

Implementing strategic change in a health care system: The importance of leadership and change readiness

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Background: Shifts in the environment can compel health care organizations to change their strategies. However strategic change frequently fails because individuals do not adopt the behaviors necessary to successfully implement the new strategy.

Purpose: This study explores how three variables—agreement with new strategy, leaders' actions, and groups' general orientation toward change—can influence members of physician teams to take actions supporting a strategic shift aimed at improving patient satisfaction.

Methodology: Physicians in 37 specialty departments in a large health care organization were surveyed regarding their support for a new customer service initiative, the actions of department leaders, and generalized norms supporting change. The results of the survey were linked to changes in patient satisfaction for the department.

Results: Normative support for the specific strategic change was directly related to increased patient satisfaction 1 year later. The interaction between norms supporting change readiness and the quality of leadership was positively related to change in patient satisfaction.

Practice Implications: Successfully implementing a strategic change often requires getting individuals to change their behaviors. Leaders can enhance the results of the change by working to develop general norms such as teamwork and tolerance for mistakes that increase general readiness for change with the group.

As Lee and Alexander (1999) note, it is “certainly not news” that change rather than stability is now the norm in health care organizations and that the ability to change and adapt

is critical for success. Whether the change is in the structure of an organization or the adoption of new procedures or processes, summaries of research (Bazzoli, Dynan, Burns, & Yap, 2004; Fleuren, Wiefferink, &

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Paulussen, 2004; Greenhalgh, Robert, McFarlane, Bate, & Kyriakidou, 2004) suggest that change and innovation fail not because the new strategies or goals are inappropriate but rather because organizations are unable to successfully implement them. Capturing the gain from a new strategy or change in process is not simply a function of reallocating resources, providing new technology, or reorganizing units; effective organizational change generally requires that employees and work groups shift the way they do things. In fact, if employees and work groups do not change their behaviors, implementing a new strategy is often impossible (Schneider, Brief, & Guzzo, 1996).

Much of the responsibility for implementing changes within health care organizations is given to groups or teams. In their review of empirical studies of teams in health care organizations, Lemieux-Charles and McGuire (2006) point out the importance of teams in change efforts and suggest that effective team dynamics are related to team success. Despite the critical role that groups play in implementation, comparatively little research has investigated how groups within organizations can either facilitate or inhibit organizational attempts to implement new ideas (Burningham & West, 1995). The purpose of this article is to explore how an important element of team dynamics, the *specific* norms that exist within a group, may be related to successful outcomes of a strategic change. In particular, we examine how teams' support for a new strategy and the existence of norms supporting a general orientation toward change contribute to an organization's successful implementation of a new strategic initiative.

In addition, in contrast to many of the studies reviewed by Lemieux-Charles and McGuire (2006), we also investigate the role of team leaders in implementing change.

Background and Hypotheses

Support for Strategic Change

What are the dynamics or processes within a team that could support the behavioral change necessary to implement a new strategy? Although researchers have seldom directly addressed this question, some recent evidence suggests factors that might influence a group's ability to implement a new technology or strategy. For example, Klein, Conn, and Sorra (2001) found that "implementation climate," defined primarily as support for the specific change, was related to successful application of advanced computerized manufacturing technology in manufacturing plants. Other studies have shown that when members of a management team have consensus about the direction of the strategic change, success in implementing the change is more likely (e.g.,

Markoczy, 2001). The focus of much of this research has been on the extent to which individuals *agree with* the proposed change. The general logic of this argument is that when people support the new strategy or value its outcomes, implementing the strategy will be more successful than if the strategy has only limited support. Consistent with this previous research, we propose that when an organization undertakes a strategic change:

Hypothesis 1: Performance improvements will be greater in units in which members agree with the nature of the new strategy than in units in which members do not.

