



# Case Study of Community-Level Domestic and Sexual Violence Prevention: Using Concept Mapping to Evaluate Community Narratives Over Time

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## Abstract

The purpose of this study was to: (1) evaluate the promise of concept mapping for generating the conceptual domain and attributions of feasibility, effectiveness, and community support across two points in time; and (2) to determine *if* and *how* community narratives may shift over time with exposure to community-level prevention initiatives. The study employed concept mapping methodology to learn how two towns in rural New England perceived domestic and sexual violence first in 2016 with no community intervention, and again in 2018 after implementing Green Dot Community, a community-level DSV prevention initiative. Samples were comprised of adults who had resided in their respective town for at least one year. This exploratory study found that over time, collective efficacy seemed to increase, with participants coming to view it as the responsibility of sectors throughout the community to address DSV. Social norms promoting that “DSV is not tolerated” and that “everyone has a role to play” in preventing DSV also seemed to increase, with strategies becoming more comprehensive, collaborative, and focused on primary prevention. Study findings may be attributable to Green Dot Community implementation given the correspondence of findings to intended program effects. However alternative explanations remain plausible and are discussed. This study offers a starting point for evaluating community-level prevention initiatives using concept mapping methodology. Future studies can learn from the methodological limitations presented here to produce more definitive findings when applying this method to address social problems in communities.

**Keywords** Sexual violence · Domestic violence · Violence prevention · Community · Rural · Concept mapping

Interpersonal violence, particularly domestic and sexual violence (DSV), has widespread costs for individuals and the towns and neighborhoods where they live (Peterson et al., 2017, 2018). Efforts to improve prevention focus on strategies that involve whole communities (Banyard et al., 2017; Peterson et al., 2017, 2018) and a foundation for this work is connecting prevention strategies to established community priorities (Levine, 2018; Olson & Jason, 2011) as well as evaluating how priorities and perspectives change over time. The current study used concept mapping to evaluate changes

in the prevention approaches reported among adults prior to and following the implementation of a community-level DSV prevention initiative (Green Dot Community or GDC). Given this focus on community, for the current case study, each town was the unit of analysis. Community narratives, as conceptualized by different samples of citizens in each town, were the outcome variables of interest.

Grounded in diffusion of innovation theory, as well as theories of community building including community resilience (Ellis & Abdi, 2017; Lazarus et al., 2017; Rogers, 2002), GDC is a prevention strategy that brings together a coalition of key community stakeholders to work together to reduce DSV through increasing collective efficacy, changing social norms toward intolerance of DSV, and encouraging all community members to take action to prevent DSV. GDC includes three key strategies: (1) capacity-building trainings, (2) local community action events, and (3) social marketing. For more information on GDC, see [alteristic.org](http://alteristic.org). Green Dot has shown promising results for its work in schools (Coker

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et al., 2015, 2017) where it not only trains individual students as bystanders but also trains student leaders to diffuse new norms that are intolerant of violence and supportive of proactive prevention behaviors (such as using social media to amplify conversations about healthy relationships). It is a natural extension of this work to use GD strategies to effect change at the community level of the social ecology by engaging and training adults in communities. Through the diffusion of new norms and bringing people together to learn prevention skills, GDC has the potential to improve broader community social processes like collective efficacy. Based in a bystander model, GDC like other bystander programs may also shift how people see and understand DSV prevention. To date, most DSV programs take place in educational settings. GDC is unique in that it uses principles of bystander intervention training and diffusion of innovation with adults in towns and thus reaches an audience affected by DSV but less often trained in its prevention. This GD iteration emphasizes community-wide support for violence prevention strategies and cross-sector collaboration involving individual residents, businesses, and organizations across the community (alteristic.org).

Community narratives are stories that capture the perspectives of people in a town or neighborhood about a particular issue (Olson et al., 2016). They have been described as an important component of social change (Rappaport, 2000) and a method for understanding how communities think about things like social problems, including violence against women (Meno & Allen, 2020). The field of narrative psychology (Blackie et al., 2020; Breen & McLean, 2017) describes cultural scripts or “master narratives” that influence individual behaviors. Community narratives may be an important component of examining the impact of community-level DSV prevention strategies like GDC, though they have not often been used in this way. The current analyses examine potential changes in narratives over time before and after GDC implementation. A key piece of the project involved asking participants to talk about prevention in their town rather than their own personal stories. The goal was to elicit perspectives about the broader community itself. Strategies that best meet communities at their current stage of readiness can improve prevention effectiveness and also move communities forward in the stages. This model has been applied to youth violence prevention and DSV prevention (Edwards et al., 2015; Shadowen et al., 2017).

Several features of concept mapping are well-suited to community-engaged research aimed at addressing complex health issues in communities (McLinden, 2017; Vaughn et al., 2017) and social problems related to DSV (Borsky et al., 2016; Burke et al., 2005; O’Campo et al., 2017). The method situates a social issue in a context, such as a community environment (Kane & Rosas, 2018), values the knowledge of individuals affected by the social issue in that

community, and gathers their perceptions into a common conceptual framework (Kane & Trochim, 2007). Concept mapping methodology was selected for this study for its utility in engaging members of a community, to learn how they individually and collectively think about (or “narrate”) DSV prevention strategies, in two distinct geographic contexts.

## Current Study

For purposes of the current exploratory case study, researchers sought to establish the utility of using concept mapping to document community narratives about DSV and how these narratives may shift over time when exposed to GDC. Based on GDC’s theory of change, we anticipated that community narratives after GDC implementation would be characterized by greater: (1) collective efficacy, or the sense that residents work together to solve problems and support one another; and (2) social norms promoting the ideas that “DSV is not tolerated in this town” and “everyone has a role to play in ending DSV.” We further hypothesized that over time: (3) visual maps would reflect more comprehensive approaches to prevention and recognition of the need for cross-sector collaboration; and (4) primary prevention approaches (e.g., parents talking with children about healthy relationships) rather than response approaches (e.g., providing resources to survivors) would be rated more feasible, effective, and supported.

Two regional crisis centers who lead communities in prevention and response to DSV volunteered to be part of a larger project that involved evaluating GDC. One town in each region was selected. Both were rural communities with populations between 13,000 and 25,000, with similar demographic makeup in terms of race/ethnicity (both communities were predominately white given their location in Northern New England) and median incomes of \$46,000 and \$55,000. Details about GDC and other aspects of its evaluation can be found in [AUTHORS MASKED]. In brief, it consists of a series of train-the-trainer workshops to promote bystander intervention for adults and community leaders in a town, and a steering committee of volunteers who work together with staff from the crisis center and other nonprofits to implement social marketing strategies such as posters in businesses on main street, information booths at community events, and public service announcement videos shared on social media. GDC trainings were similar across towns though specific social marketing strategies were unique to each town. Although both towns joined the project at the same time, Town 1 began implementation six months earlier than Town 2, which took a bit more time to create the foundational organizational structure for implementation. All concept mapping took place at that same time in both towns (at baseline and again two years later). At follow-up

Town 1 had been implementing GDC for nearly two years while Town 2 had been implementing for about one and a half years.

## Methods

Concept mapping is a fundamentally mixed-methods approach that collects ideas from a group of knowledge holders, ascertains how they interpret the relationship between the ideas they collectively generate, and how they value each idea relative to the others (Trochim, 1989a, b). These activities are then input into the online concept mapping software CS Global MAX, which translates the qualitative data collected from participants into quantitative data (Trochim, 2017). The technology is then able to convert participant data into a series of visual maps by way of automated statistical operations (i.e., similarity matrix, multidimensional scaling, and hierarchical cluster analysis) that facilitate data analysis (Kane & Trochim, 2007). This represents the three primary stages of any structured concept mapping process, (1) generating ideas through brainstorming, (2) structuring ideas through sorting and rating, and (3) the visual representation of ideas (Trochim & McLinden, 2017). For the purposes of this exploratory study, the residents of two towns in rural New England were invited to participate in group concept mapping first in 2016 prior to the prevention intervention, and again in 2018 following GDC implementation in their respective communities.

