence	—	—	1.26	—	—	3.77*	—	—	2.19
Child maltreatment									
Stage of onset									
0–5	−0.41	0.09		−0.55	0.07		−0.49	0.09	
6–12	−0.09	0.05		−0.20	0.05		−0.11	0.05	
13–18	−0.11	0.08	5.98**	−0.27	0.08	7.56***	−0.19	0.07	8.00***
With persistence	—	—	2.88	—	—	2.69	—	—	2.67

***p <.001. **p < .01. *p < .05.

Table 4. Linear Regression Analyses for Subjective Well-Being, Mental Health, and Healthy Days for All Adults by Persistence of Victimization Across Stages and Poly-Victimization.

	Subjective Well-Being Coef. (*SE*)	Mental Health Coef. (*SE*)	Healthy Days Coef. (*SE*)
Victimization category			
Not victimized (referent category)	(Referent)	(Referent)	(Referent)
1 stage without poly-victimization	−.01 (.07)	−.25 (.07)***	.005 (.07)
2+ stages without poly-victimization	−.10 (.06)	−.55 (.06)***	−.12 (.06)
1 stage with poly-victimization	−.17 (.08)*	−.71 (.07)***	−.26 (.08)***
2+ stages with poly-victimization	−.40 (.09)***	−.78 (.09)***	−.56 (.09)***

Note: Regressions adjust for participant age, gender, number of people living in the household, race and ethnicity, household income, and financial strain.
***$p \leq .001$. *$p \leq .05$.

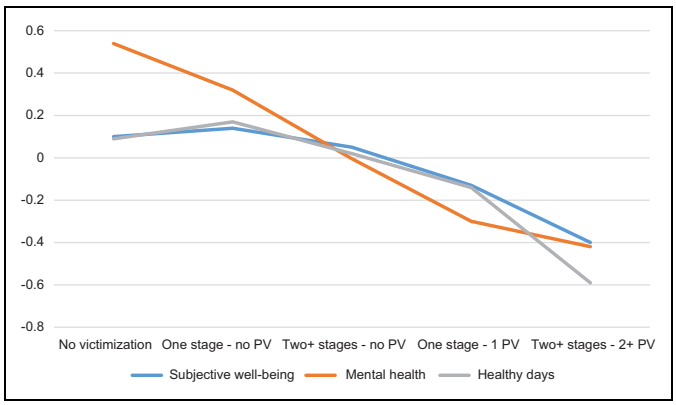

Figure 1. Mean scores for subjective well-being, mental health, and healthy days by persistence of victimization and poly-victimization across developmental stages.

indicated a linear decline in subjective well-being, mental health, and number of healthy days as victimization becomes more persistent across childhood and more diverse in types. Participants who reached poly-victimization status during more than one stage of child development had the lowest well-being. These findings remain after taking into account demographic characteristics and financial strain (Table 4).

Discussion

Persistence of Victimization in the Context of Poly-Victimization

In the current study, we found that experiencing victimization across multiple developmental stages of childhood is a strong indicator of poor well-being during adulthood. When combined with the experience of poly-victimization, we see that poly-victimization during one developmental stage is more strongly related to poorer well-being than experiencing victimization across more than one stage but not at the level of poly-victimization. The combination of poly-victimization across multiple stages of development shows the strongest association with poor well-being. This is consistent with prior research on persistence of poly-victimization (Dierkhising et al., 2019; Grasso et al., 2016), suggesting that poly-victimization is associated with worse mental and physical health outcomes (Finkelhor, et al., 2007; Finkelhor, Shattuck, et al., 2011; Finkelhor, Turner, et al., 2011). These findings suggest that the persistence of poly-victimization is a critical area to focus intervention efforts.

