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ORIGINAL ARTICLE

Governance Processes and Change Within Organizational Participants of Multi-sectoral Community Health Care Alliances: The Mediating Role of Vision, Mission, Strategy Agreement and Perceived Alliance Value

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Abstract Multi-sectoral community health care alliances are organizations that bring together individuals and organizations from different industry sectors to work collaboratively on improving the health and health care in local communities. Long-term success and sustainability of alliances are dependent on their ability to galvanize participants to take action within their 'home' organizations and institutionalize the vision, goals, and programs within participating organizations and the broader community. The purpose of this study was to investigate two mechanisms by which alliance leadership and management processes may promote such changes within organizations participating in alliances. The findings of the study suggest that, despite modest levels of change undertaken by participating organizations, more positive perceptions of alliance leadership, decision making, and conflict management were associated with a greater likelihood of participating organizations making changes as a result of their participation in the alliance, in part by promoting greater vision, mission, and strategy agreement and higher levels of perceived value. Leadership processes had a stronger relationship with change within participating organizations than decision-making style and conflict management processes. Open-ended responses by participants indicated that participating organizations most often incorporated new measures or goals into their existing portfolio of strategic plans and activities in response to alliance participation.

Keywords Aligning forces for quality · Multi-sectoral community health alliances · Governance processes · Perceived value of alliance · Participant change

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Introduction

Multisectoral community health care alliances ('alliances'), also known as partnerships, collaboratives, and coalitions, are organizations that bring together individuals and organizations from different industry sectors to work collaboratively on promoting and improving the health of local communities (Hasnain-Wynia et al. 2003; Shortell et al. 2002). The theory of change underlying alliances is that they can more effectively achieve widespread, sustainable health improvements through a two-pronged approach: (1) sponsoring and coordinating joint initiatives distinct from participating organizations' operations and (2) promoting alliance-oriented change within participating organizations (Bogue et al. 1997; Bogue and Hall 1997; Weiner et al. 2002). In other words, the long-term success and sustainability of alliances are dependent, in part, on their ability to galvanize participants to take action and institutionalize the vision, goals, and programs within participating organizations and the broader community (Sofaer et al. 2003).

Research has shown, however, that stimulating change among participants is a significant challenge for alliances (Wickizer et al. 1998). Alliances consist of participants with varying levels of resource and effort commitment to the

alliance and varying degrees of overlap between their own institutional goals and those of an alliance (Okubo and Weidman 2000). For example, alliances are often charged with improving the health of the entire community, while a consumer group may be primarily interested in improving access and care quality for a particular subgroup (e.g., diabetes, children). Thus, participating organizations often walk a fine line between commitment to the alliance and its goals, on the one hand, and those of their home organizations, on the other (Gamm 1998; Huxham 1996; Zuckerman et al. 1995). Under these circumstances, participating organizations may be reluctant or slow to undertake change as a result of their participation or may only undertake changes that are in their own organization's best interest.

Previous research has identified leadership and management processes as important facilitators of structural and strategic changes within participating organizations (Hearld et al. 2012; Metzger et al. 2005; Weiner et al. 2002). Less is known, however, about the mechanisms by which these activities may promote change by participating organizations, despite researchers calling attention to the need for such studies (Nargiso et al. 2013; Speer et al. 2013). Thus, one objective of this study was to investigate two mechanisms by which perceptions of leadership and management processes may promote changes within organizations participating in alliances. Another gap in the extant literature is an understanding of the types of changes undertaken by these organizations as a result of their participation in alliances. Research to date has often focused on correlating levels of change with alliance and participant characteristics. While these studies are important for identifying whether change is taking place, they are less informative about other important aspects of change, such as whether the changes are consistent with the alliance's efforts. Because sustainable health improvements are predicated on the idea that participating organizations internalize and institutionalize the alliance' goals (Bogue et al. 1997; Bogue and Hall 1997; Weiner et al. 2002), an important question is what types of changes these organizations are making as a result of their participation in the alliance. Therefore, another objective of this study was to investigate the types of changes reported by stakeholders as a result of their participation in the alliance.

A better understanding of these relationships is important for alliance leaders who want to understand the key leverage points for promoting these types of changes within participating organizations. For example, alliance leaders who understand how their leadership behaviors affect participant' perceptions of alliance goals and the value of achieving these goals for the broader community may be able to modify these approaches to better promote change within participating organizations. Likewise, a better understanding of the types of changes being undertaken by participating organizations may help leaders customize their approaches to promoting change.

Conceptual Framework

For purposes of this study, we define participant change as intentional actions or decisions within a participant's 'home' organization in ways that are consistent with the alliance's goals. Recent alliance research has emphasized the importance of such "institutionalized changes" as an important proximal outcome that can provide a means of fostering broader community change and distal outcomes (Allen et al. 2008, 2012; Fawcett et al. 1995; Florin et al. 2000; Javdani and Allen 2011a, b). That is, from an alliance perspective, changes within a participant's 'home' organization are believed to reflect greater acceptance and internalization of alliance goals and activities, which in turn are argued to increase commitment, sustain participation in the alliance over the long-term, and provide leverage for promoting more widespread community change, particularly if alliance initiatives alone are not sufficient to effect such change (Butterfoss et al. 1993; McLeroy et al. 1994). Participant change also is important in the short-term because it provides a foundation for effective coordination of effort, which is especially critical given the multi-sectoral nature of these alliances and the competitive dynamics of most local markets that often result in disparate goals and motivations for participation (Hasnain-Wynia et al. 2003; Okubo and Weidman 2000).