## Recruitment

Recruitment flyers were posted in various locations around town with high community foot traffic, including libraries, community centers, and coffee shops. An advertisement was posted in the local newspaper for each town and also on their websites. The research team also tabled at large community events such as farmers' markets. Recruitment efforts relied on key community partners to disseminate study information to their networks via email and word of mouth. To be considered eligible, potential participants were required to have lived in a participating town for at least one year and be at least 18 years of age. Recruitment messages talked about the project as the "community action and mattering initiative" and invited people to discuss "community problems." This was done to attract a range of participants and not only those knowledgeable about DSV. Flyers asked interested individuals to phone or email the study (which may have excluded participants without ready access to these resources). Participants also needed to have transportation to access the meeting location.

## Sample

In concept mapping studies, participant samples may range from small in-person groups of eight to 15 people, to hundreds participating remotely via online software (Kane & Trochim, 2007). At baseline in Town 1 ( $n=33$ ), 12 participants attended the brainstorming session only, 19 attended sorting and rating, and two attended both sessions. At follow-up in Town 1 ( $n=12$ ), one participant attended the brainstorming session only, four participants took part in the sorting and rating session only, and seven attended both sessions. At baseline in Town 2 ( $n=49$ ), 11 participants attended the brainstorming session only, and 38 took part only in sorting and rating. No one attended both sessions in Town 2 at baseline. At follow-up in Town 2 ( $n=22$ ), four participants completed brainstorming, nine attended the sorting and rating session, and nine additional participants attended both sessions. The samples for each town between baseline and follow-up were not identical; however, they were very similar. Researchers did not track whether baseline participants may have participated again at follow-up for either town. For a comparison of demographic characteristics, see Table 1.

## Procedures

### Brainstorming

One brainstorming session was held in each town at baseline and again at follow-up. Brainstorming sessions took place in various public settings such as libraries, recreation centers, and rooms in government facilities to ensure ease of access. Every brainstorming session began by introducing the purpose of the project and reviewing the consent form. The purpose of the project as described in the brainstorming script was "to understand more about how communities think about and try to prevent relationship problems like domestic violence and sexual assault". Facilitators acknowledged that communities have different issues they find important, and that participants may not personally think domestic violence and sexual assault are the most important issues to solve in their town. Facilitators went on to inform participants that these issues do occur in every community, and requested that participants center these issues in their town throughout the brainstorming session. Next, participants responded to the focus prompt: "One specific action that a person or group of people could do to make it less likely that domestic violence or sexual assault will happen in your town or to make it clear that domestic violence or sexual assault isn't tolerated is...". This prompt is consistent with those used in other concept mapping projects. Participants were asked to complete this statement by brainstorming as many actions as possible. Town 1 participants brainstormed 72 ideas at baseline,

**Table 1** Demographic Characteristics at Baseline and Follow-Up

	Town 1 T1 (n=33)	Town 1 T2 (n=12)	Town 2 T1 (n=49)	Town 2 T2 (n=22)
Age ( <i>M</i> )	48	50	53	50
Length of residence in years ( <i>M</i> )	18	14	21	23
Biological sex (%)				
Women	51	58	55	45
Men	49	42	45	54
Income (%)				
< \$10,000	18	11	17	10
\$10,000—\$30,999	38	26	33	28
\$31,000—\$50,999	18	21	39	24
\$51,000—\$75,999	15	0	6	10
> \$76,000	12	42	6	28

*Note.* Results from the t-tests for Town 1 indicate no significance difference in age [ $t(20)=2.08, p=.37$ ], in length of residency [ $t(27)=2.05, p=.86$ ], in biological sex [ $t(22)=2.07, p=.39$ ], and income [ $t(12)=2.17, p=.06$ ] among participants at baseline and follow-up. Similarly, in Town 2 the difference in age [ $t(35)=2.03, p=.18$ ], length of residency [ $t(27)=2.05, p=.24$ ], and income [ $t(26)=2.05, p=.15$ ] among participants at baseline and follow-up were not significant. However, results did indicate a significant difference in biological sex [ $t(36)=2.02, p=.01$ ] among participants of Town 2 at baseline and follow-up

including actions such as “talk with your friends or family members about things you all could do that might help stop domestic violence and/or sexual assault”. At follow-up, they proposed 49 actions such as “parents talk with kids about how good relationships are worth it, and that if something is unhealthy they don’t have to settle for it because they want to be in a relationship”. At baseline, Town 2 participants generated 72 actions such as “start conversations with your neighbors about sexual assault and domestic violence”. At follow-up, they came up with 69 ideas including actions such as “parents teach their children how to meditate and calm themselves to reduce violent actions”.

Each brainstorming session lasted approximately two hours and yielded its own unique set of statements. Following brainstorming, participants were given the opportunity to debrief and were given a list of DSV community resources. All participants received \$30 for their time and input. Researchers then conducted a systematic idea synthesis as per Kane and Rosas (2018). During this process, statements for each town were examined carefully and separately. Phrases that seemed similar or were redundant were combined to reduce the overall number of statements. Statements were also reworded for clarification when necessary (Trochim & McLinden, 2017). The research team ensured all unique ideas were retained and included in the sorting and rating session.

### Sorting and Rating

Sorting and rating sessions were held separately from brainstorming in each town at both baseline and follow-up.

Every sorting and rating session began with a review of the study’s goals and the consent form. After receiving informed consent, individual index cards each containing one brainstormed statement were distributed among participants. The research team also included 14 supplemental statements based on measures of bystander prevention behaviors. For the sorting activity, participants were asked to review these statements and sort them into thematic piles in a way that made sense to them. Then rating forms were distributed and participants were asked to rate each statement on a 5-point Likert scale regarding perceived feasibility, effectiveness, and community support. Response options included 1 = not at all, 2 = somewhat, 3 = moderate, 4 = very, and 5 = extremely. When the rating activity concluded, participants were given the opportunity to debrief and receive a list of DSV community resources. All participants received \$30 for their time and input.

### Data Analysis

Data was then uploaded into CS Global MAX. The software was used to apply multidimensional scaling to the similarity matrix to generate a “point map” for each town (Kane & Trochim, 2007). The point map portrays all statements in two-dimensional relation to one another, with the proximity of points dependent on how likely each statement was to be sorted together by participants (Kane & Trochim, 2007). “Stress value” is defined as how accurately each point map represents the raw data of its similarity matrix, commonly ranging from 0.205 to 0.365, with lower stress value indicating better fit (Kane & Rosas,

2018; Kane & Trochim, 2007; Rosas & Kane, 2012). One point map was generated at baseline and again at follow-up for each town. The baseline stress value for Town 1 was 0.26, and 0.22 for Town 2; follow-up stress values were 0.28 for Town 1 and 0.29 for Town 2, all values falling in the acceptable range. Researchers familiarized themselves with the regional content of each point map to anticipate how clusters might form in the forthcoming cluster maps.

CS Global MAX employs “hierarchical cluster analysis” using Ward’s algorithm to group statements containing similar ideas into distinct clusters (Kane & Trochim, 2007). Researchers used the cluster replay feature, applying the “agglomerative method” whereby an initial 20 clusters are successively merged two-at-a-time until reaching the software’s minimum of two clusters (Kane & Trochim, 2007). As clusters were combined, three researchers analyzed and discussed whether each merge made conceptual sense while maintaining an observable distinction between clusters. Researchers determined final cluster solutions by coming to consensus on the point at which merging two clusters no longer made conceptual sense. Factored into this determination was researcher knowledge of DSV prevention strategies, the focus prompt, and the project objectives (Kane & Rosas, 2018). At baseline for both towns a five-cluster map was selected. At follow-up, Town 1 yielded a five-cluster map while statements in Town 2 were best represented by six clusters. In order to most appropriately label each cluster, researchers examined the statements comprising each cluster, and reviewed the category labels suggested by participants. Three researchers came to consensus on each cluster label informed by the contents of each cluster map, each individual cluster and its themes, and the labels attributed by participants (Kane & Trochim, 2007).

