Together Helping Reduce Youth Violence for Equity (ThrYve): Examining the development of a comprehensive multisectoral approach to youth violence prevention

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Abstract

Comprehensive approaches to youth violence prevention are needed to simultaneously address multiple risk factors across socioecological levels. ThrYve (Together Helping to Reduce Youth Violence for Equity) is a collaborative initiative focused on addressing broader factors influencing youth violence, including social determinants of health. Using a participatory approach, the development of ThrYve is examined through an empirical case study. Through a Systems Advisory Board (SAB), ThrYve deploys multiple strategies that support cross-sector collaboration involving over 40 partners across 13 community sectors. Based on the Institute of Medicine's model for public health action in communities, the SAB identified 87 change levers (i.e., program, policy, practice changes) to support community and systems-level improvements. As a result of the collaborative process, in the first couple of years, ThrYve facilitated 85 community actions and changes across sectors. The changes aligned with identified risk and resilience needs of the youth served in the community. The findings further support prior research, which suggest disparities related to gender may influence risk and resilience factors for youth violence. The study also indicates the importance of continuing to examine academic performance as a factor related to youth resilience.

Keywords: youth violence, community change, participatory, comprehensive initiative

Comprehensive approach to youth violence prevention

Violence is an issue with serious consequences that affect communities in the United States and around the world. According to the Centers for Disease Control and Prevention (CDC, 2019a), youth violence is defined as "the intentional use of physical force or power to threaten or harm others by young people ages 10 to 24". Overall, homicide is the third leading cause of death for people between 10 to 24 years (CDC, 2019b). Daily, approximately 14 youth die due to homicide, and 1,300 youth are treated in emergency units for non-fatal injuries related to violence (CDC, 2019b). Over the past several years, homicide fatalities involving youth have increased nationally after a decreasing trend for more than a decade (Child Trends, 2019).

Racial and ethnic minorities are disproportionally affected by violence. In 2017, approximately 5,083 youth ages 10 to 24 died as the result of homicide violence, and 63% of the victims were black (CDC, 2019c). Homicide violence is the leading cause of death for black youth, and the second leading cause for Hispanic youth ages 15 to 24 (CDC, 2019b). There is also an association between gender and violence, with youth and community violence most often involving males (McAra and McVie, 2016). For racial and ethnic minority males, the likelihood of violence victimization is severe and persists across the lifespan. Particularly, homicide violence is the leading cause of death for black males and the second leading cause for Hispanic males between the ages 1 to 44 (CDC, 2019b). In 2017, the homicide rate for black males ages 15 to 19 was 58.9 per 100,000, which was 16 times higher than for non-Hispanic white males (Child Trends, 2019).

The consequences of youth violence are multi-faceted. First, there are long-term effects on the physical, mental, and emotional health of individuals who experience violence. Secondly, experiencing violence is considered an adverse childhood experience, which is associated with negative outcomes over the life course. Those experiencing violence have an increased likelihood of future violence, substance abuse, and academic difficulties (CDC, 2019b). Violence often contributes to individual and community-level trauma, which influences the capacity to cope due to a decreased sense of safety and trust (Crizzle et al., 2019; Hodas, 2006).

Social Ecological Approach to Youth Violence Prevention

Multiple factors contribute to youth violence such as household poverty, neighborhood deprivation, and the systemic effects of racism (McAra and McVie, 2016; Child Trends, 2019). Based on a socioecological approach, youth violence is the outcome of interactions among many factors including at the individual, relationships, community, and broader societal levels (CDC,

2019). Common risk factors are found to influence multiple adolescent problem behaviors, related to not only violence, but also substance abuse, delinquency, risky sexual behaviors, and school drop-out (Hawkins, 2006; Hawkins, Catalano, and Arthur, 2002). Comprehensive community change interventions simultaneously address multiple risk factors contributing to co-occurring problems across socioecological levels and involving multiple sectors of the community (CDC, 2019d; Crizzle et al., 2019; DiClemente, Salazar et al., 2007).

Community-based approaches to violence prevention. Collaborative partnerships and coalitions are a common mechanism for supporting change and improvements in population-level health and development outcomes. A range of issues have been addressed through collaborative partnership models including the prevention of violence, substance use, and chronic disease (e.g., Crizzle et al., 2019; Roussos and Fawcett, 2000; Watson-Thompson et al., 2017). Often, community-based approaches may engage an intermediary organization, such as a university-based partner to enhance community capacity through training and technical assistance (Foster-Fishman, Cantillon, Pierce, & Van Egeren,2007). A review of the literature identified that community-based partnerships and interventions are an effective approach to mobilizing communities in addressing violence and injury (Crizzle et al., 2019).

IOM Model for Collaborative Action in Communities

The Institute of Medicine's (IOM) model for collaborative public health action in communities supports a participatory approach for facilitating a comprehensive community intervention (see Figure 1). The IOM model integrated with 12 key coalition processes guides collaborative initiatives in facilitating change and improvements in communities (Fawcett, Schultz, Watson-Thompson, Fox, & Brembly, 2010; Institute of Medicine, 2003). In the assessment and planning phase (Phase A), consensus is gained on the prioritized issue and related factors to be addressed through a collaborative process of information gathering and analysis. As a part of the planning process, a logic model or framework is developed to guide collaborative action (Phase B). Collaborative action is supported through a plan, which provides accountability for implementing identified programs, policies, and practices related to the problem or goal. Through the implementation of the plan, community and systems change interventions (i.e., programs, policies, and practices), are facilitated to address the problem (Phase C). Effective implementation of community and systems change contributes to widespread changes in the risk factors and related behaviors of multiple individuals and groups

Comprehensive approach to youth violence prevention

(Phase D). Over time, collective changes in prioritized behaviors of people and groups leads to improvements in outcomes at the community or population levels (Phase E).