Team Leadership

In addition to whether members of a unit support a new strategic direction, there is strong evidence that the manager of the group or unit may influence the speed and effectiveness with which new processes can be implemented. Although senior leaders play a critical role in identifying and implementing a new strategy (c.f., House & Aditya, 1997; Thomas, 1988), middle-level managers within an organization may, through their leadership of groups within the organization, either enhance or undermine the organization's ability to implement a strategic change. For example, if managers do not support a strategy because it runs counter to their interests, they may delay implementing it or even sabotage the success of the new efforts (Guth & MacMillan, 1986). When middle managers are involved in and committed to the strategy, success is more likely (Wooldridge & Floyd, 1990). Within a single firm, the choices made by individual managers can influence the speed with which units adopt practices supporting a new strategy (Maritan & Brush, 2003). This suggests that understanding the extent to which the intangible factors within a group can support implementation will be influenced by the leader of the unit. Consistent with this line of research, we propose that when an organization undertakes a strategic change:

Hypothesis 2: Performance improvements will be greater in units with leaders who effectively demonstrate support for the new strategy than in units with leaders who do not.

Norms for Change Readiness

Although both logic and empirical evidence suggest that there is a positive relationship between people's support for a new strategy and the effectiveness of implementation, a somewhat different question is whether organizations or units vary in terms of their capabilities to implement changes, regardless of whether they are

widely supported or not. This approach assumes that groups or units may differ in their overall orientation toward change or in the general skills and competencies they need to implement new processes. For example, Ray, Barney, and Muhanna (2004) describe how a general orientation within an organization, which they call "service climate," is related to strategic efforts to improve customer service. The factors defining this service climate are not related to any specific new customer service process but rather to a general set of behavioral norms that exist within a group.

We define group norms as legitimate, socially shared standards against which the appropriateness of behavior can be evaluated (Birenbaum & Sagarin, 1976). Norms can influence people in two ways. First, people may conform to the expectations of those around them because of certain consequences, for example, to avoid sanctions or to gain rewards (O'Reilly & Chatman, 1996). Second, norms provide information about the collective interpretation of events and actions (Deutsch & Gerard, 1955). As such, norms reflect the regular and stable behavior patterns that are expected by group members.

Both the sanctioning and informational components of norms may affect the implementation of change. Norms determine whether members are rewarded or punished for embracing or resisting change. Furthermore, when groups engage in unfamiliar activities to accomplish new objectives that are, by definition, open to multiple interpretations, the informational aspects of norms are likely to be particularly influential (O'Reilly & Caldwell, 1985). Implementing strategic change typically requires that individuals engage in different behaviors than they have in the past. When the norms within a group are not consistent with the new behaviors, individuals may be unwilling to engage in those new behaviors for fear of informal sanctions. Perhaps, more importantly, strategic change itself is also likely to be open to many interpretations. Norms can represent the collective sense of the group about the appropriateness of a strategic change effort.

What, then, might be the work group norms that are most likely to support implementing a strategy? For example, Anderson and West (1998) found that work groups that shared a norm of valuing innovation were more likely to change than those that did not share a norm for innovation. Caldwell and O'Reilly (2003) asked more than 2,000 senior-level managers from around the world to identify the characteristics and beliefs that helped promote innovation in groups within their organizations. They found that the items clustered into four areas: support for risk taking, tolerance of mistakes, teamwork, and speed of action. The extent to which norms develop around these areas, broadly conceived as norms for change readiness, affects the ability of the group to implement change. Similar studies of

change readiness corroborated these findings (e.g., Armenakis & Harris, 1993; Eby, Adams, Russell, & Gaby, 2000; Oreg, 2003). We therefore predict that when an organization undertakes a strategic change:

Hypothesis 3: Performance improvements will be greater when units embrace norms that support change than when they do not embrace such norms.

The Combined Effects of Support for Strategy, Leadership, and Norms for Change Readiness

Although both support for a specific strategic change and members' willingness to engage in change may be independently related to success in implementing a new strategy, these factors may also interact. One can envision situations in which members of a unit might support the goals of a strategic change but not work well together, have a low tolerance for mistakes, or lack the necessary sense of urgency. In these situations, units might flounder as they attempt to implement specific new processes. Similarly, one could think of situations in which unit members have the general capabilities to implement new processes but disagree with the strategy that the organization has adopted. If this is the case, it would be unlikely that new processes would be fully embraced by unit members. In contrast, when members both support a strategic change and have the capabilities to effectively implement new processes associated with the strategic change, the positive effects of the process change will be maximized.