As noted earlier, despite previous research that links participant change with alliance leadership and management processes (Hearld et al. 2012; McMillan et al. 1995; Weiner et al. 2002) and calls by researchers to explore the mechanisms by which these processes may bring about such change (Nargiso et al. 2013; Speer et al. 2013), little research has done so. In this study, we draw upon the empowerment literature to explain how leadership and management processes may promote greater agreement about the goals and strategies of the alliance, which in turn may help stakeholders more clearly see the value of the alliance and undertake change as a result (Fig. 1). The decision to focus on goal and strategy agreement and alliance value as mediating mechanisms was motivated by research that describes them as both outcomes of leadership and governance processes and important precursors to change by alliance participants, but has not yet comprehensively examined these arguments (Hearld et al. 2012; Mitchell and Shortell 2000; Weiner et al. 2002).

Empowerment can be defined as a process of cultivating feelings of control and self-efficacy among organizational members (Conger and Kanungo 1988), which are important because they help members believe there is a predictable relationship between effort and outcome (Bandura 1986; Rodin et al. 1980). Research indicates that a key aspect of empowering participants is the use of collaborative, open, and inclusive leadership and management

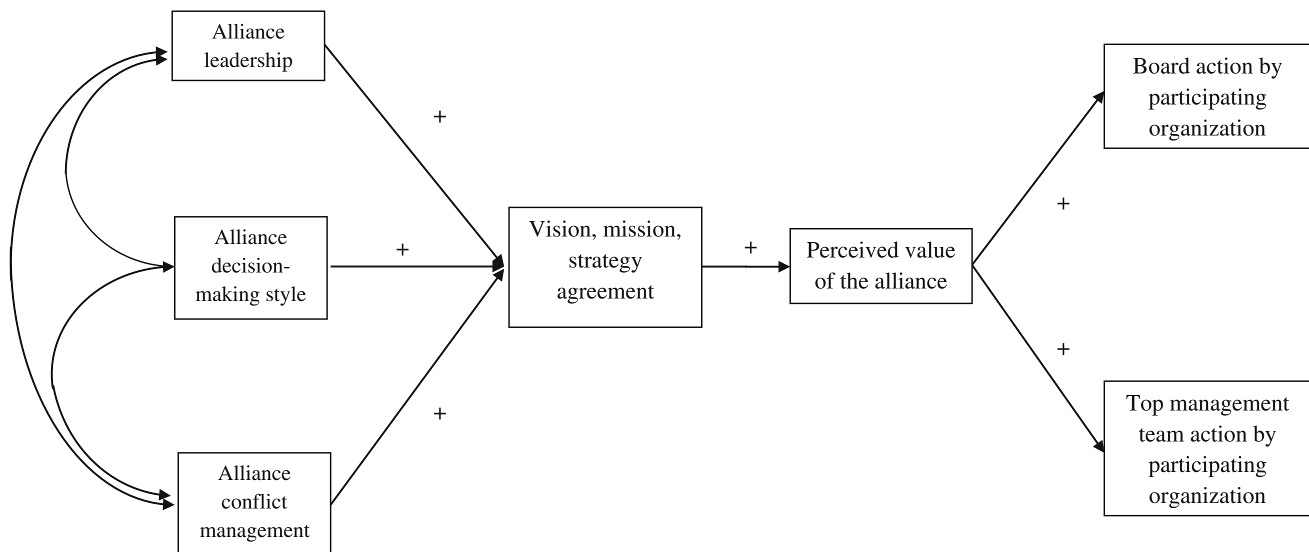

Fig. 1 Overview of hypothesized study relationships

processes (Metzger et al. 2005; Parker and Price 1994). In an alliance context, such processes are important for promoting agreement about the alliance's goals and strategies because they facilitate dialogue among stakeholders in ways that reduce power and information asymmetries and conflicting frames of reference, promote the authentic participation by all stakeholders, clarify task definitions, and help identify complementarities and areas of overlap among stakeholders (Fawcett et al. 1995; Lasker and Weiss 2003; McMillan et al. 1995; Watson and Foster-Fishman 2013). Thus, by giving participants a voice in decision-making processes, empowering leadership and management processes are more likely to incorporate the perspectives, skills and expertise of all participants and balance participant' interests in ways that help build consensus on key issues such as the alliance' vision, mission, goals, and strategies for action (Metzger et al. 2005; Tyler and Blader 2002, 2003).

Higher levels of agreement regarding an alliance's vision, mission, and strategies, in turn, may be important for reducing one potential barrier to participants making changes within their own organizations—the perceived value of the alliance. Greater disagreement about what the alliance is trying to accomplish in the community (i.e., mission and vision), for instance, will likely increase member uncertainty about how a new collaborative effort differs from existing independent efforts to improve health in the community. A clearly defined and agreed upon vision and mission, on the other hand, provides a guide to both internal and external participants by identifying an alliance's major areas of activity (Shortell and Kaluzny 2006). Others have also noted that greater agreement regarding the vision and mission may provide more than just a guide for organizational members, but may also act as a 'glue' that fosters greater levels of commitment and social cohesion among members (Oswald et al. 1997; Zuckerman et al. 1995). In this way, an alliance's vision and mission may provide organizational members with a 'meaning for their participation' that transcends their individual organizational needs and helps them recognize the value that the alliance provides for the broader community that it serves.