For these persistent poly-victims, victimization becomes a part of life, or a chronic condition, that likely influences all aspects of their intra- and inter-personal experiences. According to previous research, children experience cognitive, personality, physical, and environmental changes as they age, which influences their vulnerability to victimization (Finkelhor, 1995, 2007). Once children have experienced an initial victimization, it is possible that their development is negatively impacted (e.g., cognitive abilities are stunted, delayed sexual maturation, increased isolation), which results in cascade effects that alter their developmental trajectory (Grasso et al., 2013; Masten et al., 2015; Masten & Cicchetti, 2010) and potentially increase the risk of subsequent or persistent victimization.

Findings indicate that adults with disabilities are overrepresented in the persistent poly-victimization group. We do not have information about the length of time, type, or onset of disability; it could be that for some participants, the disability was one that existed during childhood. Research indicates that children with disabilities are at heightened risk of victimization compared with those without disabilities (Kendall-Tackett, Lyon, Taliaferro, & Little, 2005; Mishan, 2003; Rand & Harrell, 2009; Spencer et al., 2005; Sullivan, 2009; Van Cleave & Davis, 2006). For others, disability could be more recent. Adverse childhood experiences (ACEs) research has also identified the long-term, significant impact of multiple or accumulated traumatic childhood experiences (Dube, Felitti, Dong, Giles, & Anda, 2003; Felitti et al., 1998; Rose, Xie, & Stineman, 2014), in which case, for some, disability could be one result of a childhood filled with adversity. We also found that multiracial adults were overrepresented in this persistent poly-victimization group. This is in line with some studies that find that marginalized or minority groups of youth have higher rates of victimization, in general, than does the general population of youth (Mitchell, Ybarra, & Korchmaros, 2014; Peguero, 2009). More research on this and other subpopulations of youth and adults is warranted.

Persistence of victimization may also continue into adulthood. Although we did not include adult victimization as part of the current analysis given the range of ages of participants, and thus unequal opportunity to experience adult victimization, the data suggest the likelihood of continued persistence with 30% of these participants reporting victimization as adults. Cascade effects can continue through emerging and older adulthood. Thus, it is important for future research to monitor and track victimization across even more developmental stages, from early childhood through middle and late adulthood, to better understand the persistence of the cycle of violence.

Stage of Victimization Onset and Adult Well-Being

Victimization during the earliest stage of development (ages 0–5) was the most closely related to poor well-being in adulthood. This is consistent with previous literature on age of onset which suggests the strong negative impact of early victimization (Bolger et al., 1998; Carlson et al., 1989; English et al., 2005; Kaplow et al., 2005; Keiley et al., 2001). Yet, this early stage of victimization could, in part, represent more and longer term opportunity for victimization, and even poly-victimization, across childhood. Our findings support this idea; after taking persistence of victimization across developmental stages into account, the association between early onset victimization and adult well-being was eliminated for most types of victimization.

In addition to more opportunity for victimization, it is also possible that, given neurological development and

interpersonal development (e.g., attachment) from 0 to 5 years, that this is a critical developmental period that produces more widespread and deep-rooted negative consequences for children. We did identify three types of victimization, when they occurred between the ages of 0 and 5, to remain significantly related to poor well-being during adulthood even when taking into account persistence of victimization: exposure to family violence, witnessing violence, and experiencing assault. This suggests that such experiences may be particularly salient and play a critical role in long-term well-being.

Regardless of whether early onset provides more and longer term opportunity for subsequent victimization or whether certain types of early onset victimization have more widespread and negative consequences, findings support the literature describing the developmental cascade model, where the earlier the victimization occurs in the life course, the more the course of development is altered as children age (Grasso et al., 2013; Masten et al., 2015; Masten & Cicchetti, 2010).

