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Community Violence and Code of the Streets: A Person-Centered Examination of General Strain Theory

Hannah Corinne Gilliam

COMMUNITY VIOLENCE AND CODE OF THE STREETS: A PERSON-CENTERED EXAMINATION OF GENERAL STRAIN THEORY

by

Hannah Corinne Gilliam

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Abstract

Anderson's code of the streets (COS) model outlines one potential response to high community violence exposure (CVE) in which individuals regard physical violence as an effective means to maintain respect and reduce victimization. Previous research has separately linked CVE, strong negative emotions, and low social support to greater violence, and suggests these factors may also relate to acceptability of violence. The current study used these factors to derive empirically-driven profiles in a latent profile analysis, and examined the relationships between these profiles and COS adherence among 694 undergraduates ($M_{age=}$20.72; 81.0% female; 57.1% White). A 4-class model emerged as the best fit: High Community Violence (HCV; 5.0%), Low Support (LS; 16.7%), Unvarying (UNV; 23.9%) and Low Community Violence (LCV; 54.4%). Profiles significantly differed in relation to COS adherence, with HCV participants endorsing the highest COS. Findings highlight mutable individual and relational factors that relate to perceptions of the acceptability of violence.

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Introduction

Community violence is a significant public health concern for youth and emerging adults, particularly among individuals living in urban areas (Burnside, 2021; Finkelhor, et al., 2013; Weist et al., 2001; Zimmerman & Messner, 2013). Community violence exposure (CVE) is defined as hearing about, witnessing, or direct exposure to acts of non-familial violence (threatened or completed) that occurs within the community in which an individual lives or spends a considerable amount of time (i.e. school or work) (DeCou & Lynch, 2017). Disparate rates of exposure to community violence have been established by extant literature, with individuals of color, those living in urban areas, and individuals with low income experiencing the highest rates of CVE (Burnside, 2018). Systemic inequity engendered by racial discrimination, unequal access to employment, housing discrimination, and fewer and lower quality educational opportunities act to maintain higher rates of CVE among individuals who hold these identities, and particularly for those who hold multiple intersecting marginalized identities (Burnside, 2018).

Previous studies have reported that as many as 96% of emerging adults witness at least one violent event during their lifetime, and that 82% are directly exposed or victimized (Scarpa, 2003). While direct exposure has received the most attention in community violence research, witnessing violence has been found to independently contribute to attitudes favoring violence and higher levels of violent behavior (Huesmann & Guerra, 1997; Stoddard et al., 2015). Even less is known about the role that chronically hearing about violence may have for emerging adults. The limited research examining the impact of hearing about community violence has linked this type of CVE to negative psychosocial and mental health outcomes (Scarpa, 2006).

A large body of literature has identified associations between exposure to community violence and negative mental health outcomes, such as posttraumatic stress disorder (PTSD) and internalizing and externalizing problems, as well as aggressive and delinquent behavior for youth and emerging adults (Fowler et al., 2008; Fowler et al., 2009; McDonald & Richmond, 2008; Mulay & Haden, 2017). While CVE has been previously linked to greater aggression, violence perpetration, and delinquency, less is known about the relationship between community violence and beliefs about the acceptability of violence. The acceptability of violence may be particularly salient for emerging adults, as this population is at elevated risk due to heightened stress and life changes. Specifically, emerging adulthood, defined as the period from age 18 to 25, is often characterized by instability, major life upheaval and elevated stress (Arnett, 2016). While this period of heightened stress may solidify previously held violence norms, emerging adulthood also marks a time in which aggression and violence typically declines, and responsibility and independence increase. Given that this is a critical developmental stage, the current study examines person-centered profiles of community violence exposure, anger and social support in relation to code of the streets adherence among emerging adults.

General Strain Theory

Many theories have been put forth to explain the relation between CVE and violent or aggressive behavior (Allen et al., 2018; Anderson, 2002). Trauma exposure in general has consistently been linked to subsequent violence perpetration and delinquency, but CVE in particular may play a unique role in reinforcing attitudes and beliefs that support the use of violence (Hay & Evans, 2006; Huesmann & Guerra, 1997; Mulay & Haden, 2017). While CVE has been thought to normalize antisocial behavior through largely stigmatizing mechanisms such as ‘delinquent’ role models and cultural norms, Agnew’s general strain theory (GST) of crime and delinquency may better contextualize mechanisms underlying this relationship (Agnew, 2017). GST relates strain and aggression to crime and delinquency, and implicates negative emotions as a key mechanism underlying individual's engagement in criminal behavior (i.e. physical violence, property violence, etc.; Agnew, 2017). Strains are characterized into 3 categories: 1) inability to achieve positively valued goals (e.g. poverty, racial discrimination), 2) removal of positively valued stimuli (e.g. loss due to violence), and 3) exposure to negative stimuli (e.g. exposure to high rates of community violence). GST posits that strains generate strong negative emotions (e.g. anger) and reduce tolerance for insult or injury, which can serve as a risk factor for violence perpetration and antisocial behavior (Agnew, 2017). Given the existing work within the GST linking CV exposure and behavioral measures of delinquency, the GST may also relate to beliefs about the acceptability of violence. Thus, examining violence norms within the GST framework may provide insight into positive evaluations of violence that present following CVE.

Code of the Streets

Anderson's code of the streets (COS) outlines one cultural response to high CVE in which individuals adopt what are considered "street values" (Anderson, 2002). These values encompass positive evaluations of physical violence and may explain variability in functioning following CVE. Anderson attributed chronic violence exposure as one of the many stressors encountered by under-resourced individuals in urban areas that compounds with other hardships to generate what Anderson called a "street culture". This belief system, or "code of the streets", outlines informal rules of how to negotiate resources and avoid victimization within one's community under compounded strains (Anderson, 2002). Research has identified a relationship between CV and identity development (Schiavone, 2009), and specifically individual's attitudes and beliefs about violence norms, but less is known about other psychosocial factors that may contribute to varied responses following CVE. Given that normative beliefs about violence are linked to violence and crime, understanding this link and potential correlates merits further investigation (Huesmann & Guerra 1997).

One feature of the COS that has garnered attention is a system of beliefs surrounding violence norms. These informal norms consider violence as an acceptable and positive way of contending with threats to one's safety, and may promote greater violence perpetration (Intravia et al., 2017). Specifically, code-related beliefs have been linked to aggressive behavior, violence perpetration and deviant/delinquent behavior (Stewart et al., 2006; Patton et al., 2019). Previous studies examining COS beliefs of violence as necessary or justified suggest code-related beliefs may be a mechanism for subsequent violence perpetration (Agnew, 2017; Stewart & Simons, 2010). Stewart & Simons (2010) found that when controlling for other strain variables, adolescents' commitment to the COS was associated with higher rates of physical violence, bullying and the use of a weapon.

