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How Childhood Maltreatment Profiles of Male Victims Predict Adult Perpetration and Psychosocial Functioning

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Abstract

This study used latent class analysis to empirically identify subgroups of men based on their exposure to childhood maltreatment (i.e., emotional neglect and abuse, physical neglect and abuse, and sexual abuse). It then examined subgroups' differential perpetration of adult intimate partner violence (both psychological and physical), violence against peers, and sexual assault. Finally, we compared socio-demographic variables and psychosocial functioning across profiles to characterize the adult experiences of men in different maltreatment groups. The community sample consisted of 626 heterosexually active 21–30 year old men. We identified four subgroups: Low Maltreatment (80% of the sample), Emotional and Physical Maltreatment (12%), Emotional and Sexual Maltreatment (4%), and Poly-victimized (4%). The Low Maltreatment group had significantly lower IPV perpetration rates than the Emotional and Physical Maltreatment group, but groups did not significantly differ on peer violence or sexual assault perpetration rates. Overall, Poly-victimized men were significantly worse off than the Low Maltreatment group regarding income, education level, and incarceration history. Their rates of recent anxiety and depression symptoms were also higher than those of Low Maltreatment men. Findings support the use of person-oriented techniques for deriving patterns of childhood maltreatment and how these patterns relate to psychological, behavioral, and social factors in adulthood.

Keywords

childhood maltreatment; intimate partner violence; sexual assault; person-oriented methods

Abuse and neglect during childhood are consistently documented risk factors for subsequent violence perpetration. Further, specific subtypes and combinations of childhood maltreatment are related to risk for involvement in particular kinds of violence in adolescence and adulthood, as well as to intermediary mechanisms (see for review, Gilbert et al., 2009). Given that refining our understanding of the links between childhood maltreatment and adult perpetration is critical to prevention and early intervention programming, parsing out the unique contributions of specific subtypes of child maltreatment remains an important task. To this end, scholars increasingly suggest the utility of taking a person-centered approach to understanding distinct patterns of child

maltreatment (e.g., Roesch, Villodas, & Villodas, 2010), which allows for examination of how unique profiles may be differentially related to long-term outcomes. Doing so may be particularly important for intervening with boys and men who have experienced childhood maltreatment. Men comprise the majority of perpetrators of sexual violence and of intimate partner violence (IPV) that results in serious impact or injury (Black et al., 2011), as well as of violent crime committed outside of intimate relationships (Federal Bureau of Investigation, 2013). This study therefore uses a person-centered approach with a community sample of men to examine ways in which distinct patterns of victimization experiences in childhood are associated with intimate partner, sexual, and peer violence in adolescence and adulthood as well as other adulthood psychosocial variables.

Typological Approaches to Characterizing Childhood Maltreatment

Childhood experiences of maltreatment rarely consist of a single type of victimization. In a nationally representative sample of youth, for example, two-thirds of those reporting childhood abuse or neglect indicated that they experienced more than one type of maltreatment (Finkelhor, Turner, Hamby, & Ormrod, 2011). Additionally, exposure to multiple and overlapping forms of abuse (poly-victimization) is associated with differential long-term impacts compared to non-exposure or experiences of single forms of maltreatment; youth who have experienced poly-victimization tend to have both different and more extreme difficulties related to mental health and functioning (Finkelhor et al., 2011; Gilbert et al., 2009). Yet, child maltreatment scholars have noted that the majority of studies regarding psychological and behavioral sequelae of childhood maltreatment examines the effects of particular types of child abuse in isolation (e.g., Saunders, 2003) or the effects of a composite measure of maltreatment that amalgamates (and thus does not distinguish between) subtypes of abuse or neglect. This has led to recent calls to study ways in which different forms of child abuse co-occur and interact and how exposure to different childhood victimization constellations compound risk for later negative outcomes (Finkelhor et al., 2011; Lau et al., 2005; Saunders, 2003).

Person-centered approaches may be uniquely able to detect maltreatment co-occurrence patterns and the accompanying differential long-term sequelae (Roesch et al., 2010; Scott-Storey, 2011). Such approaches identify sub-groups of individuals based on shared profiles across a range of relevant variables and thus can detect and characterize heterogeneous patterns within a population. For example, in a study of CPS-involved youth, Lau and colleagues (2005) found that grouping youth based on a conceptual typology of combinations of maltreatment subtypes (e.g., physical abuse only vs. combined physical abuse and neglect) offered the “greatest predictive validity” for understanding young people’s long-term abuse sequelae (p. 534).

