SPOTLIGHT ON COMMUNITY VIOLENCE:

AN UNDERRECOGNIZED DANGER TO CHILDREN'S MENTAL HEALTH

WESTCOAST CHILDREN'S CLINIC

Spotlight on Community Violence: An Underrecognized Danger to Children's Mental Health

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WestCoast Children's Clinic, located in Oakland, California, is a non-profit community mental health clinic that has provided services to Bay Area children since 1979. Our mission is to provide mental health services to youth and families; to train the next generation of mental health professionals and caregivers; and to improve services to children and families by conducting research on the impact of clinical services and utilizing findings to advocate on behalf of the children we serve.

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ACKNOWLEDGMENTS:

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

EXECUTIVE SUMMARY

The impact of community violence exposure (CVE) on children's mental health is an underrecognized and under-addressed issue, both at the policy and provider levels. Existing research suggests that not only is CVE a common occurrence among youth in the U.S., but it is also considered a chronic and reoccurring source of trauma. Studies also provide evidence that the impact of CVE on children is profound, showing links to the development of later emotional, behavioral, and physical health burdens. These links seem to be true whether the youth was a victim of the violence or a witness to it, which highlights the widespread nature of this type of trauma.

Our previous study bolsters this research by demonstrating that CVE has a profound impact on the mental health needs of youth, where the intensity of those needs is as high as that for youth whose primary traumas center around multiple experiences of maltreatment by caregivers (e.g., abuse and neglect). In the current study, we sought to explore the patterns of mental health needs associated with the CVE trauma profile. The profile of mental health needs associated with CVE can provide clues as to what types of treatments or interventions might best help youth who experience trauma resulting from community violence exposure.

OBJECTIVES

Our objectives for this study are threefold:

1. To explore patterns of mental health needs experienced by our clients.

2. To examine whether these patterns of mental health symptoms are linked to profiles of trauma, particularly the profile of trauma defined by a youth's exposure to community violence.

3. To understand why community violence may have such a detrimental effect on young people's mental health.

METHODOLOGY

Study sample: Between 2013 and 2017, WestCoast provided community-based mental health services to 2,376 clients meeting eligibility criteria for Specialty Mental Health Services (SMHS) under Medi-Cal's Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit.

- Just over half of our clients (55%) identify as female.

- Most of our clients are young people of color: 37% of our clients are African-American; 31% are Multiracial, 13% are Latinx, 9% are Caucasian, and 4% are Asian and Pacific Islander.

- The youth included in this study range in age from 6 years to 24 years; most are aged between 10 and 17, with the average age being 12.5 years old.

- Most have experienced maltreatment or deprivation, with 63% having been involved with the foster care system.

- 11% of our clients were exposed to violence in the community, 12% were exposed to violence at school, and 3% were a witness to or victim of a crime.

Measure: The *Child and Adolescent Needs and Strengths* (CANS) is a validated comprehensive instrument used widely in public systems. This tool assesses the child's history of trauma exposures and trauma symptomology, behavioral and emotional health, risk behaviors, needs related to everyday life, internal and external strengths, and caregiver needs and strengths with the goal of increasing communication among stakeholders (including the client, their family, and the systems in which they are embedded).

Data analysis: We used Latent Class Analysis (LCA), a person-centered approach, to identify distinct subgroups of youth who experience similar types of mental health challenges. As there are 16 different mental health symptoms used in this analysis, there are millions of potential combinations of mental health needs that can show up in our

clients' lives. Consequently, it is impossible to detect meaningful patterns without the right analytic tools. Using LCA helps us identify the more common patterns of mental health needs among the kids that WestCoast serves.

KEY FINDINGS

We identified five patterns of mental health challenges among youth seeking mental health services, resulting in the following mental health symptom profiles:

1. *Low Needs* (39% of youth; *N* = 921). Youth in this group were less likely than youth in the other four groups to report most of the mental health symptoms we measured.

2. *Internalizing* (28% of youth; *N* = 658). Youth in this group had high probabilities of experiencing depression (69%), anxiety (70%), and trauma symptoms (78%), but did not tend to exhibit externalizing behaviors.

3. *Depression/Flight Response* (14% of youth; *N* = 332). Youth in this class experience many internalizing symptoms but are also potentially seeking escape, with high levels of running away (61%) and suicide risk (21%).

4. *Externalizing/Fight Response* (14% of youth; *N* = 325). Youth in this profile were more likely than not to experience anger control (77%) and oppositional behavior (63%), and showed higher probabilities than other groups of struggling with conduct issues (9%) and being a danger to others (20%).

5. *Pervasive Needs* (6% of youth; *N* = 141). This group is characterized by the greatest range of symptoms of all five profiles, and had the highest probability of experiencing nearly every mental health symptom we measured.

Youth with the CVE trauma profile were linked to the more severe mental health needs profiles. Youth in the *CVE* profile were more likely to exhibit symptoms related to the *Depression/Flight Response*, *Externalizing/Fight Response*, and *Pervasive Needs* patterns.

CLINICAL AND POLICY IMPLICATIONS

- Train child-serving providers and mental health clinicians to recognize that children's exposure to community violence is as impactful as multiple experiences of maltreatment.

- Develop mental health treatments and interventions that address the ways in which the chronic, ongoing trauma resulting from CVE manifests.

- Develop policies that recognize the detrimental effects of CVE on children's mental health in order to target treatment and support to children with CVE, and also to highlight the need to address the violence itself.

- Shift our focus toward building healthy communities in which youth live: providers need to look beyond the interpersonal level when caring for youth and focus more broadly on systemic factors, such as aspects of the community, public systems, and the wider society in which youth are embedded.

INTRODUCTION

Most of the 1,500 children and youth served at West-Coast Children's Clinic (WestCoast) each year have experienced significant adversity early in their lives. Given the prevalence of trauma among our clients, we sought to understand how patterns of trauma impact their mental health needs and strengths. In the first paper of this series[1] we described how important it is to understand the patterns of trauma a young person has experienced. Doing so helps us better understand the impact of those experiences, which in turn can help us design more effective interventions. Here, in the second study of our series, we explore the mental health and related life challenges that result from those trauma experiences, especially community violence exposure.