The final relationship considered in our model is that between perceived value of the alliance and participant change within their 'home' organizations. There are several reasons why higher levels of perceived value may promote change within participating organizations. First, higher levels of perceived value can foster greater commitment among members, which helps direct their efforts toward the collective interests of the alliance (Knoke and Wood 1981; Mitchell and Shortell 2000) and increases the likelihood that they will make changes as a result of their participation in the alliance. In contrast, without a clear sense of what the alliance may accomplish, participants may be reluctant to devote time, effort, and resources toward alliance initiatives. Second, the perceived value of the alliance is likely to be important because it helps establish a basis for action by identifying the need for change. More specifically, establishing the value of the alliance is predicated, in part, on the idea that a discrepancy exists between the current level of health system performance and that which is needed or desired in the community, as well as a recognition that the alliance is an effective means of addressing that discrepancy (Mitchell and Shortell 2000), both of which are important factors in fostering readiness for change (Armenakis et al. 1993). Experts argue that

when readiness for change is high, members are more invested in and will expend more effort in the change process (Armenakis et al. 1993; Kotter 1996; Weiner et al. 2008). Thus, members (and the organizations they represent) who believe the alliance provides better opportunities to address discrepancies in care that exist in the community may be more likely to promote important strategic decisions or undertake action within the home organization as a result of their participation in the alliance.

Methods

Study Context

This study was part of a larger investigation of *Aligning Forces for Quality* (AF4Q), a $300 million national program of the Robert Wood Johnson Foundation (RWJF) designed to help communities across the United States improve the quality of health care for the chronically ill. The premise of AF4Q is that the greatest improvements in the quality of care for the chronically ill can be achieved when aligning the efforts of key forces, including health care providers (physicians/physician groups, nurses, and hospitals), health care purchasers (employers and insurers) and health care consumers (patients), through multi-stakeholder health care alliances. There were 17 alliances from different market areas participating in AF4Q at the time of the most recent data collection: Albuquerque, NM; Boston, MA; Cincinnati, OH; Cleveland, OH; Humboldt County, CA; Indianapolis, IN; Kansas City, MO and KS; Maine; Memphis, TN; York, PA; Detroit, MI; Minnesota; Western New York; West Michigan; Puget Sound, WA; Willamette Valley, OR; and Wisconsin. These communities range from concentrated urban areas to dispersed rural counties to statewide initiatives. In addition to geographic diversity, the alliances also exhibit considerable variety in their formal organizational structure, longevity, and scope, ranging from formal 501(c)3 organizations newly established to participate in the AF4Q program to long-established, loosely networked organizations from the community who have been working on a broad set of community issues (including quality improvement) for some time.

Data Collection

Data were drawn from three rounds of an internet-based survey of alliance participants. Participants included individual health care consumers and caregivers as well as representatives of organizational members of the alliance such as local hospitals, health plans, employers, and government agencies. The same survey was fielded in each location three times, with each administration occurring over a four-week period and using the same data collection process. The first round of the survey was fielded from April 2007 to December 2007; the second round was fielded from October 2008 to October 2009; the third round was fielded from October 2010 to February 2012. Specific survey dates for the first round were selected so that each alliance was surveyed at a similar baseline point (e.g., 6 months since joining the AF4Q program) and the second and third round surveys were administered at similar intervals (approximately 18 months) afterwards. 570 alliance participants completed surveys in the first round, out of 1,191 possible, for an overall response rate of 47.8 % (range 29.4–83.6 %). The second round yielded a similar response rate of 48.5 % (range 30.5–76.5 %), with 623 out of a possible 1,283 respondents completing the survey. The third round yielded a response rate of 56.5 % (range 41.5–78.9 %), with 604 out of a possible 1,069 respondents completing the survey. Because we were interested in examining factors that may promote change within organizations participating in the alliance, responses were limited to individuals who represented an organization in the alliance. After accounting for item-specific missing data and non-organizational participants, the final analytic sample consisted of 1,154 alliance members, 324 in the first round, 387 in the second round, and 443 in the third round.

Measures

Organizational Change

Our outcome of interest was whether participating organizations had made a change, defined as some decision(s) or action(s) within their home organization in response to alliance activities. Two variables were constructed based on two survey items. The first variable related to whether the board of the participating organization had taken action as a result of alliance activities ("Has the Board of your organization taken any action or made any decision based on reports, activities, or recommendations of the Alliance?"). The second dependent variable related to whether the top management of the participating organization had taken action as a result of alliance activities ("Has the top management team of your organization taken any action or made any decision based on reports, activities, or recommendations of the Alliance?"). During the period of time included in this study, organizations were predominantly represented in the alliance by a single individual. Thus, responses to these items reflected an individual's perception of whether

a change had occurred within the 'home' organization. Responses were recorded as "Yes" (coded as 1), "No" (coded as 0), and "Do Not Know" (coded as missing in the multivariate analysis).

Exogenous Variables

Three exogenous variables were constructed from three survey questions, each with multiple items measured on a five-point scale ranging from "strongly disagree" (1) to "strongly agree" (5). The first question asked members to indicate the degree to which they felt different statements (17 items, $\alpha = 0.95$) reflected their perceptions of alliance leadership (e.g., builds consensus on key decisions, promotes teamwork among the Alliance members). The second question asked members to indicate the degree to which they felt different statements (6 items, $\alpha = 0.86$) reflected the alliance's decision-making process (e.g., standard procedures for making decisions; decision-making process is open and clear to all alliance members). The third question (6 items, $\alpha = 0.85$) asked respondents to indicate what happens when there is a disagreement or conflict among alliance members (e.g., all points of view considered when arriving at a solution; disagreements are ignored by the leadership).

