Enhancing the Capacity of Substance Abuse Prevention Coalitions Through Training and Technical Assistance

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Community capacity may be enhanced through intermediary supports that provide training and technical assistance (TA). This study used a randomized pre/posttest design to assess the impact of training and TA on coalition capacity. Seven community coalitions from the Midwest participated in the 2-year study, which included 36 hours of training, followed by monthly TA calls to support action planning implementation for prioritized processes. Collaborative processes most commonly identified as high-need areas for TA were Developing Organizational Structure, Documenting Progress, Making Outcomes Matter, and Sustaining the Work. Based on a coalition survey, the average change for processes prioritized through TA across all seven coalitions was .27 (SD = .29), while the average change for non-prioritized processes was .09 (SD = .20) (t(6) = 4.86, p = .003, d = 1.84). The findings from this study suggest that TA can increase coalition capacity for implementing collaborative processes using a participatory approach.

KEYWORDS capacity building, coalition, community capacity, processes, technical assistance

Over the past several decades, capacity-building has emerged as a vital approach for enhancing coalition functioning and effectiveness. Through community capacity-building, the collective skills, capabilities, and resources of a group are sustained to produce improvements in outcomes over time (e.g., reduced rates of youth 30-day tobacco use). Capacity-building activities provide enhanced resources and supports to coalition partners for addressing community problems as facilitators of change and improvement (Wandersman & Florin, 2003).

Community capacity is enhanced through intermediary support systems that provide training, technical assistance (TA), and other resources to promote the development, implementation, and sustainment of community efforts (Wandersman & Florin, 2003). In recent years, there has been increased interest in examining the impact of training and TA for community interventions, particularly coalitions (Feinberg, Gomez, Puddy, & Greenberg, 2008). Yet, empirical evidence of the impact of TA is limited (Hunter et al., 2009; Wandersman & Florin, 2003).

Based on a community-based participatory research approach, both coalition members and research partners are engaged in capacity-building through an asset or strength-based method of community problem solving (Trickett et al., 2011). In the context of participatory research, the researcher, often serving as a technical assistance provider, and the coalition partners are co-learners jointly supporting change and improvement in the community (Minkler & Wallerstein, 2011). Technical assistance providers may support general capacity-building to enhance coalition functioning or innovation-specific capacity-building to provide intervention specific supports (Wandersman et al., 2008). Regardless, it is fundamental that coalitions have the capacity to implement "best processes" that foster collaborative engagement, assessment and planning to identify and deliver effective interventions (Trickett et al., 2011).

CONCEPTUAL FRAMEWORK AND RELATED COLLABORATIVE PROCESS

The Institute of Medicine's (IOM) Framework for Collaborative Public Health Action in Communities presents a five phase model for promoting change and improvement and supports the implementation of key collaborative processes (Institute of Medicine, 2003). Based on emerging evidence, the framework was adapted to examine the integration of 12 collaborative processes or activities that may enhance the capacity of community coalitions to improve targeted outcomes (Fawcett, Schultz, Watson-Thompson, Fox, & Bremby, 2010). As shown in Figure 1, the interactive five phase framework
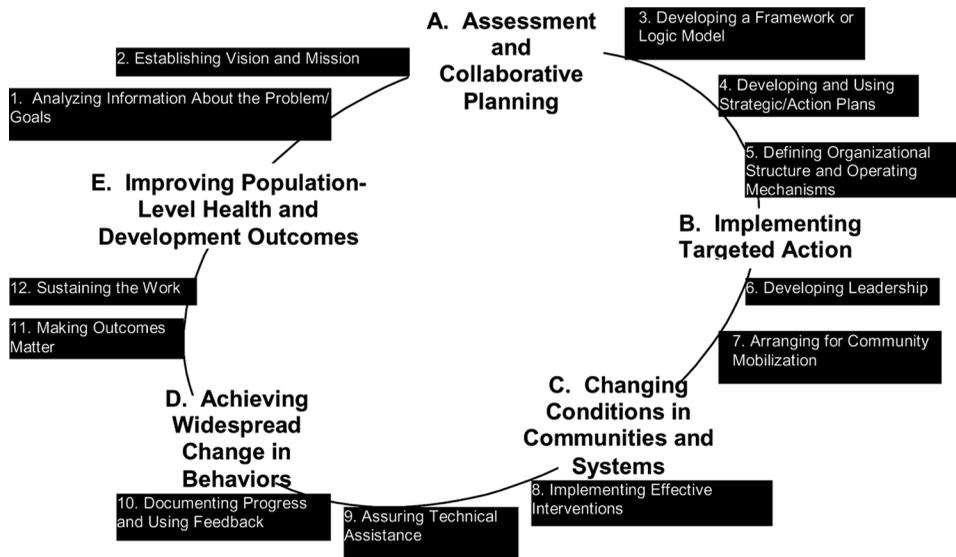
FIGURE 1 IOM framework for collaborative public health action with 12 collaborative processes. Used with permission. Fawcett et al. (2010).

and related processes supports a participatory approach for building capacity to address issues of public health concern.