A few studies have since taken this approach. Pears and colleagues (2008) conducted a latent profile analysis with preschool children involved in the child welfare system and found four distinct patterns of abuse: co-occurring neglect and emotional maltreatment, co-occurring sexual abuse and emotional maltreatment, co-occurring physical abuse and emotional maltreatment, and a group who had experienced all forms of abuse and neglect. These findings were similar to a latent class analysis of data from Danish young adults reporting

retrospectively about childhood trauma (Armour, Elklit, & Christoffersen, 2014). Finally, using self-report data on physical and sexual abuse from the Longscan study of youth, Noonan and colleagues (2010) also detected four distinct maltreatment profiles via latent class analysis: non-abused, physically abused only, sexually abused only, and combined physical and sexual abuse.

Across these studies, specific maltreatment profiles were associated with unique correlates and outcomes. It may be that specific combinations of types of abuse and neglect are associated with unique risk factors and subsequent risk trajectories – factors that are important to understand both for intervening with traumatized youth and for preventing subsequent perpetration. To date, however, most of the child maltreatment literature takes a variable-centered approach to understanding general relationships between adult perpetration and child maltreatment, which may elide ways that subtypes of childhood maltreatment create differential risk depending on what other forms of maltreatment co-occur. Further, those aforementioned studies that use typological approaches to characterizing childhood maltreatment have not included examination of adolescent or adult violence perpetration as subsequent outcomes.

Child Maltreatment and Subsequent Violence Perpetration in Adulthood and Adolescence

The link between experiencing childhood abuse and elevated risk for perpetrating violence in adolescence and adulthood has long been documented. Although most child victims of maltreatment do not employ violence in their adult relationships, rates of subsequent perpetration are higher for those who have survived or witnessed maltreatment (Milaniak & Widom, 2014; Stith et al., 2000). This violence risk includes sexual assault perpetration (Tharp et al., 2013; White & Smith, 2004), intimate partner and teen dating violence perpetration (Ehrensaft et al., 2003; Miller et al., 2011; Whitfield, Anda, Dube, & Felitti, 2003), and physical aggression and violent crime (Lansford et al., 2007; Maxfield & Widom, 1996).

Many studies examining links between child maltreatment and subsequent violence perpetration use composite measures of child abuse that amalgamate different kinds of maltreatment into a single predictor linked to IPV (e.g., Gómez, 2011) or sexual assault perpetration (e.g., Thompson, Koss, Kingree, Goree, & Rice, 2011). Other research, however, suggests that unique subtypes of maltreatment are differentially related to specific kinds of later perpetration. For example, experiencing physical abuse increases risk of adult IPV perpetration (Whitfield et al., 2003) and sexual aggression in adolescence (White & Smith, 2004) among men. In a review, Maas and colleagues (2008) conclude that physical abuse is the strongest predictor of youth violence. Sexual victimization in childhood has been chiefly linked to sexually aggressive intentions and behavior among young men – either as the primary childhood predictor (Casey, Beadnell, & Lindhorst, 2009; Davis et al., 2012) or as a unique predictor of sexual aggression alongside physical abuse (White & Smith, 2004). Somewhat in contrast to this pattern, Fang and Corso (2007) documented a direct relationship between childhood sexual abuse and perpetrating adulthood IPV in a

nationally representative sample of young men as well as a simultaneous indirect effect of childhood physical abuse and neglect on IPV perpetration through involvement in adolescent violent behavior. Finally, although neglect and psychological abuse are similarly linked to multiple forms of subsequent aggression (e.g., Milaniak & Widom, 2014), their impact on later perpetration, either alone or in combination with sexual and physical abuse, is understudied.

Collectively, these findings suggest that relationships between early maltreatment experiences and subsequent perpetration are nuanced and that understanding of them is still emerging. A potentially helpful step in clarifying these complex relationships and their possible mediating trajectories may be to examine how common maltreatment patterns (inclusive of physical, sexual, and psychological abuse and neglect) relate to distinct forms of adolescent and adulthood violence perpetration. Doing so could create a better understanding of which types and combinations of maltreatment most contribute to specific forms of subsequent aggression.

