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Determinants of Community Coalition Ability to Support Evidence-Based Programs

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Abstract

This study examines how aspects of coalition functioning predict a coalition's ability to promote high-quality implementation of evidence-based programs (EBPs). The study involved 62 Communities That Care (CTC) coalitions in Pennsylvania measured annually from 2003 to 2007. Findings indicate that the communities with higher levels of poverty and longer existing coalitions are related to lower support for high-quality EBP implementation. Several aspects of coalition functioning—including higher levels of funding; leadership strength; board efficiency; strong internal and external relationships; and fidelity to the CTC model—significantly predicted support for high-quality EBP implementation. Earlier measurements of coalition functioning (2003–2004 and 2005–2006) predicted EBP implementation (2007) more strongly than concurrent coalition assessments (2007). The discussion focuses on how coalitions and technical assistance providers can improve coalition support for the implementation of EBPs.

Keywords

Evidence-based programs; Community coalitions; Communities That Care; Implementation; Fidelity

Numerous evidence-based programs (EBPs) have been tested as effective and are now catalogued on websites such as the National Registry of Evidence-based Programs and Practices (www.nrepp.samhsa.gov) and Blueprints for Violence Prevention (www.colorado.edu/cspv/blueprints). Such databases aid the dissemination of EBPs but the challenge of implementing EBPs in community settings with fidelity remains substantial. Community prevention coalitions represent a promising strategy for supporting coordinated and systematic EBP implementation while addressing several type II translation challenges, including attaining support from key stakeholders and ensuring that programs are delivered with sufficient dosage and fidelity (Kegler and Wyatt 2003; Rohrbach et al. 2006). Previous research indicates that increasing the effectiveness of coalition functioning can improve coalition ability to diffuse evidence-based prevention programs (Riggs et al. 2008). However, little is known about the specific aspects of coalition functioning and community context that influence coalition ability to support high-quality implementation of EBPs focused on youth development (Spoth et al. 2007).

Thus, the goal of this study is to understand how community context (i.e., level of poverty) and aspects of coalition functioning influence the coalition's ability to support the high-quality

implementation of EBPs. This study focuses specifically on Communities That Care (CTC) coalitions, which follow an evidence-based process to coordinate the assessment, planning, and implementation of EBPs intended to prevent risky youth behavior. Coalition characteristics that may influence EBP implementation include coalition age, funding, governance/leadership, internal cohesion, community relations, technical assistance needs, and fidelity to the CTC process. A better understanding of how coalition characteristics are linked to coalition support for EBP implementation is of interest to a variety of stakeholders, such as funders, policymakers, technical assistance providers, and coalition leaders.

Coalition Functioning and EBP Implementation

The literature on coalition functioning is limited and the generalizability of findings from one context to another is not known. Nevertheless, the literature provides some guidance in selecting factors that might facilitate EBP implementation. Coalitions may be most effective when they maintain an efficient task orientation and focus, which has been related to member satisfaction and coalition effectiveness (Butterfoss et al. 1996; Kegler et al. 1998; Zakocs and Edwards 2006). Coalition leadership characteristics have been repeatedly shown to influence coalition effectiveness (Foster-Fishman et al. 2001; Zakocs and Edwards 2006). For example, a skilled and capable leadership has been related to membership satisfaction, outcome efficacy, and organizational commitment (Kegler et al. 1998; Rogers et al. 1993; Zakocs and Guckenburg 2007).

The quality of relationships and communication both inside the coalition and with the broader community also has important consequences (Foster-Fishman et al. 2001; Zakocs and Edwards 2006). There is evidence that board cohesion influences satisfaction with the coalition, outcome efficacy, and member organizational commitment (Giamartino and Wandersman 1983; Rogers et al. 1993). Strong inter-organizational collaboration and community relations enhance member satisfaction and participation (Butterfoss et al. 1996; Foster-Fishman et al. 2001) and may influence coalition support for EBP implementation.

In taking a developmental perspective, we and others have described a series of stages through which coalitions pass, moving from organizational development, to implementation of programs and policies, and to sustained action (Feinberg et al. 2007a; Greenberg et al. 2007). The developmental perspective suggests that the longevity of a coalition may be an important predictor of EBP implementation; for example, coalitions may become more effective at implementing EBPs over time as they gain experience (Gentry 1987). However, coalitions may suffer from staff and stakeholder turnover over time, which may lead to mission drift and less effective support for EBP implementation.