As we noted in our first paper, all of our clients live at the intersection of racism, poverty, and systemic indifference. Most have experienced abuse, neglect, disrupted attachments to caregivers, community violence, and have been removed from their families. Sixty-three percent have been in foster care, with the remaining youth at risk of entering foster care. West-Coast provides supportive mental health services to help young people cope with the difficult circumstances in their lives—not only to recover but to thrive. Our mission also includes learning from our clients' unique attributes as well as the things they share in common, particularly as these experiences relate to their ability to heal. Accordingly, we conduct research, trainings, and advocacy to improve child well-being, focusing on changing the systems that play a large role in shaping the lives of our clients.

Our first paper in this series resulted in two primary findings about patterns of trauma. First, some young people with a low number of trauma experiences have the same intensity of mental health needs as those who also experienced caregiving disruption. This finding suggests that number of traumas alone does not necessarily predict intensity of mental health needs, underscoring the importance of providing access to services based on need, not based on a count of adverse childhood experiences (ACEs). Second, the study showed that youth who are exposed to violence in their communities tend to exhibit a greater number of mental health related challenges than youth who experience multiple interpersonal traumas. The research is well-established

that interpersonal trauma, especially when it occurs within a child's primary caregiving system, has deleterious effects on their emotional well-being, behavior, and ability to manage daily life.[2–6] This work has had significant implications for the children's system of care, such as promoting interventions that support healing instead of punishment,[7, 8] encouraging the adoption of trauma informed care,[9] and expanding eligibility for children's specialty mental health services.[10] Our research suggests that trauma resulting from CVE may require the same level of response from child-serving institutions.

In this current study, we explore the composition of mental health needs associated with trauma profiles, focusing on the needs of youth with community violence exposure (CVE). Though interpersonal trauma receives significant attention in program and policy decisions, the impacts of CVE on children remain underrecognized and under-addressed. Our hope is that centering on this potentially traumatic experience raises awareness about its impact on children among direct service providers, program managers, system leaders, and policymakers, and leads to more effective prevention and intervention efforts.

We begin by reviewing our original study and contextualizing its findings through the research literature on the effects of community violence on children. We then explore the mental health challenges associated with it. The results of this current study suggest that the effects of CVE on children are uniquely detrimental. That is, the patterns of emotional and behavioral symptoms primarily associated with CVE are different and more intense than those primarily associated with interpersonal traumas. CVE is therefore a kind of trauma experience that requires novel forms of treatment and intervention, both within and beyond the therapist's office.

TYPES OF TRAUMA EXPOSURES MATTER—NOT JUST THE NUMBER

Previous studies have shown that the number of trauma types a child experiences has a profound impact on their development.[2, 11] The higher the number, the greater the challenges a child may experience later in life,

including issues such as alcoholism, suicidal behaviors, substance abuse, depression, anxiety, and PTSD.[3, 12–18]

Recent work has also explored how different types of trauma experiences cluster together.[19–21] These studies suggest that even when the number of trauma types is the same, exposure to different combinations of trauma experiences may have different impacts on children. Understanding those particular combinations rather than focusing on each type in isolation is crucial for developing treatment interventions that buffer the negative impacts of trauma exposure.[22] To investigate the patterns of trauma in our own clients, we used Latent Class Analysis (LCA) to group children based on shared patterns of trauma experiences.[1] That analysis revealed four unique trauma profiles among the youth in our clinic:

- *Low Exposure Group* – This group is characterized by relatively low probabilities of experiencing the trauma events we measured. This does not mean that youth in this group had no exposure to traumatic experiences; in fact, many have experienced at least one type of trauma.

- *Caregiving Disruption Group* – This group is characterized by a high probability of experiencing caregiving disruption and relatively low probabilities of experiencing other types of trauma.

- *Multiple Interpersonal Traumas Group* – This group is characterized by a high probability of experiencing multiple types of interpersonal trauma, particularly emotional abuse, physical abuse, and neglect. This group is often thought to be most at risk of developing symptoms associated with complex developmental trauma.[11, 23]

- *Community Violence Exposure (CVE) Group* – The *CVE* group is characterized by exposure to violence outside the home. Though this is the defining feature of the *CVE* group, youth who belong to this group may experience other types of trauma as well.

Youth in the *Low Exposure* group had the same number of mental health challenges as those in the *Caregiving Disruption* group. The number of challenges experienced by those in the *Multiple Traumas* group was nearly double that of the previous two groups, a result

consistent with research showing that interpersonal traumas can play a destructive role in a child's development and functioning.[23–25]

Notably, the intensity of mental health needs associated with the *CVE* group was the highest of all four groups, even though youth in the *Multiple Traumas* group were nearly twice as likely to experience neglect, emotional abuse, or physical abuse. These findings may be unexpected, in part because of how much of children's mental health treatment focuses on interpersonal traumas, such as neglect and abuse.[23] Given the proximity and importance of a child's family, it is typically assumed that the greatest threats to children's mental health come from problems in the home environment. However, our original study suggested that traumatic experiences occurring in a child's external environment may pose an equally potent risk to their well-being. Within our sample, the *CVE* pattern of trauma was not rare. Youth who belonged to the *CVE* group accounted for 13% of the sample.[1]

HOW DOES EXPOSURE TO COMMUNITY VIOLENCE IMPACT CHILDREN?

When kids are exposed to violence in their communities, either as witnesses or victims, their mental health is profoundly affected.[26] Estimates of the prevalence of CVE among children are high, and for many youth, community violence is not a single incident in the past, but rather a regular, ongoing occurrence. The combination of high rates of CVE coupled with its harmful impacts merits a closer look at how we support children who have been exposed to community violence.

Children's exposure to community violence is prevalent. Though estimates vary, studies suggest that around 40% of adolescents in the United States have witnessed some form of community violence.[27, 28] Those rates are estimated to be higher for youth living in cities, where there is evidence that one-third of urban youth are victimized by community violence, and as many as 80% to 93% of youth witness some form of violence in the community.[29–31] It is more common for children to witness violence in their communities than to witness violence in the home.[28] Given the high rates of CVE and the links between CVE and poor mental health, we might expect that substantial numbers of children require

mental health interventions, even if indicators of abuse, neglect, or interpersonal violence are not present.

Children's exposure to community violence is chronic. Kids living in communities with high rates of violence are not simply grappling with an incident they experienced in the past but are continuously exposed and re-exposed to intense and unpredictable toxic stress.[26] As Horowitz, McKay, & Marshall (2005) state, PTSD related to community violence is less a response to a traumatic event and more akin to psychologically adapting to "a war without end" (p. 357).[32] However, traditional PTSD interventions presume that the traumatic events are in the past, rather than continuous and recurring, and that the person receiving treatment has been separated from the source of their trauma. For example, the primary method by which child welfare systems protect children is by removing them from their family if that setting is deemed unsafe. Some have proposed the concept of continuous traumatic stress (CTS) to describe the impact of ongoing, persistent lack of safety, and argue that CTS may warrant different treatment interventions[33–35] (for a related concept, see compounded community trauma).[35] Regardless of the specific modality one might use in therapy, as a system of care we do not yet have effective mechanisms for intervening on behalf of children whose community environment is unsafe.