A similar argument could be made about the joint effects of leadership and a unit's general capabilities for implementing changes. When a leader provides clear and effective support for strategy and the norms of the unit support change, it is likely that the unit will be able to efficiently implement new processes. If the leader provides direction and resources, unit members will have the ability to quickly implement and refine the new processes. On the other hand, if the leader does not demonstrate support for the new strategy or if the group does not have capabilities or motivation to efficiently enact change, the gains from new processes will be reduced. The same pattern regarding the extent to which the unit members support the change is likely to exist. Performance improvements are likely to be highest when the group supports the strategic change and the leader reinforces it. We use this logic to hypothesize three additive interactions:

Hypothesis 4: The interaction between high levels of support for the strategic change and the leader's effectiveness in supporting the change will enhance the positive outcome of the change.

Hypothesis 5: The interaction between high levels of norms for readiness to change and the leader's effectiveness in supporting the change will enhance the positive outcome of the newly implemented change.

Hypothesis 6: The interaction between high levels of support for the strategic change and norms for change readiness will enhance the positive outcome of the newly implemented strategy.

The Context of the Study

We investigated the implementation of a strategic change in a health care organization located in a large metropolitan area in the western United States that provides comprehensive health care to well more than a million health plan members through approximately 20 large medical centers. Central to the organization is a medical group of more than 4,000 physicians. The medical group is organized as a professional corporation, with all physicians holding an equal number of shares of stock, and is governed by an elected board of directors, all of whom are physicians in the group. The board, in turn, recommends a chief executive officer (CEO), also a physician in the group, who must be elected by the full set of physicians. Within each medical center, the physicians are organized into specialty departments (primary care, general surgery, etc.) led by a department chief.

At the time we collected the data for this study, the entire medical organization was undergoing a substantial change in its market strategy. The organization's existing strategy was to use the advantages of its size to provide the same quality of care as traditional fee-for-service providers do but at a lower price. Although successful in many ways, the cost of this strategy was that patients, and potential patients, perceived the organization to be impersonal and bureaucratic and generally did not express a high level of satisfaction when they interacted with the health care organization.

The rapid growth of for-profit health maintenance organizations and insurance-driven preferred provider plans dramatically changed the competitive landscape of health care. Through a variety of techniques, including controlling patients' access to physicians, these new health care organizations were able to undercut the price advantage that the medical group had enjoyed. The CEO and board of directors of the medical group concluded that they would have to change the way patients perceived them to successfully compete with the new set of low price providers. Therefore, the goal of the new strategy was to increase patient satisfaction. Implementing the new strategy required putting new systems and structures in place across the entire organization, including scheduling systems, new call centers,

and higher staffing levels. More importantly, shifting patients' level of satisfaction with the organization required changing the nature of the interactions between patients and their physicians.

On the face of it, this situation represents a good test of the role of intangible factors, such as norms and leadership, and tangible resources in facilitating the implementation of a change effort. Changes in facilities and technology may be important factors in enacting new processes for improving satisfaction. In addition, how a physician interacts with his or her patients will affect the ultimate success of the new strategy. Monitoring physician behavior is difficult, and developing specific protocols to govern those interactions is problematic. Thus, changes in these interactions are likely to be the result of shifts in physicians' perceptions and priorities rather than of implementing a new formal control system or putting a new automated scheduling system in place.

Our study consisted of two phases. In the first phase, we interviewed 38 leaders in four of the medical centers. These interviews took place during the time in which the systems were being put in place and focused on identifying the factors that would support or inhibit achieving the desired outcomes from the change. The interviews also allowed us to identify specific items to be used to test the hypotheses. The second phase of the research tested the hypotheses using a survey of 38 medical departments in four of the centers. This phase was conducted after the structural changes have been implemented and the new technology resources were in place.

Methods

Refining the Variables: The Phase 1 Study

Within each of the four centers, we interviewed the physician-in-chief (the physician in charge of the center), at least one assistant physician-in-chief (responsible for a staff function), and a sample of department chiefs. Each interview followed a semistructured format and lasted from 30 to 45 minutes. Two questions focused on the factors within a group that can either facilitate or inhibit implementing a new strategy. These questions, including structured probes, asked whether there were differences in the speed at which departments implemented changes, and if so, why and what factors seemed to support or inhibit changes within a department.

Notes from the interviews were transcribed, and the transcripts were reviewed to identify the full range of items that were reported as supporting or inhibiting changing processes to support a new strategy. The set of items were then grouped into themes. Seven themes were identified, with three themes aligning closely to

our hypotheses: (1) acceptance of the new strategy, (2) department norms supporting change, and (3) leadership.¹ Comments related to these themes were used to refine the specific questions used in the second phase of the research.

