Employee Reactions to Managed Care

E. Jose Proenca

Employee reactions to managed care get less managerial and research attention than organizational reactions to it. This article examines the manner in which health services employees react to managed care and finds that their reaction affects perceived job insecurity, organizational commitment, and job satisfaction. Organization-based self-esteem, role conflict, and supervisory support moderate these relationships. The managerial implications of these findings are discussed.

Managed care, the philosophy used by health care purchasers to influence patient care decisions, costs, and quality, is becoming the predominant paradigm in health care delivery in the United States. HMO membership grew over 250 percent between 1983 and 1991 and the number of current enrollees exceeds 50 million. Between 1990 and 1994, Medicaid enrollees in managed care plans increased from 2.3 million to 7.8 million and Medicare enrollees grew by over a million. In 1996, enrollment in Medicaid managed care plans exceeded 50 percent among persons eligible for Aid to Families with Dependent Children (AFDC) and AFDC-related programs.

Managed care emphasizes assessment of the appropriateness of care prior to its provision, and the control of access to, type, and amount of care provided. It has created much turbulence in the health care environment. Inpatient days and discharges have declined dramatically, as has the average length of stay (LOS). Health services organizations are being held accountable for the health status of enrolled populations. Providers are increasingly expected to care for patients on a risk-sharing basis.

In the rush to adapt to the demands of managed care, managerial and research attention have focused primarily on organizational reactions to managed care. Health care organizations have reengineered processes, redesigned jobs, and restructured and downsized in an attempt to cut costs and increase productivity. Research studies have documented the emergence of alternative delivery settings; the use of practices such as precertification, case management, gatekeeping, provider profiling, and clinical pathways; and the formation of alliances and integrated networks to provide a continuum of care.

In contrast, very little is known about the manner in which health services employees react to managed care. Few, if any, studies have examined the impact of managed care on the employees of health care organizations. This is unfortunate, since employee perceptions of environmental forces can affect their attitudes, behaviors, and performance, all of which ultimately impact organizational effectiveness. An
environmental force that is perceived as a threat can cause stress, anxiety, and job insecurity among employees. Large-scale layoffs, such as the ones currently occurring in the health care industry, can make workers feel demoralized, suspicious, and helpless. Even layoff survivors are affected, frequently exhibiting job insecurity, anger, and guilt. Such reactions can lead to reduced organizational commitment, lack of trust, low intrinsic motivation, poor job satisfaction, and impaired performance among employees. Negative attitudes may also reduce employee commitment to organizational strategy, leading to a withholding of effort and impeding strategy implementation.

The research on which this article is based examines employee reactions to managed care. It seeks to determine if the manner in which managed care is perceived by health care workers is related to the level of job insecurity, job satisfaction, and organizational commitment that they experience. It conceptualizes and tests the mediating effect of job insecurity on the relationships between perception of managed care and employee commitment and satisfaction. Finally, it investigates the moderating effects of organization-based self-esteem, role conflict, and supervisory support on these relationships. Managerial implications for health services organizations are discussed.

THEORY AND HYPOTHESES

The theoretical model developed and tested in this study is based on the premise that the attitudes and behaviors of individuals are influenced by their perception and judgment of the environment. The model proposes that health services workers respond to an environmental issue, such as managed care, by categorizing it as an opportunity or a threat. Such categorization produces affective reactions and influences the level of job insecurity, job satisfaction, and organizational commitment experienced by these individuals. Job insecurity is posited to serve as a mediator in this model. Perception of managed care is related to job satisfaction, and organizational commitment indirectly through job insecurity. In other words, perception of managed care affects job insecurity which, in turn, affects satisfaction with the job and commitment to the organization. Furthermore, the model also proposes that these relationships are moderated by organization-based self-esteem and role conditions. Specifically, the strength of the relationships between perception of managed care and employee reactions to it depends upon the level of self-esteem, role conflict, and supervisory support. The relationships in the model are illustrated in Figure 1.

Support for the proposed relationships can be found in the literature. For instance, individuals who perceived environmental conditions as worsening were found to experience higher levels of job insecurity, which in turn led to lower job satisfaction, reduced organizational commitment, and greater psychological distress. People who labeled external events as opportunities exhibited lower anxiety, higher self-efficacy, and better performance than those who viewed them as threats. The model and hypotheses are developed in greater detail in the sections that follow. The perception and categorization of environmental issues such as managed care are discussed first, followed by the hypothesized effects of

FIGURE 1

A MODEL OF EMPLOYEE REACTIONS TO MANAGED CARE
such categorization on job insecurity, job satisfaction, and organizational commitment. Next, the role of job insecurity as a mediator is discussed and hypotheses are developed to test this mediating effect. Finally, a rationale for the moderating effects of self-esteem and role conditions is provided, leading to a hypothesis that will test for the presence of such effects.

