The Impact of Participative Management Perceptions on Customer Service, Medical Errors, Burnout, and Turnover Intentions

Ingo Angermeier, FACHE, chief executive officer, Spartanburg Regional Healthcare System, Spartanburg, South Carolina; Benjamin B. Dunford, PhD, assistant professor, Krannert School of Management, Purdue University, West Lafayette, Indiana; Alan D. Boss, PhD candidate, Robert H. Smith School of Business, University of Maryland, College Park, Maryland; and R. Wayne Boss, PhD, professor, Leeds School of Business, University of Colorado at Boulder

EXECUTIVE SUMMARY

Numerous challenges confront managers in the healthcare industry, making it increasingly difficult for healthcare organizations to gain and sustain a competitive advantage. Contemporary management challenges in the industry have many different origins (e.g., economic, financial, clinical, and legal), but there is growing recognition that some of management's greatest problems have organizational roots. Thus, healthcare organizations must examine their personnel management strategies to ensure that they are optimized for fostering a highly committed and productive workforce. Drawing on a sample of 2,522 employees spread across 312 departments within a large U.S. healthcare organization, this article examines the impact of a *participative management* climate on four employee-level outcomes that represent some of the greatest challenges in the healthcare industry: customer service, medical errors, burnout, and turnover intentions.

This study provides clear evidence that employee perceptions of the extent to which their work climate is participative rather than authoritarian have important implications for critical work attitudes and behavior. Specifically, employees in highly participative work climates provided 14 percent better customer service, committed 26 percent fewer clinical errors, demonstrated 79 percent lower burnout, and felt 61 percent lower likelihood of leaving the organization than employees in more authoritarian work climates. These findings suggest that participative management initiatives have a significant impact on the commitment and productivity of individual employees, likely improving the patient care and effectiveness of healthcare organizations as a whole.

For more information on the concepts in this article, please contact Dr. Boss at wayne.boss@colorado.edu.

In today's era of rapidly changing technology, an aging and less-insured population, and a fluctuating economy, healthcare organizations face more challenges than ever. A survey indicates that healthcare executives are constrained to do more with fewer resources, which makes it difficult to sustain their organization's viability and mission (Prybil 2003). One industry observer aptly notes that "it would be difficult to conceive of a field that is and will be subject to greater scrutiny, greater demands and greater changes than the American healthcare system" (Litch 2005, 20).

Many factors underlie contemporary challenges in healthcare management, but there is growing awareness among scholars and practitioners that the greatest challenges have organizational, rather than clinical or financial, roots (Ramanujam and Rousseau 2006). For instance, in one study, more than three quarters of CEOs identified "workforce issues" as a primary challenge in managing healthcare organizations (Prybil 2003). Improvements in patient safety, employee performance, and retention of key talent have become more difficult as healthcare personnel confront greater demands and heavier workloads (Ramanujam and Rousseau 2006).

In response to these challenges, healthcare executives must implement management strategies that will enable them to optimize investments in human capital to sustain a competitive advantage. Two archetypal management strategies have been previously identified by organizational scholars (Arthur 1994). First, *autocratic* (or authoritarian) management strategies endeavor to reduce labor costs by emphasizing control and efficiency through specialized roles and strict rule enforcement. In contrast, *participative* management strategies endeavor to increase employee productivity by rewarding performance, fostering employee commitment, and decentralizing decision making to give employees more voice in work decisions (Arthur 1994). Two decades' worth of research in the United States and abroad demonstrates that while autocratic management strategies are effective in certain conditions, participative approaches are typically associated with greater long-term corporate performance (Arthur 1994; Delaney and Huselid 1996; Miah and Bird 2007). Yet to date, little participative management research has been conducted in healthcare, and fewer studies have examined the sorts of employee-level outcomes that are indicative of the industry's greatest contemporary challenges.

This growing disconnect between existing empirical research and current problems in healthcare management represents an important gap in the literature. Therefore, the purpose of our study was to examine the impact of participative-management employee perceptions on four critical employee-level outcomes: customer service, medical errors, burnout, and turnover intentions. To that end, the study drew on a large sample of employees spread across more than 300 departments in a large healthcare organization based in the southeastern United States.