Although the COS has been supported as a phenomenon generalizable to diverse populations across SES, race, and ethnicity, including university students, it has typically focused on linking adversity to crime for males of color (Anderson, 2002; Intravia et al., 2017). Research that generalizes violence and violence norms to men of color without considering structural factors and adaptation to trauma has been used to justify discrimination and additional harms being directed at these minoritized individuals. Misconceptions such as the perception of young men of color who offend as 'super predators,' while largely disproved, (Innes, 1997) contribute to the justification of disproportionate rates of incarceration, conviction, police violence and suspicion toward males of color. Thus, separating violence norms from these harmful mis-conceptualizations and understanding factors that engender and maintain their development is critical.

While little is known about the development and maintenance of this constellation of beliefs around violence norms, it is clear that experiencing adversity (rather than cultural or gender norms) reinforces COS. Community violence exposure, in particular, is thought to be one factor involved in COS development. For example, Stewart and Simons (2010) found that higher violence at a neighborhood level was associated with greater endorsement of COS beliefs by residents. While originally conceptualized as an internalized code to increase one's safety from victimization, subsequent studies have supported the COS as a risk factor for greater victimization (Stewart & Simons, 2006; Stewart et al., 2006). In one study that controlled for the effect of neighborhood level violence, previous history of victimization, peer associations and engaging in violent offending, Stewart et al. (2006) found that adopting the COS was related to increased risk of violent victimization by 16% for every one-unit increase in COS adherence. Understanding factors related to adherence to this "code" of beliefs could provide valuable information to inform interventions that aim to reduce violence and victimization.

Anger

Anger may be a key factor related to COS adherence. Anger is common following exposure to potentially traumatic events and victimization, and it can impair functioning across multiple domains of interpersonal interactions (e.g. work, school, family, and friends) (Novaco et al., 2012). Anger may be particularly salient for emerging adults who are facing multiple strains, such as the stressful nature of college and the societal pressures placed on this developmental period. Following Agnew's general strain theory, strong negative emotions, such as anger, are the driving mechanism for subsequent violent behavior, aggression or delinquency (Agnew,

2017) Problematic anger, or anger that impairs psycho-social function and an individual's wellbeing, has been supported as a significant risk factor for harm to self and others, and it is associated with poorer outcomes following trauma exposure (Novaco et al., 2012). Previous longitudinal studies have established a link between CVE and violence perpetration within the GST framework, and found anger to play a critical role in predicting subsequent perpetration and criminal offense, even when controlling for victimization (Mulay et al., 2013; Hay & Evans, 2006). While a link between anger and aggression has been established, research is limited that examines the relationship between anger and beliefs supporting violence as outlined by the COS (Anderson, 2002).

Social Support

While anger may contribute to COS adherence, it is also essential to assess variables that are associated with less positive evaluations of violence within the framework of the general strain theory. Social support is protective against internalizing symptoms and deviant behavior following exposure to community violence among youth and adolescents (Donnelly & Holzer, 2018; Patton, 2013). Social support has been associated with less negative psychological consequences as a result of stress and victimization (Howell & Miller-Graff, 2014; McDonald & Richmond, 2008; Donnelly & Holzer, 2018), but the available literature is much less clear regarding what type of social support (e.g. family, friends) is most impactful. For example, social support from friends may have a larger effect on emerging adults than social support from family, as this is a time marked by changes in the role and importance of family and friends. While peer support within the criminology literature has been mixed regarding positive or negative effects on delinquency, friend support has been found to be beneficial for individuals exposed to community violence (Affrunti et al., 2018). Family support has emerged as an important factor for youth experiencing CVE, but little is known about the effect of familial social support on violence related beliefs for emerging adults (Patton, 2013; Rosario et al., 2008).

Chronic CVE may hinder social support by increasing the likelihood that individuals avoid public spaces and thus experience more social isolation (Patton, 2013). When facing high rates of violence, neighborhood residents may isolate themselves due to fear of violence, which may limit support found within one's community (Anderson, 2002; Patton, 2013). At the level of interpersonal social interactions, exposure to CV has been found to negatively impact the quality of social interactions, potentially contributing to difficulty developing and maintaining supportive relationships (Rosario et al., 2008; Patton, 2013). Thus, it may be more difficult for individuals exposed to community violence to utilize social support, and consistent with GST, lower reliance on pro-social coping may be associated with greater deviance and COS adherence.

Demographic Factors related to COS Adherence

Community violence occurs at disproportionate rates in the United States, with individuals of color, individuals with low income, and men of color experiencing community violence at higher rates in the United States than their counterparts (Gaylord-Harden et al., 2011; Weist et al., 2001; Zimmerman & Messner, 2013). A recent study by Richards et al. (2015) utilizing a daily diary technique found that African American adolescents living in an inner-city environment were exposed to an average of one incident of CV per day. Experiences related to race, particularly strains of discrimination and minority-status induced stress, have been linked to (and may compound with) CVE to impose greater strain and subsequently more adherence to COS (Agnew, 2017). Discrimination may not only expose individuals to negative stimuli (i.e. harassment), but also provide significant barriers (i.e. unequal access to employment) to achieving positively valued goals. Previous literature also suggests that gender differences may be present in the frequency of CVE, with males generally reporting greater CVE (Scarpa, 2003). Cultural and social values prescribed to male gender roles may contribute to greater acceptability of aggressive and violent behavior and reinforcement from others for displaying a violent persona. Gender differences have also been supported in literature examining social support seeking and quality, particularly for those exposed to violence (Patton, 2013; Swickert & Hittner, 2009). Further, following Anderson's Code of the Streets, males are more likely to respond aggressively to CV than females in order to gain respect (Anderson, 2002). Low-income, specifically income considered below the poverty line, has consistently been liked to greater exposure to community violence (Zimmerman & Messner, 2013) and may engender strain above and beyond violence exposure. The barriers imposed to achieving positively valued stimuli engendered by income inequality in the form of limited quality educational opportunities and unequal access to employment serve as a significant risk factor for violence perpetration and antisocial behavior (Agnew, 2017). Age has also been cited as a factor related to COS adherence. The relationship between age and COS adherence as well as aggression and crime is thought to be curvilinear, with COS adherence peaking for most during adolescence and decreasing as individuals pass through emerging adulthood (Moule et al., 2015; Odgers et al., 2008; Simons et al., 2014). In one longitudinal study, Moule and colleagues (2015) observed this curvilinear pattern across trajectories of COS adherence for individuals from age 10 to 26. Given previous literature, it is imperative that CVE, anger, and social support are examined in relation to COS adherence within the context of race, gender, income and age.