Researchers used CS Global MAX to pull “cluster rating maps” or cluster maps depicting the average rating value of each cluster via the overlay of additional layers (Kane & Trochim, 2007). Researchers evaluated the ratings for each cluster by town at baseline and follow-up. This allowed researchers to understand how participants ranked clusters from highest to lowest among what was considered feasible, effective, or supported by the community. Researchers also used the software to pull “absolute pattern matches,” or ladder graph comparisons of two rating variables (Kane & Trochim, 2007). These permit a side-by-side, visual analysis of the relationship between two different ratings by a group of participants. For pattern match analyses, researchers were most interested in comparisons between perceived effectiveness and support for each cluster at both points in time. Whereas perceived feasibility is more an individual-level measure of what citizens might be able to do, measures of perceived effectiveness and support are more germane to understanding narratives about community DSV prevention.

Methods of data analysis were identical at time one and time two. However, at time two researchers were able to compare data across the two time points. Analysis was conducted by comparing time one and time two data side-by-side, including cluster maps, number of clusters, number of statements in an entire visual map and each individual cluster, content of statements in each cluster, and researcher-identified themes in each cluster. Three researchers participated in this process and came to consensus on the speculative findings. All continuities and discontinuities between baseline and follow-up rating values for each town were investigated. Each town was examined as its own case study, since each had its own unique implementation strategies for GDC.

## Results

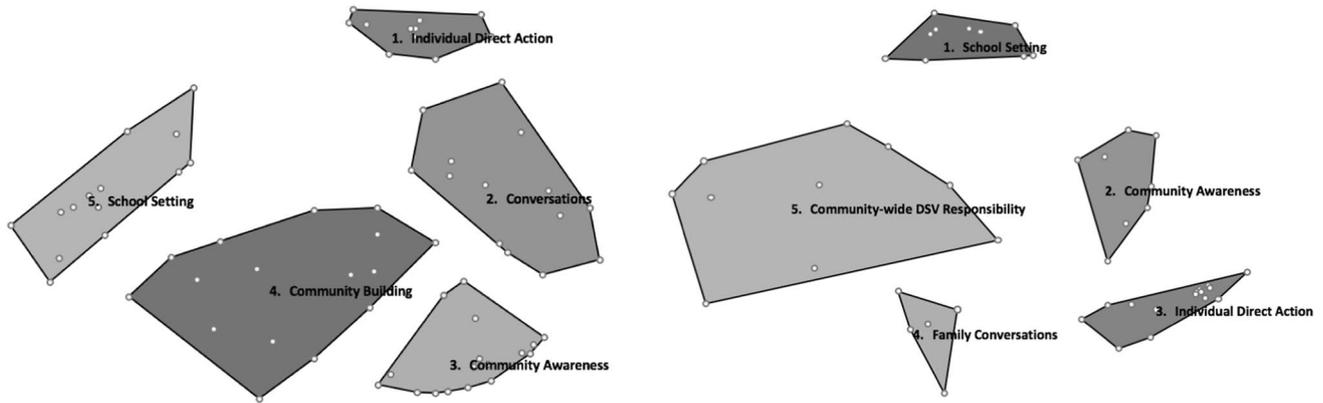
### Cluster Map Comparison

A primary outcome of the systematic concept mapping process was the generation of two-dimensional cluster maps depicting how participants categorized brainstormed concepts, and researcher consensus regarding the most appropriate cluster solutions and labels. Comparing cluster maps generated at baseline to those generated at follow-up for each town separately (see Figs. 1 and 2) became a primary object of analysis. Cluster map analyses included side-by-side comparisons of visual maps, of cluster content, and cluster themes. When clusters were attributed identical labels across time, it was because the label was deemed most appropriate for each cluster by researchers during cluster label analysis and is also a reflection of the similarity between cluster content in terms of statements and themes.

#### Town 1 from Baseline to Follow-up

**Continuity in Cluster Content** A visual comparison of the baseline cluster map for Town 1 to its cluster map at follow-up (see Fig. 1) shows that a five-cluster solution was selected for both. At baseline, three clusters were labeled “Individual Direct Action,” “Community Awareness,” and “School Setting,” and these labels were attributed again to clusters at follow-up. Researchers found the statements and themes of these clusters to be similar during content analysis, suggesting some degree of continuity between clusters over time. However, researchers also observed ways in which their content differed, as illustrated by the sample statements in Table 2.

The content of the “Individual Direct Action” clusters at both time points included DSV intervention strategies that could be carried out by individuals. The baseline cluster addressed interventions *during* or *after* violence



**Fig. 1** Town 1 Baseline Cluster Map compared to Follow-Up Cluster Map. *Note.* This figure depicts two separate “point cluster maps” for comparing ideological shifts in Town 1. The map on the left represents the baseline conceptual domain, while the map on the right represents the follow-up conceptual domain. Each point cluster map

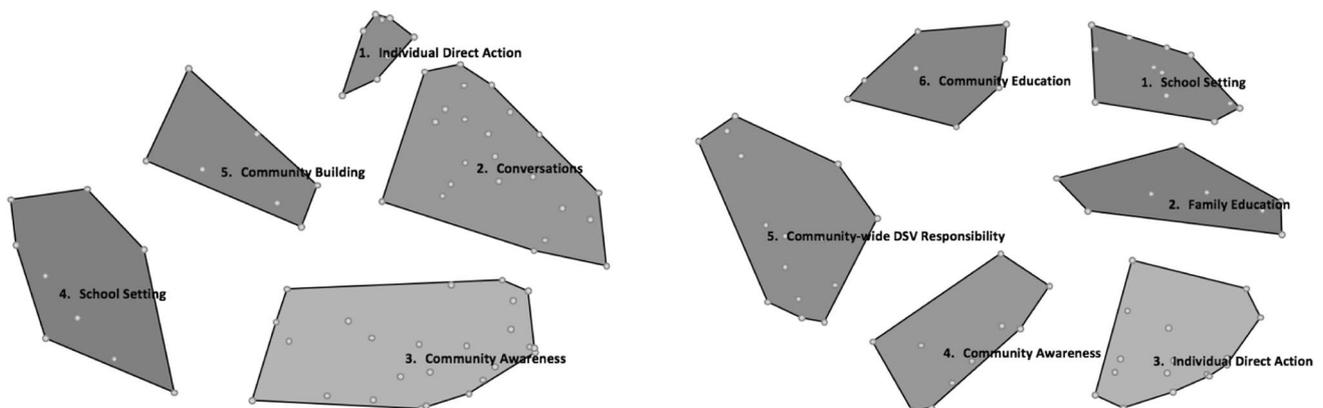
depicts the original point map, which arrays all brainstormed statements in relationship to each other as points in two-dimensional space, with polygonal clusters overlaid illustrating how statements were grouped by researchers using CS Global MAX software

had occurred (reactive response or supportive behaviors), whereas the follow-up cluster also incorporated primary preventative actions, or interventions that could take place *before* violence had occurred (such as when witnessing harassment or bullying, or someone being isolated at a bar). Researchers speculated this incorporation of primary prevention strategies at time two may indicate that town residents developed more comprehensive understandings of DSV prevention in alignment with GDC’s theory of change.

Although the “Community Awareness” cluster content focused on raising awareness of DSV and community resources at both points-in-time, it contained more ideas at baseline (17 statements) than at follow up (eight statements). At baseline, the cluster incorporated a greater variety of tactics for raising awareness than at follow-up. This cluster seemed to constrict over time, which could be attributed to

its being considered a less effective tactic by participants overall. It may also be attributable to the diminished sample size at follow up.