In addition to factors related to the coalition itself, community demography and risk may also impact coalition actions. For example, community poverty played a substantial role in predicting the quality of team leadership and functioning in the early years of the implementation of the PROSPER model (Feinberg et al. 2007a; Greenberg et al. 2007). PROSPER (PROmoting School-community-university Partnerships to Enhance Resilience) is a model of EBP dissemination that uses community prevention teams (the equivalent of coalitions with more limited size and focus) to select and implement EBPs. The negative influence of community poverty on coalition functioning may be due to organizational barriers such as a lack of well-functioning local institutions and a demoralizing history of collaborative failure, fewer dollars available per child in education, and other factors that may lead to a high community level “allostatic load” that reduces effectiveness of coalitions (Greenberg et al. 2007). In addition to poverty, the size of the catchment area served by a coalition also may be important. In one study, coalitions with smaller, more circumscribed service regions showed

greater coalition progress in adopting EBPs than those with larger regions (Jasuja et al. 2005).

A number of recent reports examining the influence of several coalition factors used the same sample of CTC coalitions analyzed in this paper. For example, greater community readiness and less need for technical assistance have been linked to increased perceived effectiveness of CTC coalitions (Feinberg et al. 2004, 2008c). Receiving sufficient training in the CTC model has been linked to positive coalition member attitudes toward prevention, and with better internal coalition functioning (Feinberg et al. 2002). Technical assistance dosage has also been related to board functioning in younger and higher functioning boards (Feinberg et al. 2008c). Coalition funding and fidelity to the CTC process have been shown to be predictive of coalition sustainability (Gomez et al. 2005). Table 1 summarizes the previously reviewed features of coalition functioning that we hypothesize to be predictors of coalition support for high-quality EBP implementation. Although the hypothesized coalition functioning factors may also influence the implementation of programs lacking an evidence base, this study focuses on EBP implementation because CTC is designed to support the implementation of tested and effective programs.

This study also examines the influence of coalition functioning factors measured at earlier time points on EBP implementation measured at a later time point. Effective coalition functioning can enable the development of trusting partnerships, successful funding applications, and other infrastructure components necessary for successful EBP implementation (Wandersman 2009; Wandersman et al. 2008). The lag between the infrastructure development work and the actual implementation of programs can be substantial. Thus, past years of coalition functioning may predict present EBP implementation in ways that current coalition functioning cannot.

The Promise and Process of Communities That Care

CTC is a model community coalition approach for the selection, implementation, and assessment of EBPs intended to prevent risky youth behavior and promote resilience (Hawkins and Catalano 1992, 2005). The CTC process has five phases. In the first phase, community leaders interested in starting the CTC process define the scope of the prevention effort, assess community readiness, identify other community stakeholders, and address barriers to community readiness. In phase two, key leaders form a community board to implement the CTC process. In phase three, CTC board members receive training to conduct a community assessment of risk and protective factors. The assessment findings are used as a guide to determine which risk and protective factors need to be prioritized. In the fourth phase, the coalition develops a community action plan to implement and evaluate EBPs that are linked to the prioritized risk and protective factors. Finally, in stage five, the coalition executes their plan in collaboration with organizations, service providers and practitioners who can implement the EBPs in the community. The process of reaching phase 5 usually takes 6 months to 1 year. Process and outcome evaluation findings, along with continuing assessment of risk and protective factors provide the coalition with ongoing feedback to refine the community plan. As champions of high-quality EBP implementation, CTC coalitions can play an important role in the implementation support system, ensuring that programs are implemented with fidelity (Durlak and DuPre 2008). Certified trainers, training manuals, and assessment instruments are available to facilitate the CTC process (<http://ncadi.samhsa.gov/features/ctc/resources.aspx>). The CTC model addresses several barriers to EBP implementation, including assessing and building community readiness, building support from key stakeholders, developing a clear strategic plan, and selecting EBPs that match community needs (Arthur and Blitz 2000).

Evaluations of CTC have found it to be effective in reducing youth substance use and delinquency (Feinberg et al. 2007b, 2009; Hawkins et al. 2008, 2009). The model is being used

in numerous communities across the United States and internationally. The Pennsylvania Commission on Crime and Delinquency (PCCD) was an early adopter of the model, starting to support it in 1995. Since that time, PCCD has supported the provision of training, start-up funds, and modest programmatic funding for over 100 community coalitions across the state. In 2007, 80 coalitions were still operating, representing the largest network of CTC coalitions internationally. PCCD also provides these CTC coalitions with five full-time Regional Strategic Consultants who provide both on- and off-site technical assistance.