Testing the Hypotheses: The Phase 2 Study

Participants. Participants in this study were physicians in eight specialty departments—emergency medicine, head and facial surgery, obstetrics/gynecology, ophthalmology, orthopedics, pediatrics, surgery, and urology—working in six medical centers for a total of 48 work groups. As described above, all physicians were members of the same medical group, and all of the medical centers operated using the same policies. The departments ranged in size from 3 to 49 physicians ($\bar{x} = 12.29$, $SD = 10.12$). Within these departments, 313 physicians participated in the study by completing surveys, representing a 53% response rate of the individual physician informants surveyed. The largest number of informants was those aged between 40 and 49 years (34.1%). Average tenure within departments was 10.55 ($SD = 7.90$) years. Thirty-six percent were women and 37% were non-White. The respondents' data were aggregated to the departmental level. We excluded departments that did not have at least three complete measures of all variables. This reduced the final sample size to 37 departments.

Dependent variable: increase in patient satisfaction. Two years prior to the strategic change, the medical plan contracted with an outside firm to survey a random sample of patients regarding their satisfaction level after a physician visit. The firm surveyed approximately 2 million visits per year. The survey firm aggregated the responses by department within each medical center and provided a quarterly report on each department and medical center to the medical group. The medical group's management provided us with the most inclusive measure of patient satisfaction based on responses to two subscales on the patient survey, overall satisfaction with service and overall rating of access to care. Albeit distal, this measure was the most important criterion for capturing the desired outcome of the strategic change.

We identified two periods that corresponded to the change process for our analyses. Baseline patient satisfaction, or Time 1 performance, was the period when the new strategic focus on service within the organization had already been communicated to the departments and the new systems necessary to support the strategic

focus on service had been put in place across the entire medical organization. Thus, baseline performance represented the point in time at which the benefits from the systems would be reflected in the patient satisfaction surveys and that further changes were likely to be the result of interactions with physicians. Our second point in time for assessing change in patient satisfaction performance, or Time 2, was 1 year later. The survey was conducted during the same quarter that the Time 1 patient satisfaction data were collected. We calculated change in performance by using baseline patient satisfaction at Time 1 as a predictor of patient satisfaction at Time 2. Including Time 1 patient satisfaction as a predictor and Time 2 patient satisfaction as the criterion variable in our regression models allowed us to avoid estimation biases that might develop by using a difference score as the criterion variable. Our analyses are based on approximately 50,000 patient survey evaluations per time period. Patient satisfaction at Time 2 for groups averaged 65.34 ($SD = 5.72$), whereas baseline patient satisfaction at Time 1 for groups averaged 61.39 ($SD = 5.73$).

Independent Variables

Support for the strategic change. Consistent with previous research, the individuals we interviewed in Phase 1 suggested that behavior change necessary to support a new strategy is most likely when individuals support the new strategy. In the survey, we included four items measured on 7-point scales assessing support for the specific strategic change. The complete set of items is shown in Table 1.

Change readiness norms. Drawing from previous research on norms supporting change (e.g., Caldwell & O'Reilly, 2003; Oreg, 2003) and the themes raised in interviews, we generated 12 items reflecting norms supporting a change. Consistent with most definitions of norms, these items focused directly on members' expected behaviors for one another rather than on their general perceptions of their department's culture. Respondents rated each item on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*) regarding how their department approached operational issues or changes in general. (See Table 1 for the full set of items.)

Medical department leadership. Drawing from perceptual views of leadership (e.g., Lord, 1985; Meindl & Ehrlich, 1987), we focused on unit members' perception of the extent to which their leader took specific actions to articulate a vision, define measurable objectives, and deal with resistance to change. Respondents rated the chief of their department on a 7-point scale (1 = *not at all* to 7 = *a great deal*) on six items reflecting these dimensions. (See Table 1 for the full set of items.)

¹The other four themes raised were mechanisms for sharing information across departments, characteristics of physicians, human resource practices, and the adequacy of resources to support work processes.