PARTICIPATIVE CLIMATE: THE LIKERT ORGANIZATIONAL PROFILE

Participative management practices have existed for more than a century, but they expanded in scope and in practice

during the 1970s as organizations recognized the benefits of redesigning manufacturing jobs to minimize repetition and give employees input into matters that influenced their work (Katz, Kochan, and Colvin 2007). As more organizations experimented with participative management, organizational theorists sought to understand the process by which they could improve organizational effectiveness. Subsequent research highlighted two employee perceptions that are fundamental to the success of participative management initiatives (Pierce, Rubenfeld, and Morgan 1991). First, *information* must flow freely to and from employees in the organization, such that they are given adequate information about their work and that their upward input on work-related matters is given legitimate consideration (Rosen and Quarrey 1987). Second, employees must perceive that they have an adequate degree of *control* over their work and the decisions that affect their well-being (Pierce, Rubenfeld, and Morgan 1991). When employees feel empowered, they will perform better, be more committed to the organization, and be less likely to leave, all of which collectively influence the effectiveness of the organization (Kanter 1993).

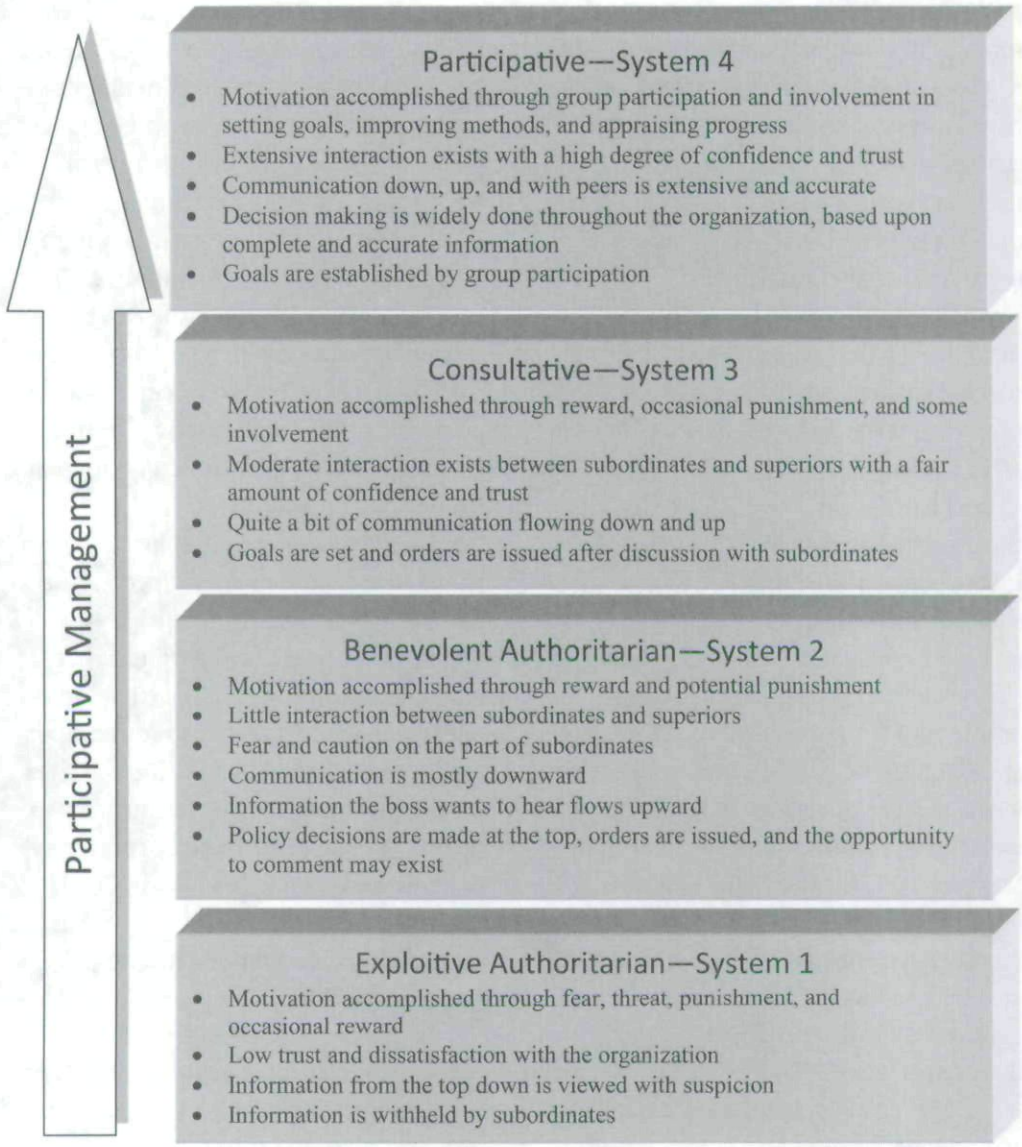
Likert (1967) developed a typology and measurement scale (see Methods section) of organizations based on the authoritarian–participative climate continuum. The Likert Profile of Organizations draws on employee perceptions of six climate dimensions (leadership, motivation, communication, decision making, goal setting, and control) that are aggregated to determine the degree to which an organization is participative in its climate. System 1 organizations are considered to have an exploitive, coercive, and "authoritarian" management style, whereby information flows only from the top down and is viewed with suspicion by employees. System 2 organizations are labeled "benevolent authoritarian," whereby some degree of bottom-up communication is allowed but "only [the information that] the boss wants to hear." System 3 organizations are "consultative" in that they set goals and issue directives after discussing the matter with subordinates. Finally, System 4 organizations are considered "participative," whereby communication is completely open and flows upward and downward and the decision making is shared between employees and management (see Figure 1 for additional description).