CVE is linked to numerous emotional, behavioral, and physical health challenges in children. Some studies suggest that increased exposure to violence in the community is related to increases in internalizing problems, including depression, anxiety, and social withdrawal.[26, 28, 36, 37] Not all research supports these links and in those that do, the effect sizes are often small. There is more support for a connection between CVE and externalizing behaviors, which include aggression, conduct disorder, and other behaviors often labelled "acting out."[26, 36–39] Witnessing violence may also take a physical toll on children, impacting their sleep and causing regular headaches.[40]

The mental health impacts most consistently connected to CVE are symptoms of post-traumatic stress. In fact, the preponderance of evidence suggests a strong association between CVE and PTSD symptoms in children.[26, 28, 38, 40] Moreover, a youth's developmental stage is not protective; young children and adolescents are equally susceptible to PTSD resulting from CVE.[26]

Witnessing violence is similar to experiencing violence. Children who witness violence can suffer trauma and related mental health effects comparable to those who are directly victimized.[41–43] Just hearing about violence in the community can have a negative effect. Researchers have observed a connection between CVE and PTSD when the child or youth was victimized by community violence, witnessed it, or simply heard about it.[26] Each of these types of CVE equally predict PTSD.

CVE explains trauma-related symptoms. Some research suggests that outcomes attributed to other types of childhood trauma may in part be explained by CVE. For instance, one study found that the effects of child maltreatment on trauma-related symptomatology were reduced once CVE was taken into consideration.[38] When CVE was not accounted for, the traumatic effects of childhood maltreatment were overestimated. Similarly, results from an earlier study suggest that the association between exposure to domestic violence and internalizing behaviors virtually disappeared once levels of CVE were included.[37]

High levels of CVE negate protective factors. The traumatizing effects of CVE are so potent that otherwise palliative experiences may lose their effectiveness at high levels of exposure. Attachment to parents[30], time spent with family[41], and family support[44] were all shown to reduce negative internalizing outcomes for kids with low levels of violence exposure but did not buffer these negative effects when exposure was high. Similarly, one study showed that a high level of interest in school was associated with fewer negative psychosocial outcomes for girls who witnessed low levels of community violence, but those effects disappeared as violence exposure increased.[36] Positive peer support and attachment to friends were shown to be just as, if not more, effective in curbing the effects of high CVE than family support or attachment to parents.[30, 39] These studies support the finding that CVE is a uniquely traumatizing experience, and traditional forms of intervention (e.g., strengthening family support) may be less effective in responding to the mental health challenges of children exposed to community violence than other approaches (e.g., building peer relationships).

The impact of CVE may require a community-wide solution. A focus on the community-level aspect of

Table 1. Sample Characteristics and Distribution of Trauma Experiences (*N* = 2,376)

Gender	*N*	%
Male	1,055	44%
Female	1,317	55%
Others	4	0%

Race/Ethnicity	*N*	%
African American/Black	868	37%
Latinx	318	13%
White	205	9%
Multiracial	737	31%
Other Ethnicities[a]	248	10%

Foster Care Involvement	*N*	%
Yes	1,491	63%
No	885	37%

Age	*N*	%
6–12	1,093	46%
13–15	633	27%
16–17	449	19%
18+	201	8%

Cumulative Number of Trauma Types	*N*	%
0	429	18%
1	627	26%
2	565	24%
3	338	14%
4	225	9%
5+	192	8%

Trauma Indicators	*N*	%
Maltreatment		
Emotional abuse	452	19%
Neglect	700	29%
Physical abuse	460	19%
Sexual abuse	322	14%
Familial Factors		
Caregiving disruption	1,397	59%
Family violence	559	24%
Parental crimes	272	11%
Community Factors		
Community violence	252	11%
School violence	81	3%
Witness/victim of crimes	280	12%

[a]Other Ethnicities is a combined category of racial or ethnic backgrounds with small sample sizes, including Native American, Middle Eastern, Asian and Pacific Islander, and Unknown

violence exposure shifts the focus from within the child or family (their "internal dysfunction") to outside. The source of toxic stress is in the environment. Moreover, violence may be related to a host of other indicators, such as lack of economic opportunity, shortage of affordable housing, absence of grocery stores and child care services, among others.[45, 46] While this current study does not directly address the relationship between social determinants and toxic stress in children, our findings are consistent with a framework that views mental health symptomatology as the outward manifestation of how youth adapt to their environment in order to survive. Effective prevention and intervention efforts need not only to provide individual support; they must also address the root causes of the violence. Our institutions have so far failed to restore community peace. The burden of healing from and preventing the impacts of community violence continues to be put on the children and families exposed to that violence.

STUDY METHODOLOGY

As severe and common as CVE-related trauma is in children, it should receive a higher priority focus in mental health settings. Our objective in this paper is to investigate the specific mental health effects associated with CVE, and examine whether the patterns of mental health needs for youth exposed to community violence are similar to or different from the needs of youth who experience different patterns of trauma. If those needs are different, youth who experience CVE may require different treatments or interventions than those experiencing interpersonal traumas.

STUDY SAMPLE

The data for the current analysis include 2,376 children and youth who were provided mental health services by WestCoast between 2013 and 2017. All met eligibility criteria for Specialty Mental Health Services (SMHS) under Medi-Cal's Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit. EPSDT is a Medicaid entitlement benefit that provides coverage for a broad range of mental health services. In terms of demographics, 55% identified as female; 37% identified as African American, 31% Multiracial, 13% Latinx, 9% Caucasian, and 4% Asian or Pacific Islander. While the

youth included in this study ranged in age from 6 to 24 years, most were between 10 and 17, with the average age being 12.5 years. Most had experienced maltreatment or deprivation, with 63% having had at least some involvement with the foster care system. That is, they may have been in foster care during or prior to when they received mental health services, or they may have had other contact with or interventions from the child welfare system, even if they did not formally enter foster care. See Table 1 for information about the sample and trauma exposure rates.