During the first phase of the framework, community partners assess and prioritize community problems and strengths. In this phase of the framework, the agenda for the collaborative effort is further clarified through the development and use of a logic model and strategic and action plans. The second phase focuses on engaging collaborative partners and coalition leaders in implementing the strategic plan by supporting targeted action in the community (Watson-Thompson, Fawcett, & Schultz, 2008). In the third phase, targeted action is intended to result in the implementation of community and systems changes, defined as new or modified programs, policies, or practices, implemented in the community related to the targeted goal (Fawcett et al., 2010). In the fourth phase, the implementation of community/system changes are intended to support widespread behavior changes addressing targeted risk and protective factors. The final phase of the framework represents the ultimate goal of the collaborative effort, which is to improve population-level health outcomes.

The purpose of the present study was to further examine implementation of the 12 collaborative processes that support facilitation of the adapted IOM model. Specifically, the study assessed the impact of a training and technical assistance model on coalition functioning and capacity as measured by the implementation of prioritized coalition processes (e.g., strategic planning). The present study provides a detailed examination of the technical assistance component of a broader intervention study

examining the Capacity-Building for Change Model (CBCM). This study was part of a research project funded by the National Institute on Drug Abuse (NIDA) to examine the effectiveness of a capacity-building technical support model.

METHODS

Study Participants

Eight coalitions in the Midwest were randomly selected from the Community Anti-Drug Coalitions of America (CADCA) registry to participate in the study based on eligibility criteria. The eligibility criteria included the following: geographically located in the Midwest region, presence of paid staff, minimum annual coalition budget of $50,000, priority outcomes targeting reductions in adolescent substance use, and response to an invitational letter to participate. An informed consent form was completed by each study participant, and a memorandum of agreement was also signed by coalition and research partners. University of Kansas Human Subjects Committee approval was received for this study to assure appropriate protection of participants. The participants of this study ($N = 18$) were three representatives (i.e., coalition staff and board members) from each of the partnering community prevention coalitions.

The participant coalitions were formed between 1994 and 2004. Participant coalitions had varying levels of experience and support, with an average of 4.8 employees, 9.5 board members, and 62.8 coalition members across the coalitions. The size of the counties that the coalitions served ranged from very small rural communities with a population of 3,499 to large metropolitan areas with 360,485 residents. Demographic characteristics of the counties were similar, with an average of 92.7% of the residents across the counties identified as White.

Technical Assistance Model

Technical assistance included the participation of two coalition representatives in 36 hours of in-person training, followed by 1 hour of monthly technical assistance phone calls to provide additional support in implementing prioritized processes. The two coalition representatives attended six days of training, over two series of 3-day sessions at the University of Kansas (KU). The sessions were facilitated by research staff of the KU Work Group. As shown in Table 1, coalition representatives received training in community-building competency areas (e.g., evaluating the initiative) that supported implementation of 12 collaborative processes (e.g., documenting progress and using feedback).

TABLE 1 Collaborative Processes and Related Training Curriculum Competency Areas

Collaborative processes	Training curriculum modules for the competency area	Illustrative skills supporting the competency area
1. Analyzing Information about the Problem/Goal	• Assessing community needs and resources	Conduct community needs assessments and develop asset maps
	• Analyzing problems and goals	Data analysis, prioritization of community needs, goal setting
2. Establishing a Vision and Mission	• Developing strategic and action plans	Develop and review shared vision and mission statements, coalition members routinely recite vision and mission
3. Developing a Framework or Logic Model	• Developing a model of change	Identify core components and elements of model, build model of practice, incorporate model into practice
4. Developing a Strategic and Action Plan	• Developing strategic and action plans	Develop objectives and strategies to carry out goal areas, create action plans
5. Developing Organizational Structure and Operating Mechanisms	• Improving organizational management and development	Analyze internal work environment, build skill areas of staff and volunteers, develop fiscal operations
	• Creating and maintaining coalitions and partnerships	Bring people together from different organizations to work on a common goal
6. Developing Leadership	• Building leadership	Recruit new members to leadership team, develop leadership plan
	• Enhancing cultural competence	Build skills related to cultural diversity and implement work in culturally sensitive areas
7. Arranging for Community Mobilization	• Advocating for change	Create advocacy plans based on community assessment and readiness
	• Implementing a social marketing effort	Create social marketing plan, involve stakeholders in developing campaign
8. Developing an Intervention	• Developing an intervention	Review previous community strategies, collaborate with stakeholders, develop intervention components and elements
9. Assuring Technical Assistance	• Improving organizational management and development	Implement systems to support the work, outline a structure for operating
10. Documenting Progress & Using Feedback	• Evaluating the initiative	Document the intervention, develop evaluation questions and plan, conduct periodic analyses and review of data
11. Making Outcomes Matter	• Evaluating the initiative	Identifying stakeholder interests, communicating outcomes to audiences
12. Sustaining the Work	• Sustaining the work or initiative	Determine what activities need to be sustained and for how long, create plan to continue necessary work