Research has demonstrated that employees form distinct participative-climate perceptions and that these perceptions are associated with outcomes that include organizational structure results (Reigle 2001) and corporate performance (Miah and Bird 2007). However, to date, little if any research has linked participative-climate perceptions to employee-level outcomes. In the following section, we examine how participative-climate perceptions affect customer service, medical errors, burnout, and turnover intentions.

Customer Service

Customer service is central to organizational effectiveness, particularly in healthcare institutions where employees' interactions with patients have a strong effect on patient satisfaction, healthcare quality, and brand loyalty (McManus 2007). Research demonstrates that customer service has a stronger impact on

FIGURE 1
Likert's Profile of Organizations



Source: Adapted from Likert (1967).

patients' "likelihood of recommending services" than clinical performance (c.f. McManus 2007). Participative-climate perceptions are likely to influence employees' customer service performance in healthcare organizations because employees in participative climates tend to be more engaged in and more satisfied with their jobs (Spreitzer 1995) and thus are more likely to be motivated

to go the extra mile for their patients. Moreover, employees in participative climates generally face fewer organizational constraints and personal risks that may prevent them from providing high levels of customer service. Thus, we hypothesized that employees who report higher participative-climate perceptions will have higher customer service ratings by their supervisors.

Medical Errors

As noted earlier, patient safety has become a key concern among healthcare organizations and is often considered a key performance indicator in organizations (Ramanujam and Rousseau 2006). Poor nurse (and other caregiver) performance has been linked to patient medical complications following surgery, falls from injuries, and death rates (Evans 2008). Estimates suggest that between 44,000 and 98,000 patients in the United States die each year because of treatment errors, costing healthcare organizations between $17 and $29 billion (Kohn, Corrigan, and Donaldson 1999). Participative-climate perceptions are likely to influence medical error rates in healthcare organizations because many medical errors stem from miscommunications (Pepper and Towsley 2007). Indeed, one study indicates that poor employee communication is the most common cause for surgical errors that result in patient injuries and death (*Materials Management in Health Care* 2007). In more participative work climates, information is more likely to flow among employee groups, thus reducing the probability of medical errors (Zacharatos, Barling, and Iverson 2005). Hence, we hypothesized that employees who report higher participative-climate perceptions will have committed fewer medical errors.

Burnout

Burnout is a widespread problem among nurses and other caregivers in the healthcare profession because of the nature of healthcare work and the increasing demands placed on these professionals (Ramanujam and Rousseau 2006). Burnout is problematic because it has been linked to numerous negative outcomes, including reduced performance, turnover, absenteeism, and patient care quality (Taris 2006). Healthcare employees in highly participative work climates are less likely to burn out because they have more decision-making authority to reduce job demands, more resources to buffer stress, and a greater access to information that may reduce their workloads. Therefore, we hypothesized that employees who report higher participative-climate perceptions will experience lower levels of burnout.

Turnover Intentions

Healthcare organizations are facing an unprecedented shortage of nurses, physicians, specialists, and other caregivers as a result of an aging workforce and the stressful nature of healthcare work (Prybil 2003). Turnover of key talent not only diminishes healthcare quality but is also costly. Replacement of departed nurses can range from $90,000 to $145,000 per nurse, depending on skill levels and specialties (Atencio, Cohen, and Gorenberg 2003). Participative-management climates are likely to be strongly related to employees' intentions

to stay in the organization because participative management practices provide employees with more access to information, more support, and a greater ability to influence decisions that affect them. Employees in participative work climates, thus, are more likely to be satisfied by their work, more resistant to work strain, and less likely to look for employment elsewhere (Laschinger et al. 2002). In fact, participative management has been linked to lower turnover rates in previous research (Arthur 1994; Delaney and Huselid 1996). Thus, we hypothesized that employees who report higher participative-climate perceptions will be less likely to have intentions to leave the organization.

METHODS

Participants and Procedure

Large healthcare organizations are a well-suited laboratory in which to study participative management because of their multiple departments that have unique identities and cultures. A healthcare system in the southeastern United States with 5,000 employees and 312 departments provided the participants for our study. We used multiple sources of data for this project, including employee-opinion surveys and other archival data.