The Current Study

This study is the first to explore whether the coalition functioning characteristics listed in Table 1 predict coalition ability to promote quality implementation of EBPs focused on reducing adolescent problem behaviors. Additional predictors under study include community poverty, service region size, coalition age, and coalition funding. Community poverty, service region size, and perceived need for technical assistance are hypothesized to have a negative relationship with EBP implementation, in line with the previously reviewed research. All other constructs of interest except coalition age are hypothesized to predict increased coalition support of EBP implementation based on prior research. Given the prior lack of research regarding coalition age, and the equally plausible but diametrically opposed arguments regarding the influence of coalition age on EBP implementation described earlier, we did not hypothesize a directional relation between age and EBP implementation.

Method

The data for this study are based on an annual process evaluation of CTC coalitions in Pennsylvania; we utilize data collected from 2003 to 2007 in this report. The process evaluation consists of both a web-based survey for coalition board members and staff, as well as a questionnaire on coalition functioning completed independently by state-supported CTC technical assistance providers. The evaluation was funded by the PCCD, which also provided community coalitions in Pennsylvania with funding to initiate and, in some cases, to continue operating the CTC model. Further details on the history and structure of CTC in Pennsylvania can be found in Feinberg et al. (2007b, 2008a).

Sample

In 2007, a total of 80 CTC coalitions were operating in Pennsylvania; however, 8 (10%) did not participate in the survey and 10 (13%) did not provide data on the programs their site was supporting. Data for this study comes from members and staff of the remaining 62 CTC coalitions, along with the state-funded CTC technical assistance providers who support these coalitions. Sampled coalitions ranged in age from 5 to 10 years in duration (mean = 6 years; SD = 1.5 years), with 5 to 51 members on their boards (mean = 25 members; SD = 14 members). The coalitions operated in communities where the percentage of families in poverty ranged from 1% to 31%, with a mean across communities of 8% (SD=5%). Coalitions supported EBPs in an average of 3 school districts (range = 1 to 17 districts; SD = 3.5 districts). The size of the communities ranged from rural areas and small towns to mid-size urban areas. The number of EBPs being supported by a coalition ranged from 0 to 6, with a mean of 2.9 EBPs (SD = 1.4 EBPs). The amount of money raised by the 62 coalitions in 2007 ranged from \$0 to \$720,000, with a mean of \$91,378 (SD=\$141,577).

Over the years, the number of coalition members participating in the web-based survey has increased from 570 in 2003 to 988 in 2007. Similarly, the percentage of coalition members responding to the survey has increased from 46% in 2004 to 62% in 2007. One limitation of the study is that we do not know if there are statistical differences between responders and non-responders, although more invested coalition members may be more inclined to respond. Of

the 62 coalitions, state technical assistance providers reported on the functioning of 45 (73%) in 2007, 54 (87%) in 2006, 60 (97%) in 2005, 62 (100%) in 2004, and 54 (87%) in 2003.

Procedures

Feinberg et al. (2008b) describe in detail the administration and validation of the web-based board member survey, including data on test-retest reliability and construct validity. In brief, we obtain email contact information for all coalition board members from the coalition's mobilizer, who is typically a paid staff member who helps to organize the coalition. We then email all coalition members requesting that they complete a confidential online survey, which their CTC board uses for future planning efforts. The survey covers several domains, including background information, CTC involvement, CTC board and membership, CTC fidelity, implementation barriers, community support, sustainability, and technical assistance needs. There is a survey section that is administered only to coalition mobilizers related to coalition finances and, as of 2007, coalition involvement in supporting EBP implementation. In addition, we ask CTC technical assistance providers to report on the functioning of the CTC coalitions they support, using a questionnaire that measures the same constructs listed in Table 1.

Measures

To measure EBP implementation support, we asked each coalition mobilizer to describe their coalition's involvement with up to five EBPs offered in their community in 2007. We defined a program as evidence-based if it was listed as a model or effective program on SAMHSA's national registry of EBPs, the Blueprints model program list, or, in two instances, was determined by ourselves to have an adequate evidence base. Although inclusion criteria for the EBP lists are varied, complex, and subjective, in all cases programs must have at least one well-conducted quasi-experimental evaluation demonstrating positive outcomes.