Prior to training, coalition representatives completed the Coalition Process Assessment, which examined coalition levels of implementation of the 12 collaborative processes (http://ctb.ku.edu/en/promisingapproach/

index.aspx). After receiving training on each collaborative process and related competency area, coalition representatives reviewed reports of average implementation levels for each process based on the survey respondent ratings.

After the completion of the two training series, coalitions received ongoing support through monthly TA calls to support implementation of prioritized processes. The two coalition representatives who participated in training were also involved in the monthly TA calls supported by the project coordinator and two master's-level graduate students from the KU Work Group. During the initial monthly TA call, the KU Work Group facilitated data review and discussion of the Coalition Process Assessment Report, which provided graph and table summaries of mean implementation ratings for the processes and related tasks and activities. Following review and discussion of the report, coalition representatives prioritized two to three collaborative processes to support fuller implementation with the coalition, through TA supports.

After identifying the prioritized coalition processes, the TA calls focused on goal setting and action planning to support implementation of the processes with the coalition. For each prioritized process, coalition representatives identified when the tasks and activities supporting the process would be implemented. An objective was developed to guide when the task(s) would be completed by the coalition. Then, each activity supporting the implementation of the tasks became action steps identified in an action plan.

During TA sessions, the coalition representatives reviewed and reported on implementation progress related to their action plan. The KU Work Group provided consultation on how to implement identified tasks, and references to other resources, such as appropriate sections of the Community Tool Box (http://ctb.ku.edu), which provided how-to information (e.g., conducting a focus group), help in problem solving (e.g., not enough participation in the coalition), and toolkits for developing plans (e.g., leadership plans). Web-based technology was used to support TA and the action plans for each coalition process were developed and reviewed using an online action planning tool available through the Community Tool Box WorkStation.

Measures and Analyses

The present study used a pre/posttest design to examine the overall technical assistance needs of the coalitions, as well as the overall effect of the TA on the prioritized collaborative processes across all of the participating coalitions.

Coalition Process Assessment

The KU Work Group developed a Coalition Process Assessment that was administered through SurveyMonkey and examined levels of implementation across 12 collaborative process areas. The survey questions ($N = 255$)

assessed the implementation of core tasks and activities related to each of the 12 collaborative processes (see Figure 1). For each process, coalition implementation of discrete tasks supporting the processes was examined by assessing respondent ratings of specific activities. An electronic summary of core tasks and related activities supporting implementation of each process was accessible from the Community Tool Box.

The survey questions prompted responses using a yes/no format for the completion of specific activities that supported tasks in the implementation of each coalition process. For each question, an average activity score was calculated across respondents. The overall implementation score for each process was calculated by dividing the total number of "yes" responses by the total number of discrete activities in the process. The assessment was completed by three representatives from each coalition. The baseline assessment was administered in February 2008 and the post-intervention assessment was in February 2010.

Descriptive statistics were used to examine the TA needs and types of coalition processes prioritized for TA supports. Each coalition selected two or three processes to focus on through TA. Average collaborative process scores were calculated for each coalition across the prioritized processes, and also for the 9–10 non-prioritized processes. The mean differences were calculated to examine changes in individual coalition implementation ratings for prioritized processes. A paired samples t test was used to examine if the coalition's mean scores for prioritized and non-prioritized coalition processes had changed.

Secondary analysis using descriptive statistics were used to analyze those processes indicated to have high TA need (i.e., prioritized by three or more coalitions for TA support). The tasks and related activities with lower levels of implementation were examined to better understand both coalition TA needs, and changes in levels of implementation at the task level to support fuller implementation of processes. The difference in average implementation scores for tasks and activities with lower levels of implementation (50% or less) were examined.