Mediating Variables

Two mediating variables were constructed from six survey items. For the first mediating variable—vision, mission and strategy agreement—three survey items were used ($\alpha = 0.64$): (1) alliance vision ("The participants in the Alliance have a clear and shared vision of health in our community."); (2) alliance purpose or mission ("The purpose for which the Alliance was formed is clear to me."); and (3) strategies ("The participants in the Alliance are in agreement about the best strategies to achieve our priorities."). Responses to all three items were recorded on a 5-point scale (1 = strongly disagree, 3 = neither agree nor disagree, 5 = strongly agree).

Three survey items were used to assess the construct of perceived alliance value ($\alpha = 0.61$): (1) "An alliance is essential to achieving improvements in health and health care for this community"; (2) "In this community, significant health improvements could be made if a few key organizations or agencies, rather than the Alliance as a whole, took the right steps."; and (3) "The Alliance provides better opportunities for its members to work together than existed prior to the Alliance." All three items were scored on a 5-point scale (1 = strongly disagree, 3 = neither agree nor disagree, 5 = strongly agree). The second item was reverse scored prior to analysis.

Control Variables

Level of participation was controlled for with three dummy variables: (1) 0–5 % of a participant's time devoted to the alliance (referent); (2) 5–25 % of a participant's time devoted to the alliance; and (3) 25–100 % of a participant's time devoted to the alliance. Six dummy variables were used to account for the type of organization that a participant represented in the alliance (stakeholder type): (1) insurer/health plan (referent); (2) employer; (3) provider organization (i.e., hospital/health system, physician/physician organization); (4) consumer organization (i.e., patient advocacy organization); (5) government organization; and (6) other organization (e.g., non-profit organization, academic institution). Temporal trends were accounted for with three dummy variables: (1) survey round 1 (referent); (2) survey round 2; and (3) survey round 3.

Analytic Strategy

The unit of analysis was the individual representing the organization in the alliance. Univariate and bivariate statistics were used to initially evaluate the study variables and their relationships. The study used a single structural equation model (SEM) to estimate the relationships under consideration. An SEM was the preferred approach in our case given its ability to comprehensively accommodate the multi-item scales used as exogenous variables and the indirect, mediational relationships that were the focus of the study. Given the complex nature of our sampling strategy, the analysis also accounted for clustering of observations within alliances[1] with bootstrapping (1,000 draws) to derive corrected estimates of the standard errors. Bootstrapping is recommended when the distribution of a statistic of interest is complicated or unknown and has been shown to be an effective means of estimating standard errors for direct and indirect effects in structural equation models (Bollen and Stine 1990). Absolute and relative goodness-of-fit statistics were used to assess model fit.

We also examined responses to an open-ended survey question to assess the types of changes made by participating organizations. Respondents who indicated that the Board of Directors or top management team of their organization had "taken action or made a decision based on reports, activities, or recommendations of the

[1] Initial analysis indicated intraclass correlation coefficients (ICC) of 0.001 and 0.061 for the top management team action and board action variables, respectively. Although the ICC for the top management team action variable was sufficiently small to suggest clustering was not a significant issue, the ICC for the board action variable was potentially problematic. Additional analysis suggested that in the case of our study, an ICC of this magnitude would result in a design effect of 1.99 and cut our effective sample size nearly in half.

Alliance" (the dependent variables in our SEM model) were asked to "briefly describe an action taken or decision made based on reports, activities, or recommendations of the Alliance." These responses were coded and grouped into three categories: (1) novel actions or decisions (2) incremental actions or decision, or (3) insufficient detail to code as either novel or incremental. Novel actions or decisions in this context refer to changes in the values, goals and behaviors of members in the 'home organization' as well as changes in the processes, strategies and practices of the organization (Senge et al. 1999). Novel actions or decisions for participating organizations might be considered those that take the organization in a new strategic direction, such as the development of a new product or service or the discontinuation of an existing product or service. In contrast, incremental actions or decisions are less substantial in terms of their influence on the organization's direction or operations, such as increased support for existing initiatives. Responses from different types of stakeholders (insurers, providers, employers, consumers, government organizations, and other organizations) were also compared to illustrate whether the types of actions or decisions being undertaken varied as a function of stakeholder type.

Table 1 Descriptive statistics

	Round 1 ($N = 324$)	Round 2 ($N = 387$)	Round 3 ($N = 443$)
Dependent variable			
Action taken by board *n* (%)			
Yes	89 (27.3 %)	121 (31.5 %)	130 (29.3 %)
No	166 (50.9 %)	180 (46.5 %)	173 (39.1 %)
Do not know/not applicable	71 (21.8 %)	85 (22.0 %)	140 (31.6 %)
Action taken by top management team *n* (%)			
Yes	120 (36.9 %)	150 (38.8 %)	167 (37.7 %)
No	126 (38.8 %)	145 (37.5 %)	128 (28.9 %)
Do not know/not applicable	79 (24.3 %)	92 (23.7 %)	148 (33.4 %)
Exogenous variable (*M*/SD)			
Leadership	4.03 (0.62)	4.05 (0.68)	4.07 (0.65)
Decision-making	3.91 (0.81)	3.93 (0.88)	3.89 (0.83)
Conflict management	4.20 (0.76)	4.08 (0.76)	4.02 (0.73)
Mediating variable (*M*/SD)			
Vision, mission and goal agreement	3.72 (0.69)	3.75 (0.71)	3.77 (0.75)
Perceived value of alliance	3.86 (0.68)	3.73 (0.72)	3.74 (0.70)
Control variables			
Level of participation *n* (%)			
0–5 %	140 (48.3 %)	234 (60.6 %)	260 (58.8 %)
5–25 %	142 (49.0 %)	142 (36.8 %)	165 (37.3 %)
25–100 %	8 (2.7 %)	10 (2.6 %)	17 (3.9 %)
Stakeholder type *n* (%)			
Insurers	83 (19.7 %)	55 (14.2 %)	59 (13.3 %)
Employers	41 (9.8 %)	51 (13.2 %)	41 (9.3 %)
Providers	158 (37.6 %)	149 (38.5 %)	164 (37.0 %)
Government	43 (10.2 %)	36 (9.3 %)	38 (8.6 %)
Consumer	28 (6.6 %)	35 (9.0 %)	18 (4.1 %)
Other	67 (15.9 %)	44 (11.4 %)	123 (27.8 %)