Overall Implementation Support is the primary dependent variable of interest, representing the degree to which a CTC coalition is involved in supporting the high-quality implementation of EBPs. Three separate components combine to create our measure of Overall Implementation Support. The first is the Number of EBPs supported by the coalition. The second is the level of Coalition Involvement in supporting the EBP (0 = not involved; 1 = provides consultation; 2 = is a co-sponsor or helped obtain funding; 3 = is the primary sponsor). The third component is a three-item scale measuring level of Fidelity Support for implementing the EBP. Fidelity Support for EBP implementation was operationalized as the existence of training, ongoing technical assistance, and program fidelity monitoring. To measure Fidelity Support, we computed the mean of three items representing the three dimensions of Fidelity Support ($\alpha=.70$):

1. Is the fidelity of [program name] being monitored in a systematic way? 3 = Yes, by observations of sessions/interventions; 2 = Yes, by self-report of the intervention staff person using a structured self-report form; 1 = No, but some monitoring occurs; 0 = No.
2. Have staff received training in delivering [program name]? 3 = Yes, from the program developer's certified trainers; 2 = Yes, from others who are familiar with the program; 1 = Yes, informally; 0 = No.
3. In the last 2 years, has the program staff received ongoing training or technical assistance (TA) (beyond the initial training) for [program name]? 3 = Yes, from the program developer's official TA providers or trainers; 2 = Yes, from a consultant or other TA provider familiar with the program; 1 = Yes, informally; 0 = No.

To create the composite Overall Implementation Support measure, we multiplied the three normally distributed components; that is, the Number of EBPs (Mean=2.9; SD=1.4) was

multiplied by the mean level of Coalition Involvement across EBPs (Mean=2.0; SD=.71), and the product was multiplied by the mean level of Fidelity Support (Mean=1.9; SD=.77). By multiplying the three components together, we create a new construct that better represents Overall Implementation Support than each component separately or as an additive sum. The new construct assesses breadth (number of EBPs), depth (mean CTC involvement), and intensity (mean fidelity support). The use of a multiplicative term reflects our understanding of overall implementation support as something that is effective only when all components of implementation support are present. If any of the three indices are low, the CTC coalition's ability to support high-quality EBP implementation in the community is substantially diminished, as is the penetration of coalition-sponsored fidelity support into the community. For example, if a CTC coalition is highly involved in only one EBP that receives strong implementation support, penetration is limited. Furthermore, the beneficial impact of a CTC site that is highly involved with a number of EBPs, but does not ensure that the EBPs receive adequate training, technical assistance, or monitoring, is severely limited. Dependence on numerous conditions being met for endeavors to be successful is common in nature and has been dubbed "the Anna Karenina principle" (Diamond 2005). A multiplicative term is able to capture the dependence of CTC influence on all three dimensions of implementation support. Our measure of Overall Implementation Support ranged from 0 to 30.5, with a mean of 10.9 and a standard deviation of 7.25.

Community Poverty is measured as the percentage of families below poverty using 2000 Census data. The community associated with a CTC coalition is delineated by the school districts where CTC coalitions support the implementation of preventive interventions. Coalition Age is measured in years from the date of the coalition's initial funding award to implement the CTC model. Coalition Funding is the total amount of funding received in a given year, as reported by coalition mobilizers. Service Region Size is the total population of the school districts in which a coalition is supporting EBP implementation, as reported by coalition mobilizers.

The constructs of Fidelity to the CTC Process, Technical Assistance Needed, Leadership Strength, Board Efficiency, Board Cohesion, and Community Relations were all measured by the self-report coalition board member survey. Table 1 defines these measures of coalition functioning, reports the number of items in each scale, and the corresponding Cronbach's alpha. Except for Technical Assistance Needed, all scales also were measured with independent ratings of coalition functioning from CTC technical assistance providers. Because board-member and technical assistance provider ratings were highly correlated and similarly related to the dependent variables, we created a composite score by averaging the coalition mean of board member reports with the technical assistance provider reported score. It is important to note that Fidelity to the CTC Process is distinct from the Fidelity Support construct that is part of Overall Implementation Support. Fidelity to the CTC Process measures the degree to which the coalition follows elements of the CTC model such as using risk and protective factor data appropriately. Alternatively, Fidelity Support measures the degree to which a program supported by a CTC coalition has fidelity supports in place such as training, technical assistance, and fidelity monitoring.

Analysis

Analysis proceeded in four steps. First, in an effort to reduce the number of analyses performed and the chance of type I error, we created a multi-year composite variable for each predictor by calculating the mean of the predictors' value at the coalition level from each year of data collection. Second, we correlated the multi-year composite variables with one another, Overall Implementation Support, and its sub-components. Third, we split the predictor variables measured longitudinally into 2-year intervals (e.g. 2003–2004 and 2005–2006) and conducted

sequential regressions predicting Overall Implementation Support using each of the predictor variables measured longitudinally. We entered Community Poverty and Coalition Age in the sequential regression first, to control for their influence on Overall Implementation Support. Then we entered the predictor of interest measured in 2007, then 2005–2006, and finally 2003–2004, thereby enabling examination of the predictive power of earlier years of coalition functioning over and above the predictive power of the more recent years of coalition functioning. The use of 2-year aggregates helps to reduce problems with type I error in the correlations with Overall Implementation Support, as well as limit problems with the use of highly correlated multi-year measures in the sequential regressions. The coalition functioning measurements in 2007 remain disaggregated because it is conceptually useful to compare the magnitude of concurrent relations between the IVs and the DV with the magnitude of earlier measurements. Although coalition funding can be conceptualized as a control variable, we treated it as a predictor in analyses because it changes yearly like other predictors and is more under the control of the coalition than age or community poverty.