The content of the “School Setting” cluster emphasized school-based prevention strategies at baseline and follow-up. At baseline, it focused on integrating DSV education into school settings and workplaces, with emphasis on educating parents, involving coaches, and encouraging parents to prevent violence in volunteer roles. At follow-up, “School Setting” placed greater emphasis on a whole school approach to implementing violence prevention education, laying out a more comprehensive framework overall. This cluster called on a variety of adults, including resource officers, teachers, and non-profit educators, to cover topics such as DSV warning signs, reporting, and help-seeking in schools. It also called on school boards and principals to be prevention



**Fig. 2** Town 2 Baseline Cluster Map compared to Follow Up Cluster Map. *Note.* This figure depicts two separate “point cluster maps” for comparing ideological shifts in Town 2. The map on the left represents the baseline conceptual domain, while the map on the right represents the follow-up conceptual domain. Each point cluster map

depicts the original point map, which arrays all brainstormed statements in relationship to each other as points in two-dimensional space, with polygonal clusters overlaid illustrating how statements were grouped by researchers using CS Global MAX software

**Table 2** Comparison of Town 1 Baseline-to-Follow Up Cluster Labels and Sample Statements

Baseline		Follow-Up	
Cluster Label	Sample Statement	Cluster Label	Sample Statement
Individual Direct Action	If you saw someone possibly committing domestic violence or a sexual assault, you do something to try to stop the domestic violence or sexual assault from happening. (#66)	Individual Direct Action	If you hear someone in person or online saying a girl or woman deserved to be raped, say that it is not OK to joke about rape (or something else to indicate your displeasure with their comments). (#41)
Community Awareness	Create a public forum with crafts and family activities and include some sort of component that raises awareness about domestic violence or sexual assault that would be appropriate for all ages. (#2)	Community Awareness	Help organize or participate in a mass mailing about resources in the community so people know what exists to help them. (#35)
School Setting	Speak up at school board meetings about teaching about domestic violence and sexual assault and violence prevention in schools. (#32)	School Setting	Ask teachers how the topic of DV/SA can be worked into multiple areas or classes so that students talk about this issue more than a single time. (#9)
Conversations	Share information about domestic violence and sexual assault with your neighbors. (#17)	Family Conversations	Talk with your family about what good, respectful relationships looks like, focus on positive aspects and how to promote those. (#16)
Community Building	Organize a group/community activity like a run, a cycling club, a podluck supper, a hiking group that is free and open to members of community to build connections between people. (#1)	Community-wide DSV Responsibility	Pediatricians make it part of their normal checkups to discuss with children how to have healthy relationships. (#17)

and response resources. It recommended varied teaching methods, from posting signage to holding workshops, and integrating prevention into varied educational settings, from health classes to other courses/curricula. Participants suggested that the dosage of prevention programming be ongoing rather than one-time. Finally, it identified the need for well-trained staff, calling for teachers to receive prevention education to mitigate harmful behaviors, to better prepare them to serve as role models, and to intervene in bullying situations. These developments suggest that GDC may have promoted more comprehensive and collaborative prevention strategies in this town.

**Discontinuity in Cluster Content** Two clusters generated by Town 1 were attributed distinct labels at each time point despite some degree of overlapping thematic content. At baseline they were “Conversations” and “Community Building;” at follow-up they were “Family Conversations” and “Community-wide DSV Responsibility.” The content of the baseline “Conversations” cluster was generally focused on having conversations with *community members* to share information, raise awareness, and advocate on behalf of DSV-related issues (by talking to neighbors, using social media, and speaking about the issue at public meetings). In contrast, the follow-up “Family Conversations” cluster content focused on conversations with *family members* and early intervention with children in the home, emphasizing conversations around healthy and unhealthy relationship dynamics, and the importance of adults modeling healthy relationships for younger family members. Both clusters used the strategy of conversation yet identified different target populations: community members more generally, and then children in the home. This could perhaps indicate a shift toward primary prevention strategies as a result of GDC implementation.

The content of the baseline “Community Building” cluster was generally oriented toward strengthening community cohesion by way of community activities and addressing topics on the periphery of DSV such as substance use, stress outlets, and youth engagement (though there were some statements about police training and fundraising for DSV). The content of the follow-up “Community-wide DSV Responsibility” cluster extended beyond general community cohesion to more specific statements attributing responsibility to sectors throughout the community to address DSV. It called for education on DSV prevalence, red flags, healthy and unhealthy relationship dynamics, and respectful treatment of others to take place in interpersonal relationships, community centers, schools, churches, workplaces, and doctor’s offices. It also called for the local government to support resource provision. These clusters both centered community-level strategies, however baseline content was focused on building community cohesion while follow-up content was clearly oriented toward instilling a sense

of responsibility throughout sectors of the community for addressing DSV. It is possible that this development is attributable to GDC implementation, reflecting a shift toward more comprehensive and collaborative prevention strategies.

### Town 2 from Baseline to Follow-up

Comparing the cluster maps generated by Town 2 (Fig. 2) show that a five-cluster solution was selected at baseline and a six-cluster solution was considered the best fit at follow-up. Three clusters, including “Individual Direct Action,” “Community Awareness,” and “School Setting” were attributed identical cluster labels at both time points indicating that researchers perceived their statements and themes to be similar and suggesting some continuity between clusters over time. Two clusters were given different labels at each time point despite some thematic overlap: “Community Building” and “Conversations” were present at baseline, whereas the labels “Community-wide DSV Responsibility” and “Family Education” were attributed to follow-up clusters with similar content that researchers considered distinct enough to warrant separate labels. Finally, the “Community Education” cluster was unique to the second point in time.

**Continuity in Cluster Content** Three clusters were found to be thematically similar across time and were assigned identical labels by researchers. However, their content did vary somewhat as demonstrated by a comparison of sample statements (Table 3). For example, at baseline, “Individual Direct Action” generally included actions that could be taken *during* an instance of violence (reacting to risk), whereas at follow-up this cluster also incorporated interventions that could be taken *before* (more primary prevention) and *after* (supportive responses to survivors) a violent situation. These clusters centered around intervention strategies that could be carried out by individuals, however the follow-up cluster came to include actions taken before and after a situation, in addition to intervening during an instance of harm. This may indicate that GDC instilled a more comprehensive understanding of preventative behaviors in the community.

The “Community Awareness” cluster contained many more statements at baseline (25) than at follow-up (10), which researchers speculate could be attributed to its being considered a less effective tactic by participants overall. It may also be attributable to the diminished sample size at follow up. However, at both time points cluster content was generally aimed at raising awareness of DSV in various locations and through different mediums in the community, including educational materials and opportunities to fundraise for DSV response efforts. Actions described at follow-up were similar overall, though to some extent seemed to demonstrate a more nuanced and specific understanding of

DSV prevention and support for survivors, such as modeling respectful behavior, greening town physical spaces, involving men, denouncing sexism, and learning reporting methods that do not involve the police. At baseline and follow-up this cluster identified the need for disseminating DSV-related content throughout the community, however baseline outreach strategies were vague in comparison to those at follow-up. For example, baseline language included phrases such as “advertise,” “publicize,” or “raise awareness,” rather than specific strategies such as posting signage, using social media, or organizing a mass mailing.

At baseline, “School Setting” content generally considered teachers responsible for DSV education and intervention in schools while also mentioning parents and after-school programs. At follow-up, “School Setting” seemed to take a whole school approach, including a call for curricula to address various aspects of DSV, and attributing responsibility to parents, teachers, coaches, and staff for becoming educated on DSV topics and imparting this education to youth. The cluster incorporates many principles of effective prevention programs (Nation et al., 2003) such as the need for early intervention in middle schools in addition to high schools, the need for comprehensive education on topics such as social-emotional learning, respectful treatment of others, anti-bullying, boundary-setting, DSV red flags, how to support a victim/survivor, and using varied teaching methods including mentorship programs and the creative arts. Although cluster content focused on school settings across time, follow-up content was much more comprehensive and collaborative, aligning with GDC’s theory of change.

