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# CHILDHOOD POLYVICTIMIZATION AND THE LIFE COURSE: ASSOCIATIONS WITH DEPRESSION AND CRIME

A Thesis Presented

by

### RICHARD S. CARBONARO

Submitted to the Graduate School of the

University of Massachusetts Amherst in partial fulfillment

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Department of Sociology

#### CHILDHOOD POLYVICTIMIZATION AND THE LIFE COURSE:

## ASSOCIATIONS WITH DEPRESSION AND CRIME

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#### ABSTRACT

# CHILDHOOD POLYVICTIMIZATION AND THE LIFE COURSE: ASSOCIATIONS WITH DEPRESSION AND CRIME SEPTEMBER 2018 RICHARD S. CARBONARO, B.A., FRAMINGHAM STATE UNIVERSITY, FRAMINGHAM M.A., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Anthony Paik

Exposure to multiple forms of victimization has been shown to have increasingly negative outcomes, but their unique trajectory-setting effects have been largely unexplored. Using a life course approach, this paper examines the trajectory-setting effects of childhood polyvictimization into early adulthood. I use a nationwide sample including 3,652 respondents after cleaning and preparation. Seemingly unrelated regressions were used to predict depression and criminal behavior in childhood and adulthood. Results suggest childhood polyvictimization sets children on a negative trajectory which grows increasingly worse through the life course. Researchers and interventions should take these trajectory-setting effects into account when attempting to aid polyvictims.

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#### **INTRODUCTION**

Children make up the population most vulnerable to victimization (Baum, 2005). Research suggests the prevalence rate for physical abuse is 23% (Stoltenborgh, Bakermans-Kranenburg, van IJzendoorn & Alink, 2013), 36% for emotional abuse (Stoltenborgh, Bakermans-Kranenburg, Alink & van IJzendoorn, 2012), 13% for sexual victimization (Stoltenborgh, van Ijzendoorn, Euser & Bakermans-Kranenburg, 2011), 16% for physical neglect, and 18% for emotional neglect (Stoltenborgh, Bakermans-Kranenburg & IJzendoorn, 2013). There is a vast literature examining the severe negative effects of child victimization on numerous mental health and behavioral outcomes (Flynn, Fothergill, Coleclough, Horwitz, Ruble, Kurkey & Wissow, 2015; Ford, Elhai, Connor & Frueh, 2010; Edwards, Holden, Felitti & Anda, 2003). However, many of these studies share a common weakness: by focusing on a single form of victimization, they fail to address the trend of co-occurrence noted by Finkelhor and colleagues (Finkelhor, Omrod & Turner, 2007a). The term polyvictim was introduced to examine the intersection of multiple forms of victimization.

Past research suggests 60.8 percent of child victims experience multiple victimizations (Finkelhor, Turner, Shattuck & Hamby, 2015). This pattern of co-occurrence has been observed across a range of victimizations such as internet harassment and unwanted sexual solicitation (Ybarra, Espelage & Mitchell, 2007); teen dating violence, rape, and parental abuse (Hamby, Finkelhor & Turner, 2012); and many other combinations (Finkelhor, Turner, Shattuck & Hamby, 2015; Hamby, Finkelhor & Turner, 2012; Finkelhor, 2008; Finkelhor, Omrod & Turner, 2007b). Due to this pattern of co-occurrence, observing only one form of victimization causes these studies to be vulnerable to confound their effects.

Therefore, researchers should aim to examine the intersection of multiple victimizations, also known as polyvictimization. Instead of viewing victimizations as secluded events, this perspective views them as conditions (Finkelhor, Omrod & Turner, 2007a). Just as co-occurring conditions can have a unique effect which is more than the sum of parts, so too polyvictimization may have a unique effect. It is important to note that polyvictimization is different than repeat victimization. While repeat victimization entails experiencing the same event multiple times, polyvictimization is defined as the experience of multiple forms of victimization in the same developmental period. The concept of polyvictimization has garnered attention from both the mental health and criminological literatures, and has been shown to have unique effects in a variety of contexts (Adams, Moreland, Cohen, Lee, Hanson, Danielson, Self-Brown & Briggs, 2016; Listwan, Daigle, Hartman & Guastaferro, 2014).