Results

In 2007, 62 CTC coalitions reported implementing 213 prevention programs. We identified 180 of the 213 programs as having an evidence base using the procedure described earlier. Before examining the hypothesized relations between the predictor variables and the dependent variable, we examined the inter-correlations between the predictor variables. In general, the predictor variables based on coalition member and technical assistance provider subjective perceptions of coalition functioning are substantially correlated (see variables 1 through 6 in Table 2). The amount of shared variance between these subjective predictors ranged from 20% to 72%. Inter-correlations between Coalition Age, Coalition Funding, Community Poverty, Service Region Size, and the subjective coalition functioning variables are generally smaller.

We also examined the inter-correlations between the three individually measured components of the dependent variable, Overall Implementation Support. The Number of EBPs supported by a coalition was not significantly associated with Coalition Involvement ($r = -.07$, $n = 62$) or Fidelity Support ($r = .01$, $n = 62$). Similarly, Coalition Involvement was not significantly related to Fidelity Support ($r = .20$, $n = 62$). However, at the program level rather than the coalition level, there was a significant correlation between Coalition Involvement and Fidelity Support: When CTC sites were more involved in the implementation of an EBP, support for fidelity of implementation tended to be higher ($r = .29$, $p < .01$, $n = 180$).

The three components of Overall Implementation Support are sporadically correlated with the predictor variables averaged across all years of data collection (see Table 3). Coalition Age had a significant negative association with Coalition Involvement ($r = -.37$, $p < .01$) and Fidelity Support ($r = -.39$, $p < .01$). Technical Assistance Needed was negatively correlated with Number of EBPs ($r = -.39$, $p < .01$). The Number of EBPs was also positively associated with Coalition Funding ($r = .36$, $p < .01$), Service Region Size ($r = .32$, $p < .01$), Board Efficiency ($r = .30$, $p < .05$), and Leadership Strength ($r = .31$, $p < .05$). Consistent with study hypotheses, all predictor variables are significantly associated with the composite variable, Overall Implementation Support, except for Service Region Size (see Table 3).

To examine the influence of coalition functioning factors measured over time on Overall Implementation Support, we conducted a separate sequential regression for each coalition functioning factor, each of which predicted Overall Implementation Support (see Table 4). Each regression entered the control variables Community Poverty first and Coalition Age second, followed by a particular predictor of interest measured in 2007 third, 2005–2006 fourth and 2003–2004 fifth. Coalition Funding was the only coalition functioning factor measured in 2007 that significantly improved the prediction equation, accounting for an additional 14% of

the variance in Overall Implementation Support. For all other coalition functioning factors, measurements taken in 2003–2004 were the best predictors of Overall Implementation Support, significantly improving the prediction equation over and above the variance accounted for by more recent measurements of the coalition functioning construct.

Discussion

This paper provides one of the few examinations of coalition characteristics that predict coalition involvement in supporting the high-quality implementation of EBPs. Understanding the relations between coalition factors and EBP implementation can provide insight into the conditions necessary for coalitions to successfully support EBPs. With a sample size of 62 coalitions, the study's power to detect relations between coalition characteristics and EBP implementation is considerably larger than previous research (Spoth et al. 2007).

Coalition's Overall Implementation Support

Of the 213 prevention programs supported by CTC coalitions in this study, 180 (85%) were evidence-based programs. The high percentage of EBPs supported suggests CTC is leading communities to select and implement effective programs. However, as has been well-documented, EBPs are frequently implemented with low or unknown fidelity (Gottfredson and Gottfredson 2002; Hallfors and Godette 2002). At the level of individual programs, we found a significant association between degree of CTC involvement and the existence of mechanisms promoting fidelity. Thus, the more involvement and presumably influence a CTC coalition had on the selection and implementation of an EBP, the more likely the EBP was implemented in a way to maximize fidelity. Therefore, the strategic use of multi-sector community coalitions to support EBP implementation may help reduce low-quality implementation, which is likely to diminish positive outcomes derived from the program (Domitrovich and Greenberg 2000; Fixsen et al. 2005). However, this relation may be limited to coalition models, such as CTC, that emphasize prevention science principles and provide training and ongoing technical assistance to help coalitions support EBP implementation (Hawkins et al. 2002).