**Discontinuity in Cluster Content** At baseline one cluster was named “Conversations” and included five statements. Its content focused on taking an interest in DSV risk, having conversations with neighbors, friends, and family about DSV, and being a good listener. Researchers observed some degree of thematic overlap between the baseline “Conversations” cluster and the follow-up “Family Education” cluster although they differed in ways that warranted distinct labels. “Family Education” contained eight statements with content focused on productive dynamics that can occur in families and an emphasis on parents having *conversations* with their children (five of the eight statements). Statements suggested instilling in children a sense of moral responsibility to help others, a willingness to speak out, and emotion regulation skills. Statements also recommended that parents become prepared to discuss DSV issues with their children by way of a mentorship program. This cluster also included relational components between peers to build support for one another. Despite the common strategy of conversations between these clusters across time, follow-up cluster content had a distinct focus on the family (parents and children)

**Table 3** Comparison of Town 2 Baseline-to-Follow Up Cluster Labels and Sample Statements

Baseline		Follow Up	
Cluster Label	Sample Statements	Cluster Label	Sample Statements
Individual Direct Action	If you see something that looks like domestic violence/sexual assault, say something right away. (#8)	Individual Direct Action	Speak out to friends and family if you hear them using sexist language. (#49)
Community Awareness	Raise awareness about local statistics, definitions and research on the problems of domestic violence/sexual assault. (#10)	Community Awareness	Have more men talk openly about these issues rather than silencing each other when they talk about violence or emotions as "unmanly." (#59)
School Setting	Teach about respect in relationships and about domestic violence/sexual assault in high school health classes. (#33)	School Setting	Develop a curriculum for youth in middle/high school that teaches self-esteem, respect for others, and mental health skills. (#10)
Community Building	Encourage adults in your neighborhood to sit outside on front porches so they can build community and watch for risk for violence. (#27)	Community-wide DSV Responsibility	Community leaders take a stronger stance against DV/SA publicly (i.e. write an op-ed in the newspaper, on social media, etc.). (#30)
Conversations	Start conversations with your neighbors about sexual assault and domestic violence. (#24)	Family Education	Support a mentorship program for parents that teaches them how to talk about DV/SA issues with their children. (#37)
		Community Education	Require basic education for community leaders before they can take office to increase their awareness of issues like DV/SA facing the community. (#33)

and incorporated forms of education such as peer-to-peer training, parent mentorship programs, and teaching children emotion regulation skills. The statements comprising the "Family Education" cluster seem to suggest that at follow-up, participants perceived the need for primary prevention strategies to be implemented early in the home between parents and children.

Baseline "Community Building" was a small cluster with seven statements. Its content was neighborhood-centered and focused on adults in the community setting good examples for youth, noticing and intervening during instances of neighborhood violence, and volunteering for community-building activities such as youth mentoring. It seemed to capture a general sense of collective efficacy building that may have already been present at baseline in this town. At follow-up, the content of the "Community-wide DSV Responsibility" cluster had a similar focus on community yet extended beyond promoting community cohesion to calling on various sectors of the community to take responsibility for addressing DSV-related issues more specifically. The statements comprising this cluster call on judges, town representatives and government officials, hospitals, community leaders, businesses, and media outlets to educate on DSV-related laws, increase funding for youth community engagement, publicize community resources, support mental health, and encourage positive norms change. While this cluster also addressed collective efficacy, it clearly called for a broad range of community actors to be accountable for preventing DSV. This emphasis on cross-sector community collaboration may be a reflection of GDC implementation and the program's theory of change.

The follow-up "Community Education" cluster consisted of a relatively distinct statement set focused on the need to educate key sectors of community leaders (rather than more intimate relational groups of families, friends, and neighbors) so they will be equipped to take responsibility for educating those they come into contact with. Community leaders, medical professionals, police, bartenders and bouncers were specifically identified as requiring education on DSV, victim blaming, trauma response, bystander intervention and resources for reporting. Researchers found this cluster to be somewhat similar to "Community-wide DSV responsibility" but it emerged as distinct in CS Global MAX and the final cluster solution. "Community-wide DSV responsibility" content focused more on meeting the needs of survivors through disseminating information about DSV-related laws, imposing more sanctions on perpetrators, supporting mental health services for survivors, and media aimed at reminding survivors that healing is possible. It focused on community responsibility for responding to individual survivors and holding perpetrators accountable. The statements comprising the "Community Education" cluster were more about *training* community leaders who are gatekeepers of

the resources and policy changes that were described as needed in “Community-wide DSV Responsibility.” In this way the “Community Education” cluster is more of a true primary prevention cluster. The presence of this cluster at follow-up may support the hypothesis that strategies would shift from siloed efforts to more collaborative initiatives following GDC implementation, with participants identifying the need for community leaders to receive DSV education tailored to their sector.

### Rating Feasibility, Effectiveness, and Support

Average *cluster* ratings are based on the combined *statement* ratings that comprise a given cluster. Researchers hypothesized that comparing baseline-to-follow-up ratings may yield some insight into the continuities and discontinuities in which preventative actions participants perceived as most feasible, effective, and supported following GDC implementation. Additional insight was gathered through conducting t-tests in CS Global MAX to determine whether differences between rating values were significant or insignificant.

#### Comparing Town 1 Ratings from Baseline to Follow-up

For Town 1, the baseline “Individual Direct Action” cluster was rated most feasible, effective, and supported by participants. At follow-up it remained the most feasible cluster, indicating that participants felt individuals have the most control over taking action. However, perceived effectiveness and support were rated significantly lower than feasibility at follow-up, indicating that although individual direct action may be the easiest behavior to enact, it may not be seen as the most effective or supported strategy in this community following GDC implementation. Interestingly, the baseline “Conversations” cluster was attributed the *lowest* support rating, with significant difference between higher feasibility and lower effectiveness, and higher feasibility and lower support, suggesting a hesitation to discuss DSV with other community members. Yet the follow-up “Family Conversations” cluster, which was found to have thematic overlap with baseline “Conversations,” was attributed the *highest* effectiveness and support ratings. In fact, it was the only cluster with no significant differences between feasibility, effectiveness, and support. This may suggest that GDC instilled in the community the significance of primary prevention, in this case, early intervention with children in the home.

“Community Awareness” was considered the least effective cluster at baseline and *again* at follow-up. However, it was attributed the second highest feasibility rating at both points-in-time, with significant differences found between higher feasibility and lower effectiveness, and higher feasibility and lower support at baseline and follow-up. While

actions to raise community awareness seem to be easier to enact, they do not seem to be considered an effective strategy for this community. The community-oriented clusters (baseline “Community Building” and follow-up “Community-wide DSV Responsibility”) were considered to be the least feasible approaches at both points-in-time, with significant difference found between higher feasibility and even lower support at baseline *and* follow-up. Low community support for these actions may render them challenging to accomplish pending greater community buy-in.

#### Comparing Town 2 Ratings from Baseline to Follow-up

For Town 2, the baseline “School Setting” cluster was attributed the highest effectiveness and support ratings, as well as the second highest feasibility rating. At follow-up, “School Setting” came to be rated highest for feasibility, effectiveness, and support across the board. At both points-in-time, significant difference was found between higher feasibility and lower support, suggesting a lack of community support for action in schools may pose a barrier to overcome. At baseline, the “Community Building” cluster was attributed the lowest ratings across the board for feasibility, effectiveness, and support. At follow-up, the “Community Education” cluster was rated lowest in feasibility, with significant difference between higher effectiveness and lower support, indicating that while these actions may be effective, they may be challenging to implement given low support for cross-sector DSV training in this community. It may also be a range of actions that individual citizens feel less able to influence. Likewise, follow-up “Community-wide DSV Responsibility” was rated lowest in perceived support, with significant difference found between higher feasibility and lower support, indicating that greater community buy-in may need to be established if sectors throughout the community are to accept shared responsibility for addressing DSV. The baseline “Community Awareness” cluster was attributed high effectiveness, yet at follow-up the cluster was attributed the lowest effectiveness rating overall, with significant difference between higher feasibility and lower effectiveness, and higher feasibility and lower support. While these actions are considered easier to enact, they may have been identified as ineffective for this community between baseline and follow-up.