Polyvictimization varies from repeat victimization in that it examines the co-occurrence of disparate forms of victimization, while repeat victimization examines the effects of repeatedly experiencing the same or similar victimizations (Price-Robertson, Higgins, & Vassallo, 2013). This focus on the co-occurrence of very different experiences arises from the drive to view victimizations similar to conditions, which interact in unique and increasingly negative ways (Finkelhor, Omrod & Turner, 2007). Polyvictimization has been linked with negative mental health (Richmond, Elliot, Pierce, Aspelmeier & Alexander, 2008; Ford, Elhai, Connor & Frueh, 2010; Finkelhor, Turner, Shattuck, & Hamby, 2015) and deviant behavior (Ford, Grasso, Hawke & Chapman, 2013). Many polyvictimization studies rely on either cross-sectional or long-term recall data, both measured at similar times in the life course (Price-Robertson, Higgins & Vassallo, 2013). There are exceptions to this trend (Turner, Shattuck, Finkelhor & Hamby, 2017), but few have examined its life course effects. While the negative effects of childhood

polyvictimization are suggested to continue in adulthood (Turner, Shattuck, Finkelhor & Hamby, 2017), this paper seeks to expand upon this by examining polyvictimization as an event embedded in the life course.

#### LITERATURE REVIEW

The purpose of the life course perspective is to "seek to recognize the interdependence of historical events, social structure, and individual biographies" (Browning & Laumann, 1997). Two vital concepts in this approach are trajectories and transitions. A trajectory is a long-term path or direction, such as marriage, or deviant behavior. Upon this long-term path, there are several stops, or transitions along the way, such as getting married, or engaging in a criminal act (Sampson & Laub, 1997). Each transition experienced influences how future situations will be perceived and reacted to. The experience of victimization can be seen as a transition on the path to negative outcomes such as deviant behavior (Browning & Laumann, 1997).

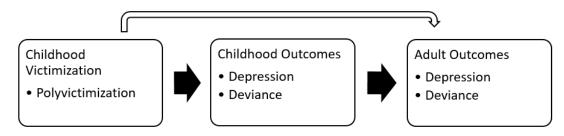
A negative life trajectory can be perpetuated and intensified by a process called cumulative continuity (Browning & Laumann, 1997). Cumulative continuity refers to the process in which an initial choice or behavior causes a certain response, which then affects the individual's next decision. If an initial negative behavior is met with a negative response, it can cause increasingly negative behavior (Browning & Laumann, 1997). For example, child victimization may cause depression, leading to isolation, which in turn causes more depression. This differs from previous examinations of long-term effects of polyvictimization (e.g. Turner, Shattuck, Finkelhor & Hamby, 2017) by focusing on polyvictimization as a life transition, leading to this process of cumulative continuity.

Thus, by the process of cumulative continuity, negative childhood experiences can have an effect which increases over time. Therefore, it was predicted that we would observe both a direct and indirect effect of polyvictimization on adult outcomes. The indirect effect, indicated

by the black arrows in Figure 1 shows the stable effect of polyvictimization through the life course, first affecting childhood outcomes which may carry through to adulthood. This indicates the stable effects of childhood polyvictimization. This would be exemplified by a child polyvictim becoming depressed after their experiences, and this effect remains stable through to adulthood.

The white arrow depicts the effects of cumulative continuity on adult outcomes. This cumulative effect will be measured as a direct effect of childhood polyvictimization on adult outcomes when controlling for childhood outcomes. If the effects of childhood polyvictimization are stable, experiencing an immediate effect which remains stable through the life course, the effects of the white arrow should be nonsignificant. However, if the effect becomes increasingly worse through the life course, this provides evidence for cumulative continuity.

Figure 1: Conceptual Model



Adolescence marks a key point in children's social development (Schneider, 2016). For this reason, I focus on adolescence as the time of victimization. Due to adolescence being a central but vulnerable point in development, it represents a time sensitive to perturbations. Thus, this trajectory-setting effect of polyvictimization may be particularly salient during this time period. It is predicted that negative experiences during this time period will have increasingly negative effects which compound and intensify through the life course.