Employee Perception of Managed Care

According to cognitive theory, individuals interpret and respond to environmental issues by first categorizing them on the basis of certain attributes. Categorization helps reduce the complexity of the environment and influences the way a person reacts and responds to environmental forces. For instance, once an issue is categorized, any subsequent information on it is perceived in conformity with category attributes. Ambiguous information about the issue is reconstructed in a category-consistent fashion. Missing information is inferred to fit category values. Dutton and Jackson suggest that environmental issues are most frequently categorized on a “threat–opportunity” continuum. Where an issue is placed on this continuum depends upon three attributes: (1) the degree to which it is seen as negative or positive, (2) the potential for loss or gain associated with it, and (3) the extent of control an individual has over it. An environmental event or change is perceived as an opportunity if it represents a potential gain, has a positive image, or is within the control of the individual. On the other hand, negative or uncontrollable issues that are likely to result in losses are perceived as threats. People categorize environmental issues according to their individualized schema or prior knowledge structures, and hence will differ in the degree of opportunity or threat they assign to a particular environmental issue.

Managed care has engendered cost containment activities such as service cutbacks, migration of inpatient services to outpatient settings, replacement of specialized, high-cost employees with multiskilled, less expensive ones, and “gatekeeper” oversight of specialist services. It has also led to practices like standardized treatment protocols, multidisciplinary teams, and information-driven performance evaluation. To some employees, such as those who provide primary care, who manage information systems, or who possess multiple skills, the activities associated with managed care are likely to represent a positive development. These employees will perceive managed care as an opportunity. To other employees, particularly those who work in inpatient settings or those with highly specialized skills, managed care may lead to reduced control, prestige, and income. Such individuals will perceive managed care as a threat. Some workers, of course, may see managed care as neither an opportunity nor a threat, placing it in the middle of the continuum.

Employee Reactions to Managed Care

Categorization of environmental issues produces affective reactions. The perception of threats in the environment can raise the level of job insecurity and lower the level of job satisfaction and organizational commitment felt by employees. People strive for control and predictability in their lives. According to Schein, employees form implicit agreements with their employer organizations that specify what each party expects to give to and receive from the other. Such psychological contracts with employers provide employees with a sense of control and stability. Environmental forces that jeopardize this sense of control induce strong feelings of job insecurity among employees.

Job insecurity is the perceived powerlessness to maintain desired continuity in a job situation. The level of job insecurity experienced by an employee is a function of how severe the anticipated job discontinuity is and how powerless he or she is to prevent it. Severity is determined by scope and probability of occurrence. The break in continuity expected by the individual could be permanent or temporary, and could encompass the entire job or just some of its valued features. Discontinuity in the total job could occur through termination, temporary layoff, demotion to another job, or reduction of work hours. Discontinued features may include autonomy, peer relations, customer contacts, and career advancement. Employees who categorize an environmental issue, such as managed care, as a negative, loss-producing, uncontrollable event are more likely to expect a violation of their psychological contract than those who see it in a positive light. They will experience a higher level of job insecurity.

Threatening conditions in the environment affect employee attitudes as well. Jackson and Dutton suggest that the perception of opportunities in the environment is associated with feelings of autonomy and personal competence while the perception of threats is associated with feelings of being con-
strained by others, of low personal competence, and of a lack of personal control.\textsuperscript{30} The demands of managed care are creating new priorities in health care organizations and certain roles that were considered critical in the fee-for-service environment are in less demand now. Employees who see managed care as a threat are likely to feel that their jobs are being rendered obsolete or superfluous by its low-cost, primary care orientation. They will perceive a poorer fit between what they do and what the organization values than employees who see managed care as an opportunity. Individuals who have perceptions of high person–organization fit experience more positive and less negative affect, and have more positive job attitudes.\textsuperscript{31,32} Individuals who perceive a poor fit experience lower job satisfaction and organizational commitment.\textsuperscript{33} Thus, employees who see managed care as a threat will have lower levels of job satisfaction and organizational commitment.