Gaps in the Literature

To date, studies examining delinquency and criminality in young adults have rarely evaluated thoughts and beliefs that may be related to these deviant behaviors. Available research that has concurrently assessed CVE typically utilizes adolescent samples and does not consider variation in CVE severity or type (Gaylord-Harden et al., 2016). Previous literature investigating predictors or correlates of COS and delinquency have been primarily focused on neighborhood-level or individual-level demographic factors thought to be associated with COS adherence (i.e. gender, race, and neighborhood violence by zip code) (Stewart et al., 2006; Stewart & Simons, 2010; Patton, 2013). Further, when considering contextual variables and existing links between anger and crime, to our knowledge no studies have examined problematic anger as a potential factor linked to COS adherence. Additionally, existing COS literature has not yet evaluated social support for emerging adults, and the potentially distinct roles for friend versus family support in relation to COS adherence.

Current Study

Emerging adults are at an elevated risk for a myriad of mental health problems due to heightened stress, life changes, and new responsibilities that characterize this developmental period. Previous literature has largely examined associations between the COS and negative outcomes for youth and adolescents whose identities align with the original conceptualization of COS (e.g., males of color from neighborhoods with high rates of violence and low SES), but many gaps remain in understanding what factors are associated with COS-related beliefs about violence norms. In order to address these research gaps, the present study used a person-centered analytic approach to examine profiles of CVE, anger and social support in relation to the COS. Person-centered analyses, in comparison to variable-centered approaches, provide valuable insight into the patterns of co-occurring factors as experienced by individuals, rather than focusing on the relationships among variables. Thus, person-centered analyses allow for a better understanding of risk and protective factors as they occur in ‘real life’, and the ability to identify particular profiles that may be indicative of more or less adherence to violence norms.

Following Agnew’s general strain theory, CVE may be a chronic strain for young adults (Agnew, 2017; Anderson, 2002). Chronic strain engenders high levels of negative emotions, including anger, and is thought to contribute to deviant behaviors and norms (e.g. violence, delinquency; Agnew 2017). To date, general strain theory has focused primarily on the action potential of strong negative emotions (e.g. anger), but modern perspectives weave in factors that may mitigate these negative mechanisms (Affrunti et al., 2018; Donnelly & Holzer, 2018). Although not previously considered within the framework of GST, social support may be a potent factor for emerging adults’ COS adherence.

Thus, the present study aims to identify profiles of community violence exposure (i.e., direct, witnessing, hearing about), anger and social support (friend and family) (Aim 1). Based on previous literature examining profiles of victimization for youth (6^{th}-8^{th} graders) we expect to see 3 classes emerge, with the smallest class endorsing the highest rates of exposure (Copeland-Linder et al., 2010; Nylund et al., 2007). After identifying the profiles, we will assess how they relate to Code of the Streets adherence while controlling for relevant covariates of gender, age, income, and race (Aim 2). Following previous literature, we hypothesize that profiles characterized by high CVE, high levels of anger, and low levels of social support will be associated with greater COS adherence.

Method

Participants

Participants included 694 emerging adults enrolled in two universities, one in the Midwest and one in the Midsouth, United States. Participants ranged in age from 18 to 25

(M_{age}=20.72, *SD* =1.85). The sample was primarily comprised of individuals identifying as female (81.0%). More than half of participants self-identified as White (57.1%), while 28.6% identified as Black or African American, 5.9% as Spanish, Hispanic or Latino, 5.9% as Asian, 3.5% as Middle Eastern, 1.2% as American Indian or Alaska Native, 0.6% as Native Hawaiian or Pacific islander, and 3.2% as other races. Household income varied widely ranging from less than 10,000 to 150,000 or more, with half (49.8%) of the sample reporting familial income at or below 60,000 dollars a year. Recruitment site was relatively balanced with 52.4% of participants reporting from a University in the Midwest and 47.6% reporting from a University in the Midsouth.

Procedure

Following institutional review board (IRB) approval at both universities, undergraduate students self-selected to participate in an online study assessing CVE and mental health outcomes. Participants were recruited through online university subject pool systems using identical procedures at both sites. Prior to receiving a battery of self-report measures, participants completed informed consent outlining confidentially, de-identification of responses and voluntary participation (i.e. could skip any items and choose to end participation at any time). At the conclusion of the study, participants were provided with a list of mental health resources and were awarded course credit as compensation for their time.

Measures

Demographics. A brief demographic questionnaire was completed by each participant to assess basic background information. The current study examined data collected describing gender identity, racial and ethnic identity, household income and age. Given that the majority of the sample self-identified as white, race was dichotomized into white/non-white for analysis.

Community Violence Exposure. CVE was assessed with 35-items adapted from the Survey of Exposure to Community Violence: Self-Report Version (SECV-SR; Richters & Saltzman, 1990). Direct exposure, witnessing CV, and hearing about CV were examined across domains including being chased, drug activity, forced entry, arrests, threats, physical harm (hitting, beatings, muggings), sexual assault, weapons, serious woundings, shootings, seeing dead bodies, and killings. Examples of items include: "How many times have you yourself been chased by gangs or individuals?" and "How many times have you seen someone else getting beaten up or mugged?". Participants reported frequency of exposure to each item, with items rated on a 9-point Likert scale from 1 "never" to 9 "almost every day." Total scores representing frequency of CVE were created by summing item responses by type of exposure (i.e. direct exposure, witnessing, and hearing about) resulting in 3 CVE scores used in analyses. The sum score for direct exposure included 11 items with scores ranging from 11 to 99. The sum score for witnessing CV included 13 items with scores ranging from 13 to 117. The sum score for hearing about CV included 11 items and scores ranged from 11 to 99. While at an item level, exposure to CV represents an event that is independent, previous research has supported the co-occurrence of victimization to be high. The SECV-SR has demonstrated high internal consistency across diverse groups, including university students (DeCou & Lynch, 2017). The reliability for the subscales of direct exposure to CV, witnessing CV and hearing about CV were acceptable for the current study at $\alpha = .63$, $\alpha = .90$ and $\alpha = .79$ respectively.

Problematic Anger. The Dimensions of Anger Reactions (DAR; Novaco, 1975) consists of 7 items that assess problematic anger. Items gauge an individual's anger characteristics (frequency, intensity, duration and antagonism) and the perceived impact of anger on functioning (negative impact on work performance, interpersonal relationships and physical health).

Responses are rated on a nine-point Likert scale from 0 "not at all" to 8 "exactly so". Total scores were computed by summing items, with scores ranging from 0 to 56 and higher scores indicating more problematic anger. Example items include: "When I get angry, I get really mad", "My anger has a bad effect on my health." The DAR has been found to be unidimensional, and have acceptable reliability, sensitivity to change over time and convergent validity (Forbes et al., 2004). For the current sample, α = .90.

Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) consists of 12 items assessing perceived social support from friends, family and significant other. For the current study, the 4 items assessing friend support and 4 items assessing family support were included in analyses. Items are rated on a 7-point Likert scale ranging from 1 "very strongly disagree" to 7 "very strongly agree" and are summed to create a total score. Total scores range from 8 to 56, with higher scores indicating greater perceived social support. Example items include "My family tries to help me," "I can talk about my problems with my friends." The MSPSS and its subscales have demonstrated strong reliability across diverse university samples and acceptable construct validity (Ermis-Dermitas et al., 2018; Zimet et al., 1988). Reliability in the current sample was strong for both subscales; α = .95 for friend social support and α = .94 for family social support.

The Code of the Streets. The Code of the Streets measure (COS; Stewart 2006) consists of 7 items assessing beliefs about physical violence norms consistent with Anderson's COS model (Anderson, 2002). Items are rated on a four-point scale from to 1 "strongly disagree" to 4 "strongly agree". Total scores were computed by summing items, with scores ranging from 7 to 28, and higher scores indicating greater adherence to the code of the streets. Example items include: "When someone disrespects you, it is important that you use physical force or aggression to teach him or her not to disrespect you" and "People will take advantage of you if you don't let them know how tough you are." The COS has previously shown strong validity and has been validated with a college sample (Intravia et al., 2017). Reliability for the current sample was α = .81.

Data Analytic Plan

Prior to running the primary analyses, data was screened for normality, outliers, multicollinearity and missingness using SPSS version 26 following recommendations outlined by Tabachnik and Fidell (2013). To examine aim 1 of identifying profiles of strain and support, six continuous factors (i.e. direct experience of community violence, witnessing community violence, hearing about community violence, anger, friend social support, family social support) were included as indicators in a Latent Profile Analysis (LPA) conducted in *Mplus 8* (Muthén & Muthén, 2017). The LPA evaluates factors within a person-centered framework that produces latent profiles based on observed group patterns. Competing models were compared in order to determine the most appropriate class model using the fit statistics discussed below. Bivariate correlations, as well as measure means and standard deviations, were computed in SPSS version 26 and are reported in Table 1.

Bootstrap Likelihood Ratio Test (BLRT; McLachlan & Peel, 2000) and Lo-Mendell-Rubin Test (LMRT; Lo et al., 2001) were used to compare improvement between examined models. Both BLRT and LMRT provide p-value estimates to indicate statistically significant improvement of fit for additional classes. Following suggestions provided by Nylund and colleagues (2007) BLRT was examined as the primary indicator of improvement of fit, and most appropriate number of latent profiles. Bayesian Information Criterion (BIC; Schwarz, 1978) and Akaike Information Criterion (AIC; Akaike, 1998) were examined to provide additional information about model fit improvement. BIC and AIC provide indication of goodness of fit, with lower values indicating better model fit. BIC differences of 10 or more between models are considered an indication of better model fit. Entropy values, while not providing substantial evidence for fit, were used to determine profile accuracy, and indicate the contributions of each individual indicator to class determination. Higher entropy values indicate higher confidence in latent class formation with values of 0.8 or greater supporting appropriate class solutions. Two individuals, one with statistical expertise and one with content expertise, served as objective raters of optimal class membership to reduce interpretation bias.

After determining the most appropriate number of latent classes, the relationship between the classes and COS (aim 2) was assessed by examining COS as a distal outcome while controlling for relevant covariates. Relevant covariates of gender, age, income, race and recruitment site were examined as auxiliary variables using the recommended R3STEP estimation procedures in Mplus. The R3STEP method adjusts for measurement error in profile classification when testing the relationship between predictors and latent class membership (Asparouhov, & Muthén, 2014a). Significant predictors of class membership and the outcome COS were retained and controlled for in models examining the relationship between latent profiles and COS adherence. Latent profile membership was subsequently used to predict the distal outcome variable of COS adherence while controlling for relevant covariates using the recommended manual BCH three-step estimation (Asparouhov & Muthén, 2014b). This method eliminates the risk for class shift and adjusts for measurement error in model estimation (Asparouhov & Muthén, 2014b). Wald's tests were then conducted to determine significant differences in code of the streets scores between classes while adjusting for covariates.

Results

Data Description

Participants reported frequent exposure to community violence. On average, participants reported experiencing almost 11 incidents of direct community violence at least once (M=1.64, SD=0.60). Participants reported witnessing CV at least once across 13 incidents (M=2.15, SD=0.86). On average, participants reported hearing about CV at least 2 times across 11 incidents (M=3.26, SD=1.58). Assumptions of normality were met for all variables of interest. Univariate outliers were identified for variables capturing CVE direct, witnessing and hearing about, but were retained given that they were within a plausible range of responses. The current study's sample size was observed to be adequate for the proposed analyses (N=694; Tabachnick & Fidell, 2013). Unstandardized values were desired, and used for analyses.

Class Determination

To determine the optimal latent class solution (aim 1), several models with increasing numbers of latent classes were estimated specifying alternative variance and covariance assumptions. Models allowing for independent class variances did not replicate the highest log likelihood. In order to assist in model convergence, equal variances were constrained across classes. Models specifying classes with equal variances across classes fit significantly better compared to models with independent variances for each class and replicated the highest log likelihood.

When examining statistical fit and relevant functional criteria, the 4-class model was determined to fit significantly better than other estimated models by the primary author and the 2 objective judges. The BIC, as the most trusted indicator of goodness of fit, supported the 4-class solution given that lower values on the BIC at differences of 10 points or more indicate better model fit. The AIC also followed a similar pattern, with scores decreasing as number of classes increased, suggesting better fit as number of classes increased for the 3- through 5-class solutions. The BLRT also supported the 4-class model, with $p<.01$ signifying improvement from the 3-class model. The LMRT for the 4-class model was not significant ($p=.06$) and did not provide insight into the optimal class solution. Entropy for the 4-class model was 0.83, supporting an appropriate class solution. Additionally, the 4-class model was consistent with expected proportions seen in previous research assessing profiles of victimization (Copeland-Linder et al., 2010; Nylund et al., 2007).

When considering both fit and functional criteria concurrently, class solutions for the 2- through 6-classes were observed to be viable solutions. With the increasing number of classes in each solution, fit statistics appropriately increased, which ruled out the 2-class solution. The 6-class model was ruled out due to the size of the smallest class which was deemed too small to support this solution and only represented 1.1% of the sample. While the 3-class model offered parsimony over the 4-class model, the BIC suggested a 4-class (BIC_4=12545.12) or 5-class (BIC_5=12471.326) solution would be preferable. When considering functional criteria, the 4-class model was selected over the 5-class model for parsimony as the five-class model did not offer a clearly distinct profile that was unique from the 4-class solution profiles. Relevant fit statistics for the 5 competing models are displayed in Table 2.