We obtained employee personnel records from the human resources department, which provided individual performance ratings, demographic variables, e-mail addresses, and employee identification (ID) numbers. Employee ID numbers were needed for several reasons. First, we used them to verify, for security purposes, that participants who logged into the independent and secure server were indeed employees of the healthcare system, as they used their ID as a username to access the online survey. Second, because we could identify particular responses, we would be able to provide employees with their individual results, should they desire to see them. We assured participants that their responses would be kept strictly confidential and that under no circumstances would anyone inside the organization have access to their data or be able to individually identify them.

The survey was administered online over a two-week period during June 2007, and all employees were solicited for participation. One week before the survey link was sent, a "pre-notice" (Dillman 2000) e-mail was sent to all employees. This e-mail came from the chief executive officer and briefly described the upcoming study (noting that its purposes were to better understand employee opinions and to help improve the quality of work life), encouraged employees to participate, and assured employees that the data would go directly to the researchers and that the healthcare system would not have access to individual responses. One week later, the e-mail that contained a link to the online survey was sent to all employees. Three e-mail reminders were sent over the subsequent two weeks to employees who had not yet completed the survey.

We obtained responses from a total of 3,757 employees, resulting in a response rate of 75.1 percent. For the purpose of testing our hypotheses regarding medical errors, we excluded managers and administrative personnel who did not have contact with patients.

We also excluded observations with incomplete employee-opinion survey data or missing customer service evaluations, resulting in a final sample that consisted of 2,522 employees. On average, respondents to the survey were 42.4 years old, with a mean organizational tenure of 8.8 years. Approximately 84 percent of the respondents were female and 77 percent were Caucasian. In terms of education, 13 percent of participants had a high school diploma or less, 59 percent had some college but no four-year degree, 20 percent had a four-year college degree, and 7 percent either were in graduate school or had received a master's, professional, or doctoral degree. The positions represented in the sample were nonmanagerial with direct patient contact, including nurses, nurse assistants (e.g., licensed practical nurse, nurse tech, personal care aide), technical services personnel (from medical laboratory, rehabilitation, radiology, respiratory therapy, etc.), professional services personnel (from speech therapy, pharmacy, physical therapy, occupational therapy, etc.), and physicians.

Measures

Independent variable. *Participative management* was measured using the Likert Profile, an 18-item questionnaire designed to measure organizational climate along six dimensions: leadership, motivation, communication, decision making, goal setting, and control processes. The possible scores on each question range from 0 to 20. Scores were averaged across all measures ($\alpha = .97$). The average score on the Likert Profile falls into one of the four typologies of organizations: System 1—exploitive authoritarian (0–4.99), System 2—benevolent authoritarian (5.00–9.99), System 3—consultative (10.00–14.99), and System 4—participative (15.00–20.00). The number of employees who represented each category was as follows: System 1 (n = 33), System 2 (n = 509), System 3 (n = 1,193), and System 4 (n = 787).

Dependent variables. *Employee customer service* scores were taken from the 2007 annual performance evaluation conducted by the organization in August of each year. Employees are rated by their managers on a series of performance standards, ranging from "falls significantly below the standard" (1) to "exceeds the standard" (10). Performance standards for customer service include Integrity: doing the right thing and responding to customer needs promptly; Friendliness: showing that you care, being polite, and respecting others; Appreciation: praising, thanking, and acknowledging customers and coworkers; Trust: relying on each other, working as a team, and being loyal; Excellence: identifying opportunities for improvement and developing solutions; and Openness: being available to others and listening carefully to concerns.

Medical errors were measured using a single question from the Joint Commission: "Have you ever made a significant medical error?" Participants answered this question with either no (0) or yes (1).

Burnout was assessed using Maslach's Burnout Inventory (Maslach and Jackson 1982), a 23-item scale that measures three subdimensions of burnout, including depersonalization,

personal accomplishment, and emotional exhaustion. Depersonalization (D) reflects a tendency to view individuals as things or objects and to distance self from others. Personal accomplishment (PA) indicates that an individual sees self as doing poorly on work that is worth doing. Lastly, emotional exhaustion (EE) reveals individuals who are exposed to stressors at or beyond their comfortable coping limits. These subdimensions are combined to produce burnout "phases," ranging from 1 (low burnout) to 8 (high burnout) (see Goodman and Boss 2002 and Golembiewski and Munzenrider 1988 for a thorough explanation of burnout phase calculation). Low burnout consists of phases 1 to 3, medium burnout is phases 4 and 5, and high burnout includes phases 6 to 8. A high burnout score (high scores in all three burnout subdimensions) means that an individual is considered to have an advanced form of burnout. A low burnout score means that an individual is considered to feel only a single subdimension of burnout or none at all. Our alpha reliability for burnout is .78.