On the basis of the preceding discussion, it may be hypothesized that:

\textit{Hypothesis 1: Health services employees who perceive managed care as more of a threat than an opportunity will experience higher levels of job insecurity, and lower levels of job satisfaction and organizational commitment.}

The Mediating Effect of Job Insecurity

Baron and Kenny describe a mediator variable as “the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest”\textsuperscript{34,p.1173} and suggest that “mediators explain how external physical events take on internal psychological significance.”\textsuperscript{34,p.1176} They note that a variable acts as a mediator to the extent that it accounts for the relationship between a predictor and the criterion of interest. The model in this study proposes that perceptions of managed care influence employee attitudes through an intervening mediator, which is job insecurity. According to Baron and Kenny, a mediating effect exists when the following conditions are met: (1) the independent variable is significantly related to the presumed mediator variable, (2) the independent variable is significantly related to the dependent variable, (3) the mediator variable is significantly related to the dependent variable, and (4) a previously significant relationship between the independent and dependent variables is no longer significant when the mediator is controlled.\textsuperscript{34}

The previous section addressed the first two of the four conditions necessary to demonstrate the mediating effect of job insecurity in the relationship between employees’ perception of managed care and their level of job satisfaction and organizational commitment. Hypothesis 1 will test if the independent variable, perception of managed care, is significantly related to the mediator variable, job insecurity (condition 1). It will also test if perception of managed care is significantly related to the dependent variables, job satisfaction and organizational commitment (condition 2). The rest of this section addresses conditions 3 and 4.

When employees enter into a psychological contract with their employers, they exchange their effort, time, and loyalty for rewards and stable employment. A sense of affective and attitudinal attachment to the organization develops when employees perceive this exchange to be equitable.\textsuperscript{35} Employees who are attached to the organization exhibit high levels of commitment, satisfaction, and trust.\textsuperscript{36} Feelings of job insecurity can reduce employee attachment to the organization. Employees who perceive important job features or even the job itself to be at risk are likely to feel that the organization is abrogating the psychological contract.\textsuperscript{14} Social exchange theory suggests that in such situations employees reduce their commitment to the contract as well, thereby becoming less attached to the organization.\textsuperscript{37} As attachment decreases, so does organizational commitment.

The reduced organizational attachment associated with job insecurity can also be expected to lower the level of job satisfaction felt by employees. Job satisfaction is an affective response to job features.\textsuperscript{38} The perceived presence of valued features enhances the degree of job satisfaction.\textsuperscript{39} Since job insecurity reflects an inability to retain important job features, it is likely to result in lower job satisfaction among employees. It can therefore be hypothesized that there will be negative relationships between job insecurity and job satisfaction, and between job insecurity and organizational commitment. This hypothesis, which is stated below, will test the third condition necessary to demonstrate the mediating effect of job insecurity.

\textit{Hypothesis 2: Health services employees who experience higher levels of job insecurity will exhibit lower job satisfaction and lower organizational commitment.}

According to Reynolds, employees’ perceptions of the environment are related to their attitudes indirectly, whereby the perceived event is associated with changes in job conditions or employment status, and these mediating changes result in changes in atti-
Moderators always function as independent variables, whereas mediators shift roles from effects to causes depending on the focus of the analysis. A variable is considered to be a moderator if the relationship between two other variables is a function of the level of the moderator variable. In the proposed model, the relations between employees’ perception of managed care and their reactions to it are deemed to be contingent upon the level of self-esteem, role conflict, and supervisory support. Specifically, the level of self-esteem felt by employees will determine the extent to which variation in the perception of managed care is associated with variation in job insecurity. As well, the level of self-esteem, role conflict, and supervisory support experienced by employees will determine the degree to which job insecurity affects job satisfaction and organizational commitment. The test for moderation is based on the fact that the moderator interacts with the independent variable to have an impact on the level of the dependent variable. A moderation effect exists when this interaction is significant. Hypotheses to test these effects are developed next.

Individual reaction to environmental forces varies as a function of organization-based self-esteem. Self-esteem is the degree to which employees perceive themselves to be important, meaningful, effective, and worthwhile members of the employing organization. It reflects a sense of self-perceived value and competence that is derived from the individual’s role within the organization. Employees with high self-esteem believe they are capable of satisfying their needs through their organizational roles. When environmental conditions are threatening, employees with low self-esteem suffer more than their high self-esteem counterparts. Brockner suggests that people with low self-esteem are more behaviorally plastic than those with high self-esteem. They pay more attention to external cues, are more responsive to environmental forces, and are more affected by them in terms of attitudes and behaviors. Brockner also notes that low self-esteem employees experience more externally induced uncertainty and allow negative events in one area to generalize to other domains of their job.