#### **METHODS**

#### <u>A. Data</u>

This project utilized the National Longitudinal Study of Adolescent to Adult Health, "Add Health." Add Health is a school-based panel study, a stratified random sample of 80 U.S. high schools (grades 9-12) and their 52 respective feeder middle schools (grades 5-8). These ranges were selected in order to begin the study during adolescence, a key point in social development (Schneider, 2016). The data were collected via interviews with 20,745 school children as well as questionnaires from their parents, siblings, and school administrators. This project utilizes data from the first three waves of data, the first collected in 1994-1995, the second in 1995-1996, and third in 2001-2002 (Harris, Halpern, Whistel, Hussey, Tabor, Entzel & Udry, 2009). The STATA SE 14 statistical software was used for all analyses. This research was approved by the University of Massachusetts-Amherst Institutional Review Board.

This project measures childhood outcomes using the wave 2 in-home survey, collected when the children were in the 7<sup>th</sup> to 8<sup>th</sup> grade, before making the transition to high school. This decision was made in order to maintain a similar time period of initial victimization during a sensitive period of development. Early adult outcomes were measured in wave 3, after the typical age of graduation from secondary school, respondents ranging from 18 to 26 years old. During the gap in years, 5,549 respondents were lost due to attrition, resulting in an overall sample of 3,652. Multiple imputation was used to impute missing values, using covariates with no missingness to predict the missing values.

#### **B. Dependent Measure**

Depression was measured utilizing indicators from the Center for Epidemiologic Studies Depression Scale (CES-D), a rigorously tested and commonly used depression scale (Radloff, 1977). In both childhood and adulthood, respondents were asked to rate their related feelings or behaviors on a 4-point Likert scale with a 7 day recall period. Example items include "You were depressed"; "You felt that you could not shake off the blues, even with help from your family and your friends"; and "You felt that people disliked you" (for more items, see Raddloff, 1977). Available items were aggregated, according to the instructions laid out in its development paper. The childhood measure for depression utilized 19 items from the CES-D and had an alpha of .86, but in adulthood only nine of the items were collected, resulting in a scale with a lower alpha of .79 (items included in the childhood scale but unavailable for early adulthood are available upon request). As seen in Table 1, the mean value for childhood depression (14.63) was larger than in adulthood (1.42) due to the adult scale containing fewer items.

Criminal behavior was measured using a frequency scale of six self-report items at waves 2 and 3. The items used to construct these scales were: stealing something worth over \$50; stealing something worth under \$50; burglary; threatening another with a weapon; weapon-based assault; and selling drugs. Each was measured with a 12-month recall period. Each item was measured using a Likert scale to measure the frequency of each criminal action within the past 12 months: 0=none; 1=1-2 times; 2=3-4 times; and 3=5+ times. Criminal behavior scales were created for each wave by adding each of the items, possible values ranging from 0 (no criminal behavior) to 18 (each behavior 5+ times). There was a relatively low amount of criminal behavior to 18 behavior in this sample; 68.71% of the sample reported no criminal action in the year prior to

Wave 2 in childhood, and 82.01% reported no criminal behavior in the year prior to Wave 3 in early adulthood.

#### **<u>C. Independent Variables</u>**

In much of Finkelhor's work, polyvictimization has been split into six domains: physical, peer/sibling, witnessed/indirect, property, maltreatment, and sexual (Finkelhor, Omrod & Turner, 2007a). Due to the victimization indicators available, this project was not able to perfectly reconstruct the domains utilized by Finkelhor and colleagues. This project focuses on four of the six forms of victimization, with extra attention given to parental maltreatment. Victimization was measured in seven domains, using ten indicators. The domains included in this study are: weapon-based assault, assault, indirect, parental negligence, parental violence, parental sexual, and non-specific sexual. Each victimization was measured using a dummy indicating whether they were exposed to it within the past 2 years. The weapon-based assault victim was constructed using three indicators: "Someone shot or stabbed you" "Someone threatened to shoot you" and "Someone pulled a knife or gun on you." Assault was measured using the indicator "You were jumped or beaten up." Indirect victimization was measured as whether the respondent has seen someone shot or stabbed. Sexual victimization was measured as whether they had been physically forced in a physical, or non-physical way to have any type of sexual activity. Parental neglect was based on whether their "parents or other care-givers had not taken care of your basic needs, such as keeping you clean or providing food or clothing?" Parental violence was measured as whether their parents or other adult care-giver slapped, hit, or kicked them, and parental sexual was measured as whether their parents or care-giver "touched you in a sexual way, forced you to touch him or her in a sexual way, or forced you to have sexual relations." The assault, weapon-based assault, and indirect victimization indicators were constructed by