Insert Figure 1

Purpose of the Present Study

The present study examines the implementation of the IOM model and related processes to support the development of ThrYve (Together Helping Reduce Youth Violence for Equity). ThrYve is a collaborative comprehensive initiative focused on addressing youth violence and related factors in Kansas City, KS (KCK). ThrYve was developed in response to a health disparity identified for racial and ethnic youth, particularly males, who disproportionately experience violence. There is a need for additional studies examining participatory approaches to community-based injury prevention, including to address youth violence (Crizzle et al., 2019). Through an empirical case study design, the study examines several phases of the IOM model, which was used as a collaborative process to engage stakeholders in addressing youth violence.

Methods

Community Context

The population of Kansas City, Kansas (KCK) was 148,855 residents, with 26% African American and 29% Hispanic (Unified Government Wyandotte County, 2017). Nearly, 38 percent of the residents were younger than 24 years. According to the 2019 County Health Rankings and Roadmaps report, Wyandotte County, which encompasses KCK, was ranked 99 out of 103 among Kansas counties in overall health outcomes. The community also ranked poorly in health factors, including community safety, education, access to care, teen births, and alcohol and drug use (University of Wisconsin Population Health Institute, 2019). Between 37 to 42 percent of children 17 years or younger in KCK lived below poverty. In 2017, the high school graduation rate was 71% compared to 86.9% for the state (Kansas Department of Education, 2019). Nearly, 78% of the adult population graduated high school, but less than 16% had a bachelor's degree.

Youth violence and related factors. Like national trends, both youth and racial/ethnic groups were disproportionately impacted by violence locally. The violent crime rate in

Wyandotte County was the second highest in the State at 704 per 100,000 (University of Wisconsin, 2019). In KCK, homicide was the leading cause of death for individuals 15 to 44 years (Unified Government Public Health Department, 2019). In 2016, prior to ThrYve implementation, there were 47 homicide victims in KCK of which 28% were youth. Of the youth victims, 61% were Black and 31% Hispanic (Kansas City, Kansas Police Department). As shown in Table 1, based on the number of youth homicides between 2016 and 2018, most of the youth victims were Black. In 2017, 35% of youth in Wyandotte County compared to 16% overall for Kansas indicated not feeling safe in their neighborhood (Southeast Kansas Education Service Center, 2017). Additional, risk factors related to youth violence in Wyandotte County included community disorganization, anti-social peer involvement, and poor family management.

Insert Table 1

Collaborative Initiative and Partnership

University partner. In July 2017, the Center for Community Health and Development (CCHD) at the University of Kansas (KU) received a four-year award from the Office of Minority Health, Department of Health and Human Services. The funding award was to address social determinants related to racial and ethnic disparities in youth violence. The CCHD leveraged funding for the initiative and provided implementation and evaluation technical support. The study was approved by the institutional review board at the University of Kansas.

Community partners. Based on a coalition model, there are over 40 community partners, across 13 community sectors that collaborate in supporting ThrYve. The efforts of the initiative are concentrated within the northeast area of Kansas City, Kansas (KCK), which is disproportionately affected by violence. ThrYve facilitates school-based activities in three schools located in the prioritized geographical areas, including Northwest Middle School, Sumner Academy, and Wyandotte High School. Additionally, through ThrYve, a network of partners coordinates a menu of out-of-school time services and supports.

Youth participants. For the study, the participant-level data are presented to provide a profile of the youth involved with ThrYve, which aids in understanding how the effort is engaging and addressing youths' risk and resilience needs. Data for the present study are reported for 120 youth participants, with an oversampling for racial and ethnic minorities and males.

Youth participants in this study were 56.7% male and 75% were between the ages of 13 to 15. The majority (95%) were from a racial and ethnic minority group, with 68% identifying as black, 14% Hispanic, and 13% multiple ethnicities. ThrYve youth participants in eighth through twelfth grades were identified based on referrals primarily from school administration and teachers.

Implementation of ThrYve Using the IOM Model

The first three phases of the IOM model were examined in the present study. The model was used to engage stakeholders in a collaborative process of facilitating community action and change to prevent youth violence. The last two phases of the IOM model, which focused on more distal improvements in community-level outcomes, were outside the scope of this study.

Collaborative assessment and planning. ThrYve is one of several closely aligned initiatives working collaboratively to address violence in KCK. Between 2016 and 2017, the Unified Government of Wyandotte County Public Health Department began a community health assessment (CHA) process. Violence was one of the four health priorities identified through the community assessment; the other interrelated priorities included access to health and mental health services, safe and affordable housing, and education and jobs (Unified Government Public Health Department, 2018). Representatives from the University of Kansas participated in the CHA process and served on the sub-committee guiding the violence prevention efforts. As part of the CHIP, ThrYve focused on the youth violence prevention strategies.