Participants were assigned to one of four classes: high CVE (HCV; n=34, 5.0%), Low support (LS; n=109, 16.7%), Unvarying (UNV; n=161, 23.9%) and low CVE (LCV; n=385, 54.4%). Figure 1 shows patterns of the standardized means of indicators across the four profiles. Table 3 displays unstandardized means of each indicator by profile and statistics for tests of between-profile differences. Univariate entropy for indicators of the 4-class solution are displayed in Table 3.

Class Descriptions

Class 1: **High CVE (HCV; n=34).** The high CVE class emerged as the smallest class, representing 5.0% of the sample, and was characterized by the highest rates of CVE across all 3 violence domains. Participants in the HCV class reported direct CVE at rates 2.5SD above the mean of the sample, witnessing CV at 2.73SD above the mean, and hearing about CV at 1.90SD above the sample mean, reporting significantly greater CVE than all other classes. Those in the HCV class also reported significantly less social support from friends and family than the LCV and UNV classes, but they reported significantly more social support than those in the LS class. Participants in the HCV class reported similar levels of anger to those in the LS class, but significantly greater anger than the LCV and UNV classes.

Class 2**: Low Support (LS; n=109).** The low support class emerged representing 16.7% of the sample and was characterized by significantly lower levels of social support from both friends (1.43SD below the mean) and family (1.80SD below the mean) than all other classes. Participants in the low support class reported average levels of CVE exposure across all 3 community violence domains. Members of the LS class reported similar levels of anger to those in the HCV class, but significantly higher anger than the LCV class and UNV class.

Class 3**: Low CVE (LCV; n=385).** The majority of participants (54.4%) belonged to the LCV class, which was characterized by the lowest endorsement of CVE. Those in the LCV group reported significantly lower CVE across all 3 domains of direct exposure (0.59SD below the mean), witnessing violence (0.64SD below the mean) and hearing about violence (0.55SD below the mean) as compared to all other classes. Participants in the LCV class also reported the highest levels of support from family as compared to all other classes, and similarly high levels of support from friends in comparison to the UNV class. While those in the LCV class reported similar levels of anger to the UNV class, mean anger scores for the LCV class were significantly greater than the HCV class and LS class.

Class 4: **Unvarying (UNV; n=161).** An Unvarying class emerged that represented 23.9% of the sample and was characterized by moderate scores on both strain and protective factors. Those in the Unvarying class reported moderately high levels of CVE exposure across all 3 domains of direct exposure (0.77SD above the mean), witnessing (0.99SD above the mean) and hearing about (1.04SD above the mean) violence. Members of this class also reported high support from friends and family that was greater than the LS and HCV classes. While family support was significantly lower for the UNV class than the low CVE class, friend support did not differ between the UNV and LCV classes. Anger was also comparable between the UNV and LCV classes and did not significantly differ, with both classes reporting significantly lower anger than the LS and HCV classes.

Results regarding aim 1 were supported, as distinct profiles of CVE, anger and social support emerged. Contrary to our hypotheses based on previous literature that predicted the emergence of 3 classes, a 4-class solution emerged as optimal class solution. Results were consistent with the hypothesis that the class reporting the highest rates of exposure to CV would represent the smallest percentage of the sample.

Predictors of Latent Profile Membership

Tests of categorical latent variable multinomial logistic regressions using the R3STEP procedure were conducted to determine predictors of latent profile membership and identify relevant covariates (Asparouhov & Muthén, 2014a). Results are displayed in Table 4. When comparing UNV vs. HCV, income significantly predicted being in UNV vs. HCV, with a one-unit increase in income associated with a 0.14 increase in the logistic odds of being in the UNV class vs. the HCV class. No other covariates significantly predicted difference in membership between the UNV vs. HCV classes. When comparing the LCV vs. HCV classes, income also significantly predicted class membership, with one-unit increase in income associated with a 0.17 increase in the logistic odds of being in the LCV class vs. HCV class. No other covariates significantly predicted difference in membership between the LCV vs. HCV classes. When examining the UNV vs. LS class, race significantly predicted class membership with a 0.22 unit increase in the logistic odds of being in the LS class versus the UNV class for individuals who identified as non-white. No other covariates significantly predicted difference in membership between the UNV vs. LS classes. When comparing the LCV class and the LS class, income significantly predicted class memberships, with a one unit increase in income associated with a 0.10 increase in the logistic odds of being in the LCV class vs. the LS class. No other covariates significantly predicted difference in membership between the LCV vs. LS classes. Age significantly predicted class membership when comparing the LCV vs. UNV class, with a one unit increase in age associated with a 0.19 increase in the logistic odds of being in the LCV vs. UNV class. No other covariates significantly predicted difference in membership between the LCV vs. UNV classes. The LS and HCV classes did not differ significantly by function of any covariate examined. Site and gender did not significantly predict differences in class membership.

Code of the Streets Across Profiles

Wald's tests adjusted for covariates were used to determine significant differences in COS scores between classes (aim 2). A Bonferroni adjustment was applied due to the number of comparison tests, so a more stringent significance level of $p<.008$ was used to detect significant differences between the classes. Table 5 displays the covariate-adjusted means of COS for each class and Table 6 presents results of the tests of between-profile differences in COS.

As hypothesized, the HCV class (i.e., class with the highest CVE exposure, highest anger, and lowest support) endorsed the greatest COS across classes. Individuals in this class reported significantly higher COS scores than those reported by the LS class [est=-3.99, SE = 0.99; HCV vs. LS: $p<.001$], the LCV class [est=-6.28, SE = 0.89; HCV vs. LCV: $p<.001$], and the UNV class [est=-3.88, SE = 0.97; HCV vs. UNV: $p<.001$].

The LS class did not significantly differ from the UNV class on COS [est=-0.10, SE = 0.66; LS vs. UNV: $p=.875$], but did report higher COS than the LCV class [est=2.29, SE = 0.58; LS vs. LCV: $p<.001$] and lower COS than the HCV class [est=-3.99, SE = 0.99; HCV vs. LS: $p<.001$]. Participants in the UNV class reported significantly higher COS than those in the LCV [est=2.39, SE = 0.49; UNV vs. LCV: $p<.001$] class and less COS than those in the HCV class [est=-3.90, SE = 0.99; UNV vs. HCV: $p<.001$].

The LCV class reported the lowest COS adherence, reporting scores significantly lower COS scores than the LS [est=2.29, SE = 0.58; LS vs. LCV: $p<.001$], UNV [est=2.39, SE = 0.49; UNV vs. LCV: $p<.001$], and HCV [est=-6.28, SE = 0.89; LCV vs. HCV: $p<.001$] classes.

Results comparing COS across profiles align with the hypotheses outlined in aim 2 of the current study. Profiles significantly differed in relation to COS endorsement with the exception of the comparison between the LS and UNV classes. Additionally, the class characterized by the highest CVE, high anger, and lower support (HCV) reported the highest COS scores.