Childhood Maltreatment, Psychosocial Functioning, and Social Location

A vast literature documents the long term mental health challenges that survivors of childhood maltreatment experience, and increasing literature examines some mediating mechanisms between child abuse and neglect and subsequent violence perpetration. For example, childhood psychological and physical abuse have each been linked to subsequent depression among men (Arata, Langhinrichsen-Rohling, Bowers, & O'Brien, 2007; Hooven, Nurius, Logan-Greene, & Thompson, 2012) while anxiety and PTSD are associated with childhood psychological and sexual abuse (Allen, 2008; Molnar, Buka, & Kessler, 2001). It remains unclear if specific combinations of maltreatment are particularly related to risk for some of these outcomes. Across studies, however, research consistently demonstrates that poly-victimization, or experiencing several subtypes of abuse, substantially exacerbates risk of adolescent and adult psychosocial difficulties including mental health issues and aggressive behavior (Arata et al., 2007; Finkelhor et al., 2011; Hooven et al., 2012). Finally, childhood maltreatment affects long-term social functioning such as young people's likelihood of dropping out of high school and risk for exposure to the criminal justice system (Lansford et al., 2007).

Because the primary focus of this paper is to examine the utility of a person-centered approach to characterizing childhood maltreatment and its relationship to subsequent violence perpetration, fully summarizing the considerable knowledge base regarding child abuse sequelae is not possible here. It is important, however, to put childhood maltreatment patterns in the context of information about longer-term socioeconomic resources and psychosocial functioning as a way of gaining a holistic understanding of the experiences and constraints with which adult survivors of child abuse contend. These factors may help to surface potential experiences that exacerbate or buffer risk for violence, which hold important implications for primary prevention and intervention.

Summary and Aims

Although significant evidence links childhood abuse and neglect experiences to violence perpetration in adolescent and adulthood, there has been limited examination of how distinct profiles of maltreatment specifically relate to different forms of violence perpetration. Many examinations of the maltreatment-to-perpetration link look at single forms of adulthood aggression, such as sexual violence or IPV only, and few place long-term violence outcomes in the context of other domains of psychosocial functioning. This paper contributes to addressing these issues by using a person-centered approach (latent class analysis) to identify relationships between patterns of childhood maltreatment and subsequent violence perpetration in a community-based sample of young men. In contrast to a variable-centered approach which looks at general, linear relationships between variables such as child physical maltreatment and adulthood violence perpetration across an entire sample, person-centered analytical approaches identify subgroups of individuals within a sample who share a similar profile across several variables considered simultaneously. Person-centered approaches therefore have the ability to detect heterogeneity in populations previously treated as homogenous, and to surface subgroups with clinically meaningful and unique profiles that can then be compared across theoretically-relevant outcome variables.

Specifically, this paper had three objectives. First, we sought to determine whether unique, conceptually meaningful patterns of childhood maltreatment could be identified among the men in the sample. Second, we tested differences in rates of subsequent adolescent or adult violence perpetration between the identified childhood maltreatment profiles. With respect to these first two aims, we expected to identify childhood maltreatment profiles inclusive of non-abused and poly-victimized groups of men, as well as profiles characterized primarily by physical, sexual or emotional abuse. Further, we expected that men with maltreatment profiles characterized by sexual abuse would report higher rates of subsequent sexual assault perpetration; that men with maltreatment profiles typified more by emotional or physical abuse would report higher rates of IPV perpetration than other groups; and lastly that poly-victimized men would report the highest rates of all forms of adult violence perpetration. Finally, our third objective was exploratory in nature. We compared indicators of socioeconomic status and psychosocial functioning across maltreatment profiles in an effort to better contextualize the social position and adult experiences of men in different maltreatment groups. While the exploratory nature of this aim and the cross-sectional nature of the data do not support definitive hypotheses across all potential child maltreatment profiles, in line with research summarized above, we expected that men with poly-victimization profiles would report the lowest levels of psychosocial functioning and economic resources.

Method

Study Design

The larger study from which these data derive was conducted in three phases: a background survey, an experiment involving alcohol administration, and a follow-up survey. Only data from the background survey are analyzed here.

Participants

Participants were recruited from an urban community using online and print advertisements placed in locations and media outlets targeted to young audiences. The advertisement solicited single male drinkers aged 21–30 to participate in a research study on male-female social interactions. Men were eligible if they reported being 21–30 years old, non-problem drinkers, interested in sexual activity with women, and having had vaginal or anal intercourse without a condom at least once in the past year. Due to the requirements of the larger study's alcohol administration protocol, callers were excluded on the basis of medical conditions or prescription medications that contraindicated alcohol use; and/or a history of negative reactions to alcohol or problem drinking.