The negative relation between coalition age or longevity and EBP implementation support may be due to coalition mission drift. However, the association could also be due to the fact that newer coalitions in Pennsylvania were initiated at a time when the PCCD placed greater emphasis on implementation quality, reflecting a recent historical shift in the prevention field (Domitrovich and Greenberg 2000; Rohrbach et al. 2006; Spoth et al. 2007). Thus, the association between coalition longevity and implementation support may be confounded by recent scientific and policy changes.

The negative relation found between the level of community poverty and support for EBP implementation suggests that impoverished communities may have the most difficulty supporting EBPs, which is consistent with previous research (Greenberg et al. 2007). Impoverished communities may face several EBP implementation barriers including fewer well-functioning institutions, reduced collective efficacy, fewer dollars spent per child in educational settings, a history of implementation failure of other programs, as well as other stressors that undermine organizational competence and distract from EBP implementation (Sampson et al. 1997; Wandersman 2009).

Unlike previous research indicating a negative relation between the size of the region covered by a coalition and its progress in adopting EBPs (Jasuja et al. 2005), this study found a positive relation between service region size and the number of EBPs supported. This finding may be a consequence of a larger number of EBPs operating in larger service regions, which coalitions then have the opportunity to support. Service region size was not related to the other indicators of implementation support, which capture the quality of the support provided.

Surprisingly, the measures of coalition functioning were generally unrelated to the separate measures of the Number of EBPs, Coalition Involvement, and Fidelity Support. However, all of the measures of coalition functioning were significantly related to the composite variable formed by the multiplication of the three indices that represented Overall Implementation Support. This finding may indicate that the composite variable is indeed an appropriate overall assessment of coalitions' capacity for, and actual support of, EBP implementation in a community. Well-functioning coalitions may have a greater capacity for simultaneously being more involved in a greater number of efforts while fostering more support for implementation fidelity. Coalitions that demonstrate difficulties in leadership, efficiency, member cohesion, community relations, and other aspects of functioning may be limited in being able to demonstrate such multi-dimensional capacity.

We found that the time of measurement of coalition functioning influenced the strength of the relation between coalition characteristics and EBP implementation support. As indicated by Table 4, the concurrent level of coalition funding (i.e., 2007) was related to overall implementation support in 2007, but earlier levels of coalition funding were not. In contrast, measurements of coalition functioning from 2003 to 2004 predict Overall Implementation Support in 2007 better than the same coalition functioning indicators measured in 2005–2006 or 2007. This finding is congruent with the idea that strong coalition functioning is a critical capacity that enables the infrastructure development necessary for effective implementation support (Wandersman 2009; Wandersman et al. 2008). When coalitions function effectively, they may be able to better assist with several core implementation challenges such as the acquisition of program funding and the development of commitment among local stakeholders for EBP implementation (Fagan et al. 2008; Hawkins et al. 2002). Thus, the earlier actions of a coalition may pay dividends in their efforts to support local EBP implementation over time. Coalition leaders and technical assistance providers should not expect improvements in coalition functioning to have an immediate impact on indicators of coalition ability to support EBPs. However, fluctuations in funding may have an immediate impact on a coalition's ability to support EBP implementation.

Implications for Coalition Development and Functioning

Consistent with study hypotheses and previous research, measures of coalition functioning reliably predicted coalition support for EBP implementation. Enhancing coalition functioning through training and technical assistance may improve EBP implementation (Feinberg et al. 2002, 2008c). For example, the perceived strength of leadership was associated with overall implementation support. Successful coalitions need to recruit and develop leaders who are organized, respected in the community, enthusiastic, able to mobilize resources, politically skillful, and able to resolve conflict (Kegler et al. 1998; Rogers et al. 1993). Although it may be difficult for coalitions to find leaders who possess all of these characteristics, multiple leaders may possess complementary strengths. In addition, findings suggest that positive relationships among members, staff, and outside community organizations improve coalition support for EBP implementation. To improve internal relations, coalitions may consider team-building exercises such as developing shared vision and goal statements (Bryson 1995). To foster community relations, coalitions can recruit well-connected members who represent diverse sectors of the community (Harachi et al. 1996). Keeping all coalition stakeholders informed about coalition activities and challenges may also help improve community relations (Butterfoss 2008).