Discussion

This study used a person-centered approach to examine the relationship between factors outlined by General Strain Theory and positive violence norms outlined by Anderson's Code of the Streets (Agnew 2017, Anderson, 2002). Although the COS was previously conceptualized as a deviant 'street culture' that governed areas characterized by violence and poverty (Anderson 2002), findings from the current study indicate that adopting values outlined by the code are more likely to be related to high levels of community violence rather than the effect of cultural norms specific to race, gender or socioeconomic class identities. Study results indicate that demographic factors may provide important context to constellations of strain-related factors.

Latent Profiles

Findings from the current study support aim 1, revealing that distinct profiles of strain outlined by the GST were reported by emerging adult college students. Consistent with what was hypothesized, a profile of high strain and low support was evident, with individuals in this class reporting the highest rates of CVE (direct, witnessing and hearing about), high anger, and low support. This result is in line with the co-existing factors outlined by Agnew's GST, and provides evidence of the co-occurrence of high strain, high anger and low support (Agnew, 2017). Although person-based analyses have not been widely applied to CV research, previous studies have examined profiles of CVE among African American adolescents from metropolitan areas. Copland-Linder and colleagues (2010) assessed profiles of community violence, self-worth, parental monitoring and parental involvement and found that a high violence class of small size emerged (5% of the sample) that reported the highest level of CVE and lower protective factors. This previous research aligns with the current study's findings in that the class reporting the highest levels of victimization represented the smallest proportion of the sample

(5.0%). The current study also replicated previous findings that identified low risk and low victimization profiles as typically being the largest group and representing the majority of the sample (Copeland-Linder et al., 2010; Gaylord Harden et al.. 2016; Moule et al., 2015). Specifically, in the current study the LCV class was the largest and was characterized by low CVE, high support, and low anger. The UNV and LS classes have not been identified in prior research nor discussed within the context of GST, likely because GST has not previously been examined using Latent Profile Analysis. These classes provide insight into the co-occurrence of GST factors that do not represent the extremes of risk and protection or high and low violence that GST originally conceptualized.

Predictors of Profile Membership

When examining predictors of profile membership, income was the covariate most likely to differentiate the classes. Household income significantly predicted differences in class membership between the LCV class and the HCV class, supporting the large body of literature that suggests disproportionate harm occurs to individuals with lower income (Zimmerman & Messner, 2013). Income inequality has also been identified as an explanatory factor for the disproportionate exposure of CV experienced by marginalized racial groups, as disparities in income related to structural inequities contribute considerably to differences in exposure to CV (Zimmerman & Messner, 2013). Household income also significantly predicted differences in class membership between the UNV class and the HCV class, with individuals reporting higher income more likely to belong to the UNV class. Findings suggest that factors associated with higher SES (i.e. greater economic opportunity, less neighborhood violence) may provide a context in which individuals are exposed to moderate CVE rather than chronically high CVE and additionally maintain higher levels of support and lower levels of anger. Household income also predicted membership between the LCV class and the LS class, with individuals reporting higher income more likely to be a member of the LCV class. Race significantly predicted class membership when comparing the UNV vs. LS class, suggesting that additional structural burdens imposed on minoritized individuals may contribute to greater strain and lower support. Age significantly predicted class membership when comparing the LCV and UNV classes, with older participants more likely to belong to the LCV class. As age increases, recency may impact lifetime ratings of violence exposure. For younger individuals, the community violence they have experienced may play a larger role in their life story than older individuals. Simultaneously, emerging adults approaching their mid-twenties may be experiencing greater stability than individuals just starting college. In sum, while previous research racialized violence norms outlined by the COS, norms and violence exposure are better understood within the context of structural inequalities that disproportionately impact people with low income and people of color.

Code of the Streets Among Classes

Findings comparing COS commitment across classes provide valuable information on the intersection of acceptability of violence with exposure to violence, anger, and social support. Results support the hypothesis that more violence exposure is related to higher COS, with the highest COS commitment reported by participants in the HCV class. This finding aligns with the proposed constellation of conditions outlined by the general strain theory that is most likely to predict positive violence norms. Specifically, greater violence exposure, lower support and greater negative emotions, particularly anger, are related to higher acceptability of violence norms (Agnew, 2017). The current study's findings also align with previous work that has linked violent victimization, anger and reduced parental attachment to greater engagement in a range of offenses including physical violence and fights at school among adolescents (Hays & Evans, 2006). Additionally, a profile of the inverse direction of factors proposed by GST emerged and was associated with the lowest endorsement of violence norms. Specifically, the LCV class reported low CVE, high social support and low anger, which was associated with the lowest endorsement of COS. Thus, the current study supports the application of Agnew’s General Strain Theory to cognitions related to violence norms.

Interestingly, the LS and UNV classes did not significantly differ on COS adherence despite these profiles displaying a number of differences across various indicators. Broadly, it would appear that direct community violence exposure is the indicator that has the largest effect on COS for these groups. For the LS and UNV profiles, direct violence scores were the most similar, with witnessing and hearing about CV slightly differentiating the classes, and social support and anger differentiating them even more. Despite the differences on these indicators, COS scores were relatively equivalent between these two classes. Thus, direct violence may play a significant role in the violence norms for these groups given that it was the only indicator on which they had relatively similar scores.

Clinical Implications

The current study provides a number of clinical considerations and directions for clinical work. The co-occurrence of these unique predictors and how they differentially relate to beliefs and attitudes supporting norms about the acceptability of violence suggests that assessments aiming to evaluate aggression and antisocial behavior should capture risk and protective factors simultaneously. Community violence should be assessed across multiple forms, and anger and social support should be included to fully capture mechanisms that may promote positive violence norms. Additionally, results are informative for interventions seeking to reduce not only violence exposure, but also violence norms among emerging adults. For individuals who have already experienced victimization, interventions that target problematic anger and bolster social support may be the most beneficial in reframing responses to violence exposure and reducing positive violence norms. In a systematic review of CV intervention and prevention programs for children and adolescents (Ali-Saleh Darawshy et al., 2020), one study showed effects on reducing aggression as well as reductions in CV victimization (Chaux et al., 2017). The Aulas in Paz intervention (Chaux et al., 2017) was specifically aimed at reducing aggression and violence and sought to enhance emotion regulation skills, specifically targeting anger. Another study showed gains, albeit small, in nonviolence self-efficacy. The El Joven Noble program (Kelly et al., 2010) aimed to directly target violence attitudes and stereotypes to reduce violence among elementary students through conflict management skills and instilling support through key values of respect and dignity. Based on the evidence from previous interventions and findings from the current study, simultaneously targeting mechanisms outlined by GST may provide a more comprehensive approach to addressing violence norms.