Six hundred and twenty-six men (M age = 24.6, SD = 2.7) participated. The majority (66.0%) identified as White, 12.5% as Multiracial, 8.5% as Black/ African American, 6.4% as Asian American, less than 1% each as Native American/ Alaska Native or Hawaiian/ Pacific Islander, and 5.3% as "other." Additionally, 9% reported Latino/ Hispanic ethnicity.

Procedures

Interested callers were screened for eligibility and scheduled for one lab session. Upon arrival, participants provided informed consent and completed survey measures privately on a computer using data collection software (Datstat Illume, version 4.7). Participants were compensated \$15 per hour. All procedures and measures were approved by the university's Human Subjects Division.

Measures

Childhood maltreatment—Childhood maltreatment was assessed with the 5 subscales of the Childhood Trauma Questionnaire (Bernstein et al., 2003), each with five items scored from 1 (*never true*) to 5 (*very often true*) with the stem "When I was growing up..." The emotional abuse subscale (α = .84 in this sample) included items like "...people in my family said hurtful or insulting things to me," while the physical abuse subscale (α = .79 in this sample) included statements like, "people in my family hit me so hard that it left me with bruises or marks." Items from the sexual abuse subscale (α = .94 in this sample) included "...someone tried to touch me in a sexual way, or tried to make me touch them." Finally, the emotional neglect subscale (α = .87 in this sample) included items like "...people in my family looked out for each other (reverse scored)," and the physical neglect subscale (α = .75 in this sample) included items like "...my parents were too drunk or high to take care of the family."

Intimate Partner and Peer Violence—We measured both physical and psychological aspects of relationship violence perpetration (Swahn, Simon, Arias, & Bossarte, 2008). The scale asks about 9 acts of physical violence, including "hit or slapped" and "hurt badly enough to need bandages or care from a doctor or nurse." The 8 psychological violence items include "would not let them do things with other people" and "threatened to hit or throw something at them." To assess IPV, participants were asked whether they had done any of these things to someone they had ever had a date with. To assess peer violence, they were asked about physical violence toward anyone they did not date (e.g., stranger, friend,

other person). Participants were asked how often they perpetrated the specified acts in the past year [*once, twice, 3–5 times, 6–10 times, 11–20 times, 20 or more times, not in the past year but it did happen before (1–5 times), and not in the past year but it did happen before (more than 5 times)*], excluding instances of self-defense or play. We recoded these response categories at their midpoints (i.e., once = 1, twice = 2, 3–5 times = 4, 6–10 times = 8, etc.) before summing over physical IPV, psychological IPV, or peer violence items (Straus, Hamby, & Warren, 2003).

Sexual Aggression Perpetration—We used Abbey, Parkhill, and Koss's (2005) modified version of the Sexual Experiences Survey (SES) to assess sexual assault perpetration against female victims since the age of 14. This survey assesses four outcomes (i.e., unwanted sexual contact, attempted intercourse, completed intercourse, and other penetrative or oral sex) and three tactics (i.e., verbal coercion, taking advantage of her when she is passed out or too intoxicated to consent, and using or threatening to use physical force). Participants indicate the number of times they have done each combination of outcome and tactic on a 0 (*never*) to 5 (*5 or more times*) scale. We scored the SES with a method that accounts for both frequency and severity of perpetration (Davis et al., 2014), capping frequency at three. The severity rank of each outcome is multiplied by the number of times the participant reports perpetrating it, then summed for an overall score.

Current social position and psychosocial functioning—We assessed socio-demographic variables (i.e., age, race, ethnicity, income, education level, and incarceration history) and recent psychological distress symptoms. Anxiety was assessed using the Overall Anxiety Severity and Impairment Scale (OASIS) (Norman, Hami Cissell, Means-Christensen, & Stein, 2006). The OASIS ($\alpha = .86$ in this sample) uses 5 items to evaluate the frequency, intensity, and behavioral impact of anxiety in the past two weeks. For example, the last item asks, “How much has anxiety interfered with your social life and relationships?” with responses escalating from *none*, to *mild*, then *moderate*, *severe*, and *extreme*. Depression was measured using the 8-item Patient Health Questionnaire depression scale (PHQ-8; $\alpha = .88$ in this sample), which asks how often the respondent experienced depression symptoms in the past 2 weeks (Kroenke et al., 2009). Each symptom is evaluated on a scale of 0 (*not at all*) to 3 (*nearly every day*). Examples are “Little interest or pleasure in doing things” and “Poor appetite or overeating.”