From 2018 to 2019, the ThrYve Systems Advisory Board (SAB) facilitated collaborative assessment and planning. ThrYve involved more than 100 stakeholders, including community residents and youth in the initial convenings and assessment activities. Through the planning process, small teams of collaborative partners reviewed data briefs to examine the root causes of youth violence, locally. The following vision was developed, "empowered youth thriving and prospering in a safe community". Based on the collaborative analysis, the group then used the data to inform the selection of community change levers (i.e., programs, policies, and practices). The SAB used an action planning guide to identify appropriate strategies for addressing youth violence across various sectors of the community.

Figure 2 summarizes the ThrYve framework that guided efforts to support youth violence prevention across socioecological levels. There are six components of the ThrYve approach. Three components or strategy areas support universal interventions at the community and societal levels (Gordon, 1987). The universal strategies provide a structure to support community

change interventions across settings in which youth interact, or may be prone to experience violence perpetration, victimization, or retaliation. The other three components are more targeted prevention interventions for youth who are at elevated risk for violence. The targeted approaches address some of the social determinants of health related to youth violence, including education, economic opportunity, social connectedness, and access to resources.

Insert Figure 2

Implementing targeted action. ThrYve supported an organizational structure that provided opportunities for involvement by partners and residents, including parents and youth. Deputy Chief Tyrone Garner with the Kansas City, Kansas Police Department served as an early champion and convened collaborative partners on behalf of ThrYve to examine youth violence. ThrYve primarily engaged stakeholders through multiple advisory boards and action teams, which functioned collectively as a coalition. The first year of the initiative focused on developing trust and rapport across the groups, as well as establishing agreements with the school district, hospital, and police.

ThrYve supported an executive advisory board, as well as systems and youth advisory boards, as mechanisms for engaging stakeholders. The executive advisory board involved high-level stakeholders and local decision-makers across sectors (e.g., Mayor, Sheriff, Juvenile Judge) to provide direction and sustain commitment. The SAB supported four action teams responsible for facilitating efforts, including the following: (1) Parent, Family, and Community Engagement; (2) Trauma, Social Services and Support, (3) Youth Justice and Crime Prevention; and, (4) Youth Opportunities. Each team had both a community and ThrYve staff co-facilitator who guided the group. Through the Youth Advisory Board, more than 20 ThrYve youth participants met along with the SAB to ensure youth voice and participation, across all aspects of the process.

Implementing community and systems changes. Based on the IOM model, community and systems changes (i.e., change levers) are important indicators and products of collaborative action. In the plan, ThrYve identified 87 community change levers or strategies (see Table 2 for examples). Through the SAB, partners, including youth, committed to collaboratively supporting at least one or more change levers. ThrYve staff served as mobilizers and assisted with change levers, as well as supported youth and families in navigating challenges.

Comprehensive approach to youth violence prevention

ThrYve provided direct services to youth in the areas of college and career preparation, life skills training, and family support through year-round training and enrichment activities. Additionally, in Wyandotte High School, a ThrYve class was developed as a capstone experience for training peer mediators and student leaders. ThrYve partners coordinated a menu of out-of-school-time (OST) program offerings for youth participating in ThrYve, which was also available to the broader community.

The development of a hospital-based violence intervention program, REVIVE (Reducing the Effects of Violence through Intervention and Victim Empowerment), was another identified change lever. ThrYve staff and partners developed a collaborative approach to respond to hospital admission referrals related to intentional injury (e.g., gunshot wound) involving youth. REVIVE was included as a strategy in the CHIP. Also, as part of the CHIP, ThrYve staff and partners, including youth, were trained, and used crime prevention through environmental design (CPTED) principles to consider neighborhood-level changes.

Insert Table 2

Measures

Several measures were used to understand the process for engaging stakeholders, in ThrYve, including youth with risk for violence. Both individual and community-level measures of resilience and risk were examined, as well as the collaborative process for convening community stakeholders.

Community action and change measures. Collaborative activities, including community and systems changes and community actions, facilitated by ThrYve were examined. Data were collected to measure community and systems changes, defined as the implementation of new or modified programs, policies, or practices facilitated by the group related to the goals of the effort. Community action was defined as activities facilitated by members of the initiative or group to bring about identified changes in the community or system. ThrYve staff documented and coded activities in the Community Check Box (CCB) Evaluation System. A representative from the CCHD independently reviewed and scored 75% of all documented activities.

Resilience factors. Resilience was measured using the Children and Youth Resilience Measure, (Child-CYRM) (Ungar & Liebenberg, 2011). The scale had 26 items, with three main

scales measured on 5-point Likert-type scales with scores ranging from 1= Not at all to 5= A lot, (e.g., "I know where to go in my community to get help"). Individual resilience ($\alpha = 0.92$) was measured on an 11-item scale. Parent/primary caregiver resilience ($\alpha = 0.82$) was measured on a 7-item scale. Context-based resilience was measured on an 8-item scales ($\alpha = 0.86$). Scores were averaged across the three main scales, with higher scores indicating more resilience.

ACES. Risk exposure was measured using the Adverse Childhood Experiences Survey (ACES) (Sacks, Murphey, & Moore, 2014) The ACES scale comprised 7-items ($\alpha = 0.69$) with yes or no responses (e.g. "Did you live with anyone who was a problem drinker or alcoholic, or used street drugs?"). Scores were summed across items and higher scores indicated greater exposure to childhood risks. An ACES score greater than two was considered "at risk" for trauma.