Results

Univariate Results

In the initial survey period, nearly twice as many respondents indicated that their Board had not taken any action or made a decision as a result of alliance activities (50.9 %) as compared to the number of respondents indicating that their Board had taken action or made a decision (27.3 %). In comparison, nearly equal numbers of respondents indicated that the top management team of their respective organizations had (36.9 %) and had not (38.8 %) taken action or made a decision as a result of alliance activities. Nearly 3 years later, during the third survey period, respondents reported slightly higher levels of action and decision-making as a result of alliance activities. Nearly 30 % of the respondents reported that their Board had taken action or made a decision as a result of alliance activities, compared to 39.1 % of respondents who indicated that their Board had not taken action or made a decision. Approximately 38 % of all respondents in the third period indicated that their top management teams had taken action or made a decision as a result of alliance activities, while slightly less than 29 % of the respondents indicated no such action had occurred (Table 1).

Bivariate Results

The bivariate analysis indicated significant and moderately large correlations between all of the study covariates measured on an interval scale (Table 2). Given the size and significance of these correlations, as well as the fact that all study variables were derived from a single source, a potential concern for our analysis was common method variance (CMV) (Bagozzi and Yi 1991; Podsakoff et al. 2003). Due to issues such as social desirability bias, response consistency bias, item priming and embeddedness, and item scale anchoring, use of a single method or data source can systematically bias relationships between predictor variables and outcome variables (Campbell and

Table 2 Pearson bivariate correlations between study covariates

	Perceived value	Goal agreement	Alliance leadership	Decision-making style	Conflict management
Perceived value	–				
Goal agreement	0.45***	–			
Alliance leadership	0.56***	0.65***	–		
Decision-making style	0.35***	0.43***	0.57***	–	
Conflict management	0.33***	0.34***	0.45***	0.64***	–

Included only those covariates measured on an interval scale

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 3 Standardized indirect effects

	Standardized path coefficient	Odds ratio (95 % CI)
Leadership		
Leadership → vision/mission/strategy alignment → value → board action	0.263***	1.30 (1.22, 1.39)
Leadership → vision/mission/strategy → value → TMT action	0.300 ***	1.35 (1.28, 1.42)
Decision-making		
Decision-making → vision/mission/strategy → value → board action	0.026**	1.03 (1.01, 1.04)
Decision-making → vision/mission/strategy → value → TMT action	0.030*	1.03 (1.01, 1.04)
Conflict management		
Conflict management → vision/mission/strategy → value → board action	0.016*	1.02 (1.01, 1.03)
Conflict management → vision/mission/strategy → value → TMT action	0.018*	1.02 (1.01, 1.03)

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Fiske 1959; Podsakoff et al. 2003). Such biases are more likely to be an issue when responses focus on subjective matters (e.g., attitudes, perceptions, values) as opposed to more objective matters (e.g., diagnosis of disease, number of visits to physician). To diagnose if CMV was an issue, we conducted a factor analysis of all study variables reflecting attitudes or subjective interpretations. According to Harman's single factor test, if CMV is present, then either a single factor will emerge from the analysis or one factor will account for the majority of the covariance among the measures. Five factors emerged in the unrotated factor solution and the most variance explained by a single factor was 16.9 %, which suggested that CMV was not a significant issue for the study.

Multivariate Results

Overall, our analysis highlights a robust association between perceptions of leadership and management processes and participant change, with all three exogenous variables significantly associated with a greater likelihood of participating organizations taking action or making a decision based on alliance activities. Standardized regression results suggest that perceptions of leadership had the strongest relationship with participant change within the home organization (Table 3). Our analysis indicates that, in aggregate, respondents reporting a one standard deviation more positive perception of alliance leadership were associated with a 30.0% and a 35.0 % higher odds of reporting that their Board of Directors and their top management team, respectively, had taken action or made a decision in response to alliance activities. In comparison, the standardized relationships for participant perceptions of alliance decision-making and conflict management ranged between 2.0 and 3.0 % higher odds of reporting that the Board of Directors or top management team had taken action or made a decision in response to alliance activities.