Analytic Approach

Latent class analysis (LCA) is a mixture modeling approach that identifies relatively homogeneous subgroups of individuals within a larger, heterogeneous sample. Each “class” has a unique profile based on responses to a set of indicator variables. We used LCA to identify classes based on experiencing different types of childhood maltreatment employing Mplus 7.2 software. Missing data was uncommon and was missing at random (MAR). Under this condition, unbiased LCA models can be estimated using full information maximum likelihood (FIML), standard with Mplus (Asparouhov, 2013). We estimated models iteratively, each specifying an increased number of classes. We then compared models to identify the best solution using as criteria classification quality (entropy),

likelihood ratio tests, Bayesian and Akaike Information Criteria values (BIC and AIC), and classes' interpretability and theoretical meaningfulness (Muthén & Muthén, 2000).

Following the LCA, we tested latent class groups for differences in rates of adult perpetration of physical and psychological IPV, peer violence, and sexual assault, using the generalized linear model (GzLM) function of SPSS 18.0. GzLM is a flexible generalization of the general linear model that can accommodate dependent variables with varying distributional properties. Since adult perpetration constructs were all count variables, we employed negative binomial analysis. When the omnibus test was significant, we examined pairwise contrasts between groups' estimated marginal means. To correct for multiple comparisons, we used the sequential Sidak method for each set of these pairwise tests.

Finally, to examine each latent class group's current psychosocial position and functioning, as well as any differences between them, we again used GzLM to test for class differences. Here we used negative binomial analysis for count variables, multinomial logistic regression for categorical variables, logit for dichotomous variables, and linear analysis (similar to traditional analysis of variance) for age. When omnibus tests were significant, we examined regression parameter estimates to determine which pairwise differences were significant, reparameterizing as needed to compare each maltreatment class group to all others.

Results

Latent Class Analyses

Fit indices for the two, three, four, five, and six class LCA models are provided in Table 1. We selected the 4-class model as the best solution because it had substantially smaller BIC and AIC values than the three-class solution, strong classification probabilities, and conceptually clear group characteristics. It also had a statistically significant Lo-Mendell-Rubin (LMR) adjusted likelihood ratio test that became nonsignificant with the five-class model (indicating worse fit compared to the four-class model). Although several fit indicators for the 5-class model showed an improvement over the 4-class solution, it contained a small fifth group that was not conceptually distinct from the Low Maltreatment group described below and whose size circumscribed the interpretability of additional analyses.

Childhood Maltreatment Groups

Scores on child maltreatment indicators for the four latent class groups are displayed in Table 2. The largest group, Low Maltreatment (80% of the sample) consisted of men reporting little to no maltreatment across all CTQ items, with mean scores on all indicators falling both below the overall sample means and between the *never* and *rarely* response options.

The remaining three groups reported unique combinations of specific subtypes of childhood maltreatment. The Emotional and Physical Maltreatment group (12% of the sample) reported more frequent physical abuse and neglect than either the Low Maltreatment or Emotional and Sexual Maltreatment groups, but virtually no sexual abuse. Additionally, the mean frequency of emotional and physical neglect reported by the Emotional and Physical

Maltreatment group was higher than in all other groups; the mean frequency of emotional neglect for this group fell between *sometimes* and *often* on the CTQ response scale.

The Emotional and Sexual Maltreatment group (4% of the sample) was characterized by more frequent childhood emotional abuse and neglect than the Low Maltreatment group and by the second highest rate of child sexual abuse. Mean scores on emotional abuse and neglect and sexual abuse indicators fell between *rarely* and *sometimes*. Although the Emotional and Sexual Maltreatment group reported slightly higher mean rates of physical neglect and abuse than the Low Maltreatment group, these rates still fell between *never* and *rarely*.

The final Poly-victimized group's (4% of the sample) response pattern was characterized by co-occurring emotional, physical, and sexual maltreatment. The Poly-victimized group reported higher rates of emotional, physical, and sexual abuse than all other groups, and rates of emotional and physical neglect were exceeded only by the Emotional and Physical Maltreatment group. Rates of sexual abuse reported by men in this group fell between *often* and *very often*.