Kansas Communities that Care (KCTC). The KCTC Survey was used to examine neighborhood risk factors. The neighborhood risk scale comprised three items ($\alpha = 0.80$), (e.g., "How often do you experience the following in your neighborhood - You are threatened or harassed"?) measured on a 4-point Likert-type scale. Scores were averaged with higher scores indicating greater exposure to neighborhood risks.

Analytic Strategy

Analysis of community action and change. For the purposes of this study, data were reviewed from January 2018 through September 2019. The current analysis focused on activities documented and coded as either a community action or community change. Other details about activities such as community sectors involved, and program components were included in the analysis. Descriptive statistics were used to examine the data based on the frequency or number of community changes.

ThrYve youth participant analysis. To examine the needs of program youth and how well they aligned with the identified strategies, analysis of variance (ANOVA) was used to compare risk and resilience scores across demographic groups based on gender, ethnicity, age group, and schools as an assessment of existing disparities among the participants. Additionally, official school data on academic performance (e.g. GPA) was matched to survey responses, to allow for correlational analyses on youth risk and resilience factors and performance in school.

Results

Facilitation of Community Action and Change

Comprehensive approach to youth violence prevention

To examine implementation of several phases of the IOM framework, community actions and changes facilitated by ThrYve staff and collaborative partners are presented. As part of the planning process, the SAB identified 87 community and system change levers (i.e., program, policy, and practice changes) to address youth violence and related risk factors through multisectoral engagement. Table 2 provided illustrative examples of community and systems changes identified in the ThrYve plan. As a result of the implementation of identified change levers, 85 community action and change activities were facilitated by the ThrYve Systems Advisory Board. There were slightly more community actions (N= 48) documented than community changes (N= 37) during the nearly two-year period.

Figure 3 presents cumulative increases in community change and community action across different quarters of the year in both 2018 and 2019. Fluctuations in the proportions of community change to community action over time, including across years and quarters, were examined. Results showed that time, when measured in quarters, was statistically and significantly associated with the proportions of community change and community action (χ^2 = 11.20, df = 4, p = 0.02). For example, although in the first year there were slightly more community changes than action, in the program's second year of implementation there was a shift with the frequency of community action gradually outpacing the rate of community change.

Insert Figure 3

The proportion of community changes implemented between 2018 and 2019 across sectors and components of the framework were also examined. Over time, the data showed shifts in priorities from a broad change strategy during the first year of implementation toward a more focused approach involving fewer sectors and components of the framework in the second year.

Cross-sector distribution. A major goal in ThrYve's implementation of the IOM framework was to engage multiple sectors in the participatory change process (see Table 3). In 2018, there were community and systems changes implemented across 84.6 percent of the 13 sectors, whereas, in 2019, there were changes involving 53.8 percent of the sectors. The proportion of cumulative changes (20.6%) in education and community organizations were the same overall across the nearly two-year period. However, a closer review of the data shows that priorities shifted from slightly more changes associated with the education sector in 2018

(33.3%) to the community organizations in 2019 (38.5%). Additionally, sectors such as businesses, social service agencies, and local government had community changes in the first year, but not the second. In the second year, new sectors including civic and volunteer organizations, mental health, and youth-serving organizations were more involved.

Insert Table 3 about here.

Cross-component distribution. As shown in the table, higher proportions of community changes supported the youth violence intervention (31.8%) and out-of-school-time program (27.3%) components when compared to other ThrYve strategies. In 2018, one-third of the community changes involved out-of-school time activities, with 27.8% of community changes related to youth violence intervention and 22.2% related to education, college, and career readiness. In the second year, community changes were associated with only three components.

Alignment of Change Efforts with Youth Participants' Needs

The youth participants' baseline scores on risk and resiliency measures were analyzed to better understand the needs of program youth and to inform community actions and changes facilitated across sectors and program components. Youth scored moderately on individual, parent, and contextual resilience factors (M = 3.82 to 3.99, on 5-point scale); with lower risk for neighborhood (M = 1.56, on 4-point scale) and childhood factors (ACES, M = 1.36).

Demographic disparities in risk and resilience. ThrYve oversampled for male participants since prior studies suggested greater risk of exposure to violence. Analysis of our sample using ANOVA also revealed that gender disparities in parent-based resilience were statistically significant with moderate effect size, $F (1,112) = 4.22$, $p = .042$, $d = 0.35$. Males, M = 3.88; scored lower than females, M = 4.16 (see Table 4). However, closer examination showed that gender disparity in resilience specifically concerned the sub-scale regarding 'physical' support from parents/caregivers in the form of parental monitoring and provision of basic needs (e.g. food) with males scoring statistically and significantly lower than females, $F (1,117) = 8.92$, $p = .003$. Differences in exposure to childhood and neighborhood risks were also statistically significant. On average males (M = 1.71) score higher than females (M = 1.35) on the measure of neighborhood risk, $F (1, 112) = 6.46$, $p = 0.012$ with a moderate effect size, $d = 0.48$.

Oversampling for black middle-school-age students and youth from underserved communities, led to largely uneven sized ethnic, age, and school groups, with no statistical differences found.

Insert Table 4 about here.