Our analysis also suggests that the relationship between perceptions of leadership and management processes and change within the home organization is mediated by vision, mission, and strategy agreement and the perceived value of the alliance (Fig. 2). Respondents who reported more positive perceptions of alliance leadership, decision-making, and conflict management were more likely to report

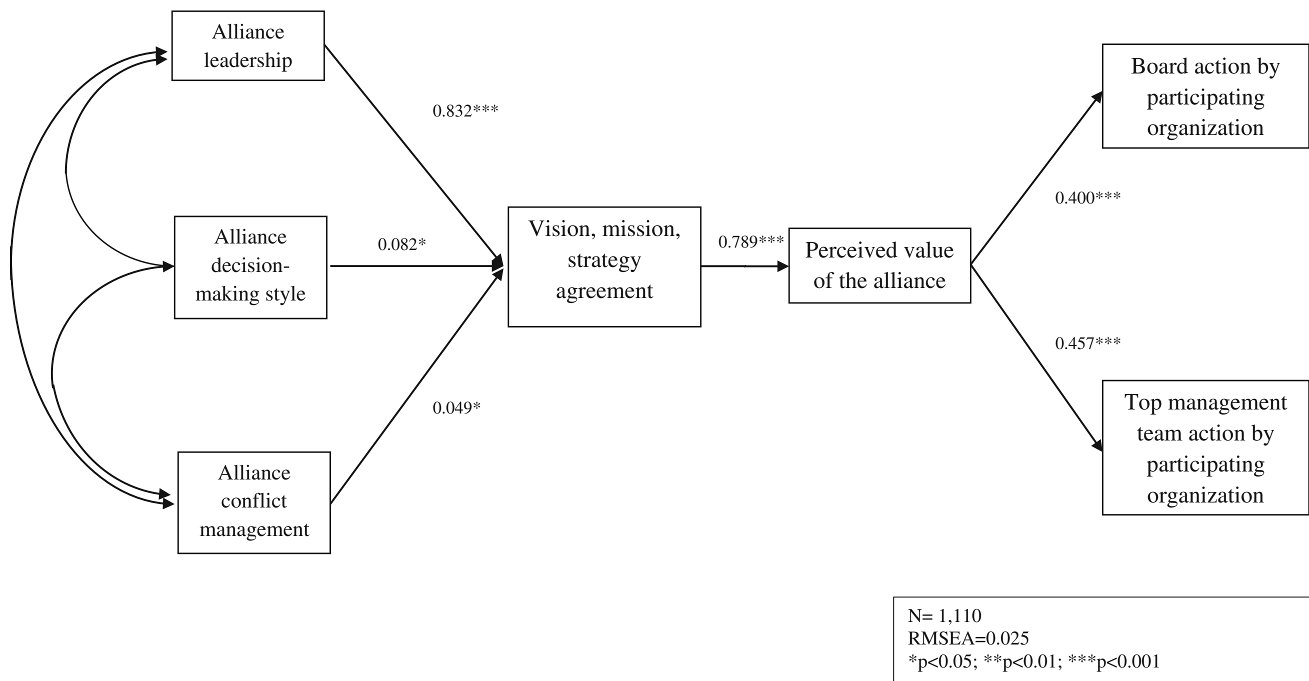

Fig. 2 Standardized path analysis results

higher levels of vision, mission, and strategy agreement, and in turn perceived the alliance as providing more value and were more likely to report changes within their home organizations.

There were several other significant relationships shown by the analysis (Table 4). First, respondents who reported higher levels of participation were more likely to report action by their board and top management team. Relative to participants who reported spending 0–5 % of their time on alliance activities, participants who reported spending between 6–25 and 26–100 % of their time on alliance activities reported 1.86 and 4.36 higher odds that the Board of Directors had taken action, respectively. Likewise, participants who reported spending between 6–25 and 26–100 % of their time on alliance activities reported 1.92 and 3.66 higher odds of their top management team taking action, respectively. Relative to insurers, representatives of provider organizations reported 1.92 higher odds of their Board of Directors taking action as a result of alliance activities, while representatives of employers reported 0.68 lower odds of their top management team taking action. Relative to respondents in the first survey round, respondents in the third round reported 1.38 higher odds of their top management team taking action.

Open-Ended Responses

Our analysis of the open-ended responses revealed nearly equal numbers of novel and incremental actions and decisions (Table 5). One novel action commonly reported by respondents, regardless of what kind of organization they represented, was the incorporation of new measures or goals into their existing portfolio of strategic plans and activities. For example, one provider respondent reported that his/her organization was "adopting the [alliance's] measures as internal quality measures." Likewise, a government organization representative reported that "we are working to develop a list of common measures for our state public health chronic disease prevention programs, and are using the [alliance's] consensus measures as a starting point." It is also interesting to note that not all novel actions and decisions were necessarily bold steps in a new direction, but rather sometimes consisted of discontinuing existing activities or plans. For example, an insurance company representative reported that his/her "organization deferred its own plans to develop and display quality of care measures in deference to [the alliance's] more robust and actionable approach."

Incremental actions reported by respondents typically reflected continued or renewed efforts toward established activities. For example, respondents often reported "continued development of" or "increased emphasis on" existing programs within their organization. Likewise, respondents reporting incremental actions tended to report what might be considered more passive forms of actions or decisions, such as "express[ing] support for [alliance] campaigns" and "increased awareness of [alliance] activities" within their 'home' organization.

Our examination of the open-ended responses by stakeholder type also indicated some differences across