WestCoast provides intensive outpatient mental health services in the community. That means that clinicians and case managers meet clients where they are—at school, home, or in some instances if there is no other safe or private space, in a park or the clinician's car. The study includes clients from each of WestCoast's four therapy programs: 1) Outpatient Therapy Program, which provides individual and family-based therapy and case management; 2) Catch-21, which serves transition age youth who are exiting psychiatric or other residential facilities and need support in their transition to independent living; 3) C-Change, which serves youth experiencing commercial sexual exploitation; and 4) the STAT program, which provides mental health screening, stabilization, and transition services to children and youth who are removed from their homes or are experiencing a change in their foster care placement. The prevalence of maltreatment is high in all four programs.

MEASURES

The mental health needs we included in this analysis are based on measures from the *Child and Adolescent Needs and Strengths* assessment (CANS[47]). The CANS is a validated tool used to assess a child's behavioral and emotional health, risk behaviors, needs related to everyday life, internal and external strengths, caregiver needs and strengths, and trauma exposure with the goal of increasing communication among stakeholders (including the client, their family, and the systems in which they are embedded). Though CANS assessments are conducted multiple times throughout a client's treatment, this study only examined a youth's initial assessment in order to focus on the experiences and needs clients had prior to receiving services at WestCoast.

The CANS defines a need as an area where a youth requires help or serious intervention. Each CANS item is rated on a four-point scale: 0 = no evidence of need on this item; 1 = monitoring or watchful waiting around this need; 2 = this item interferes with daily life and requires action to address it; and 3 = the need is severe and requires immediate or intensive action. If an item has a score of 2 or 3, it is said to be actionable and should be addressed in the client's treatment plan.

Mental Health Needs. For this analysis, mental health needs were measured using 16 items from the CANS. Appendix A lists the CANS items used in our analysis and their descriptions. Table 2 below shows the distribution of mental health needs across the sample.

Table 2. Core Mental Health Needs (*N* = 2,376)

CANS Item	Actionable	Non-actionable	Missing
Adjustment to trauma	1,163	1,213	0
Anger control	546	1,568	262
Anxiety	1,151	1,225	0
Impulse control/hyperactivity	476	1,531	369
Behavioral regression	96	1,911	369
Conduct problems	91	2,283	2
Danger to others	157	2,217	2
Depression	1,115	1,001	260
Judgment	514	1,600	262

CANS Item	Actionable	Non-actionable	Missing
Non-suicidal self-injury	164	1,950	262
Oppositional behaviors	358	1,649	369
Psychosis	85	2,289	2
Running away	259	1,781	336
Sleep	309	1,805	262
Substance use	206	2,168	2
Suicide risk	123	1,991	262

The CANS measures numerous needs related to daily life challenges as well, such as functioning in school or ability to hold a job. For this study, we selected items that focus on emotional well-being and risk behaviors. Though the CANS changes slightly from year to year, the items we selected were asked consistently each year during the study period for all youth ages 6 and older.
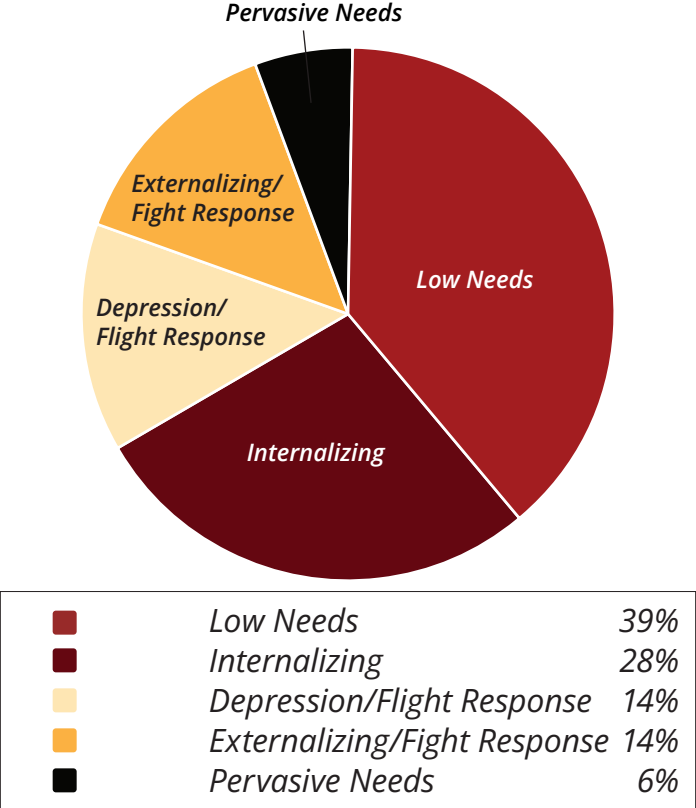
DATA ANALYSIS PROCEDURES

We used Latent Class Analysis (LCA) to first examine the patterns of mental health needs among the WestCoast clients and then how the trauma profiles we identified in our first study explain the patterns of mental health needs.[1] LCA is considered a person-centered approach, which means that it groups youth together based on similar patterns of mental health symptoms (for more detail, see Appendix B). No single approach fits all the needs of all youth who have experienced trauma. There is great heterogeneity in children's experiences and in how they are impacted by those experiences. With the 16 measures of mental health symptoms in this study, there are tens of millions of potential combinations of needs that can show up in our clients' lives. Consequently, it is impossible to detect meaningful patterns in a systematic way without the right analytic tools. Using LCA helps us identify the more common patterns of needs in the population of youth WestCoast serves. By differentiating clients with common mental health challenges, we can better target our interventions.

MAIN FINDINGS

Our analysis revealed five classes, or subgroups, of youth, each of which is described below. Figure 1 shows the prevalence rates, or the percent of the total sample belonging to each of the profiles of mental health symptoms. To aid in the interpretation of the results and highlight the similarities and differences between the groups, it is common practice to name each latent group.

Table 3 displays the five symptom profiles of youth receiving services at WestCoast. The numbers in this table show the item-response probabilities, or the probability of reporting an actionable score (CANS rating of 2 or 3)

Figure 1. Distribution of Clients by Latent Symptom Profile (*N* = 2,376)

	Profile	%
■	*Low Needs*	*39%*
■	*Internalizing*	*28%*
■	*Depression/Flight Response*	*14%*
■	*Externalizing/Fight Response*	*14%*
■	*Pervasive Needs*	*6%*

on each of the 16 mental health needs we measured. For example, 26% of the *Low Needs* youth in Class 1 experienced anxiety, whereas 81% of *Pervasive Needs* youth in Class 5 reported anxiety. Each of the five mental health profiles is described below.