Other resilience and risk factors. In 2017, school performance records showed that ThrYve's youth participants had good overall attendance rates (M = 93%) and few overall absent days (M = 6.06) when joining the program. Although the average GPA was low (M = 2.30 and 2.34) for the two most recent quarters around this period. Specifically, students' first quarter GPA in 2017 was statistically and significantly positively related to their scores on all three main resilience scales: individual resilience (r = 0.32, p = 0.03), caregiver resilience (r = 0.34, p = 0.02), and context-based resilience (r = 0.34, p = 0.02).

Discussion

Through the IOM framework, ThrYve facilitated community and systems changes to address multiple and interrelated risk factors associated with youth violence across socioecological levels. The facilitation of community actions corresponded to increased rates of community change. In both years, there were increased community changes in the third quarter (July-September), coinciding with the beginning of the academic calendar. Since ThrYve supports school-based components, the regular facilitation of increased activities was expected.

In December 2018, the action planning process was completed, in which the change lever strategies were fully identified to guide the activities of the Systems Advisory Board. The facilitation of actions in the first quarter of 2019 then resulted in a small delay before implementation of community changes in the third quarter. As shown in other studies, the completion of community change planning often is associated with initial marked increased rates of community action and change (Watson-Thompson, Fawcett, Schultz, 2008).

The SAB started to implement community change levers prior to the completion of the nearly nine-month planning process, which was necessary to maintain the momentum of the group. In 2018, the focus of ThrYve was to develop rapport, which required adjustments to the original grant timeline. Program implementation was delayed by nearly nine months to allow sufficient time, as identified by the community, for planning and establishment of a sustainable structure**.** In the first year, the proportion of community actions taken to support changes

implemented were nearly equivalent. Many of the early community actions were characterized by initial convenings with community partners to establish partnerships and agreements, which later resulted in community changes. For instance, in Quarter Two of 2018, many of the community actions and changes supported initial agreements with new partners. Examples include collaborating in implementing coordinated summer programming in partnership with organizations such as the Boys and Girls Club and the local juvenile justice division. Prior studies suggested the importance of implementing early actions or low-hanging fruit to establish a history of collaboration and momentum for the group (Watson-Thompson et al., 2008).

In 2018, there were a series of community actions and meetings facilitated to support longer-term community and systems changes. As an example, in 2018 there was multiple meetings and steps taken related to the development of memorandums of agreement across partners to support both the hospital and school-based programs. For instance, in May 2018, the local school board approved the memorandum of agreement that resulted from six months of collaboration with representatives from the school district and the three partner schools. A group of ThrYve staff met with district and school administrators at least monthly between January and May 2018. Similarly, for the REVIVE hospital-based program agreement, which was not signed until December 2018, representatives from four ThrYve SAB partners met regularly for nearly a year to develop the approach. For implementation in broader systems, such as the hospital and schools, there were multiple activities implemented across levels to support the changes.

There was also a broad distribution of community changes across sectors and program components during the first year. A more targeted change strategy emerged in the second year, with more focused implementation with community-based and youth-serving organizations. Additionally, the youth violence intervention and family engagement program components were prioritized to penetrate key settings (e.g., home, hospital, school) and involve actors (e.g., parent) critical in supporting youth violence prevention. The initial youth participant-level baseline data assisted in identifying and focusing services and supports at multiple ecological levels. The more focused approach aligned with prioritization of change levers in the plan, and the identification of gaps in services for participants related to their risk and resilience factors. Additionally, more focused efforts in the second year may also reflect ThrYve's alignment with broader planning efforts in the community including the CHIP, which was important for sustainability.

It is important to consider the multiple aspects of community engagement that support participation by the community, including those served and most affected by the problem. ThrYve was able to engage and convene a cross-representation of collaborative partners across sectors of the community, including parents and youth. The baseline data profile of youth participants showed that ThrYve included racial and ethnic minority youth, particularly Black males in the study. Family and neighborhood risk factors were found to affect male youth more pervasively, which suggests the need for additional targeted approaches. The areas of risk and resilience in which gender disparities emerged among participants aligned with the redistribution of community and systems changes in the second year. The activities began to be directed more towards parent, community, and violence intervention components. For the youth participants of ThrYve, there was a strong association with the grade point average and resiliency factors across multiple socioecological levels.

Strengths, Limitations and Future Research

The current study presents a model for engaging multisector collaborative partners through a comprehensive community-based participatory approach for youth violence prevention. The local data were like national trends regarding disparities experienced, particularly by race/ethnicity and gender, related to youth violence. Therefore, some of the efforts of ThrYve to involve particularly black male youth in promoting resiliency factors may have broader applicability. The focus of ThrYve is to address social determinants and related factors across socio-ecological levels through the implementation of community and systems changes. The study examined proximal outcomes of community actions and changes related to the implementation of the collaborative assessment and planning processes. The study enhanced understanding of the implementation of the collaborative processes using the IOM model. It helped to identify and support the early implementation of change levers across multiple sectors and program components focused on the needs of the youth served.

The present study did not examine longer-term changes in risk or resiliency factors or youth violence outcomes as it generally requires more time to observe improvements in population-level outcomes such as youth violence. The study focused on the frequency or quantity of activities facilitated by the initiative. However, some recent studies have suggested an important area of future research is to also examine the intensity of community and systems changes to predict improvements in longer-term outcomes (Fawcett, Collie-Akers, Schultz, &

Kelley, 2015). Future research should examine the impact of the comprehensive community intervention on the last two phases of the IOM model, which examines widespread behavior change and improvements in community-level outcomes.