Table 4 Multivariate SEM results for control variables

	Board action		Top management team action	
	b (SE)	Odds ratio (95% CI)	b (SE)	Odds ratio (95% CI)
Level of participation				
0–5 %	Referent	Referent	Referent	Referent
5–25 %	0.622 (0.125)***	1.86 (1.46, 2.38)	0.650 (0.109)***	1.92 (1.55, 2.37)
25–100 %	1.472 (0.272)***	4.36 (2.13, 6.28)	1.297 (0.276)***	3.66 (2.13, 6.28)
Stakeholder type				
Insurers	Referent	Referent	Referent	Referent
Employers	−0.017 (0.301)	0.98 (0.55, 1.77)	−0.391 (0.169)*	0.68 (0.49, 0.94)
Providers	0.654 (0.181)***	1.92 (1.35, 2.74)	0.318 (0.187)	1.37 (0.95, 1.98)
Government	0.346 (0.246)	1.41(0.87, 2.29)	−0.067 (0.141)	0.94 (0.71, 1.23)
Consumer	−0.260 (0.357)	0.77 (0.38, 1.55)	−0.416 (0.305)	0.66 (0.36, 1.20)
Other	0.215 (0.261)	1.24 (0.74, 2.07)	0.127 (0.192)	1.14 (0.78, 1.66)
Time 1	Referent	Referent	Referent	Referent
Time 2	0.253 (0.180)	1.29 (0.90, 1.83)	0.194 (0.167)	1.21 (0.88, 1.68)
Time 3	0.328 (0.179)	1.39 (0.98, 1.97)	0.324 (0.163)*	1.38 (1.01, 1.90)

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

stakeholders with respect to the types of changes being undertaken by participating organizations. For example, insurers most often described the development of new products and services (e.g., wellness programs, pay-for-performance programs) as novel actions undertaken as a result of their participation in an alliance, while provider representatives more often described changes in the measures used for evaluating and refining processes of care to improve quality. For instance, one provider respondent stated that his/her organization's participation "have all lead to new developments in care at our practice. We have implemented new standards and policies and procedures based on the learning environment that the [alliance] has offered." Employers, government representatives, and consumer organizations most often reported changes in how they interacted with employees and constituents. For instance, representatives from both types of organizations reported developing and offering educational programs for their members.

Similarly, with respect to incremental actions, respondents often reported similar actions (e.g., raising awareness, expressing support); however, the foci of those actions tended to differ across different types of stakeholders. For example, a consumer organization representative reported his/her organization "agree[d] to work together on consumer engagement" while several insurers and employers reported "active support for pay-for-performance" and public reporting.

Table 5 Examples of open-ended responses

Type of action	Illustrative quotes
Novel ($N = 164$)	"We are working to develop a list of common measures for our state public health chronic disease prevention programs, and are using the [alliance's] consensus measures as a starting point." (Government agency)
	"My organization deferred its own plans to develop and display quality of care measures in deference to [the alliance's] more robust and actionable approach." (Insurer)
	"Participation in the [alliance initiatives] have all lead to new developments in care at our practice. We have implemented new standards and policies and procedures based on the learning environment that the [alliance] has offered." (Provider organization)
Incremental ($N = 160$)	"It has helped highlight the importance of public reporting and the need for our own organization to keep the focus on being able to show measurable results." (Insurer)
	"Encourage more utilization of technology such as electronic health records in physician offices." (Employer)
	"Continued development and expansion of a care transitions program and other linkages with the primary care network." (Provider organization)
	"Encouraged discussions among providers, insurers and employers/unions/consumers." (Consumer organization)
Insufficient detail ($N = 58$)	"Decisions related to ambulatory quality improvement." (Provider organization)
	"Consumer engagement strategy." (Other organization)

Discussion and Implications for Practice

Our analysis found modest levels of change undertaken by organizational participants as a result of their participation

in the alliance, consistent with previous research that highlights the difficulty of promoting change within participating organizations (Wickizer et al. 1998). Notably, top management teams were more likely to have taken action than Boards of Directors, which may reflect more direct involvement by executives and managers in alliance activities, putting them in a better position to respond to these activities. For example, executives and managers are more likely than board members to have in-depth knowledge of an organization's capabilities and how its resources may be utilized to address the needs of the alliance. Likewise, given their active role in the organization's daily functioning, top management teams are positioned to respond more quickly to alliance activities, which may increase the likelihood of undertaking action as a result of participation. In contrast, infrequent involvement of board members and the types of responsibilities that board members are expected to fulfill may reduce their opportunities to take action as a result of alliance activities. Nevertheless, future research may want to explore whether the types of actions undertaken and decisions made by top management teams differ from those made by Boards of Directors.

Despite overall modest levels of change undertaken by participating organizations, our analysis found that more positive perceptions of alliance leadership, decision making, and conflict management were associated with a greater likelihood of participating organizations making changes as a result of their participation in the alliance, in part by promoting greater vision, mission, and strategy agreement and higher levels of perceived value. These results are consistent with our general hypothesis that perceptions of more empowering leadership and management processes (i.e., transparent, inclusive) help draw upon the perspectives and expertise of participants in ways that build consensus on key issues such as the alliance' vision and strategies for action and help participants more clearly see the value of the alliance. They are also consistent with recent research suggesting that effective leadership and inclusive decision-making and problem solving are critical components for building the capacity to implement alliance programs community-wide (Allen et al. 2012; Nargiso et al. 2013) and reinforce the importance of looking at multiple aspects of alliance governance (Javdani and Allen 2011a, b). Notably, however, perceptions of leadership processes had a stronger relationship with change within participating organizations than perceptions of decision-making style and conflict management processes.

One explanation for this difference is that the types of activities embodied by leadership are better suited than decision-making and conflict management for developing agreement around an alliance's vision, mission, and strategy. In other words, perceived leadership may be especially important in the process of getting participants to agree on high-level issues such as the vision and mission, while perceptions of decision-making and conflict management processes may be more important for achieving other organizational objectives (e.g., operationalizing and implementing strategy). Similarly, there may be differences in the temporal importance and application of leadership and management processes in the life of an alliance. For example, leadership may be critical early on in the formative stages of the alliance when the vision, mission, and strategies are being formulated, while decision-making and conflict management processes, especially formalized processes, may only emerge after some time has elapsed. Thus, it may be that the strong relationship between perceptions of leadership and agreement on an alliance's vision, mission, and strategy (as well as the overall relationship with participant action) reflects the early need for and emergence of leadership. Additional research is required, however, to assess which explanation (or both) has more merit. Even so, our findings are consistent with other studies that have established leadership as a critical activity for alliances (Metzger et al. 2005; Weiner et al. 2002). More generally, these findings shed light on the relationship between perceptions of leadership and management processes and a key 'outcome' of alliance functioning (action within participating organizations) as well as the means by which these activities may more effectively promote such an outcome.