Table 1

Varimax factor loadings for independent variable items (n = 313)

	1	2	3
Support for the strategic change			
I am excited personally about implementing our strategy.	.31	.17	.78
I recognize the difficulties we face if we fail to implement our strategy.	.27	.11	.83
It is in my personal interest to help implement this strategy.	.37	.14	.83
I am convinced that this strategy is right for <i>the organization</i> .	.18	.20	.82
Change readiness norms			
The most respected members of our department display a sense of urgency about change the way we do things.	.53	.31	.24
When we have a problem or challenge, the expectation is that all of us will work together to deal with it.	.67	.35	.21
Generally, we expect to try new things even when it is possible that the new ideas won't work out.	.68	.24	.19
When there is a new initiative, policy, or some other type of change, we expect people to move quickly in response to it.	.69	.19	.18
We value department members' willingness to be open and share information.	.69	.34	.22
When someone in our department tries new approaches, we see mistakes as a normal part of their efforts.	.73	.11	.09
People in our department expect to share credit for successes with one another.	.73	.18	.19
The people in who are most respected in our department are those who support trying new things even if those efforts do not work out as well as expected.	.72	.15	.16
We move more quickly than other departments in responding to change.	.59	.22	.25
In our department, we value people who are "team players."	.67	.18	.34
Generally, we value people who try new things—even if they are not successful.	.76	.12	.15
The members of our department express a commitment to changing the way we do things.	.66	.30	.22
Medical department leadership			
Clearly articulates <i>organization</i> strategy and how it affects our department	.30	.78	.22
Provides compelling vision for our department within the <i>organization</i>	.24	.87	.18
Provides measurable objectives for implementing the strategy and vision within our department	.26	.87	.13
Recognizes and rewards progress in implementing change with our department	.25	.88	.06
Responds effectively to resistance to change with our department	.23	.84	.12
Personally inspires and motivates me to change	.20	.89	.15

Note. The highest loading of each item is shown in bold.

Because we were interested in the independent effects of the three variables (i.e., support for the strategy, norms supporting change, leadership), we used a Varimax rotation of a principal components analysis to construct orthogonal factors within the entire set of questions. Table 1 shows this analysis. The analysis revealed three factors with eigenvalues greater than 1, which explained 67% of the total variance. Because each factor was distinctly defined by the items representing one of the independent variables, we calculated three orthogonal factor scores for each individual and combined those into group-level measures. We used those average factor scores in the subsequent analyses.

Prior to examining the hypotheses, we tested for the appropriateness of aggregating individual responses to unit values. Using raw data, we calculated $r_{wg(j)}$ (James, Demaree, & Wolf, 1984), a measure of agreement between members within a group, to test for the appropriateness of aggregation for each of the independent variables. All three values were sufficient to justify aggregation (Support

for the Strategic Change – median $r_{wg(j)} = .91$; Change Readiness Norms – median $r_{wg(j)} = .94$; and Medical Department Leadership – median $r_{wg(j)} = .84$).

Control Variables

We included four control variables in the models testing our hypotheses. First, although the six medical centers from which we collected data are equivalent in terms of structure, policies, and procedures, they are located in different places, serve different populations, and have different levels of patient satisfaction. Therefore, we created dummy variables for each center and used them in the analyses. Second, because group size has been shown to affect a variety of group outcomes, we also included the size of the medical department as a control in all analyses ($\bar{x} = 13.1$, $SD = 10.4$). Third, because an individual's tenure may affect how he or she perceives the organizational change effort and personal willingness to change, we computed a mean

Table 2**Correlations among the variables (n = 37)**

Variable	1	2	3	4	5	6
1. Patient satisfaction 2004	–					
2. Patient satisfaction 2003	.64*	–				
3. Department size (log)	.03	.09	–			
4. Average tenure (log)	.16	.15	–.15	–		
5. Change readiness norms	.13	.20	.26	.08	–	
6. Support for strategic change	.14	–.14	–.26	.33	.02	–
7. Department leadership	.16	.25	.03	.17	.55*	.17

* $p < .01$.

tenure score for each department and used it as a control variable ($\bar{x} = 10.3$ years, $SD = 3.1$ years). Because of the nature of the distribution of both group size and individual tenure, we used the log of both variables in the analyses. Finally, as noted above, we included Time 1 patient satisfaction in the models. Because response rates and rates of change were roughly equivalent across departments, we did not include specialty as a control variable.