We measured employees' *turnover intentions* using Rosse and Hulin's (1985) scale. The scale includes one question and two statements: "How likely is it that you will actively look for a new job in the next year?" (1 = not at all likely; 7 = extremely likely), "I often think about quitting," and "I will probably look for a new job in the next year" (1 = strongly disagree; 7 = strongly agree). Responses to these three items were summed to create a total score, ranging from 3 to 21, with a higher score suggesting a greater intention to quit ($\alpha = .88$).

Control variables. To address the possibility of spurious relationships, we controlled for age and tenure, inasmuch as customer service, medical errors, burnout, and turnover intentions may be related to both participative management climate and the demographic variables.

RESULTS

The descriptive statistics and correlations among all study variables are shown in Table 1. The correlational results indicate that participative management was positively related to customer service performance and was negatively related to medical errors, burnout, and turnover intentions, providing some preliminary support for our hypotheses. We conducted additional analyses, including analysis of variance (ANOVA) and binary logistic regression analysis.

The distinction between a participative-management climate and an exploitive authoritarian system can be seen clearly in Figures 2 through 5. The ANOVA results confirmed that a significant difference exists between participative-management systems for the dependent variables customer service ($F = 35.75$, $p < .01$), burnout ($F = 126.28$, $p < .01$), and turnover intentions ($F = 146.67$, $p < .01$). Bonferroni post hoc analysis showed that the differences between each of the four systems were significant at the .05 level for customer service, burnout, and turnover intentions, except between levels 1 and 2 for burnout and customer service, which is likely caused by the small number of individuals within the System 1 category.

Inasmuch as medical errors were measured with a binary variable, we

TABLE 1
Means, Standard Deviations, and Intercorrelations for Study Variables

Variable	M	*s.d.*	1	2	3	4	5
1. Participative management	12.79	3.50	*.97*				
2. Customer service	7.71	1.43	.21**	—			
3. Medical error	.20	.40	-.07**	-.07**	—		
4. Intention to quit	7.62	4.88	-.41**	-.12**	.05*	*.88*	
5. Burnout	3.81	2.59	-.40**	-.12**	.06**	.46**	*.78*

N = 2,522 with listwise deletion of missing data. Scale reliabilities appear along the diagonal in italics.
* $p < .05$ (two-tailed).
** $p < .01$ (two-tailed).

used logistic regression rather than ANOVA to test our prediction that participative-management climate would be negatively related to medical errors. Logistic regression results supported our predictions (B = -.046, $p < .01$), controlling for age and tenure.

The likelihood of having committed a significant medical error was lowest among employees who rated their work climate as Participative (System 4) and was highest among employees who rated their work climate as Exploitive Authoritarian (System 1). We found that

FIGURE 2
Average Participant Customer Service Scores, by Management System

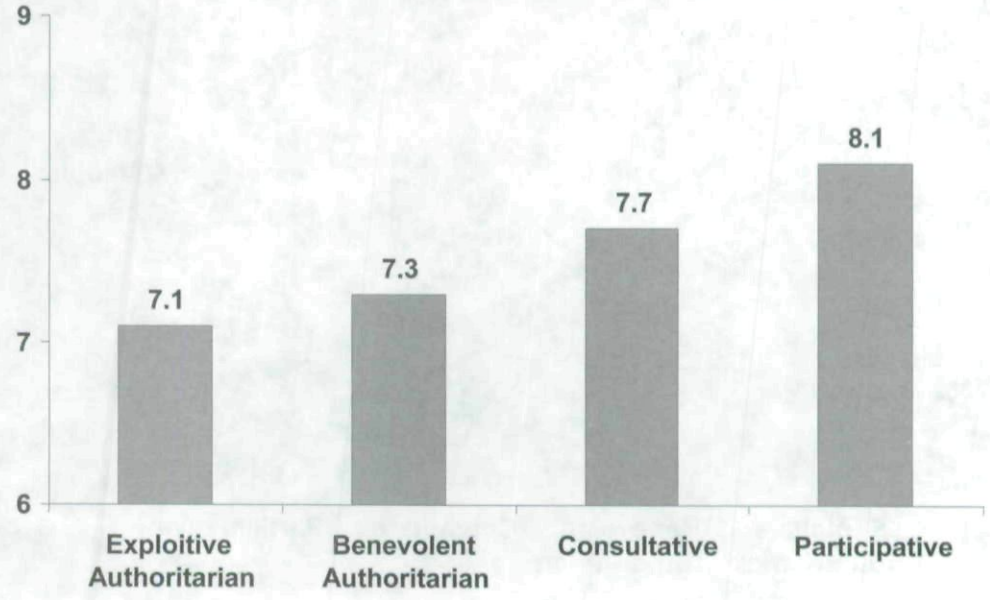


FIGURE 3

Percentage of Respondents Who Have Committed a Significant Medical Error, by Management System