RESULTS

Average Implementation Levels

The individual coalitions experienced an increase in the average implementation levels for all of the collaborative processes. Table 2 indicates that the overall average implementation levels for all 12 collaborative processes increased between the pre and post assessment. The least implemented process was Sustaining the Effort, which at baseline was slightly less than 47% implemented, and increased to 68% implementation by the post assessment

TABLE 2 Coalition-Identified TA Priorities With Average Process Implementation Levels

Collaborative processes	Number of coalitions prioritizing process	Pre-study Mean with SD (%)	Post-study Mean with SD (%)	Mean difference	Paired samples t test	95% Confidence Interval	Cohen's d
Analyzing Information about the Problem/Goal	0	91.0% SD=.08	99.2% SD=.01	8.1	t(6) = 2.44 p = .05*	[0, 1.85]	d = .92++
Establishing Vision and Mission	1	75.3% SD=.19	85.2% SD=.16	10.0	t(6)=1.04 p=.34	[0.53, 1.32]	d = .39
Developing an Organizational Structure and Operating Mechanism	3	69.5% SD=.23	81.8% SD=.091	12.3	t(6)=1.37 p=.22	[-.41, 1.44]	d = .52+
Developing a Logic Model	0	76.7% SD=.30	81.0% SD=.32	4.3	t(6)=.86 p=.42	[-.60, 1.25]	d = .33
Developing and Using Strategic Plans	1	78.6% SD=.28	93.6% SD=.06	15.1	t(6)=1.29 p=.25	[-.44, 1.41]	d = .49
Developing Leadership	1	79.2% SD=.31	87.8% SD=.17	8.5	t(6)=.55 p=.05*	[-.72, 1.13]	d = .21
Arranging for Community Mobilization	2	68.0% SD=.16	74.2% SD=.15	6.2	t(6)=.73 p=.50	[-.65, 1.20]	d = .27
Implementing Effective Interventions	0	81.2% SD=.18	93.9% SD=.58	12.7	t(6) = 2.44 p=.05*	[-.27, 1.58]	d = .65+
Assuring Technical Assistance	1	61.5% SD=.28	77.7% SD=.14	16.2	t(6) = 1.72 p=.14	[-.44, 1.41]	d = .49
Documenting Progress	3	72.8% SD=.73	90.1% SD=.93	17.3	t(6)=1.29 p=.24	[-.21, 1.64]	d = .71
Making Outcomes Matter	5	53.8% SD=.25	78.2% SD=.13	24.4	t(6) = 2.42 p=.05*	[0, 1.84]	d = .91++
Sustaining the Effort	6	46.6% SD=.26	68.1% SD=.26	21.6	t(6)=1.73 p=.14	[-.27, 1.58]	d = .65

Note. *$p < .05$; +$d > .50$–.79 moderate effect; ++$d > .80$ large effect.

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($t(6) = 1.73$, $p = .14$, $d = .65$). The coalition processes that showed the greatest increase in average implementation levels between the pre and post assessments were Developing and Using Strategic Plans, Assuring Technical Assistance, Documenting Progress, Making Outcomes Matter, and Sustaining the Effort. As shown in Table 2, there were significant improvements (and large effects) in average coalition process implementation scores for two processes, Making Outcomes Matter ($t(6) = 2.42$, $p = .05$, $d = .91$) and Analyzing Information about the Problems/Goals ($t(6) = 2.44$, $p = .05$, $d = .92$).

Prioritized Processes

The areas of need for TA support for the participating coalitions were examined based on prioritization of collaborative processes by each coalition. The collaborative processes with the highest implementation scores during the baseline assessment were Analyzing Information about the Problem and Implementing Effective Interventions. There were nine coalition processes that were prioritized for TA supports by at least one participating coalition (Table 2). The processes that coalitions most frequently identified as high need areas for TA (i.e., prioritized by three or more coalitions) were Developing Organizational Structure, Documenting Progress, Making Outcomes Matter, and Sustaining the Work (Table 2).

The coalitions experienced more substantial improvements in processes that were prioritized for TA support. Across all seven coalitions, the average change for processes prioritized through TA supports was 27% ($SD = .29$), while the average change for non-prioritized processes was 9% ($SD = .20$). There was a significant difference between the average improvement for prioritized and non-prioritized processes ($t(6) = 4.86$, $p = .003$, $d = 1.84$, 95% CI [.91, 2.76]).

DISCUSSION

The study presented an assessment of coalition needs in 12 collaborative process areas. The study also examined the relative contribution of technical assistance on enhanced coalition capacity as evidenced by the implementation of collaborative processes. The findings from this study suggest that TA may increase coalition capacity for implementing collaborative processes. The coalition participants reported greater levels of implementation for processes that were prioritized for TA. There were also improvements in non-prioritized processes (e.g., Making Outcomes Matter), which may suggest enhanced implementation of some processes may have supported improvements in other closely associated processes (e.g., Analyzing Information).