Class 1: *Low Needs* **Group**. Youth in the *Low Needs* group were the least likely of any group to experience any of the mental health symptoms we measured. This does not mean that youth in this group had no mental health symptoms. For example, 28% of youth in this group experienced depression and 26% experienced anxiety. Even so, youth in this group were less likely than youth in the other four groups to report most of the mental health symptoms we measured. It is important to note that these measures indicate whether a symptom is present, not how severe or chronic it is or how much it may interfere with the young person's ability to manage daily life activities. Over one-third (39%) of youth in our sample fell into this class.

Class 2: *Internalizing* **Group**. Youth in this group had high probabilities of experiencing depression (69%), anxiety (70%), and trauma symptoms (78%). However, they did not tend to exhibit externalizing behaviors such as running away (4%), being a danger to others

(0%), experiencing challenges with healthy decision making (7%), or exhibiting oppositional behaviors (4%). Because their mental health needs were largely about their internal emotional states and less about external behaviors, we refer to this class as the *Internalizing* group. Youth with internalizing symptoms often suffer in silence before adults in their lives recognize the signs of their distress.[48] More than one in four (28%) of the youth in our study belong to this group.

Class 3: *Depression/Flight Response* **Group**. Youth in this class had the highest levels of depression (87%) and running away (61%) compared to the other profiles. Combined with high levels of anxiety (69%), challenges with judgment (75%), trauma symptoms (77%), and suicide risk (21%), this pattern suggests that youth in this class experience many of the same internalizing symptoms as those in the *Internalizing* group but are also potentially seeking escape. About one in five present with suicide risk—a sizable minority. Because of the very high prevalence of depression and the additional challenges this group faces, we refer to this class as the *Depression/Flight Response* group. This group accounted for an estimated 14% of the youth in our sample.

Class 4: *Externalizing/Fight Response* **Group**. Youth in this profile experienced depression (51%) and challenges with judgment (51%) in addition to difficulty with anger control (77%) and oppositional behavior (63%). These external behaviors – symptoms of the mental health challenges they are experiencing – impact others. Compared to the *Low Needs*, *Internalizing*, and *Depression/Flight Response* groups, this group also showed higher probabilities of conduct issues (9%) and being a danger to others (20%). Thus, we refer to this class as the *Externalizing/Fight Response* group. This group accounted for an estimated 14% of the sample.

Class 5: *Pervasive Needs* **Group**. Youth in this group are characterized by the greatest range of symptoms of all five profiles, and had the highest probability of experiencing nearly every mental health symptom we measured, including trauma symptoms (88%), attention deficit (55%), anger control (97%), anxiety (81%), conduct issues (34%), presenting a danger to others (58%), challenges with judgment (90%), non-suicidal self-injury (35%), and sleep problems (40%). Therefore, we refer to this class as the *Pervasive Needs* group. This class had

Table 3. Five Profiles of Mental Health Needs (*N* = 2,376)

Latent Class Labels	Class 1: Low Needs	Class 2: Internalizing	Class 3: Depression/ Flight Response	Class 4: Externalizing/ Fight Response	Class 5: Pervasive Needs
Proportion of Sample	39%	28%	14%	14%	6%
Adjustment to trauma	13%	**78%**	**77%**	46%	**88%**
Anger control	7%	12%	31%	**77%**	**97%**
Anxiety	26%	**70%**	**69%**	33%	**81%**
Impulse control/ hyperactivity	17%	21%	14%	46%	**55%**
Behavioral regression	1%	9%	0%	8%	12%
Conduct problems	0%	0%	3%	9%	34%
Dangers to others	0%	0%	3%	20%	**58%**
Depression	28%	**69%**	**87%**	**51%**	**84%**
Judgment	3%	7%	**75%**	**51%**	**90%**
Non-suicidal self-injury	0%	5%	25%	8%	35%
Oppositional behaviors	2%	4%	33%	**63%**	**68%**
Psychosis	1%	2%	9%	4%	13%
Running away	2%	4%	**61%**	8%	49%
Sleep	2%	26%	23%	13%	40%
Substance use	1%	1%	35%	6%	37%
Suicide risk	0%	5%	21%	4%	24%

Note: Item-response probabilities > 50% in bold to facilitate interpretation.

the smallest prevalence rate within our sample, encompassing an estimated 6% of youth.

The profiles of mental health needs that emerge from this analysis are not deterministic; rather they reflect general patterns of the kinds of challenges young people experience, and they help us identify the distinguishing features of clients in each latent class. The types of challenges that are most common in any given class are by no means the only type of mental health challenge experienced by youth in that class. For example, challenges with anger are present for all five groups, including the *Low Needs* group, but they are most prevalent for the *Depression/Flight Response* and *Pervasive Needs* groups. Similarly, suicidality may be most common among the *Depression/Flight Response* and *Pervasive Needs* groups, but it also exists among the *Internalizing* and *Fight Response* groups and ought not to be overlooked simply because it is not a defining feature of any single group. The fact that over one-fifth of youth in the *Depression/Flight Response* and *Pervasive Needs* groups experience suicidality is alarming.

Identifying these common patterns of how mental health challenges show up in children's lives helps us consider interventions that address these combinations of needs together rather than as categorical symptoms of an underlying mental disorder. For example, challenges controlling anger may cause disrupted relationships that lead to depression, or depression may cause feelings of isolation that lead to anger. Identifying the latent cause of the mental health symptoms may not be as helpful to the child as addressing all the symptoms

in a holistic way. Viewing the whole child frees direct service providers from the strict criteria often required for assigning diagnoses.

LINKING TRAUMA PROFILES WITH PROFILES OF MENTAL HEALTH NEEDS

While understanding the profiles of mental health needs is helpful, a next step is examining how trauma profiles are linked to symptom profiles. Our goal is to understand how the patterns of trauma exposures that our clients have lived through impact the challenges they experience as a result. In statistical terms, this means we used our four trauma profiles as covariates in our LCA model for our five mental health needs groups. The results of this analysis produced odds ratios, which refer to the chance that a youth in one of the trauma profiles also falls into one of the mental health needs profiles relative to a reference group. We used the *Low Needs* group as our reference group. The odds ratios of the trauma profiles being associated with the symptom profiles are displayed below in Table 4.

The odds ratio is a measure of how strongly a trauma profile is associated with a mental health needs profile. It is challenging to interpret odds ratios because they represent ratios of probability. If the odds ratio equals one, the probability of belonging to one of the symptom profiles is equally as likely as belonging to the *Low Needs* group (our reference group). An odds ratio less than one means lower likelihood, and an odds ratio greater than one means higher likelihood.