Through this study, youth participant data were examined to better understand if ThrYve was engaging youth at-risk for violence, as well as to inform ongoing strategy development. Based on some of the risk and resilience scales examined in the study, the youth involved in ThrYve had moderate to high levels of resilience based on the youth self-reported surveys. However, there were disparities in levels of risk and resilience based on gender, which is consistent with findings in prior studies. Overall, youth exhibited moderate levels of risk at the time they began participation in the study. Over time, it will be important to continue to explore risk levels of the participants to better understand how maturation influences the youth's risk levels and resilience factors due to age progression. Since this study is focused on the prevention of violence, it is important to note that the youth participants were primarily referred by school staff and administrators due to academic performance and observed externalizing behaviors.

In the study, an association was found in participant-level data between GPA and resiliency scores. School performance as a potentially sensitive and predictive measure of resiliency should be further examined. In recent years, the relationship between academic performance and resiliency has been explored more often in the United States for college-age students compared to the secondary-level in other countries. As part of the work of the Systems Advisory Board, ThrYve is addressing academic performance as a resiliency factors that may generalize outside of the school setting.

In the present study, the reality and sometimes tension that arises in facilitating collaborative processes while also engaging with both the community and population of interest was presented. For example, some of the partner programs were adapted from the standard format to ensure programming was responsive to the needs of the youth. Additionally, a commitment to authentic partnership was required to develop rapport across partners who were coordinating activities to enhance services for youth. Data will continue to be examined to inform programming and to ensure approaches are tailored to address youth violence locally and with identified youth participants. In this study, the youth participant baseline data were used to better understand the profile of the youth directly served through ThrYve.

Comprehensive approach to youth violence prevention

Comprehensive multicomponent interventions are appropriate to address interrelated factors across socioecological levels influencing youth violence. The present study provided an opportunity to explore the process for convening multiple stakeholders implementing comprehensive community intervention to address violence. The early findings presented in this study suggest that the IOM model for collaborative action in communities can support convening stakeholders to facilitate community and systems changes. Additionally, complementary frameworks such as ThrYve helps to operationalize community and systems change interventions that can be supported across multiple socioecological levels. The sustainability of collaborative models is a continued area for future exploration. Additionally, external factors that often influence collaborative processes, include funding constraints and similar initiatives occurring in the community (e.g., CHIP), were identified and addressed in the study. The present study focused on the initial phases of the IOM process to understand how ThrYve is convening stakeholders, including youth to address disparities related to youth violence locally.

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Table 1. Homicide statistics provided by the Kansas City, Kansas Police Department, 2016-2018

Crime Statistic	2016		2017		2018 [a]	
	N	%	N	%	N	%
Homicide victims	47		41		35	

Comprehensive approach to youth violence prevention

Youth [b] homicide victims	13	28	11	27	5	17
Black youth homicide victims [c]	8	61	5	45	3	60
Hispanic youth homicide victims [c]	4	31	3	27	1	20
White youth homicide victims [c]	1	8	2	18	1	20

Notes: [a] Youth refers to individuals ages 10 - 24 years old

[b] Percent based on the total number of youth homicide victims

Table 2. Illustrative examples of community change levers from the ThrYve action plan

Action Team	Illustrative Examples of Community Change Levers	Ecological Level	Behavior Change Strategy
Parent, Family, & Community Engagement	Identify and disseminate information to parents, youth, and community on youth programs and opportunities during breaks	Individual	Providing information and enhancing skills
Parent, Family, & Community Engagement	Increase the number of agencies or organizations that conduct free parenting classes with culturally appropriate content.	Relationship	Barrier removal, enhancing access & opportunities
Trauma, Social Services, & Support	Implement a hospital-based violence intervention program for youth who are admitted to ER for intentional injury.	Individual	Enhancing services and supports
Trauma, Social Services, & Support	Develop an injury and fatality review board to review youth related incidents of homicides and youth violence.	Societal	Changing consequences & broader policies
Youth Advisory Board	Establish peer support groups for teens to explore ways to resist youth violence, sexual coercion, and/or becoming involved in gang activity.	Relationship	Enhancing services and supports
Youth Advisory Board	Establish an ongoing system to provide public recognition for specific community or youth efforts to prevent assaultive violence	Community	Changing consequences & broader policies
Youth Justice & Crime Prevention	Improve night and street lighting and supervision in public parks and recreational	Community	Barrier removal, enhancing access & opportunities

Comprehensive approach to youth violence prevention

areas through crime prevention through

environmental design (CPTED) principles.

Youth Justice & Crime Prevention	Establish and promote use of silent witness and related youth crisis hotlines for reporting violence.	Community	Enhancing services and supports
Youth Opportunities	Provide safe and affordable transportation to supervised recreational opportunities.	Community	Barrier removal, enhancing access & opportunities

Table 3. Distribution of community change activities facilitated by ThrYve from 2018-2019