Childhood Maltreatment Profiles' Associations with Adult Violence Perpetration

We tested whether these childhood maltreatment profiles had differential associations with adult perpetration of psychological and physical IPV, peer violence, and sexual assault (see Table 3). Men in the Emotional and Physical Maltreatment subgroup had the highest rate of physical IPV perpetration, but this rate differed significantly only from that of the Low Maltreatment group, which had the lowest rate. We observed the identical pattern regarding psychological IPV. Although men in the Low Maltreatment subgroup had lower mean rates of peer violence and sexual assault than those of men in the victimized groups, none of these pairwise differences were statistically significant.

Childhood Maltreatment Profiles and Current Status and Functioning

We also explored differences among subgroups on indices of social position and current psychosocial functioning (see Table 4). Regarding racial composition, the Low Maltreatment group included a lower proportion of nonwhite men than any other group, though this proportion was significantly different only from that of the Poly-victimized group. The Low Maltreatment group's income distribution was significantly different from those of both the Emotional and Sexual Maltreatment and Poly-victimized groups. Most dramatically, 48% of men in the Poly-victimized subgroup had incomes under \$10,999 per year, as compared to only 27% of the Low Maltreatment group. The education level distribution was similarly more favorable in the Low Maltreatment men than in any other group. The Low Maltreatment group included 38% college graduates, whereas the Emotional and Sexual Maltreatment group's proportion was 8%, and the Poly-victimized group's was half that (4%). Finally, incarceration history also varied significantly with the Low Maltreatment group's distribution differing from those of the others. The proportion never jailed was 68% in Low Maltreatment men, decreasing to 57% for Emotional and Physical Maltreatment men, and to 44% for Emotional and Sexual Maltreatment men. Less than half (39%) of

Poly-victimized men had never been incarcerated, and 13% had been jailed for over one year.

The Poly-victimized group experienced significantly higher mean rates of both anxiety and depression symptoms than the Low Maltreatment group, approximately twice as high in both cases. The Low Maltreatment group's mean rate of depression symptoms was also significantly lower than that of the Emotional and Physical Maltreatment group.

Discussion

This study is one of the first examinations of links between childhood maltreatment and adult perpetration that uses person-centered analytic methods. It extends previous examinations of these linkages by including several forms of adult perpetration rather than just one. This study also contextualized perpetration findings by exploring how childhood maltreatment profiles differed across current psychosocial functioning and socio-demographic variables.

One aim of this study was to assess whether conceptually meaningful patterns of childhood maltreatment could be detected in this sample of young, male, non-problem drinkers. Latent class analyses demonstrated the viability of this approach, resulting in four distinct childhood maltreatment groups: Low Maltreatment, Emotional and Physical Maltreatment, Emotional and Sexual Maltreatment, and Poly-victimization. As expected, the largest group consisted of men with little to no childhood maltreatment background, while the smallest group involved poly-victimized men who had the highest rates of almost all forms of maltreatment. Both other groups experienced rates of emotional abuse and neglect that were higher than the full sample; however, the Emotional and Physical Maltreatment group experienced higher rates of physical abuse and neglect and lower rates of sexual abuse, while the Emotional and Sexual Maltreatment group demonstrated the opposite pattern. Interestingly, our LCA results revealed similar maltreatment classes to those found by Pear and colleagues (2008), despite the differences in the samples (maltreated foster boys and girls vs. young adult community men). The similarities in these patterns and their associated differences across some subsequent perpetration, psychosocial functioning, and social location variables suggest that these profiles may capture conceptually meaningful patterns of childhood maltreatment that span both community and clinical samples of varied ages. Future research should continue to explore the consistency of these patterns across diverse samples, as well as their ability to predict relevant outcomes.

Our hypothesis that specific maltreatment profiles would be associated with greater rates of subsequent perpetration of a similar nature was only partially supported. For instance, we found that men in the Emotional and Physical Maltreatment profile did indeed report higher rates of both psychological and physical IPV than men in the Low Maltreatment profile. These findings support previous research (e.g., Milaniak & Widom, 2014; Whitfield et al., 2003) that a childhood history of emotional and physical maltreatment is associated with higher incidence of adulthood IPV perpetration. This study did not assess potential underlying mechanisms of this association; however, others have theorized that men who experience childhood maltreatment are more likely to perpetrate similar abuses as adults,

enacting a “cycle of violence” learned through modeling and observational learning (Bandura, 1973; Milaniak & Widom, 2014). Findings suggest that trauma-informed, early intervention with maltreated youth, particularly those who have experienced physical and emotional violence, should include attention to the development of relationship and conflict negotiation skills as a selected-level prevention strategy to reduce IPV.