 Table 1: Univariate Descriptives

Variable	Mean	SD
INDEPENDENT VARIABLES		
Threatened or Assaulted with Weapon*	0.15	0.36
Assault*	0.11	0.31
Indirect Victimization*	0.11	0.32
Parental Negligence*	0.23	0.42
Parental Violence*	0.31	0.46
Parental Sexual*	0.05	0.21
Non-Specific Sexual*	0.03	0.18
CONTROLS		
Parental Closeness	8.11	1.99
Closeness to Friends	2.18	0.93
Self-Control	12.01	2.91
Perceived Attention from Parents	4.05	0.88
Childhood Self-Esteem	12.89	1.83
Adult Self-Esteem	8.48	1.20
Male*	0.47	0.50
Black*	0.23	0.42
Hispanic*	0.11	0.32
Asian*	0.06	0.23
Other Race*	0.10	0.30
Parents in Jail*	0.15	0.35
Parents Married*	0.65	0.48
Parent Graduated High School*	0.35	0.48
Parent Graduated College*	0.27	0.44
Parent Died During Childhood*	0.04	0.20
Parent Died in Adulthood*	0.06	0.23
DEPENDENT VARIABLES		
Childhood Depression	14.63	4.94
Childhood Criminal Behavior	1.42	2.12
Adult Depression	4.63	3.87
Adult Criminal Behavior	0.64	1.63

combining the variables in waves 1 and 2, indicating whether they were victimized in the year of each wave. The parental maltreatment items were measured as recall items in wave 3, and were coded to include victimization within the two years prior to wave 2.

Two forms of polyvictimization scales were utilized in this study. A solely frequency-

based scale is tested against two polyvictim scales constructed according to the results of a latent

class analysis (LCA). The goal of LCA is to identify unobserved subgroups, allowing us to identify types of polyvictims, and has been widely used in the study of polyvictimization (Adams, Moreland, Cohen, Lee, Hanson, Danielson, Self-Brown & Briggs, 2016; Turner, Shattuck, Finkelhor & Hamby, 2008). The predictive power of the unidimensional polyvictim scale and LCA polyvictim scales will be compared to a series of dummys for each victimization.

#### **D.** Controls

Self-reported closeness to parents and perceived attention from parents were each measured using a self-report scale ranging from 1 (not at all) to 5 (very much). Family structure was measured using a dummy variable indicating whether the respondent's parents were married. Whether a parent was ever in jail was controlled for because it has been linked to children's negative behavior (Simmons, 2000). Whether a parent of the child died in childhood or adulthood was also used as controls to further control for family background.

Outside the home, school is often the most important structure in a child's life. Respondent's closeness to those at school is a strong measure of their social support outside of the home. This was measured on a Likert scale by how much they agreed with the statement "You feel close to people at your school" ranging from 1 (strongly agree) to 5 (strongly disagree).

In order to control for the effects of demographic variables, a number of demographic controls were included in this project. Race was measured by a series of dummy variables indicating whether the identified themselves as Black, Hispanic, Asian, Latino, or other/multiple races; whites were the reference category. The population consisted of approximately 50 percent Whites, 25 percent Blacks, 10 percent Hispanics, 5 percent Asians, and 10 percent were

members of another race. Self-reported biological sex was used as a control, male respondents consisting of 42 percent of the population. Socioeconomic status was measured as the highest level of education among the child's parents, as reported by the parents, education in Wave 1. Two dummy variables measured parental education: whether their parents graduated high school and whether their parents graduated college. The final measure of SES was the respondent's own level of education in early adulthood, with a mean value of 12 years, indicating most of the respondents completed high school. See Table 1 for more details on the control variables.