Categories	Distribution of community change	Year implemented		Overall
		2018	2019	2018-19
		N		
Community change	Community changes facilitated by ThrYve	22	15	37
		%		
Community sectors	Business/Workplace	9.5		5.9
	Civic/Volunteer Organization		7.7	2.9
	College/ University	9.5	7.7	8.8
	Community-Based Organization	9.5	38.5	20.6
	Faith-based/Religious Organization	4.8	15.4	8.8
	Health/Healthcare	9.5		5.9
	Media	4.8	7.7	5.9
	Mental Health		7.7	2.9
	Parents	4.8		2.9
	Schools/Educational Institutions	33.3		20.6
	Social Service Agencies	4.8		2.9
	State, Local, Or Tribal Government Agency	4.8		2.9
	Youth	4.8		2.9
	Youth-Serving Organizations		15.4	5.9
Program components	Youth violence intervention	27.8	50.0	31.8
	Out-of-school-time programs	33.3		27.3
	Education, college, and career readiness	22.2		18.2
	Parent and family engagement	5.6	25.0	9.1

Community electives		5.6	25.0	4.5
Systems Advisory Board		5.6		4.5

Table 4. Gender differences in resilience and risk factors

Demographic Group		Sample		Resilience Factors			Risk Factors	
				Individual α = 0.92	Parent α = 0.82	Context α = 0.86	ACES α = 0.69	Neighborhood α = 0.80
		N	%			M(sd)		
Overall		120	100	3.86 (0.87)	3.99 (0.80)	3.82 (0.86)	1.36 (1.58)	1.56 (0.78)
Gender	Female	51	43	4.00 (0.98)	4.16 (0.89)	3.89 (0.96)	1.08 (1.43)	1.35 (0.59)
	Male	68	57	3.79 (0.75)	3.88 (0.70)	3.77 (0.79)	1.52 (1.63)	1.71 (0.87)
			p	0.181	**0.042**	0.399	0.148	**0.012**
	Effect Size (Cohen's d)			0.24	**0.35**	0.14	0.29	**0.48**

Note: p-values indicating statistical significance and effect sizes are bolded

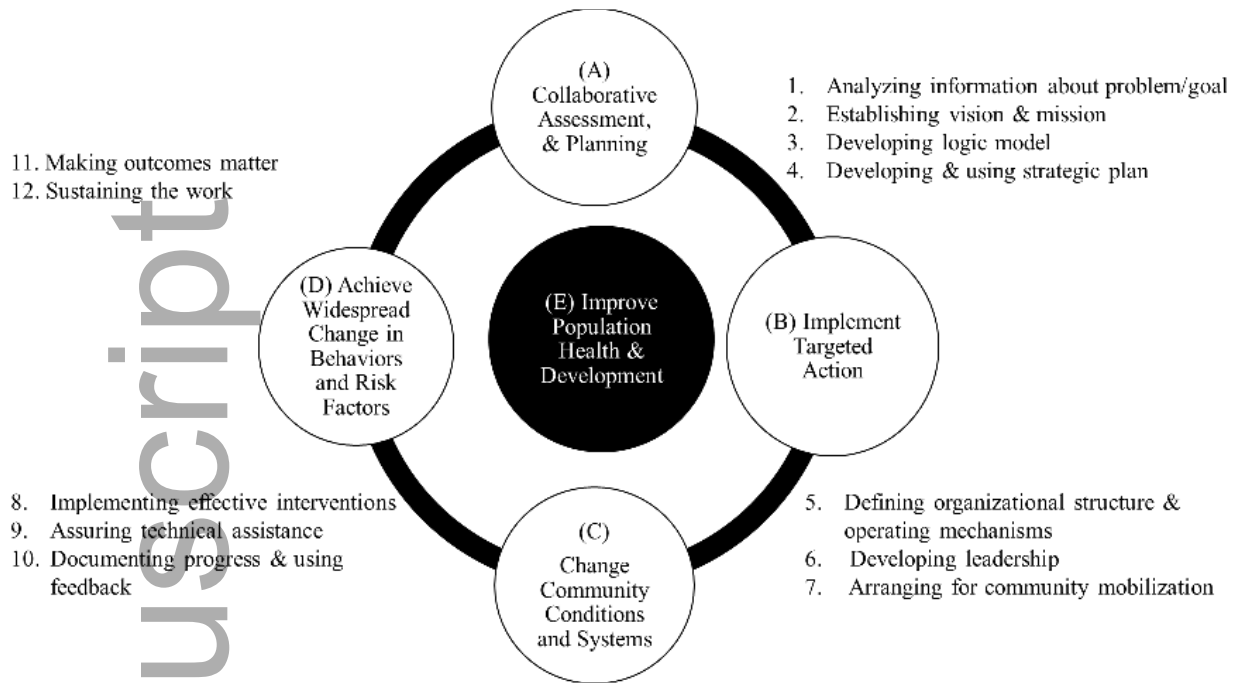Comprehensive approach to youth violence prevention