#### Pattern Match Analysis

For pattern match analyses researchers were most interested in comparing effectiveness and support ratings for each cluster across time. Pattern match displays comparing two rating variables can provide insight into the strategies participants consider to be more or less actionable in the context of their communities (Kane & Trochim, 2007). Thus,

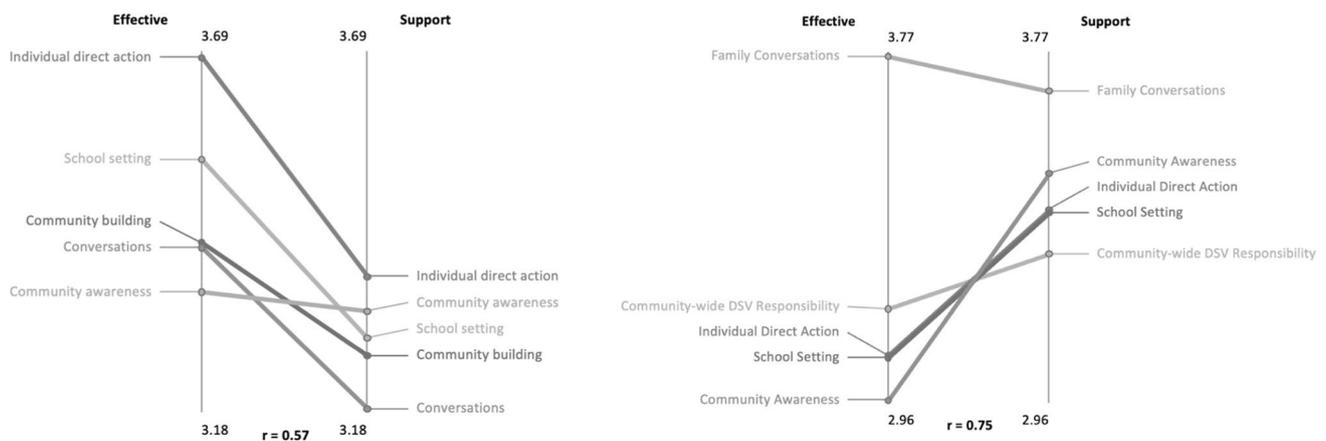
comparing effectiveness to support permitted researchers to understand whether the strategies deemed most effective were also perceived as supported in a community, indicating whether implementation would be relatively straightforward or present a greater challenge, and to investigate whether this relationship seemed to shift over time with GDC exposure. A steeper slope in a pattern match indicates greater divergence between the average effectiveness and support ratings for each cluster (Kane & Rosas, 2018). A Pearson product-moment correlation (“*r*”) value is generated at the bottom of each figure, representing the strength of the correlation between rating patterns, with higher correlation when the value is closer to +1 (indicating a positive, aligned relationship) or -1 (indicating a negative, inverse relationship) (Kane & Rosas, 2018; Kane & Trochim, 2007).

### Town 1 Pattern Match Analysis from Baseline to Follow-up

At baseline, the pattern match produced for Town 1 (see Fig. 3) had mid-level correlation ( $r = 0.57$ ) indicating moderate correspondence between the overall relationship of effective and support rating variables and thus the pattern of cluster averages. Researchers were interested to find that correspondence in the relationship between perceived effectiveness and support was higher at follow up ( $r = 0.75$ ), indicating greater similarity between the pattern of average cluster ratings for effectiveness and support compared to baseline. In discussing this finding, researchers considered the possibility that greater agreement between those clusters (or, prevention strategies) considered to be most effective and supported could suggest that

GDC is advancing community readiness for engagement in prevention initiatives.

For *all* clusters at baseline, effectiveness was rated higher than support. Yet at follow-up, four out of five clusters were attributed higher support than effectiveness, which could indicate a shift toward greater community support for prevention initiatives. At baseline, “Individual Direct Action” was rated most effective (3.69) and supported (3.37), although its steep slope indicates a disparity between the cluster’s perceived effectiveness and its perceived level of community support. “Family Conversations” developed at follow up and was rated the most effective (3.77) and supported (3.69) cluster, with a gradual slope indicating relative agreement between perceived effectiveness and support. This could represent a shift toward prioritizing the relationship level of the social ecology. It may also indicate a range of actionable prevention strategies for this community. At baseline, the “School Setting” cluster was rated second most effective (3.54) after “Individual Direct Action” and third most supported (3.28), whereas at follow-up the “Community-wide DSV Responsibility” cluster evolved and came to be rated most effective (3.18) although it was simultaneously attributed the lowest support rating (3.30). Participants may have come to perceive the need for cross-sector community collaboration on prevention initiatives, even as they anticipated challenges in implementation, as indicated by its low support rating. Yet the prioritization of this cluster may demonstrate a broadening of prevention strategies from a narrow focus on schools to the entire community.



**Fig. 3** Town 1 Baseline Pattern Match Compared to Follow-Up Pattern Match. *Note.* This figure depicts two separate “pattern matches” comparing shifts in the average cluster ratings of Town 1. The map on the left compares the baseline effective and support average cluster ratings, while the map on the right compares the follow-up effective and support average cluster ratings. Each pattern match is presented

in its absolute form, meaning that the lowest overall cluster rating (3.18 at baseline, 2.96 at follow up) and highest overall cluster rating (3.69 at baseline, 3.77 at follow-up) are applied to both the left and right vertical sides. The (“*r*”) value in each figure represents the Pearson product-moment correlation. A steeper slope represents less congruence between ratings values

## Town 2 Pattern Match Analysis from Baseline to Follow-up

At baseline, the pattern match produced for Town 2 was found to have high correlational value ( $r=0.75$ ) which was higher at follow-up ( $r=0.86$ ), indicating greater correspondence between rating variables and the pattern of cluster averages (see Fig. 4). Yet for all clusters at baseline *and* follow-up, effectiveness was rated higher than support. Researchers suspect this lack of growth in perceived community support relative to effectiveness may be attributable to less exposure to GDC, given later initiation of programming in Town 2. At baseline, “School Setting” was rated most effective (4.11) and supported (3.44) with a steep slope indicating a disparity between perceived effectiveness and community support. This gap may suggest that greater community support was needed before even the most effective and supported prevention strategies could be successfully implemented in this community. However, “School Setting” was *again* rated most effective (3.66) and supported (3.50) at follow-up, this time with a gradual slope indicating relative agreement between rating variables. This may suggest that interventions in school settings became more actionable at time two. Similarly, “Individual Direct Action” was rated second most effective and supported at both baseline and follow-up, with a steeper slope at baseline indicating disagreement between rating variables and a gradual slope at follow-up indicating relative agreement between perceived effectiveness and support indicating that taking individual action may have become more actionable over time. For Town 2, initiatives in school settings and individual-level actions continued to be considered the most effective and supported clusters (or, prevention strategies), and average

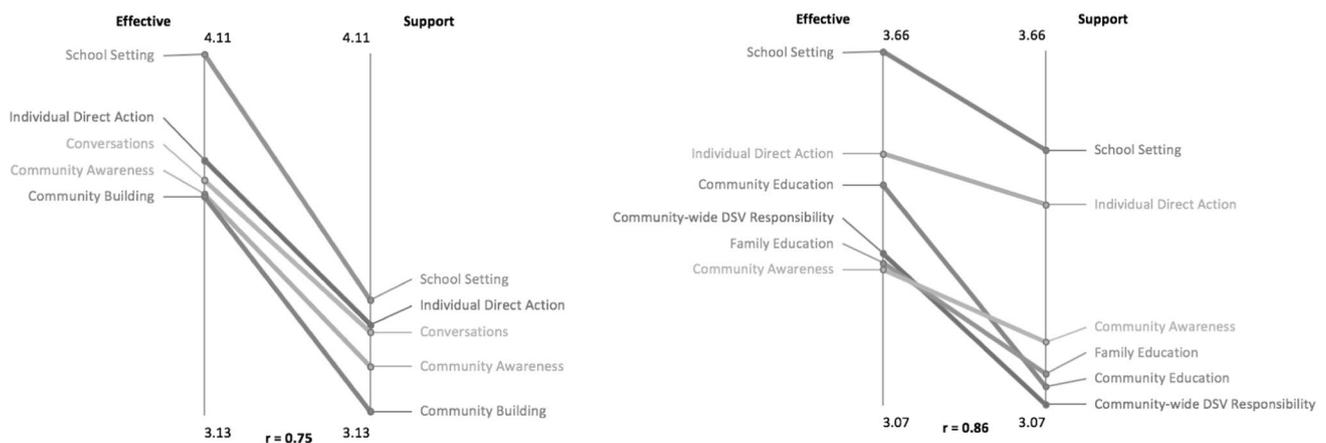
cluster ratings of perceived effectiveness and community support came into greater alignment.