Findings also indicate that efficient, task-focused coalitions are associated with increased support for EBP implementation. Coalition leadership that is organized and skilled at facilitating meetings will be better able to create a diligent and efficient coalition culture (Butterfoss 2008). Our qualitative findings derived from knowing many of these coalitions

over the past decade are that delegation of responsibility and the use of subcommittees may be useful in this regard.

Coalitions that maintain fidelity to the CTC process are also likely to have enhanced EBP support. This finding supports the notion that following the CTC process is an effective means of promoting the implementation of EBPs in the community (Brown et al. 2007). Our experience is that ongoing technical assistance and regular refresher trainings on the CTC process may help coalitions stay true to the process, especially in coalitions with high member turnover. Ongoing monitoring of model fidelity, with incentives for achieving high fidelity, may also be helpful (Durlak and DuPre 2008).

Not surprisingly, funding is also likely to enhance EBP implementation support. Funding that flows through CTC coalitions can support coalition staff and the implementation of EBPs, thereby allowing coalitions to become more involved in supporting EBPs. Further, funding can enable the provision of implementation supports such as training and technical assistance. The challenge of maintaining sufficient funding is tremendous, requiring substantial planning, resources, and skill (Carlson 2002; Feinberg et al. 2008a).

Limitations and Future Research

One limitation of this research is our measurement of the coalition's Overall Implementation Support, as it was based solely on the self-report of coalition mobilizers. To address this problem, future research could obtain data directly from the implementers of the EBPs, assessing how much support they receive from the CTC coalition and the activities undertaken to ensure implementation fidelity. In addition, implementation fidelity could be directly observed as programs are implemented. Analyses could also be advanced if multiple years of data on Overall Implementation Support were available. Such data would allow for examination of how changes in coalition functioning influence Overall Implementation Support over time. Furthermore, we would be able to model the influence of Overall Implementation Support on coalition functioning and thereby improve causal inference.

Our measurement of coalition functioning is limited by the fact that several of the coalition functioning indicators maintain substantial empirical overlap. Board efficiency, leadership strength, and community relations are particularly highly correlated. Future measurement development research needs to identify aspects of coalition functioning that are more empirically distinct. Such constructs may then be able to account for unique portions of variance in Overall Implementation Support.

Another limitation of this study is that it does not use random assignment. Although this limits the internal validity of the study and our ability to derive causal inferences from analyses, we still have some justification for causal inference because the independent variables of interest precede in time the dependent variables of interest (Koen 1999). Furthermore, the observational data are more likely to generalize to other community based settings that do not have artificially imposed investigator controls from a randomized controlled trial (Concato et al. 2000). However, the relation between coalition characteristics and EBP implementation support may be influenced by several contextual factors not examined in this study, including geographic location, the type of problem targeted by the coalition, the processes coalitions use to support EBPs, and the community network structure (Valente et al. 2007). Future research examining coalition characteristics and EBP implementation support in other contexts is needed. Samples with a large amount of variability on different contextual factors would be ideal to understand these issues.

Conclusion

This study contributes to understanding how community prevention coalition factors are linked to effective support for EBP implementation. The particular strengths of this study include a large sample of coalitions, multiple years of coalition functioning ratings provided by both coalition members and technical assistance providers, and the use of measures found to be reliable and valid in prior research. We know of no such comparable study in the field of prevention. Several aspects of coalition functioning—including leadership/governance, internal cohesion, fidelity to the CTC model, community relations, and low need for technical assistance predict a coalition's ability to support high quality EBP implementation. Prior research has shown that coalition functioning may be modified through training and proactive technical assistance (Feinberg et al. 2002, 2008c). This report lays an initial foundation for future research that extends this work to focus on how funding agencies, trainers, and technical assistance providers can best support coalitions' abilities to foster high-quality implementation of EBPs.

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Table 1

CTC coalition functioning construct definitions and psychometric properties

<i>Predictor name—definition</i>	Self-report		TA ratings ^a	
	No. of items	Alpha	No. of items	Alpha
<i>Fidelity to the CTC process</i> —the degree to which the coalition follows the CTC model.	3	.75	6	.92
<i>Technical assistance needs</i> —perceived need for help in several domains of coalition functioning.	10	.92	NA	NA
<i>Leadership strength</i> —degree to which the leadership is organized, respected, enthusiastic, able to mobilize resources, politically connected, and able to resolve conflict.	8	.92	7	.84
<i>Board efficiency</i> —the degree to which board members work hard and efficiently make use of time.	3	.77	2	<i>r</i> =.46
<i>Board cohesion</i> —positive cohesion and group spirit among board members.	3	.72	3	.93
<i>Community relations</i> —the quality and supportiveness of the relationship between the coalition and the broader community.	4	.87	4	.82