Figure 1. Model for collaborative action in communities with 12 key supporting processes. Used with permission from Fawcett et al. (2010) and Watson-Thompson, May, Jefferson, Young, Young, & Schultz (2017).
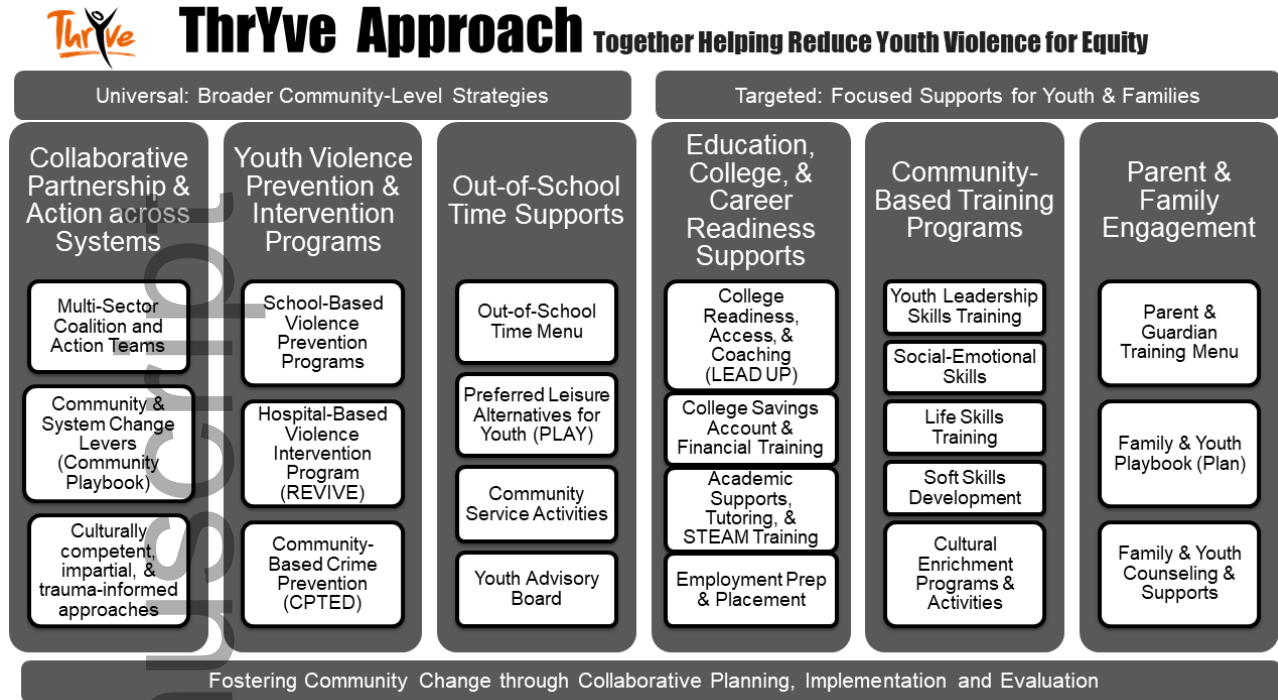
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Figure 2. ThrYve (Together Helping Reduce Youth Violence for Equity) approach to preventing youth violence.

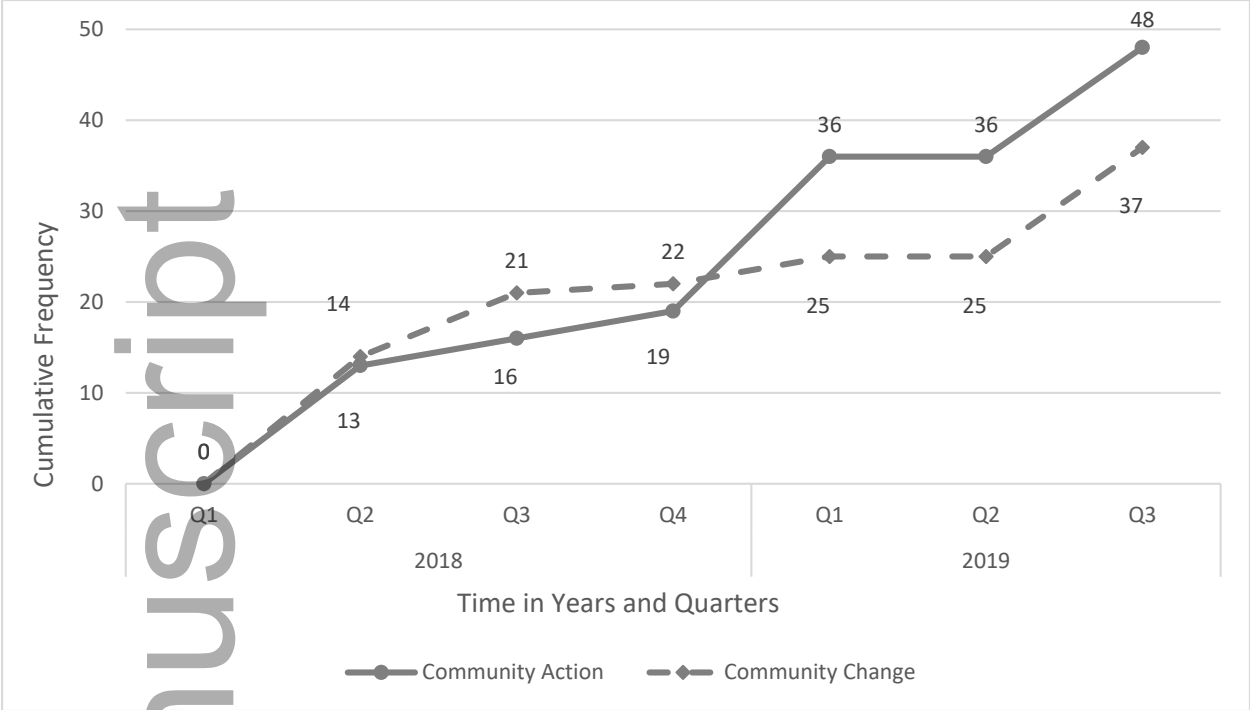Comprehensive approach to youth violence prevention

Figure 3. Cumulative community action and community change over time.