Table 4. Odds Ratios for the Relationship Between Trauma Profiles and Mental Health Needs Profiles (*N* = 2,376)

Mental Health Needs Profiles	Low Needs	Internalizing	Depression/ Flight Response	Externalizing/ Fight Response	Pervasive Needs
Trauma Profiles[a]					
Multiple Interpersonal Traumas	reference	3.9	1.3	0.7	1.0
Caregiving Disruption	reference	0.2	0.2	0.4	0.1
Low Exposure	reference	0.1	0.1	0.5	0.0
Community Violence Exposure	reference	1.4	7.2	3.0	3.0

Note: Odds ratios are based on comparison with the *Low Needs* profile. A value of 1 means that a youth from a Trauma Profile is equally likely to fall in the selected Mental Health Needs Profile as they are in the *Low Needs* profile. A value less than one indicates a lower likelihood; a value greater than one indicates a higher likelihood.
[a]The Trauma Profiles significantly predict the Mental Health Needs profiles (*p* < 0.001)

Here, we are looking at whether a youth from a particular trauma profile, say *Caregiving Disruption*, is more or less likely to belong to a symptom profile compared to the *Low Needs* group. In this example, youth in the *Caregiving Disruption* profile are only 20% as likely to belong to the *Internalizing* group relative to *Low Needs*, while youth in the *Multiple Interpersonal Traumas* profile are 3.9 times more likely to belong to the *Internalizing* group.

The results in Table 4 show that all the odds ratios for the *Caregiving Disruption* and *Low Exposure* groups are less than one, meaning that youth in these trauma groups were more likely to end up in the *Low Needs* profile than in any of the other symptom profiles. This makes sense, as we previously found that the *Caregiving Disruption* and *Low Exposure* groups experienced fewer mental health needs than the other two trauma groups. In contrast, youth in the *Multiple Interpersonal Traumas group* were nearly four times more likely to be in the *Internalizing* group than *Low Needs*. That is, they had a higher likelihood of experiencing a range of internalizing needs such as depression, anxiety, and trauma symptoms than not.

The high odds ratios of the *CVE* group indicate these youth had a higher likelihood of belonging to the more intensive symptom profiles, and a lower likelihood of having low needs than any other trauma profile. Youth in the *CVE* profile were seven times more likely to be in the *Depression/Flight Response* group than the *Low Needs* group. In comparison, youth in the *Caregiving Disruption* and *Low Exposure* groups were five and ten times less likely, respectively, to experience the *Depression/Flight Response* symptoms. Likewise, members of the *Multiple Interpersonal Traumas* group were only 1.3 times as likely to belong to this mental health needs profile compared to *Low Needs*. Thus, youth who were also exposed to violence in the community were not only more likely to experience the effects felt by those in the *Internalizing* group (i.e., depression, anxiety, and adjustment to trauma), but they also experienced the impact on their judgment and felt a pressure to escape, either through running away or, in the most extreme cases, through increased risk of suicide.

Youth in the *CVE* group also had the highest likelihood of experiencing the *Externalizing/Fight Response* and *Pervasive Needs* patterns. *CVE* members were three times more likely to belong to either of these needs profiles

than to the *Low Needs* profile. Even though youth in the *CVE* profile experienced a similar number of needs as those in the *Multiple Interpersonal Traumas* group, this analysis suggests that the makeup of those needs is much different.

MECHANISMS OF HARM AND REPAIR

Consistent with the extant literature on violence exposure, our findings suggest that the effects of community violence exposure on children are uniquely impactful on their mental health. Youth in the *CVE* trauma group are much more likely to be associated with a more intensive pattern of mental health needs that include running away and risk of suicide. Why are kids who experience CVE-related trauma linked with an intensive pattern of mental health needs? The following arguments offer some possible explanations.

CVE-related trauma cannot be easily stopped. With interpersonal abuse and neglect, intervention and support by those closest to the youth (such as members of their family) can be strong stabilizing factors in a youth's recovery. Moreover, in the most extreme situations there exists a systemic, if imperfect, response whereby child protection agencies can intervene in a youth's situation to stop or mitigate the maltreatment. Containing violence that occurs in a child's neighborhood is a complex undertaking that cannot be accomplished by family members, social workers, or therapists alone. Therefore, interventions that presuppose a child is no longer exposed to trauma when treatment begins may not be effective when that child's trauma is linked to CVE.

CVE-related trauma is not a discrete event, but a chronic and ongoing circumstance. Providers need to recognize that clients who are exposed to community violence may be continually re-traumatized, which may explain why the youth in our sample who were exposed to community violence have such high likelihoods of falling into the *Depression/Flight Response* group: They have a strong desire to escape a situation that is both continuous and seemingly irreparable. However, given that PTSD treatments often revolve around incidents that occurred in the past, their efficacy in helping youth who continue to witness violence may be limited. Though most interventions first require attention to

dangerous aspects of a child's environment or endangering behaviors,[49] some methods used in trauma therapy modalities might not be suitable for youth exposed to ongoing traumatic experiences (e.g., trauma processing).

CVE-related trauma is linked to other types of trauma. Though members of the *CVE* class are more likely to experience violence outside the home compared to the other trauma groups, these youth also had high probabilities of experiencing other types of trauma. For instance, 31% experienced sexual abuse and 44% were exposed to family violence. The negative impacts of multiple, different types of trauma reinforce each other. From a youth's perspective, their experiences suggest there is no safe place, neither in their home nor out in the community.[42]

These findings also point to a mutually influencing relationship between trauma experienced in the family environment and violence experienced outside the home. Some studies have shown a correlation between CVE and child maltreatment.[38, 50] Experiencing trauma at home may cause a child to flee or be forced into community spaces where violence occurs. Or violence in the community may increase the pressure endured by already stressed families, thereby contributing to an increase in intra-family abuse.[51]

Traditional support networks are also traumatized by CVE. CVE wears away at resilience, not only for the child but also for their siblings, parents, friends, and teachers, who may themselves be coping with the impacts of trauma. This dynamic may challenge a child's belief that the world is safe and predictable, both for themselves and their loved ones. The collective traumatization of those within the child's social and community network makes it harder to heal after exposure to violence. One study estimated that for every murder in a community, 200 residents were affected.[52] In a related community survey, researchers found that over half of respondents personally knew more than 10 people who had been murdered in their community.[53] Closer to home, CVE may indirectly impact children through adverse effects on the mental health of their caregivers. As suggested by Cicchetti and Lynch (1993), increased CVE-related stress on the family may be related to an increase in child maltreatment.[51] CVE may also compromise the caregiver's ability to emotionally soften the impact that community violence has on their child.[54]

CVE-related trauma is not properly addressed in therapy. It is unclear to what extent trauma-focused therapists recognize community violence as a significant source of trauma. The findings of this current study, along with other research on the effects of community violence on children, strongly suggest that mental health providers should address CVE in treatment. If we fail to recognize how the community context is entangled with the child's suffering, at best we are ineffective at helping young people heal. At worst we may exacerbate the suffering by not acknowledging the source of trauma or by locating the problem within the child and family, essentially pathologizing their struggle. Addressing community violence in therapy does not require abandoning established treatment methods; it requires incorporating strategies to address violence.