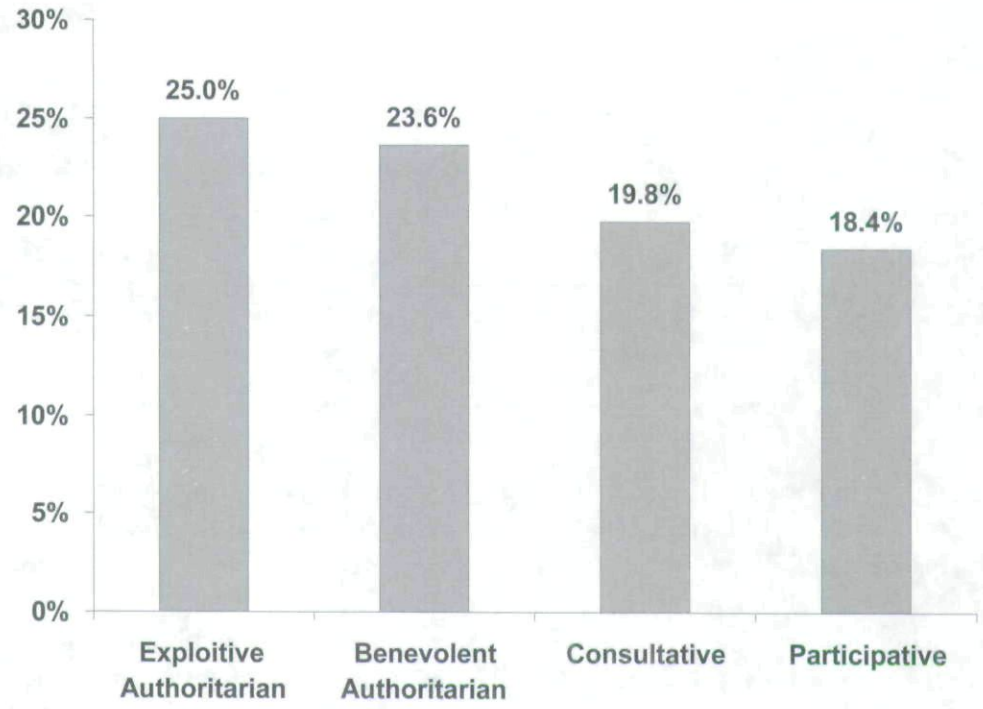


FIGURE 4

Percentage of Respondents in Different Levels of Burnout, by Management System

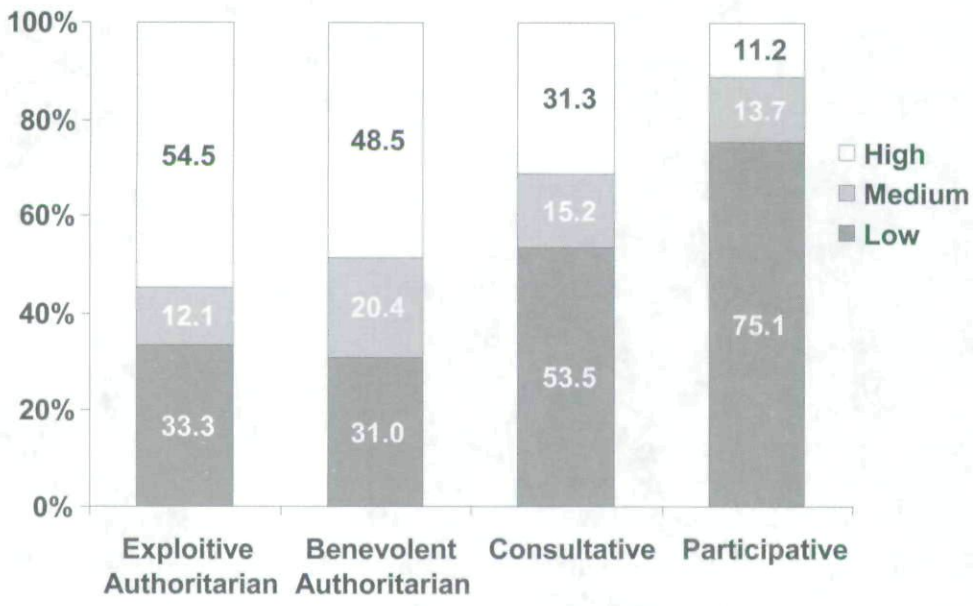
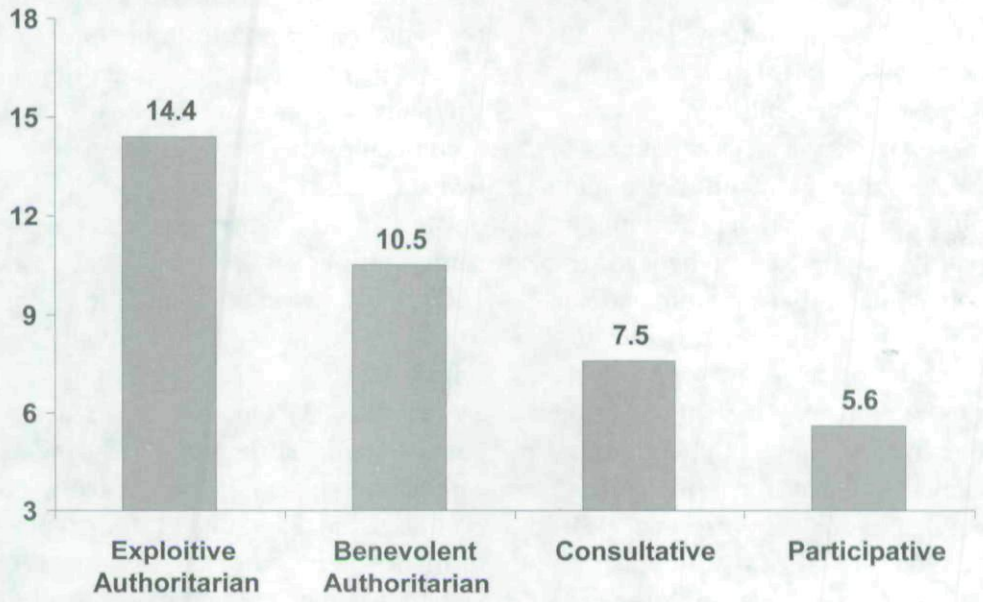


FIGURE 5
Average Participant Scores on Turnover Intentions, by Management System



the odds of committing a significant medical error for employees in Benevolent Authoritarian (System 2) climates were 1.3 times larger than the odds of committing an error for employees in Participative (System 4) climates.

In summary, our ANOVA and logistic regression results supported each of our hypotheses. Employees who reported higher participative climate perceptions received higher customer service ratings from their supervisors, reported committing fewer significant medical errors, experienced lower levels of burnout, and were less likely to have intentions to leave the organization. Specifically, employees in highly participative work climates provided 14 percent better customer service,[1] committed 26 percent fewer errors, demonstrated 79 percent lower burnout, and felt 61 percent lower likelihood of leaving the organization than employees in more authoritarian work climates.

DISCUSSION

In an era of uncertainty where demands often outnumber organizational resources, healthcare organizations may be inclined to adopt authoritarian management systems in an effort to cut costs, maximize efficiency, and centralize authority. Participative management systems offer an alternative approach, focusing instead on improving the commitment and productivity of employees through pay for performance, open-book management, decentralized decision making, and job enhancement. Studies have linked participative management systems to corporate performance and other corporate-level outcomes, but little research has been conducted to examine the impact of

participative management on employee-level outcomes, particularly in healthcare organizations.