The collaborative processes prioritized as high-need areas for technical support were generally processes supporting later phases of the IOM

Framework for Collaborative Public Health Action. Three of the four processes that were prioritized by three or more coalitions for TA related to the last two phases of the model, which supports widespread behavior change (Phase 4) and improvements in population-level health outcomes (Phase 5). The collaborative processes for which there were greater improvements in the average implementation scores were for these three higher prioritized processes including Documenting Progress, Making Outcomes Matter, and Sustaining the Effort. The average implementation scores were significantly different for Making Outcomes Matter between the pre and post assessment. Although there were not significant differences in the other two processes the data indicated improvements in implementation of these processes.

Coalitions may have had previous experience or supports in supporting implementation of earlier phases of the framework and related processes such as conducting a community assessment to assist in analyzing information about the problem. Prevention coalitions and practitioners may have more limited knowledge and skills for implementing later phases of the framework. Other studies have also found that supports for processes sand competencies such as evaluation and sustainability were often the focus of TA (Hunter et al., 2009; Stevenson, Florin, Mills, & Andrade, 2002).

There were some interdependencies in the implementation of the collaborative processes. For instance, the process of documenting progress and using feedback as a component of evaluation may be enhanced by developing and using a logic model (Stevenson et al., 2002). There is a need for additional research examining the relationships between mediating processes and tasks that may enable fuller implementation of other processes. Furthermore, there were some processes such as documenting progress and assuring technical assistance that were inherently supported as core components of the technical assistance model; therefore, fuller implementation of these processes may have been related to the nature of the intervention. Although the participating coalitions were randomly selected, there may have been an increased likelihood that those coalitions that responded to the invitation had a need or interest in receiving technical supports. Prior to the study, several of the coalitions were on the wait-list to participate in the CADCA Training Academy. Furthermore, access to the KU Work Group's Online Documentation and Support System was a feature of the broader study, and may have attracted coalitions with a predisposed interest in documentation and evaluation.

There were both some limitations and strengths of the present study that may guide future research in this area. First, the data presented in the study are limited by a small sample size. In future research, larger sample sizes may permit a stronger analysis. The Coalition Process Assessment is a relatively new survey instrument. Additional testing and use of the assessment with additional coalitions, and survey factor analysis may help to

further refine the instrument. Furthermore, many of the coalitions had high implementation scores during the baseline assessment, which may have presented challenges including generality of the study findings to lower functioning coalitions. The study eligibility criteria (e.g., current staff, $50,000 budget) may have been a selection bias and resulted in the participation of either more mature or higher functioning coalitions.

The focus of this study was to examine the effects of TA on enhanced coalition capacity. The study does contribute to enhanced understanding regarding the implementation and effectiveness of offsite TA (Feinberg, Ridenour, & Greenberg, 2008). Future studies examining the components of offsite TA that are effective in supporting coalition capacity and functioning will enhance knowledge in the field regarding the feasibility and appropriateness of various TA models (Feinberg et al., 2008).

Collective understanding regarding the implementation of collaborative processes is limited and further analysis may contribute significantly to building coalition capacity to support prevention efforts. Additional studies explicitly examining the implementation of both TA and capacity-building models, like the IOM Framework for Collaborative Public Health Action, will further enhance knowledge in the field regarding what types of support models are effective (Feinberg et al., 2008). Future studies should examine the impact of increased coalition capacity on effectiveness in supporting improvements in targeted community health outcomes. There is also a need for additional studies examining the effects of TA models with varying levels of intensity and funding (Feinberg et al., 2008).

Based on principles of participatory research, the present study supported coalitions in identifying and supporting a TA intervention to enhance the capacity of the coalition to implement "best processes" (Trickett et al., 2011). The partnering coalitions identified areas of need for technical support, prioritized the processes and tasks to be supported by the coalition to enhance fuller implementation, and developed and implemented action plans to enhance coalition functioning. Although the research study and intervention components were previously developed by the research partner for grant funding, the community partners fully guided the process for implementing the capacity-building activities with their local coalitions. The researchers were co-learners with the coalition partners in understanding how to support implementation of collaborative processes across coalitions with varying contexts and conditions. It is important that prevention coalitions, practitioners, and researchers continue to work harmoniously in advancing our collective understanding of how to build coalition capacity through TA, while supporting a participatory approach. Improvements in community health–related outcomes, including adolescent substance abuse prevention, require the sustained engagement of high functioning coalitions equipped with resources and supports to foster change and improvements in communities.

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