Limitations and Future Directions

The current study has a number of strengths, including the use of a person-centered analytic strategy to examine how profiles of CVE, anger, and social support cluster for emerging adults. By using this technique, we were able to consider strain and support simultaneously, which provides a more wholistic picture of how components of GST relate to violence norms. Further, findings add to current research examining violence norms by contextualizing factors related to COS adherence within a unique developmental period (i.e. university-attending emerging adults).

Although this study moves the body of literature examining violence norms forward, it should be considered within the context of some limitations. The study is cross-sectional, so we are unable to examine directionality, temporality, or assume causation. Future research should assess the relationship between GST factors and COS adherence longitudinally. The sample size of the study was sufficient for the analyses that were conducted, but a larger sample would be beneficial given the size of the smallest class. Future studies should also aim to utilize multi-trait, multimethod design as this study was limited to self-report measures. Although the sample was heterogenous in regard to CV exposure, access to and enrollment in college limits generalizability. Future research may benefit from examining these constructs within a community sample. Future studies should also measure more nuanced conceptualizations of identity and culture, and assess the effects of discrimination on COS commitment given the potency this strain may have on violence norms and the disproportionate harm marginalized groups are exposed to beyond community violence (Agnew, 2017). Additionally, future studies should assess relevant trauma-related variables that may significantly impact how individuals conceptualize and respond to community violence. For example, the current study did not assess the participant's relationship to the perpetrator, age at first violence exposure, or other contextual and subjective factors of the violence that may inform these findings.

Conclusion

The use of a person-centered analysis to identify profiles of violence exposure, anger, and social support related to the acceptability of violence expands the literature on Anderson's COS and components associated with positive evaluations of violence by demonstrating the relationship between unique GST profiles and COS endorsement. Additionally, by examining CVE across the domains of direct experience, witnessing, and hearing about violence, a more nuanced understanding may be reached of the ways in which CVE relates to COS adherence. The current study draws a link between factors outlined by General Strain Theory and cognitions related to positive evaluations of violence, and highlights the importance of considering protective factors such as social support. Thus, the current study identifies potentially modifiable factors that can be addressed through psychosocial intervention to reduce positive violence norms for individuals exposed to community violence, and provides evidence for the need to reduce community violence via policy initiatives.

In sum, findings undermine previous conceptualizations that promoted cultures of 'deviance' (Anderson, 2002) and 'criminal role models' (Anderson, 1990; Zimmerman et al., 1998) as primary contributors to violence norms. Rather, results suggest that exposure to community violence, when paired with high anger and reduced social support, may result in positive beliefs about violence as a means of maintaining safety.

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Appendix A

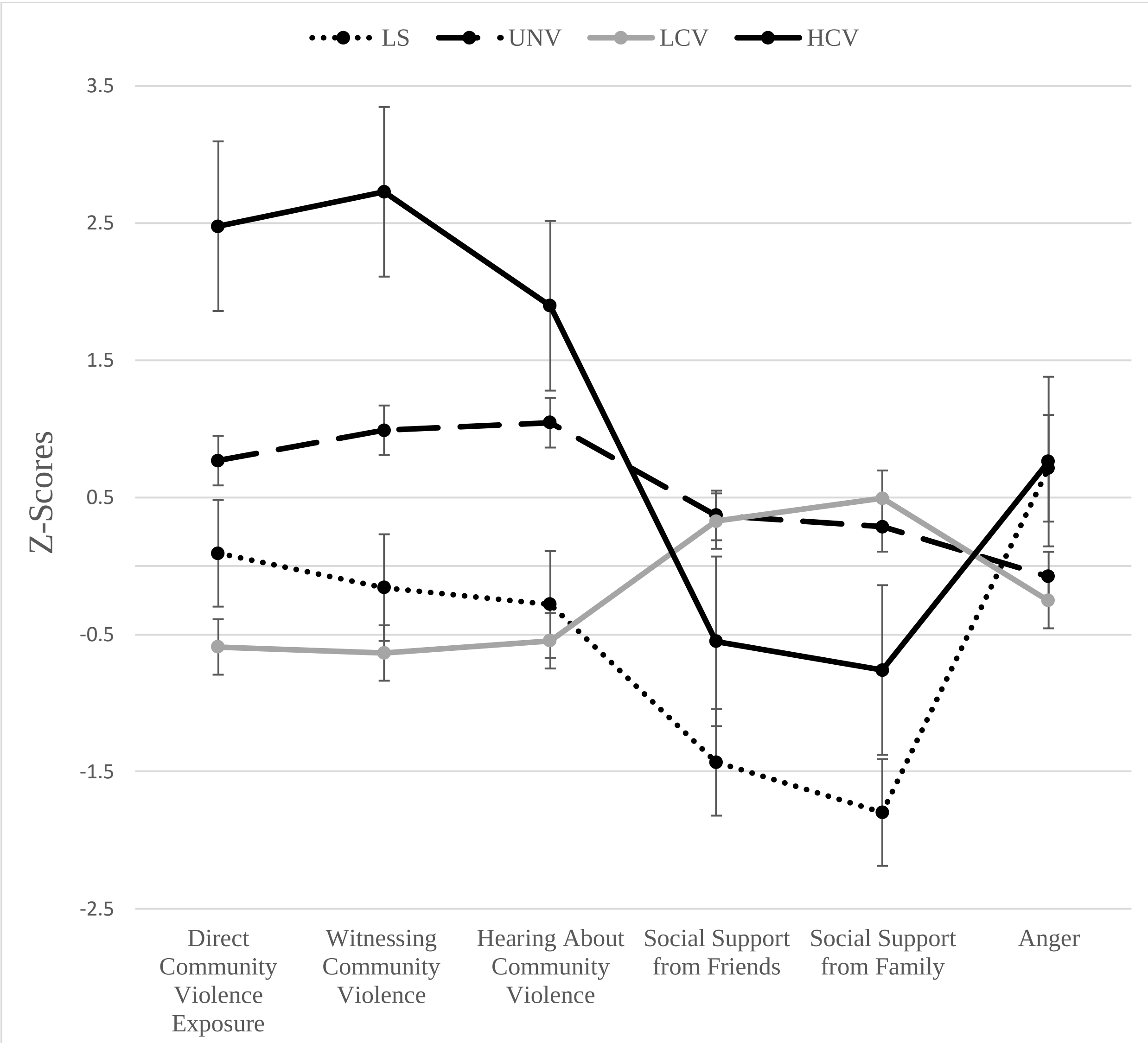

Figure 1. *4-class solution of GST profiles.*

Note: LS = Low Support; UNV = Unvarying; LCV = Low Community Violence; HCV = High Community Violence.