The results of our study clearly show that employee perceptions about participative management have a favorable impact on customer service, medical error rates, burnout, and turnover intentions. On each of the four outcomes in this study, employees who believed they work in climates that are more participative in nature far surpassed their counterparts who perceived they work in authoritative climates. These findings add to the existing literature that indicates participative management improves corporate performance (Arthur 1994) and extend the role of participative management to include employee-level outcomes in a healthcare setting.

Our findings give rise to a number of practical implications. The most important prescription to follow from our analysis is that organizations should endeavor to enhance the likelihood that their employees perceive their work climates as participative rather than authoritarian. Organizations can develop more participative work climates in several ways. First, providing meaningful information and control to employees can enhance employee participation (Rosen and Quarrey 1987). Open-book management practices entail sharing organizational performance metrics with employees on a regular basis, making them more cognizant of progress and more motivated to help reach organizational goals. Employee involvement programs enable employees to have a voice in decisions that affect their work and thus encourage them to suggest ways to improve services and production processes. Sharing meaningful organizational information sends a signal that management trusts employees, which in turn motivates employees to use the information to benefit the company (Ferrante and Rousseau 2001). Second, allowing employees to participate in decision making regarding day-to-day work practices and to have some control over operational processes engages employees and persuades them to share tacit knowledge they might otherwise withhold (Rousseau and Shperling 2003). Finally, performance-based rewards (such as merit pay and gain-sharing plans) that are linked to both individual and organizational performance metrics motivate employees to work hard on behalf of the organization and to perform tasks that may be above and beyond their job descriptions.