^aTA Report = Technical assistance provider ratings

Table 2Mean, standard deviation, and correlations among predictor variables ($N=62$)

Variable name	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) TA Needed 03-07	3.74	.50	–								
(2) Community Relations 03-07	4.97	.57	-.59	–							
(3) Board Cohesion 03-07	5.61	.51	-.47	.63	–						
(4) Board Efficiency 03-07	5.33	.52	-.61	.80	.71	–					
(5) CTC Fidelity 03-07	5.50	.54	-.46	.74	.63	.79	–				
(6) Leadership Strength 03-07	5.35	.45	-.63	.79	.72	.85	.64	–			
(7) Coalition Age ^a	6.1	1.50	.08	-.20	-.20	-.29	-.47	-.10	–		
(8) Community Poverty	8%	5%	.17	-.11	.02	-.06	-.12	-.01	.12	–	
(9) Coalition Funding 04-07 ^b	329	407	-.22	.40	.11	.40	.40	.40	.02	.01	–
(10) Service Region Size	3.24	3.51	.01	-.15	-.11	-.01	-.08	-.01	.33	.14	.10

Variables 4–9 are the composite of technical assistance provider and board member ratings

If $r > .21$, $p < .10$; if $r > .25$, $p < .05$; if $r > .32$, $p < .01$; if $r > .42$, $p < .001$ ^ain years^bin thousands of dollars

Table 3

Zero order correlations between predictor variables and multiple indicators of a CTC coalition's ability to support the implementation of evidence-based practices ($N=62$)

Predictor	(A) Number of EBP's	(B) Coalition involvement ^a	(C) Fidelity support ^a	(D) Overall implementation support (A × B × C)
Community Poverty	-.19	.11	-.24 [†]	-.27 [*]
Coalition Age	.03	-.37 ^{**}	-.39 ^{**}	-.35 ^{**}
Coalition Funding 2004–07	.36 ^{**}	-.12	.10	.30 [*]
Service Region Size	.32 [*]	-.15	-.10	.09
Fidelity to CTC Process 2003–07	.22 [†]	.23 [†]	.19	.43 ^{**}
TA Needed 2003–07	-.39 ^{**}	-.09	-.11	-.38 ^{**}
Leadership Strength 2003–07	.31 [*]	.04	.08	.32 [*]
Board Efficiency 2003–07	.30 [*]	.11	.12	.42 ^{**}
Board Cohesion 2003–07	.16	.21	.02	.29 [*]
Community Relations 2003–07	.18	.02	.17	.32 [*]

^a Coalition involvement and fidelity support are measured for each EBP a coalition supports. These variables represent the mean level of coalition involvement or fidelity support from all EBPs supported by a coalition

* $p < 0.05$,

** $p < 0.01$,

[†] $p < 0.10$

Table 4

Sequential regression predicting Overall Implementation Support, entering Community Poverty first, Coalition Age second, the listed predictor measured in 2007 third, 2005–2006 fourth, and 2003–2004 fifth ($N=62$)

Predictor name	Poverty	Age	07	05–06	03–04
Coalition Funding	β_{final}	-.36**	.37**	-.11	.19 ^a
	ΔR^2	.07	.14**	<.01	.02
Fidelity to CTC Process	β_{final}	-.08	-.01	-.01	.42*
	ΔR^2	.07*	.11**	<.01	.04 [†]
Technical Assistance Needed	β_{final}	-.19	-.40**	-.04	-.35*
	ΔR^2	.07*	.11**	.02	.04 [†]
Leadership Strength	β_{final}	-.30**	-.25*	.11	.39**
	ΔR^2	.07*	.11**	<.01	.09*
Board Efficiency	β_{final}	-.23*	-.15	-.08	.03
	ΔR^2	.07*	.11**	<.01	.06*
Board Cohesion	β_{final}	-.26*	-.21	.03	.01
	ΔR^2	.07*	.11**	.01	.03
Community Relations	β_{final}	-.23 [†]	-.26*	-.09	.04
	ΔR^2	.07*	.11**	<.01	.04

β_{final} is the standardized regression coefficient in the final regression model, which includes Poverty, Age, and all time points for a particular predictor

ΔR^2 is the increase in R^2 due to the addition of the listed predictor

^aCoalition Funding was measured in 2004 but not 2003

* $p<0.05$;

** $p<0.01$,

[†] $p<0.10$