The Burden of Adversity in Low-Income, Rural Communities

Our findings add to the building documentation of the widespread adversity and victimization experienced by people living in low-income, rural communities. Indeed, rates of victimization differ based on rural, urban, and suburban environments and, therefore, age of onset, persistence, and poly-victimization must also be considered in these contexts (Albert & Barth, 1996; Rennison, DeKeseredy, & Dragiewicz, 2013). Youth between the ages of 12 and 17 are at the highest risk of violent victimization in rural areas compared to urban and suburban areas (Bureau of Justice Statistics, 2014). Specifically, rural youth between the ages 15 and 17 are 3.9 times and 4 times more likely to be victimized than youth of the same age in urban and suburban areas, respectively (Bureau of Justice Statistics, 2014). Victims are less likely to have access to help in rural areas (including a lack of social services and limited foster care), compared to suburban and urban areas. These contextual factors can contribute to family stress, which may increase the risk of victimization and revictimization. Indeed, one study suggests that rural caregivers reported for child maltreatment experienced higher levels of family stress than caregivers in urban areas (Mattingly & Walsh, 2010). Thus, these factors may directly and indirectly influence a child's vulnerability to victimization.

Limitations

We did not examine victimization after the age of 18. Victimization research suggests that individuals who experience violence during childhood are more likely to experience violence again later in adulthood (Maker, Kemmelmeier, & Peterson, 2001). This study also used retrospective reporting. It is possible that recent victimization is more readily recalled than victimization from early childhood. In addition, we did not examine how other types of adversity, such as discrimination, might also persist across childhood and influence outcomes of well-being as it was beyond the scope of the article. The current study also used a convenience sample and may not be representative of more diverse populations. Further, self-report measures were used to assess health outcomes. Therefore, participants may not accurately report how they feel or inaccurately recall the number of healthy days. Finally, the one stage poly-victimization group likely includes participants who experienced persistent victimization within type as well as poly-victimization and thus the effects of persistent victimization are not separated from those of poly-victimization.

Implications and Conclusions

Research on persistence of victimization across developmental stage in the context of poly-victimization not only aids our theoretical understanding of how violence impacts youth, but, for youth-serving professionals it provides information that can improve training and screening tools, increase the sensitivity of response to troubled youth, and enhance prevention and intervention efforts. For example, police officers, investigators, child protective service workers, and prosecutors need research-based information on the most effective approaches to respond to persistently and highly victimized youth. Additionally, those working with youth in community settings, particularly high-risk youth, may fail to understand the scope of victimization, including past victimization that affect the youth they work with. The development of comprehensive screening tools based on long-term victimization histories and risk and protective factors for use in medical and social service settings is a first step toward improving community intervention and prevention responses with victimized youth.

One key challenge in public health policy concerning children's exposure to violence is targeting resources to the youth and environments where it can be most effective. Much programming in the exposure to violence field has involved universal prevention approaches such as classroom-based education. But universal programs may be least effective for those with the largest burden of risk factors (Weissberg, Kumpfer, & Seligman, 2003), such as the persistently victimized youth identified retrospectively in this study. There is a need to craft more tailored and individualized programs that are more effective with these more difficult-to-reach populations—for both youth who are currently living in these conditions and for adults who, as suggested from the current study, are dealing with poor mental and physical health issues related to their childhood experiences. It also can help move the field toward a more integrative approach in addressing exposure to violence. There are many reasons to think that, rather than approaching children's exposure to violence by targeting individual types of violence as is the current tendency (e.g., bullying, sexual assault, community violence), integrative approaches may be more implementable and more successful (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

The present study added to the existing literature by further exploring the relationship between developmental stage of onset of multiple types of violence, persistence across stages,

poly-victimization, and well-being outcomes in a sample of rural, low-income adults. Infancy and toddlerhood, across multiple forms of victimization, seems to have the most negative association with mental and physical health indicators and with well-being. Results suggest this may in part be because it sets individuals up for experiencing victimization across developmental phases. Indeed, individuals who experience victimization across more than one developmental stage during childhood, in combination with poly-victimization, had the lowest levels of subjective well-being and health-related quality of life and reported the highest symptoms of psychological distress. The current study provides support for models of victimization that take both developmental trajectories and poly-victimization into account.

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