#### **E. Statistical Analyses**

Latent Class Analysis was used to identify clusters of victimization. The results of the latent class analysis was used to construct scales which will be used in a series of seemingly unrelated regressions. First, these classes will be run in models parallel with individual victimizations and the frequency-based polyvictimization scales to test their predictive power according to the Bayesian and Akaike information criteria.

Using the superior measure of polyvictimization, the next set of models will examine the direct and indirect effects (see Figure 1) of polyvictimization on depression and criminal behavior. This will be measured with a series of seemingly unrelated regressions with fixed effects. This is used because previous research indicates internalization and externalization may be related (Zellner, 1967). Seemingly unrelated regression (SUR) allows for the simultaneous estimation of each of the dependent variables while correlating the error term. The Breusch-Pagan tests this correlation to determine whether the SUR is an appropriate method, and test the correlation of the residuals. Possible school-level confounders will be controlled using fixed effects. All regressions were run using the sample weights provided by Addhealth for analyses containing data from both waves 2 and 3.

The first model will test the predictive power of polyvictimization on childhood depression and delinquency. This will be used to test the indirect effect of childhood polyvictimization on adult outcomes via the outcomes seen in childhood. To test the influence of cumulative continuity, models predicting adult outcomes will include controls for childhood outcomes.

#### RESULTS

#### Latent Class Analysis

Latent class analysis (LCA) was used to identify types of polyvictims according to cooccurring victimizations. Tests were run with 500 combinations of starting values to identify the ideal number of classes. Results suggest the three-class model is the best fitting indicated by both the Bayesian Information Criteria (BIC) and Akaike Information Criteria (AIC). The three-class model sorted individuals into one no/low victimization class, a polyvictim of violence outside the home and polyvictim of parental abuse. The predictive power of these latent classes were tested against a frequency-based scale and a set of dummy victimization variables. However, the latent class models performed poorly, its BIC was larger than the unidimensional frequency scale for all outcomes except childhood delinquency. However, this may be due to the lack of sensitivity in the victimization items. To account for this lack of sensitivity, two count variables were constructed which reflected the two-class structure revealed by the LCA. These two scales measured the frequency of parental abuses, and violent victimizations outside the home. Compared to the frequency-based scale, the constructed scales had a lower BIC than each of the other models for all outcomes save adult depression, where the frequency-based polyvictimization scale had a lower BIC. Additionally, the AIC prefers the constructed scales over the frequency-based scale for three of the four outcomes (available upon request). Overall, these data suggest the best fitting scale consists of the combination of the sensitivity of a frequency-based scale, and specificity of a category-based scale informed by the LCA.

#### **Childhood Outcomes**

A series of seemingly unrelated regressions (SURs) were used to test the life course effects of polyvictimization. As the constructed scales were the superior scales, these were used in predicting the life course effects of polyvictimization on the life course. SURs were run separately to observe the effect of polyvictimization on depression in childhood and adulthood, and criminal behavior in childhood and adulthood. The significant Breusch-Pagan test supports the use of the SUR approach in both childhood and adulthood. The significance of the Breush-Pagan test suggests the outcomes of depression and delinquency are not unrelated.

While both violent victimization (0.36; p<0.01) and parental victimization (0.79; p<0.000) were associated with greater levels of depression, only violent victimization was associated with delinquency in childhood (1.25; p<0.001). Notably, while victims of parental abuse are more likely to be depressed than their peers with violent victimizations, parental abuse does not predict delinquency in childhood. This suggests the effects vary according to the types of victimizations experienced.

Family factors were also predictive of childhood outcomes. Closeness to parents reduced children's risk of delinquency (-0.06; p<0.01) and depression (-0.22; p<0.001). Similar patterns were present regarding perceived attention from parents, reducing children's propensity to engage in delinquency (-0.20; p<0.000) and depression (-0.73; p<0.000). A child having a parent in jail or prison also made them more likely to engage in delinquency (0.33; p<0.01). Interestingly, children with married parents were more likely to be delinquent (0.23; p<0.05) and depressed (0.87; p<0.000). Females were more likely to be depressed than males (2.16; p<0.000), while Hispanic (-0.97; p<0.01) and members of "other" racial groups (-1.05; p<0.05) were less likely to be depressed than their peers.