Few mental health interventions target CVE. Fewer still have been empirically validated through controlled clinical trials or quasi-experimental studies.[55, 56] The validated treatments used most often, such as trauma-focused cognitive behavioral therapy (TF-CBT), are based on exposure to other types of traumatic experiences such as domestic violence or sexual abuse. Though TF-CBT can be effective at reducing PTSD symptoms, this modality may not be able to address the full range or intensity of needs and behaviors associated with CVE.[56, 57] Other interventions that have been proposed to address CVE-related symptomatology include Trauma Systems Therapy (TST), psychoeducation, crisis intervention, mental health first aid, and traumatic bereavement therapy,[56, 58] though the efficacy of these interventions still needs to be determined in the context of CVE.

Community-focused interventions may help build resilience and repair. Connection to community is often a casualty of trauma, regardless of the type. The effectiveness of individual-level treatment for CVE-related mental health needs may be limited unless combined with community-focused efforts. Mobilizing community-level interventions may be an important component in healing from collective trauma.[59] Initiatives such as the Trauma Response Teams in Syracuse, NY and Oakland Unite in Oakland, CA provide crisis support for those impacted by violence, engage in violence prevention activities, and provide community-led outreach activities and events to promote neighborhood trust and resilience.[52, 60] While both programs are relatively

small, they address healing the community, which is often ignored in criminal justice measures.

CVE POLICY AND PRACTICE IMPLICATIONS

The findings in this paper offer new implications for mental health policies and practices related to children. At the most basic level, child-serving providers who do not already address community violence in their practice need to recognize CVE as a potentially traumatic experience that seriously affects children's mental health, at least as much as abuse or neglect. Effectively addressing the detrimental effects of CVE on children also requires institutional changes. Because the effects of CVE may be different from those related to abuse, policies that focus only on abuse but not CVE will fail to meet the mental health needs of many children. New interventions that address the needs of kids experiencing community violence must also be developed.

As we noted in our first paper in this series, supporting young people's well-being may require new and different funding sources, or blending and braiding of funds from multiple public systems to implement proactive approaches to support children's mental health. Additionally, in areas where community violence exposure is high, mental health support, as defined by the community, should be available for all children and families, regardless of symptomatology. We need to ensure that our funding streams and policies incorporate peer-based and community driven models of support.

Efforts currently underway in California aim to facilitate access to SMHS for youth who have experienced trauma, rather than waiting for symptoms to become severe. As part of the state's Medi-Cal reform initiative, California Advancing and Innovating Medi-Cal (CalAIM), the Department of Health Care Services (DHCS) has updated eligibility criteria for EPSDT SMHS to include trauma exposure. One of the ways that youth can meet eligibility criteria under this provision includes "scoring in the high-risk range under a trauma screening tool approved by the department (California Welf. & Inst. Code, § 14184.402(c))." As DHCS considers which trauma screening tools will be used, our research findings indicate that a simple count of traumas is not sufficient to indicate high-risk. Requiring a certain number of traumas does not take into consideration that the patterns of trauma or that a single type of trauma exposure (e.g., community violence) can have a significant impact on a child's mental health.

CVE interventions, no matter how sophisticated or targeted, may still fall short because violence persists in many communities where kids live. To help heal and prevent harm, a more systemic response to directly address the violence is needed. Community violence is connected to deeper, historic traumas such as racism and poverty, and the harm happening to kids now is linked to decades of premeditated, institutional abuse and neglect, from Jim Crow laws to segregation to red lining of neighborhoods.[61–65] This institutional abuse and neglect set the stage for the violence we see today, and children are paying the price.

LIMITATIONS

As with all studies, the limitations of our current work require future research to address. First, LCA examines patterns among a set of variables, but it does not determine causation. Though it is a fair assumption that a traumatic experience leads to the development of mental health needs, it is also possible that children with mental health needs are more likely to experience trauma. Exposure to violence in the community can lead to psychological and behavioral challenges in children, and children who begin with these challenges may be more likely to be in situations where they are exposed to violence. Regardless of the causal direction, behavioral health supports are warranted, whether for primary, secondary, or tertiary prevention. Moreover, those supports can be provided through therapy or other community-level interventions or both.

We must also ask whether CVE and severe mental health needs are linked to a shared, causal factor. A number of community-level factors are plausibly linked to both CVE and patterns of mental health needs, such as poverty, lack of economic or educational opportunities, and systemic racism. However, all of the children and youth in our study share these struggles. Thus, the evidence of CVE's detrimental effects on kids is strong.

Finally, sample and measurement decisions always affect results. Our sample is a specific population of young people, and our results may not be generalizable to the broader youth population. Our data come from client assessments at our clinic. WestCoast providers work primarily with children and youth from the San Francisco Bay Area, particularly in Alameda County, and the majority of WestCoast clients have experience with the foster care system. Youth who are exposed to violence in their communities but who live in other locations or are not involved in the child welfare system may have different patterns of mental health challenges than those faced by the youth in our sample. In addition, the trauma and mental health profiles we uncovered are dependent on our measures of trauma and mental health symptoms. Including a broader range of trauma experiences or mental health challenges and using a measurement instrument other than the CANS may yield different results.

CONCLUSION

Our approach in this study helped identify commonalities among our clients in order to better target services and interventions. Identifying distinct groups of children with particular clusters of trauma and understanding each group's distinct needs can help inform better policies, programs, and practices. We can use this information to direct resources toward more appropriate interventions that target the specific needs of the youth within those groups.