Another contribution of the study is our finding that organizational participants who perceived more value in the alliance were associated with a greater likelihood of taking action, indicating that one path to promoting change within participating organizations is to help them more clearly see the value that the alliance provides. To our knowledge, little research has empirically examined the role of perceived alliance value. In the case of our study, value related to issues such as the opportunities provided by the alliance for members to work together and how essential the alliance is for achieving improvements in health. Given the subjective nature of constructs such as value, future research may want to consider other ways of defining and measuring value and whether these different definitions and measures influence the relationships considered here. Likewise, our definition and operationalization of value shares some similarities with Mitchell and Shortell's (2000) concept of centrality—"the importance and influence of the partnership within the power structure and organizational ecology of its community" (p. 269)—which they suggest is an important factor for achieving an alliance's objectives and sustaining itself over time. Given these similarities, future research should consider the relationship between value and centrality as well as their potential respective influences on alliance outcomes of interest.

To complement our questions of whether and how alliance leadership and management processes may be associated with change within participating organizations, we also examined respondent's open ended responses to explore the types of actions being undertaken as a result of participating in the alliance. Although only illustrative of the types of actions undertaken, this analysis suggests that some degree of alignment is occurring within communities, with respondents reporting changes in their strategic and operational planning that makes greater use of alliance' goals and measures. Given that one of the means of improving community-level health is by reducing redundant services, this alignment could foreshadow better coordination among stakeholders in a community and a reduction in the overlap that often exists in many communities. It also suggests that some degree of institutionalization of alliance' goals and programs may be occurring within participant organizations, which some have described as an important factor for leveraging and sustaining change at a broader community level (Allen et al. 2008, 2012; Fawcett et al. 1995; Florin et al. 2000; Javdani and Allen 2011a, b).

The open-ended responses also suggested variations in types of actions taken by different types of stakeholders. To some extent, some variation is to be expected given the different goals, priorities, resources, and capabilities that these different stakeholders bring to the alliance. It is also consistent with other research that has found that the context for change within the 'home' organization (e.g., organizational support for alliance programs, incentives to undertake change) is an important factor for understanding the level and types of change undertaken (Allen et al. 2008, 2012). Thus, one interpretation of these variations is that different types of stakeholders are leveraging their unique skills and capabilities to focus on the areas where they have the most expertise and are likely to have the most impact. Another interpretation, however, is that alliances have stimulated a divergent set of actions on the part of stakeholders. Regardless of which explanation is correct, these variations likely present a different kind of coordination challenge for alliance leaders. Specifically, one of the initial challenges confronted by alliances is the internal development of governance structures and programmatic activities to support its goals (Mitchell and Shortell 2000). The ability to coordinate and monitor these activities is arguably easier when these activities are performed internally; however, as some of these activities shift externally to the 'homes' of participating organizations, it may be more difficult to insure that these activities are being implemented in a consistent and cohesive manner that continues to support the goals of the alliance. Alliance leaders may need to adapt the governance structures and processes to address the evolving coordination challenges that result from such shifts.

There are several considerations that should be considered when interpreting the study's findings. First, although the study relationships were examined across three time periods, the number of repeat respondents was low and limited our ability to construct a panel data set. Thus, we cannot completely rule out the possibility that the direction of the relationships were in the opposite direction. For example, it is possible that the respondents in our study reported greater perceived value in the alliance because of actions and decisions already made within their home organization. Nevertheless, given the paucity of longitudinal studies on alliances, we believe our study constitutes an important first step in understanding some of these temporal relationships. Future research can build upon our findings by more closely examining the timing and sequence of these changes. Second, our assessment of change within the 'home' organization was based on a single representative in the vast majority of cases. Although most alliances attempted to involve high-ranking individuals from the respective organizations who are likely to have knowledge of such changes, we cannot rule out the possibility that changes occurred that were unknown to respondents. Future research may build upon our study by collecting data from multiple respondents within an organization to confirm whether changes have occurred or assess the degree of change. Similarly, it should be noted that our study examines these relationships at the organizational participant-level, and while we empirically account for clustering of participants within alliances, we do not directly assess the effects of alliance-level variation on change within the 'home' organization. Finally, to the extent respondents believe that taking action and making decisions is the desired response (by the alliance and the evaluators), responses may have been subject to social desirability bias. Likewise, the open-ended responses may be subject to recall bias. On one hand, respondents might be expected to more easily recall salient, novel changes than incremental changes. On the other hand, one could imagine respondents reporting an example of a recent change or a change that was simpler to describe. Regardless, given such potential biases, as well as the fact that only one-half of all survey respondents completed the open-ended responses, our findings should be considered illustrative and not exhaustive or even representative.

Despite these shortcomings, we believe the results begin to shed light on the ways that alliances can go about stimulating change within participating organizations and the types of changes they might expect. Given the importance of institutionalizing the alliance's goals in the homes of participating organizations and the broader community, such findings are important for understanding whether and how alliances may deliver on their potential to improve quality in the communities they serve.

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