We also found an overall effect of maltreatment profile for peer violence. Although the follow-up tests were not significant, an examination of means suggests that men with a history of childhood maltreatment were more likely to engage in peer violence than were men without a maltreatment history. Low membership in the Emotional and Sexual Maltreatment and Poly-Victimization groups may have precluded our ability to detect significant group differences. This explanation may also account for the fact that, despite previous studies suggesting links between childhood sexual abuse and sexual aggression perpetration later in life (e.g., Casey et al., 2009), we found no differences in the maltreatment profiles on their self-reported rates of sexual aggression. Future research should continue to explore these associations with larger samples of men, attending to factors that may differentiate among men with a CSA history who do and do not go on to perpetrate sexual aggression in adulthood. Understanding both risk and resiliency factors could provide opportunities to interrupt the potential for a cycle of sexual aggression in these men’s lives.

Regarding differences among the groups’ socio-demographic status and psychological distress, results indicated that men in the Low Maltreatment group reported the highest levels of current functioning across the groups: They had the highest education and income levels, the lowest incarceration rates, and the least amount of psychological distress. The Emotional and Physical Maltreatment group (also the group with the highest rates of subsequent IPV perpetration) had significantly higher levels of current depression than the Low Maltreatment group, suggesting the need to further investigate the role of depression in linking child abuse to adult perpetration and the importance of screening for IPV in the context of mental health services provision. Perhaps not surprisingly, the Poly-victimization group reported the greatest challenges in adulthood, including the lowest education levels, the highest incarceration rates, and the highest amount of psychological distress. One additional element of poly-victimized men’s vulnerability may be their racial position. In a society where racism’s effects are present in both obvious and subtle ways (DeLilly, 2012), the finding that this group comprises significantly more men of color (52%) than the Low Maltreatment group (29%) suggests that vulnerability to childhood maltreatment may be another burden disproportionately borne by these men. Although men with poly-victimization histories experienced poorer functioning in adulthood, this history did not appear to be associated with increased perpetration risk, indicating that mechanisms other than a cycle of violence (e.g., low self-control, a cycle of hopelessness, reduced coping skills) may partially account for our findings. However, because this group of men was small and these analyses were exploratory, it will be important to replicate these findings in future research.

Limitations and Conclusions

The eligibility criteria necessary for the larger study limit our ability to generalize our findings. Specifically, men who are older, use condoms consistently, and either abstain from alcohol consumption or are problem drinkers may have different maltreatment profiles or variable associations. Our study involved retrospective reports of childhood maltreatment and adolescent/adulthood perpetration which could result in recall bias. Since we could not control for childhood differences in social factors (e.g., income, education), differences on these factors between subgroups may have existed before their childhood maltreatment histories began. Social desirability may also have influenced men's reporting of both victimization experiences and perpetration behaviors.

The present study demonstrated that although meaningful maltreatment profiles could be detected for the young men in our sample, these profiles only partially predicted their violence perpetration later in life. Men with low maltreatment histories had the lowest perpetration behaviors as well as better social outcomes, highlighting the importance of primary prevention efforts targeting childhood maltreatment. Moreover, although men with poly-victimization histories do not appear to be at increased risk of violence perpetration, their psychological functioning and social outcomes suggest that they may continue to suffer the effects of their maltreatment into adulthood. Clinical interventions for all individuals with a maltreatment history, but particularly those exposed to poly-victimization, are clearly warranted.

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Table 1

Model fit indices for LCA with young adult heterosexually active men (n = 626)

Model	BIC _{ssa}	AIC	Entropy	Class Sizes	Classification	
					Quality	BLRT
2-class	5969	5949	.95	541, 85	.99, .94	***
3-class	5298	5270	.96	29, 517, 80	.99, .99, .93	*
4-class	4813	4778	.97	74, 25, 504, 23	.94, 1.0, .99, 1.0	***
5-class	4610	4567	.97	28, 21, 482, 72, 23	.94, .99, .99, .93, 1.0	***
6-class	4388	4439	.97	13, 29, 484, 69, 21, 10	1.0, .94, .99, .94, 1.0, 1.0	ns

* $p < 0.05$,

**

 $p < 0.01$,*** $p < 0.001$

Notes. Optimal solution is denoted in **bold**. BIC_{ssa} = Sample-size adjusted Bayesian Information Criterion, AIC = Akaike Information Criterion, LMR = Lo-Mendell-Rubin adjusted likelihood ratio test, BLRT = Bootstrapped Likelihood Ratio Test.