## Discussion

The present study investigated the promise of concept mapping for capturing shifts in community narratives resulting from a community-level DSV prevention initiative. Results suggest that this method could be a viable tool for future research seeking to gain a more nuanced understanding of how DSV prevention initiatives may change how communities perceive and address DSV. This tool may be especially powerful in conjunction with other methods such as pre- and post- surveys to help further unpack findings across several different evaluation methods.

As hypothesized, the domain of ideas as represented by separate point and cluster maps for each town exhibited conceptual and thematic differences between time periods. Based on GDC’s theory of change, researchers hypothesized that following GDC implementation, town residents would foreground prevention strategies that incorporate 1. Collective efficacy, 2. Social norms intolerant of violence that attribute responsibility to all residents for mitigating DSV, 3. Comprehensive prevention programming and cross-sector collaboration, and 4. Primary prevention approaches.

Following GDC implementation, both towns proposed more comprehensive and collaborative approaches in line with GDC’s theory of change. Moreover, these shifts generally reflected an increased sense of collective efficacy, or commitment to “collaborative action and achieving common goals” (Banyard, 2015, p. 14), as demonstrated by the



**Fig. 4** Town 2 Baseline Pattern Match Compared to Follow-Up Pattern Match. Note. This figure depicts two separate “pattern matches” comparing shifts in the average cluster ratings of Town 2. The map on the left compares the baseline effective and support average cluster ratings, while the map on the right compares the follow-up effective and support average cluster ratings. Each pattern match is presented

in its absolute form, meaning that the lowest overall cluster rating (3.13 at baseline, 3.07 at follow up) and highest overall cluster rating (4.11 at baseline, 3.66 at follow-up) are applied to both the left and right vertical sides. The (“r”) value in each figure represents the Pearson product-moment correlation. A steeper slope represents less congruence between ratings values

“Community-wide DSV Responsibility” cluster which presented at time two. This is consistent with GDC’s focus on bystander responsibility and community-wide response to DSV. This development also supports the prosocial norm that “everyone has a role to play”—or, that it is the collective responsibility of the town and its residents to end DSV in their community. This proactive social norm is a central feature of GDC and what it works to promote through training and social marketing campaigns. The nature of the study design was not such that we could infer causality, future research across multiple towns could examine how GDC may affect community conceptualization and whether the use of a different prevention strategy produces a different concept mapping result over time.

In modeling intolerance of DSV, both towns seemed to favor early intervention with youth at follow-up. For example, the “School Setting” cluster for both towns took on a more comprehensive and collaborative approach consistent with prevention recommendations by Nation et al. (2003), and the family-oriented clusters that evolved for both towns reflected the need to teach children healthy relationship skills and the importance of helping others. What is more, as hypothesized, the clusters attributed the highest rating values were generally those aimed at primary prevention efforts rather than response, and this was especially true at follow-up. For example, Town 1 rated “Individual Direct Action” most feasible, effective, and supported at baseline, yet at follow-up participants considered “Family Conversations”—an intervention early in the life span—to be most effective and supported. Town 2 rated “School Setting” most effective and supported at baseline, and doubled-down on this at follow-up, rating it most effective, supported, and *feasible*. “School Setting” reflects another early intervention, particularly as Town 2 identified the need for DSV-related curriculum to be taught in middle school settings at follow-up.

## Limitations and Future Research

Study findings suggest that community narratives obtained via concept mapping may be one indicator of prevention strategies that move from individual to more relational and community-building levels. However, there are a number of limitations to acknowledge and alternative explanations for study findings remain plausible (Trochim, 1985). The first is that, as with qualitative research more generally, the current study used small samples of participants. While we had a sense from brainstorming sessions that we achieved saturation, the samples do not necessarily represent all citizens of each town. Citizens without access to transportation, for example, would have found it difficult to participate. Although the study tracked the number of individuals who participated across activities at each time point, it did not

track the number of individuals who may have participated across 2016 and 2018. We also cannot be certain of the GDC exposure of participants, although we do know that about 33 percent of mail survey participants in these towns reported some GDC exposure. For these reasons we cannot infer with certainty that differences in the conceptual domain, cluster content, and rating values represent GDC effects.

Along these lines, we have no way of knowing if individuals who participated post-GDC exposure were more likely to possess more prevention knowledge compared to those at baseline, again limiting our ability to make causal conclusions about changes in community narratives over time. In addition, each town generated distinct conceptual domains at time one and time two. Using the same conceptual domain across time points would allow researchers to employ Procrustes analysis and a permutation test for a more objective evaluation of the correspondence between multiple concept maps (Rosas, 2017) than was presented here, yet this would sacrifice the chance to evaluate how community narratives may change over time. Future studies could endeavor to use identical samples at time one and time two, establish the baseline prevention knowledge of the sample, and ensure participants complete capacity-building training in the interim. Study objectives could determine whether the same conceptual domain is used across time or across different samples (enabling the Procrustean approach), or whether researchers choose to assess narrative changes by explicitly connecting the conceptual domain generated at each time point to the intended effects of the curriculum under evaluation (S. Rosas, personal communication, February 3, 2021).

Further, the towns in these case studies are unique to northern New England and are not representative of other communities in the United States, especially urban communities and/or communities characterized by more racial and ethnic diversity. Future studies could use this method to more purposively sample different sub-communities in towns, for example, to learn the perceptions of racially minoritized residents. It could also be used in different geographic regions where GDC is being implemented to extend and test replicability of the current findings. The brainstorming prompt was intentionally multi-faceted and designed to allow participants to include behaviors across primary, secondary, and tertiary prevention. However, future studies might inquire about each separately. It is also important to note that while GDC is a premier bystander program, it may be cost-prohibitive for some communities.

## Implications for Practice

The current study illustrates how concept mapping may be an interesting tool to enhance our understanding of how community narratives may be changed by community-level

prevention efforts. In the United States, prevention practitioners are increasingly asked to take prevention beyond schools and into community levels of change. Measuring the process and impact of prevention in these spaces can be complicated. Concept mapping may be a useful tool to capture both qualitative and quantitative shifts in perspectives on prevention. Findings suggest that broader community narratives of prevention can be changed over time and that concept mapping may be a tool for capturing these shifts. The current data supports the premise that prevention initiatives should not be restricted to school settings alone. GDC and other community-focused prevention efforts may promote positive community social processes like collective efficacy more broadly and be of benefit beyond the specific lane of DSV prevention. To date, while social processes like collective efficacy and social norms are documented as important correlates of interpersonal violence, there has been less discussion of how to create changes in these factors. The GDC use of train-the-trainer workshops for community leaders, social media, and community action events may be a helpful set of strategies for interpersonal violence prevention that could be layered onto school programs. It provides a set of tools for expanding the reach of prevention. Overall, however, even over time participants saw prevention as operating through individual actions and school programs more than other behaviors. GDC may need to make enhancements to shift views of prevention to include using community coalitions to create policy changes that represent wider diffusion efforts.

Given the development of the “Community Education” cluster at time two for Town 2, participants seem to have identified the need for community leaders to be trained on a range of DSV-related topics, as illustrated by the statement, “Require basic education for community leaders before they can take office to increase their awareness of issues like DV/SA facing the community.” This strategy may be worth exploring and could be a best practice at the community level, given its emergence in study findings, connection to diffusion of innovation theory, and potential to shift not only attitudes and behaviors, but also community resources and policies in favor of DSV prevention. In the United States it is common to find interpersonal violence prevention located in crisis centers also tasked with responding to the needs of survivors or in schools busy with meeting educational aims. GDC offers a model that asks everyone in communities to play a role in prevention.

This study offers a starting point for evaluating how DSV prevention is perceived in distinct community contexts using an innovative, community-informed method that is able to capture different levels of community readiness. Concept mapping is an important needs assessment tool. Refining a community readiness approach could allow preventionists to tailor DSV prevention strategies to the cultural dynamics and

readiness levels of distinct communities, thereby increasing the effectiveness of community-level prevention initiatives. This could in turn garner the support of local government officials, who are in a position to promote the diffusion of prosocial norms in their role as community opinion leaders, and who can advocate for policies and resources that strengthen DSV prevention and response.