Appendix B

Table 1. *Means and Correlations of Continuous Study Variables.*

Variable	1	2	3	4	5	6	7	8
1. CVE- direct	1.64 (0.60)	-	-	-	-	-	-	-
2. CVE-witnessing	0.70**	2.15 (0.86)	-	-	-	-	-	-
3. CVE – hearing about	0.48**	.69**	3.26 (1.57)	-	-	-	-	-
4. MSPSS - Friend	-.07	-.02	.03	5.51 (1.51)	-	-	-	-
5. MSPSS - Family	-.19**	-.10**	-0.34	.52**	5.27 (1.62)	-	-	-
6. DAR	0.21**	0.15**	.10**	.24**	-.27**	2.08 (1.72)	-	-
7. COS	0.28**	.30**	.22**	-.17**	-.18**	.34**	18.13 (4.70)	-

Note: Variable means and standard deviations are displayed on the diagonal.

* p<.05, ** p<.01. N=694.

Appendix C

Table 2

Fit Statistics for LPA Solutions Two Through Six

Number of Profiles	Loglike-lihood	AIC	BIC	Entropy	LMR	LMRT *p*	BLRT	BLRT *p*	*n* of smallest class
Indicator Variances Freed Across Profiles									
2	-6410.575	12859.151	12945.458	0.863	675.750	0.0034	-6755.828	<.001	1, n = 146 (21.0%)
3	-6279.996	12611.992	12730.097	0.849	255.578	0.1775	-6410.575	<.001	3, n=37 (5.3%)
4	**-6164.610**	**12395.221**	**12545.122**	**0.831**	**225.840**	**0.0627**	**-6279.996**	**<.001**	**4, n= 34 (4.9%)**
5	-6104.814	12289.627	12471.326	0.833	117.038	0.3832	-6164.610	<.001	5, n=26 (3.7%)
6	-6365.323	12824.647	13040.067	0.835	97.513	0.3807	-6415.138	<.001	4, n=8 (1.1%)

Note. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; LMR = Lo-Mendell-Rubin Test; LMR *p* = Lo-Mendell-Rubin Test p-value; BLRT = Bootstrap Likelihood Ratio Test; BLRT *p* = Bootstrap Likelihood Ratio Test p-value. The 4-class model was selected as the optimal class solution.

Appendix D

Table 3

Means (SE) for Indicators and Univariate Entropy for 4-class Solution

	GST profiles				
	HCV (n = 34)	LS (n = 109)	LCV (n = 389)	UNV (n = 162)	*Univariate Entropy*
CVE direct	3.01 (0.18)^{abc}	1.67 (0.10)^{ade}	1.34 (0.02)^{bdf}	2.02 (0.09)^{cef}	0.437
CVE witnessing	4.36 (0.28)^{abc}	2.00 (0.12)^{ade}	1.67 (0.04)^{bdf}	2.85 (0.10)^{cef}	0.527
CVE hearing about	6.13 (0.38)^{abc}	2.87 (0.20)^{ade}	2.52 (0.09)^{bdf}	4.61 (0.18)^{cef}	0.420
Family Social Support	4.24 (0.55)^{abc}	3.07 (0.246)^{ade}	6.00 (0.12)^{bd}	5.77 (0.21)^{ce}	0.416
Friend Social Support	4.82 (0.53)^{abc}	3.751 (0.44)^{ade}	5.91 (0.10)^{bd}	5.98 (0.12)^{ce}	0.345
Anger	3.25 (0.48)^{bc}	3.03 (0.30)^{de}	1.72 (0.09)^{bd}	1.99 (0.15)^{ce}	0.235

Note. SE = Standard error. HCV = High Community Violence; LS= Low Support; LCV = Low Community Violence; UNV = Unvarying. Columns that are significantly different from one another share a superscript such that: a = HCV vs. LS, b = HCV vs. LCV, c = HCV vs. UNV, d = LS vs. LCV, e = LS vs. UNV, and f = LCV vs. UNV. Significant differences were tested using Wald's Test (p<.008).

Appendix E

Table 4

Multinomial Logistic Regression Analysis Examining Predictors of Class Membership

	LS vs HCV	UNV vs HCV	LCV vs HCV	UNV vs LS	LCV vs LS	LCV vs UNV
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Age	-0.01 (.11)	0.11 (.11)	0.08 (0.10)	0.12 (0.08)	-0.08 (.08)	**-0.19** (0.06)**
Gender	0.31 (.51)	0.26 (0.50)	0.42 (0.45)	-0.05 (0.39)	0.11 (0.35)	0.16 (0.28)
Race	0.16 (.11)	-0.06 (0.12)	0.02 (0.10)	**-0.22* (0.10)**	-0.14 (0.09)	0.08 (0.09)
Income	0.07 (.07)	**0.14* (0.70)**	**0.17* (0.07)**	0.073 (0.04)	**0.10** (0.04)**	0.03 (0.03)
Site	0.29 (0.26)	0.59 (0.40)	0.08 (0.22)	0.29 (0.44)	-0.21 (0.26)	-0.51 (0.43)

Note. OR = Odds ratio; SE = Standard Error. The second latent class of each contrast is the reference category. All measures were mean-centered, thus results reflect the probability of being classified into a particular profile holding all other variables at their average. Gender was coded such that 0 indicates male and 1 indicates female. Race was coded such that 0 white indicates and 1 indicates non-white. Bold effects are significant at $p < .05$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Appendix F

Table 5

Intercept (SE) and Comparisons Across Code of the Streets and Arrest History for Each Latent Class

	HCV	**LS**	**LCV**	**UNV**	**Class Comparisons**
Distal Outcome	Estimate (*SE*)	Estimate (*SE*)	Estimate (*SE*)	Estimate (*SE*)	
Code of the Streets	35.29 (2.23)	31.31 (2.11)	29.02 (2.06)	31.41 (2.15)	HCV> LS & LCV & UNV; LS = UNV; LS & UNV> LCV

Note. SE = Standard error; HCV = High Community Violence; LS= Low Support; LCV = Low Community Violence; UNV = Unvarying. All measures conducted using covariate-adjusted means, controlling for age, gender, race, and income.

Appendix G

Table 6

Differences in Code of the Streets Across Profiles

Profiles	**Estimate**	**SE**	**Estimate/SE**	***p*-value**
LS (ref) vs. UNV	-0.10	0.66	-0.16	0.875
LS (ref) vs. LCV	2.29	0.58	3.95	< .001*
LS (ref) vs. HCV	-3.99	0.99	-4.03	< .001*
UNV(ref) vs. LCV	2.39	0.49	4.87	< .001*
UNV (ref) vs. HCV	-3.88	0.97	-4.02	< .001*
LCV (ref) vs. HCV	-6.28	0.89	-7.03	< .001*

Note. Significant differences were tested using Wald's Test. Ref = reference group.
*p <.001