Results

Table 2 shows the correlations among the variables for the sample. The results of the regression models used to

test our hypotheses are shown in Table 3. Model 1, a baseline model, includes the dummy variables indexing the medical centers and the control variables of patient satisfaction at Time 1, group size, and average tenure. Not surprisingly, patient satisfaction at Time 1 is related to patient satisfaction a year later.

In Model 2, we tested Hypotheses 1, 2, and 3 by entering the orthogonal measures of support for strategic change, department leadership, and change readiness norms. As shown, support for strategic change (Hypothesis 1) was positively related to patient satisfaction at Time 2 ($\beta = .32$, $p < .01$). Neither the perceived effectiveness of the leader (Hypothesis 2) nor change readiness norms (Hypothesis 3) was independently related

Table 3**Department-level regression results for time 2 patient satisfaction (n = 37)**

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Control variables—Step 1					
Department size (log)	.06	.06	.06	.06	.06
Mean group tenure (log)	.18	.18	.18	.18	.18
Time 1 patient satisfaction	.64***	.64***	.64***	.64***	.64***
Independent variables—Step 2					
Support for strategic change (factor)		.32**	.32**	.32**	.32**
Change readiness norms (factor)		.10	.10	.10	.10
Department leadership (factor)		–.06	–.06	–.06	–.06
Interactions—Step 3					
Support for Change \times Leadership			.18		
Change Readiness \times Leadership				.56***	
Support for Change \times Change Readiness					.31*
Adjusted R^2	.38	.43	.43	.56	.48
F ratio	3.74***	3.35***	3.22***	4.79***	4.18***
df	8, 27	11, 24	12, 23	12, 23	12, 23

Note. Organizational controls include six medical centers. Entries are standardized coefficients.

* $p < .10$.** $p < .05$.*** $p < .01$.

to change in patient satisfaction. This provides support for Hypothesis 1 but not for Hypotheses 2 and 3.

Models 3, 4, and 5 include the two-way interactions between the independent variables. Model 3 tests whether the interaction between support for strategic change and the leader's effectiveness is related to satisfaction at Time 2 (Hypothesis 4). As shown, the relation is in the hypothesized direction but is not statistically significant ($\beta = .18$). Model 4 tests the relation between the interaction between change readiness norms and the leader's effectiveness and satisfaction at Time 2 (Hypothesis 5). As shown, this interaction is both positive and significant ($\beta = .56, p < .01$), demonstrating that the positive effects of leadership are strongest when the units have norms that support change. Model 5 tests Hypothesis 6, which proposes that the interaction between support for change and change readiness is related to Time 2 satisfaction. This interaction is positive and marginally significant ($\beta = .31, p < .10$).

Figure 1 shows the shape of the significant interaction between change readiness and leader effectiveness. Positive effects of leadership are strongest when the unit's norms support change in general (Hypothesis 5); that is, when groups embrace norms for change and perceive that their leader is effective, there is a significant increase in patient satisfaction beyond the main effects. When the norms do not support change, perceptions of the leader's effectiveness have no effect on improvement in patient satisfaction. The shape of the marginally significant interaction between support

for the change and change readiness is similar to that shown in Figure 1. In summary, we find that support for the change in strategy is directly related to patient satisfaction. In addition, high levels of change readiness enhance the positive effects of both effective leadership and support for the new strategy.