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## Declarations

**Conflict of Interest** The authors declare that they have no conflict of interest.

## References

- Banyard, V. (2015). *Toward the next generation of bystander prevention of sexual assault and relationship violence: Action coils to engage communities*. Springer.
- Banyard, V., Edwards, K. M., & Siebold, W. L. (2017). Involving community in sexual violence prevention: Engaging bystanders. In P. Sturmey (Ed.), *The Wiley Handbook of Violence and Aggression*. Hoboken, New Jersey, John Wiley & Sons.
- Blackie, L. E. R., Colgan, J. E. V., McDonald, S., & McLean, K. C. (2020). A qualitative investigation into the cultural master narrative for overcoming trauma and adversity in the United Kingdom. *Qualitative Psychology*. <https://doi.org/10.1037/qap0000163>
- Borsky, A. E., McDonnell, K., Rimal, R. N., & Turner, M. (2016). Assessing bystander behavior intentions toward friends to prevent dating violence: Development of the bystander behavior Intentions-Friends Scale through concept mapping and exploratory factor analysis. *Violence and Victims*, 31, 215–234.
- Breen, A. V., & McLean, K. C. (2017). The intersection of personal and master narratives: Is redemption for everyone? In B. Schiff, A. E. McKim, & S. Patron (Eds.), *Life and narrative: The risks and responsibilities of storying experience*. Oxford, United Kingdom: Oxford University Press.
- Burke, J. G., O’Campo, P., Peak, G. L., Gielen, A. C., McDonnell, K. A., & Trochim, W. M. K. (2005). An introduction to concept mapping as a participatory public health research method. *Qualitative Health Research*, 15(10), 1392–1410.
- Coker, A. L., Fisher, B. S., Bush, H. M., Swan, S. C., Williams, C. M., Clear, E. R., & DeGue, S. (2015). Evaluation of the Green Dot bystander intervention to reduce interpersonal violence among college students across three campuses. *Violence against Women*, 21(12), 1507–1527.
- Coker, A. L., Bush, H. M., Cook-Craig, P. G., DeGue, S. A., Clear, E. R., Brancato, C. J., ... & Recktenwald, E. A. (2017). RCT testing bystander effectiveness to reduce violence. *American Journal of Preventive Medicine*, 52(5), 566–578.
- Edwards, K. M., Moynihan, M. M., Rodenhizer-Stämpfli, K. A., Demers, J. M., & Banyard, V. L. (2015). Campus community readiness to engage measure: Its utility for campus violence prevention initiatives—Preliminary psychometrics. *Violence and Gender*, 2(4), 214–224.

- Ellis, B. H., & Abdi, S. (2017). Building community resilience to violent extremism through genuine partnerships. *American Psychologist*, 72(3), 289.
- Frye, V., Paul, M. M., Todd, M. J., Lewis, V., & Cupid and Jane Coleman, M., Salmon, C., & O'Campo, P. . (2012). Informal social control of intimate partner violence against women: Results from a concept mapping study of urban neighborhoods. *Journal of Community Psychology*, 40(7), 828–844.
- Kane, M., & Trochim, W. M. K. (2007). *Concept mapping for planning and evaluation*. Sage Publications.
- Kane, K., & Rosas, S. (2018). *Conversations about group concept mapping: Applications, examples, and enhancements*. Sage Publications.
- Lazarus, S., Seedat, M., & Naidoo, T. (2017). Community building: Challenges of constructing community. In M. A. Bond, I. Serrano-García, C. B. Keys, & M. Shinn (Eds.), *APA handbook of community psychology: Methods for community research and action for diverse groups and issues* (pp. 215–234). Washington, D.C.: American Psychological Association.
- Levine, E. C. (2018). Engaging the community: Building effective partnerships in sexual violence prevention. *Journal of Applied Social Science*, 12(2), 82–97.
- McLinden, D. (2017). And then the internet happened: Thoughts on the future of concept mapping. *Evaluation and Program Planning*, 60, 293–300.
- Meno, C. G., & Allen, N. E. (2020). Exploring community narratives of violence against women among domestic violence responders in Guam. *American Journal of Community Psychology*. <https://doi.org/10.1002/ajcp.12476>
- Nation, M., Crusto, C., Wandersman, A., Kumfer, K. L., Seybolt, D., Morrissey-Kane, E., & Davino, K. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist*, 58(6/7), 449–456.
- O'Campo, P., Zhang, Y. J., Omand, M., Velonis, A., Yonas, M., & Minh, A.,...Smylie, J. . (2017). Conceptualization of intimate partner violence: Exploring gender differences using concept mapping. *Journal of Family Violence*, 32(3), 367–382.
- Olson, B. D., & Jason, L. A. (2011). The community narration (CN) approach: Understanding a group's identity and cognitive constructs through personal and community narratives. *Global Journal of Community Psychology Practice*, 2(1), 19. <https://doi.org/10.7728/0201201101>
- Olson, B. D., Cooper, D. G., Viola, J. J., & Clark, B. (2016). Community narratives. In L. A. Jason & D. S. Glenwick (Eds.), *Handbook of methodological approaches to community-based research: Qualitative, quantitative, and mixed methods* (pp. 43–52). Oxford University Press.
- Peterson, C., DeGue, S., Florence, C., & Lokey, C. N. (2017). Lifetime economic burden of rape among US adults. *American Journal of Preventive Medicine*, 52(6), 691–701.
- Peterson, C., Kearns, M. C., McIntosh, W. L., Estefan, L. F., Nicolaidis, C., McCollister, K. E., . . . Florence, C. (2018). Lifetime economic burden of intimate partner violence among US adults. *American Journal Of Preventive Medicine*, 55(4), 433–444.
- Rappaport, J. (2000). Community narratives: Tales of terror and joy. *American Journal of Community Psychology*, 28(1), 1–24.
- Rogers, E. M. (2002). Diffusion of preventive innovations. *Addictive Behaviors*, 27(6), 989–993.
- Rosas, S. R. (2017). Multi-map comparison for group concept mapping: An approach for examining conceptual congruence through spatial correspondence. *Quality & Quantity*, 51, 2421–2439.
- Rosas, S. R., & Kane, M. (2012). Quality and rigor of the concept mapping methodology: A pooled study analysis. *Evaluation and Program Planning*, 35(2), 236–245.
- Rosas, S. R., & Ridings, J. W. (2017). The use of concept mapping in measurement development and evaluation: Application and future directions. *Evaluation and Program Planning*, 60, 265–276.
- Shadowen, N. L., Guerra, N. G., Reyes Rodas, G., & Serrano-Berthet, R. (2017). Community readiness for youth violence prevention: A comparative study in the US and Bolivia. *Vulnerable Children and Youth Studies*, 12(2), 117–129.
- Vaughn, L. M., Jones, J. R., Booth, E., & Burke, J. G. (2017). Concept mapping methodology and community-engaged research: A perfect pairing. *Evaluation and Program Planning*, 60, 229–237.
- Trochim, W. M. (1985). Pattern matching, validity, and conceptualization in program evaluation. *Evaluation Review*, 9(5), 575–604.
- Trochim, W. M. (1989a). An introduction to concept mapping for planning and evaluation. *Evaluation and Program Planning*, 12, 1–16.
- Trochim, W. M. (1989b). Outcome pattern matching and program theory. *Evaluation and Program Planning*, 12(4), 355–366.
- Trochim, W. M., & Linton, R. (1986). Conceptualization for planning and evaluation. *Evaluation and Program Planning*, 9, 289–308.
- Trochim, W. M. (2017). Hindsight is 20/20: Reflections on the evolution of concept mapping. *Evaluation and Program Planning*, 60, 176–185.
- Trochim, W. M., & McLinden, D. (2017). Introduction to a special issue on concept mapping. *Evaluation and Program Planning*, 60, 166–175.
- Windsor, L. C. (2013). Using concept mapping in community-based participatory research: A mixed methods approach. *Journal of Mixed Methods Research*, 7(3), 274–293.

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