Table 2
Latent class profiles of childhood maltreatment among young heterosexually active men

Mean (1 to 5)	Latent class groups				Full sample (<i>n</i> =626)
	Low Maltx (<i>n</i> =504)	Emotional & Physical Maltx (<i>n</i> =74)	Emotional & Sexual Maltx (<i>n</i> =25)	Poly-victimized (<i>n</i> =23)	
Emotional Neglect	1.63	3.12	2.09	2.83	1.87
Emotional Abuse	1.48	2.98	2.27	3.33	1.76
Physical Neglect	1.26	2.30	1.94	2.23	1.45
Physical Abuse	1.29	2.49	1.91	2.77	1.51
Sexual Abuse	1.04	1.08	2.56	4.45	1.23

Childhood maltreatment latent class groups compared on adult perpetration of physical and psychological intimate partner violence (IPV), peer violence, and sexual assault

Table 3

Variable (observed range)	Full sample Mean (SD)	Latent class groups				χ^2 (df 3)
		Low maltx	Emotional & physical maltx	Emotional & sexual maltx	Poly-victimized	
Physical IPV (0–70)	1.21 (4.50)	0.98 _a	2.35 _a	1.60	2.09	41.66***
Psychological IPV (0–86)	6.38 (9.26)	5.65 _a	10.39 _a	8.92	6.78	27.42***
Peer violence (0–73)	5.33 (9.43)	4.91	7.08	7.88	6.22	12.67**
Sexual assault (0–63)	6.63 (8.52)	6.49	7.12	7.80	6.70	1.14

p < .001,

**
p < .01,

*
p < .05

Note. Pairs of means that share a subscript differ from each other significantly at sequential Sidak-corrected $p < .05$

Table 4
Comparison of current psycho-social functioning and other descriptive variables across childhood maltreatment latent class groups

	Full sample Mean (SD) or Proportion	Latent class groups				Omnibus χ^2 (df 3)
		Low maltx	Emotional & physical maltx	Emotional & sexual maltx	Poly-victimization	
Socio-demographic variables						
Age	24.6 (2.7)	24.4 _a	25.6 _a	24.6	25.4	14.06 ^{**}
Nonwhite race	.32	.29 _a	.42	.43	.52 _a	10.43 [*]
Household income						
< \$10,999/year	.29	.27 _{a,b}	.31	.38 _a	.48 _b	13.48 ^{**}
\$11K to 30,999/year	.38	.36	.46	.50	.43	
\$31K to 50,999/year	.16	.18	.12	.08	.05	
\$51K /year or more	.17	.20	.12	.04	.05	
Education level						
< High school	.03	.02 _{a,b,c}	.07 _a	.08 _b	.04 _c	35.12 ^{***}
High school graduate	.11	.09	.14	.28	.17	
Trade school	.04	.04	.04	.00	.17	
Some college	.44	.42	.49	.56	.57	
College graduate	.34	.38	.25	.08	.04	
Graduate degree	.04	.05	.01	.00	.00	
Incarceration history						
Never jailed	.65	.68 _{a,b,c}	.57 _a	.44 _b	.39 _c	21.10 ^{***}
1 day or less	.16	.15	.16	.24	.17	
1 day to 1 week	.09	.08	.07	.20	.04	
1 week to 1 month	.04	.03	.04	.04	.13	
1 month to 1 year	.05	.04	.10	.08	.13	
Jailed over 1 year	.02	.01	.06	.00	.13	
Psychological distress symptoms						
Anxiety						
(past 2 weeks, 0–20)	3.20 (3.04)	2.95 _a	3.92	4.28	5.35 _a	12.54 ^{**}
Depression						

Full sample Mean (SD) or Proportion (past 2 weeks, 0–24)	Latent class groups				Omnibus χ^2 (df 3)
	Low maltx	Emotional & physical maltx	Emotional & sexual maltx	Poly-victimization	
	4.04 _{a,b}	6.79 _a	5.52	8.39 _b	26.37***

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

Notes. Pairs of means and pairs of distributions that share a subscript differ from each other significantly ($p < .05$). Since this examination of latent class differences on current psycho-social functioning and descriptive variables is strictly exploratory, no corrections for multiple tests were used.