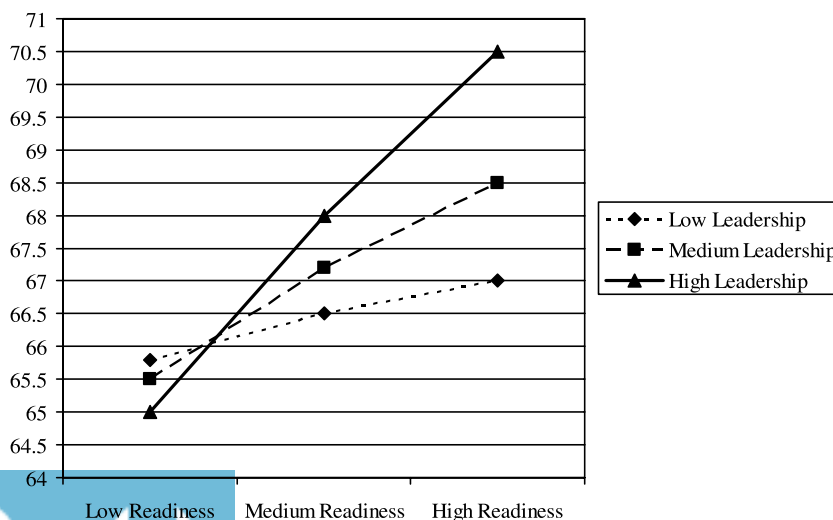
Discussion and Implications

Although health care organizations in the United States are under significant pressure from a variety of different sources, change is often difficult for these organizations. Professional standards, a unique organization structure, or resource constraints may limit an organization's capability to respond to these pressures. Successful change, particularly in health care organizations, requires shifts in resources or policies; however, successful change also requires a commitment on the part of employees to behave in ways to implement the new strategy.

The strategic change we studied was no exception. New call centers, improved scheduling tools, and increased staffing were necessary. However, in large part, the ultimate success of the strategy depended on a change in the actions of individual physicians. In the organization we studied, the new tangible resources were consistent across groups; the question was why some groups were better able to implement the strategy than others were. There are two broad conclusions that can be drawn from our findings. First, intangible factors such as support for a new strategy, group norms, and leaders'

Figure 1

Change readiness and leadership interaction on time 2 patient satisfaction



actions can influence implementation. Second, the effects of these social processes are primarily interactive. Effective leadership has the greatest impact when a group has a positive orientation toward change. In addition, a positive orientation toward change, coupled with support for new strategy, increases the success of implementation.

These results illustrate the importance of social control in organizations. In the organization we studied, physicians had a great deal of power, not only because of their roles but also because of the ownership structure of the medical group and the accountability of the CEO to the physician shareholders. In such an environment, relying on formal control systems to induce change may be problematic. However, social control, exercised through norms in medical departments, facilitated change. It may well be that it is both the culture of a health care organization and the specific norms that develop in groups that will allow health care organizations to adapt to the environmental jolts that these organizations will face.

This study provides a somewhat conservative test of the role of norms in supporting implementation. Our measure of success of the implementation of the change was actual patient responses 1 year after the articulation and dissemination of the strategic initiative and was therefore quite removed from more proximal measures of operations or actions of the medical department. One might reasonably expect that the effects of norms would be stronger if we assessed internal operations and process changes within the department rather than reactions of individual patients. Demonstrating that group norms are related to changes in a distal measure of performance in a complex organization suggests the power that group-level social influence can have in shaping individual actions and the extent to which norms can serve as a social control system.

Although our results demonstrate the importance of norms in implementing change, there are a number of factors that may limit the conclusions we can draw. One issue concerns the nature of the dependent variable we assessed. The measure of patient satisfaction was the ultimate outcome of the change effort; however, it may be affected by many factors. A fuller understanding of *how* norms lead to changes in satisfaction would require a wider set of variables, including both process and behavioral measures.

Recommendations for Practice

Not surprisingly, the positive effects of strategic change are greatest when groups support the new direction. Therefore, when strategic changes are undertaken, leaders need to focus on building support for them. This requires direct, relentless communication. In addition, leaders need to look for ways to involve staff in identifying ways of implementing the strategy. As our Phase 1 interviews suggest, building support often in-

volves helping staff members understand both the benefits of the change and the risks of continuing the status quo.

Our results also show that general norms supporting change interact with other factors to improve implementation. Two important questions are what are the specific aspects of a general norm supporting change and how can it be developed. Our Phase 1 interviews and some previous research suggest that when groups are willing to tolerate some mistakes, have a sense of urgency about their job, work effectively as a team, and support one another when new things are tried, innovation and implementing new ideas are enhanced. The second question is how does one create a culture that embraces these norms. The high correlation we found between these norms and the perceptions of the leader suggests that this norm is likely to come, at least in part, from the actions of the group's leader. Building a culture comes not simply from what a leader says but also through the mundane actions the leader takes. What gets noticed and rewarded? What is discussed at meetings? How does a leader spend his or her time? If a leader approaches some types of mistakes as opportunities for learning and correction, rewards team performance, conveys a sense of energy toward reaching goals, and is willing to try new things himself or herself, groups are likely to view change very differently than if the leader punishes or ignores mistakes, seems indifferent to goals, and avoids experimentation.

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