So long as trauma-related mental health treatment is primarily centered on interpersonal trauma, children with exposure to community violence will not receive the care they need. Given the chronic occurrences of violence in some children's lives, many continue to be re-traumatized and undertreated. The high rates of violence in the U.S. combined with the uniquely detrimental effect violence has on children's well-being highlights the importance of funding new and innovative interventions. These factors also underscore the urgent need for policymakers to recognize the effects that community violence has on children—effects that can have lifelong impacts on their developmental trajectory.

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APPENDIX A

List of CANS mental health items and their descriptions:

Adjustment to trauma
This item is used to describe the child who is having difficulties adjusting to a traumatic experience. Symptoms include sleeping or eating disturbances, intrusive thoughts, flashbacks, numbing, and other signs associated with PTSD.

Anger control
This item captures the child/youth's ability to identify and manage their anger when frustrated.

Anxiety
This item rates symptoms associated with anxiety disorders characterized by excessive fear and anxiety and related behavioral disturbances (including avoidance behaviors). Panic attacks can be a prominent type of fear response.

Conduct problems
This item rates the degree to which a child/youth engages in behavior that is consistent with the presence of a Conduct Disorder.

Danger to others
This item rates the child/youth's violent or aggressive behavior. The intention of this behavior is to cause significant bodily harm to others.

Depression
Symptoms included in this item are irritable or depressed mood, social withdrawal, sleep disturbances, weight/eating disturbances, and loss of motivation, interest, or pleasure in daily activities. This item can be used to rate symptoms of the depressive disorders as specified in the DSM-5.

Impulse control/ hyperactivity
Problems with impulse control and impulsive behaviors, including motoric disruptions, are rated here. This includes behavioral symptoms associated with Attention-Deficit Hyperactivity Disorder (ADHD) and Impulse-Control Disorders. Children with impulse problems tend to engage in behavior without thinking, regardless of the consequences.

Judgment/Decision Making
This item describes the child/youth's age-appropriate decision-making process and understanding of choices and consequences.

Non-suicidal self-injury
This item describes the child/youth's age-appropriate decision-making process and understanding of choices and consequences.

Oppositional behaviors
This rating includes repetitive, physically harmful behavior that generally serves as self-soothing function to the child/youth (e.g., cutting, carving, burning self, face slapping, head banging, etc.). This rating also includes reckless and dangerous behaviors that, while not intended to harm self or others, place the child/youth or others in some jeopardy.

Psychosis
This item rates the symptoms of psychiatric disorders. The primary symptoms include hallucinations (experiencing things others do not experience), delusions (a false belief or an incorrect inference about reality that is firmly sustained despite the fact that nearly everyone else thinks the belief is false or proof exists of its inaccuracy), or bizarre/idiosyncratic behavior.

Running away
This item describes the risk of running away or actual runaway behavior.

Self-injurious behavior
This rating includes repetitive, physically harmful behavior that generally serves as a self-soothing function to the child/youth (e.g., cutting, carving, burning self, face slapping, head banging, etc.). This rating also includes reckless and dangerous behaviors that, while not intended to harm self or others, place the child/youth or others in some jeopardy.

Sleep
This item rates the child/youth's sleep patterns. This item is used to describe any problems with sleep regardless of the cause, including difficulties falling asleep or staying

asleep as well as sleeping too much. Both bed wetting and nightmares should be considered sleep issues.

Substance use

This item describes problems related to the use of alcohol and other drugs, the misuse of prescription medications, and the inhalation of any substance. This rating is consistent with DSM Substance-Related and Addictive Disorders. This item does not apply to the use of tobacco or caffeine.

Suicide Risk

This item is intended to describe the presence of thoughts or behaviors aimed at taking one's life. This rating describes both suicidal and significant self-injurious behavior. This item rates overt and covert thoughts and efforts on the part of a child or youth to end their life.

APPENDIX B

Data Analysis Procedures

First, we fit a series of models with one through six latent classes using the 16 indicators of mental health needs identified in our study. All LCA models were fitted with 100 different sets of random starting values; if they consistently converged to the same solution, we could be confident of a maximum likelihood solution.[68] We then relied on various fit indices including the G^2 statistic and corresponding degrees of freedom and information criteria (AIC, BIC, and sample size-adjusted BIC) to narrow down the set of plausible models. To aid with model selection, we also used the LCA Bootstrap Stata function[67] to perform the Bootstrap Likelihood Ratio Test. Finally, we took into consideration how well a solution could be interpreted (i.e., whether the latent subgroups in a solution showed meaningful patterns, were distinct from the other subgroups, and could readily be labeled) before selecting the optimal model.

Next, we refit the optimal model and added the trauma group membership variables that we identified in the first paper of this series (Low Exposure, Caregiving Disruption, Community Violence Exposure, and Multiple Interpersonal Traumas)[1] as covariates to examine the extent to which these variables predict mental health needs profile. Specifically, using the likelihood ratio χ^2 test, the LCA with covariates tests whether each covariate of interest contributes significantly to the prediction of latent class membership above and beyond the contribution of other covariates in the model. Furthermore, the LCA with covariates model also produces regression coefficients and odds ratios, representing the odds of membership in a mental health needs latent class in relation to the reference mental health needs group.[68] Finally, given the limitation of other classify-analyze approaches in predicting distal outcome from latent class memberships, we followed the model-based method[70]—whereby classification error was adjusted in the model—to examine the association between trauma patterns and youth mental health needs.

All analyses were performed using Stata 15.[69] The base LCA and LCA with covariates models were conducted using the LCA Stata Plugin Version 1.2,[71] developed by researchers at the Methodology Center at Pennsylvania State University based on their PROC LCA procedure in SAS.[66] The LCA with distal outcome model was estimated using the LCA_Distal_BCH Stata function.[72] All software packages to conduct LCA are available for download free of charge at http://methodology.psu.edu.

Latent Class Labels

We relied on the overall pattern of item-response probabilities for a particular class (listed in Table 3) to inform the choice of label for that latent class. For instance, for youth in the Internalizing latent class, the probability was 0.69 of having an actionable rating (2 or 3) on the Depression item in the CANS—that is 69% of youth in this class have an actionable score on the Depression item. Looking at the overall pattern of item-response probabilities for youth in this class, we could see that they were more likely to have an actionable score on items related to internal emotional responses to trauma, including Adjustment to Trauma, Anxiety, and Depression items from their CANS assessment. Conversely, they were less likely to have actionable scores on items related to external reactions, such as Anger Control, Impulse Control/Hyperactivity, Behavioral Regression, and Conduct Problems. This overall pattern suggests that this latent class could be labeled Internalizing.