Variables	Childhood (N=3,652)		Adulthood (N=3,652)	
	Delinquency	Depression	Crime	Depression
Violent Victimization	1.25***	0.36**	0.04	0.67***
Parental Victimization	-0.03	0.79***	0.09**	0.68***
Closeness to Parents	-0.06**	-0.22***	-0.12***	-0.11**
Closeness to Friends	-0.03	-0.22*	0.04	0.07
Attention from Parents	-0.20***	-0.73***	0.09*	-0.44***
Male	0.02	-2.16***	0.97***	-1.46***
Black	-0.19	0.33	0.16	0.52*
Hispanic	-0.18	-0.97**	-0.28	-0.14
Asian	0.23	-1.05*	-0.32*	0.42
Other	0.54***	-0.42	-0.19	-0.02
Age	-0.10*	0.43***	-0.21***	-0.22
Parent in Jail	0.33**	-0.44	0.16	-0.59**
Married Parents	0.23**	0.87***	0.62***	-0.09
Parents Graduated High School	-0.18	-0.14	-0.17**	-0.28*
Parents College Educated	-0.17*	-0.39	0.07	-0.50**
Parental Death in Childhood	-0.01	-0.14	-1.09***	0.2
Parental Death in Adulthood			1.05***	-1.16*
Educational Attainment			0.02	-0.14**
Childhood Depression			0.03**	0.07**
Childhood Delinquency			0.05***	0.10**
Intercept	3.10***	15.21***	2.12*	11.84***
BIC	36517.349		3334	49.922
AIC	35438.021		32214.767	
Correlation of Residuals	34.430***		9.452**	

Table 2: Predictors of Depression and Delinquency Across the Life Course

\*\*\*<.05; \*\*<.01; \*\*\*<.001

#### **Early Adult Outcomes**

Prior to controlling for childhood outcomes, both parental abuse and violent victimization were associated with criminal behavior and depression. Notably, the effects for violent victimization and parental are identical for criminal behavior (0.12; p<0.01 and 0.12; p<0.000 respectively; not shown). However, this changes when controlling for childhood outcomes. When doing so, the effect of violent victimization on criminal behavior becomes nonsignificant (0.04; p>0.05), but the effect of parental victimizations remains significant (0.09; p<0.01). When predicting depression controlling for childhood outcomes, both forms of

victimization are significant (0.67; p<0.001 and 0.68; p<0.001 respectively). This provides evidence for cumulative continuity for parental abuses, but not victimizations outside the home.

As expected, each childhood outcome predicted early adult outcomes. Both childhood delinquency (0.05; p<0.01) and childhood depression (0.07; p<0.01) predicted their respective early adult outcomes. Childhood depression also predicted adult crime (0.03; p<0.001), and childhood delinquency predicted adult depression (0.10; p<0.01).

Parental closeness has a protective effect for both crime (-0.12; p<0.001) and depression (-0.11; p<0.01), while parental attention has mixed effects, increasing crime (0.09; p<0.05) but reducing depression (-0.44; p<0.01). Males were more likely to engage in crime (0.97; p<0.001) but less likely to be depressed than females (1.46; p<0.001). Likewise, black respondents were more likely to be depressed (0.52; p<0.05), education was associated with reduced levels of depression (-0.14; p<0.01), and older respondents were less likely to engage in criminal behavior (-0.21; p<0.000).

Similar to the childhood outcomes, the Breush-Pagan test of independence suggested these two outcomes do not reflect an underlying construct, but with less confidence in adulthood (9.452; p<0.01) than in childhood (34.430; p<0.000). This suggests depression and delinquency are more closely linked in childhood than in adulthood.