Limitations

Although our research has a number of strengths, in terms of both contributions to the literature and methodology, it has some limitations. First, this study's focus on a single organization places constraints on the generalizability of its findings. We acknowledge that the findings may be different in other types of organizations or may be a function of unknown characteristics unique to the particular organization in this study. Future research should investigate the relative importance of different dimensions of ownership across a broad range of healthcare organizations and among a broad range of employee groups.

Second, the study did not specifically investigate the organizational practices that lead to employee perceptions of participative management.

Thus, although our results provide evidence that perceptions of participative climates are dominant predictors of employee attitudes and behaviors, these data do not offer specific explanations on how those perceptions can be enhanced. Future research should examine the impact of specific types of participative practices on outcomes such as information sharing, decentralized structures, and autonomous job design.

Finally, the study was primarily cross-sectional in nature, although some study measures were taken at different time periods (e.g., customer service measures lagged the survey variables by two months). Thus, we cannot completely rule out the possibility of reverse causality in relationships between participative climate and employee outcomes. Better-performing employees (in terms of good customer service and fewer errors) and employees who are less burned out and less likely to leave are possibly more inclined to perceive that they work in participative work climates. Future research using longitudinal designs is needed to clarify the direction of causality between these variables. Time-series designs may also be helpful in exploring how employees' participative management perceptions change over time.

CONCLUSION

Healthcare organizations face an increasingly competitive and resource-constrained environment that makes sustaining a competitive advantage more difficult. A growing body of practitioners and researchers has acknowledged that many of the industry's most vexing problems have organizational rather than clinical or financial origins (Prybil 2003; Ramanujam and Rousseau 2006). Thus, it behooves healthcare organizations to adopt personnel management practices that foster a committed and highly productive workforce. This study provides strong evidence that employees who perceive that their workplace climate is participative demonstrate better customer service, commit fewer medical errors, are less burned out, and are less likely to leave the organization. As noted earlier, employees in highly participative work climates showed 14 percent better customer service, 26 percent fewer errors, 79 percent lower burnout, and 61 percent lower likelihood of leaving the organization than employees in authoritarian work climates. These findings provide empirical support that participative management is an effective approach to building a highly committed and productive workforce. Creating a culture of empowerment is pivotal to overcoming the many challenges that confront healthcare organizations today.

NOTES

1. Percentage change was calculated using the formula (System 4 – System 1) / ABS(System 1).

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PRACTITIONER APPLICATION

John A. Miller Jr., FACHE, president and chief executive officer, AnMed Health System, Anderson, South Carolina

In more than three decades of being a healthcare executive, I have been blessed to work with colleagues who believe the key to organizational success is a nurturing culture. Our executive team has always endeavored to effectively communicate and encourage participation and involvement by employees. However, this article emphasizes in vivid empirical terms that efforts to "encourage" participative management may not be enough.

Most organizations conduct employee satisfaction surveys. I am not aware, however, of efforts to correlate results from these employee surveys to improved customer satisfaction, reduced medical errors, decreased employee stress, and increased employee retention. This study has taken intuitive employee hypotheses and effectively demonstrated their implications for key organizational outcomes (i.e., customer service, medical errors, burnout, and intention to quit) that are desirable, if not critical, in today's environment.

Many "autocratic" managers may not even realize how they are being perceived by their staff. "Participative" managers may have this leadership style primarily because of their own personality traits. In either case, I suspect that neither of the two styles has been addressed or developed by their organizations. This article demonstrates the benefits of having participative interaction with employees. If this management strategy is successful, employee perceptions (and, we hope, real practice as well) will help promote all aspects of productivity improvement and the overall success of the organization's mission.

Many healthcare organizations have actively engaged in various quality improvement initiatives (e.g., Six Sigma, Lean). For each of these quality tools to work, the desire to constantly improve must be instilled in the labor force. In my organization, we have decision support systems for our finance and other quantifiable processes. This article illustrates that having a system for culture management—an approach to providing employee support—has a significant impact on many desirable operational and clinical quality outcomes.

The authors readily admit that one of the limitations of their study is that it did not specifically investigate management practices that lead to employee perceptions of participation. Nevertheless, this study is an excellent step forward. I am optimistic that this effort will inspire healthcare executives to proactively pursue culture management, which supports participative leadership.