Figure 2 below depicts the path model, and the standardized coefficients allow for the comparing of effect sizes across victimizations and outcomes. Note the indirect effects (italicized) are larger for parental abuse than victimizations outside the home, suggesting a stronger cumulative effect of parental abuses. Note also that childhood depression had a stronger

outcome for both early adult outcomes than childhood delinquency. Results also suggest depression and delinquency are more strongly correlated in childhood than adulthood.

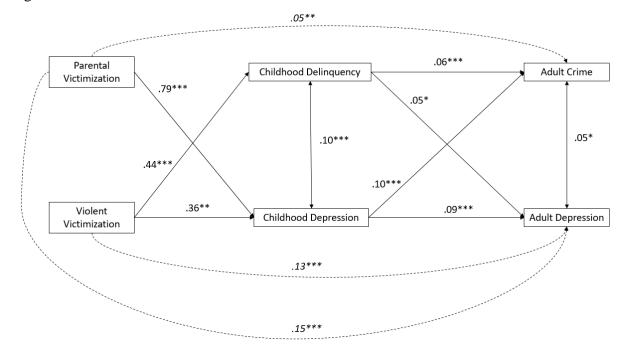


Figure 2: Path Model

Notably, these results vary significantly from those seen if regressions were run with only a single victimization. For example, each individual item from the violent victimizations has a smaller effect size than the constructed scale, suggesting a unique effect of polyvictimization. Post-hoc analyses (not shown) suggest there is a positive nonlinear effect of sequential polyvictimization, indicating sequential negative exposures have increasingly negative effects.

#### DISCUSSION

These findings suggest some outcomes of polyvictimization may go unnoticed in childhood, and strongly manifest in adulthood. This finding is important because it means many of the individuals who most need treatment are likely to go unnoticed. Compared to those victimized outside the home, parental abuse victims are less likely to engage in childhood delinquency, but more likely to commit crimes as adults. Because they are not participating in delinquent behavior as children, they may be less likely to receive the same attention as those victimized outside the home, suggesting interventions may be targeting the wrong individuals.

Consistent with the hypotheses, findings suggest there is evidence for the process of cumulative continuity among childhood polyvictims, particularly when examining mental health. Whether the child was a polyvictim of parental abuse or victimizations outside the home, victimization sets children on a path of increasing depression. This is important because it suggests ongoing interventions may be needed for child polyvictims. In addition to dealing with the acute stress from the experience, continued counseling may help break the negative patterns associated with childhood polyvictimization.

Utilizing the concept of polyvictimization, this project not only controlled for confounding victimizations, but examined the possible impact of multiple victimizations. The LCA separated individuals into two distinct polyvictim classes, each with varying short and long-term outcomes. The nonlinear effect of multiple victimizations suggests a unique impact of the intersection of victimizations, one which grows increasingly worse with additional victimizations.

#### **Limitations**

The sparse data on repeat victimization may affect the size of some of these estimates. Victims tend to be victimized multiple times (Finkelhor, Omrod & Turner, 2007b), but these data did not allow for this approach to be used. However, the purpose of this paper was to focus on the possibility of cumulative continuity among polyvictims, not necessarily repeat victims.

Readers should be aware of three limitations of this study. First, the victimizations and childhood outcomes were measured during the same wave. While this cross-sectional approach is common, it should raise caution regarding temporal ordering. Second, the AddHealth data does not have the same richness of victimization data compared to some of the previous work. This paper did not include all the domains common to much of the polyvictimization literature. Finally, the items surrounding sexual victimization were measured as recall items in wave 3, posing a possible recall bias. While these limitations should be considered, nonetheless, this paper provides evidence for the existence of cumulative continuity among victims of polyvictimization.

#### CONCLUSION

In the well-cited treatise on polyvictimization, Finkelhor, Omrod, and Turner (2007a) asserted we must move away from the event-centric view of victimization and see them as cooccurring conditions. We must continue to move away from event-centrism to view victimizations as embedded in one's life course, and view not only the initial impact, but the cascading impacts of these experiences and their cumulative effects. This project suggests the effects of childhood polyvictimization grows increasingly worse through the life course. Not only should interventions seek to treat the immediate effects of polyvictimization, but ongoing treatment may be necessary to address long-term negative trajectories associated with childhood polyvictimization.

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