According to Ganster and Schaubroeck, not only are low self-esteem employees more susceptible to stressors, such as the threat of managed care, than high self-esteem employees, but they are also more passive in coping with these stressors. Compared to individuals with high self-esteem, those with low self-esteem react more strongly to negative cues in the environment and take fewer constructive actions to
mitigate their effects. Among employees who perceive managed care to be a threat, those with low self-esteem are more likely to feel anxious about it and associate it with a potential discontinuity in their job or its features. They are more likely than their high self-esteem peers to translate the negative press on managed care to their own job context. High levels of self-esteem, on the other hand, act as buffers against poor environmental conditions. Thus self-esteem can be expected to moderate the relationship between employees' perception of managed care and their level of job insecurity.

Hypothesis 4: Self-esteem will moderate the relationship between perception of managed care and job insecurity: Low self-esteem employees will react more negatively than high self-esteem employees to the perception that managed care is a threat, with higher job insecurity as the outcome.

The uncertainty associated with their continued role in the organization produces stress and anxiety in employees with high job insecurity. According to Schuler, ability allows individuals to cope with job-related stressors and moderates the effect of such stressors on employee responses. The feelings of competence and personal worth associated with self-esteem are likely to have a similar buffering effect on stressors. Pierce, Gardner, Dunham, and Cummings found that self-esteem moderated the effects of ambiguity and overload on employee satisfaction. It is likely that self-esteem will also moderate the relationship between job insecurity and the organizational commitment and job satisfaction of employees. Given their higher reactivity to negative cues and their greater passivity about changing them, low self-esteem employees are likely to respond more negatively to job insecurity than high self-esteem employees, exhibiting lower levels of commitment and satisfaction.

Role conditions, such as role conflict and supervisory support, affect the level of anxiety and uncertainty in employees. Role conflict occurs when individuals play two or more organizational roles simultaneously, with the performance of one precluding the performance of others. Health services employees often experience conflicts between their clinical role as patient advocate and their organizational role of cost containment. Conflicting role requirements increase the level of uncertainty and reduce the sense of control felt by employees. High role conflict also creates anxiety and stress, exacerbating the effects of job insecurity and leading to a further reduction in organizational commitment and job satisfaction among insecure employees.

Supervisory support occurs through supervisor behaviors that provide goal clarity, work facilitation, personal support, role support, and protection. Such behaviors provide employees with a sense of direction and empowerment that can mitigate the sense of helplessness associated with job discontinuities. Supportive supervisors can help employees to better understand the impact of managed care on their jobs and to prepare for any negative consequences. They can also prevent rumors and speculation about managed care from having adverse effects on employee attitudes. Employees who perceive a high level of supervisory support are more likely to believe that they will be protected from job-related losses. Social exchange theory suggests that employee inferences about strong supervisory support will contribute to their own attachment to the organization. Such attachments will help maintain high levels of organizational commitment and job satisfaction. While a supportive supervisor can buffer employees against the negative effects of job insecurity, a nonsupportive supervisor can do the opposite by increasing employee stress, anxiety, and powerlessness.

Hypothesis 5: Self-esteem, role conflict, and supervisory support will moderate the relationships that job insecurity has with job satisfaction and organizational commitment: Employees who experience low self-esteem, high role conflict, and low supervisory support will react more negatively to job insecurity, with lower satisfaction and commitment as the outcome.

METHODS

Data

Data to test the hypotheses were collected through a survey of employees from five hospitals in a large metropolitan area in the northeastern United States. Four of the hospitals provided general medical and surgical services and one specialized in children's services. Three hundred (300) questionnaires were distributed, of which 198 were returned and 182 were complete in all respects. Seventy percent of the respondents had direct patient care jobs while the rest did administrative work. The former group included nurses, dietitians, laboratory and radiology technicians, and other clinical occupations. The respondents had, on average, 6.4 years of organizational tenure...
and 14 years of work experience. Eighty-eight percent (88%) had 2 or more years of college education.

**Measures**

**Perception of Managed Care**

A 5-item measure assessed employee perception of managed care (e.g., “To what extent is managed care a threat or opportunity to your department?”). Respondents indicated, on a 5-point scale ranging from 1 “major opportunity” to 5 “major threat,” the degree of opportunity or threat they associated with managed care. Perception of managed care was calculated as the mean of the five item scores, with a higher mean score signifying that managed care was more of a threat than an opportunity. Coefficient alpha for this measure was .78.

**Job Insecurity**

Job insecurity was assessed with a measure developed by Ashford, Lee, and Bobko. Their measure recognizes that job insecurity is a function of the potential loss of the job itself, the potential loss of important job features, and powerlessness to prevent the loss. Accordingly, it has three subscales to assess the three components. Responses to these three subscales are combined multiplicatively to arrive at a measure of job insecurity. Potential loss of the job itself was measured through a 6-item subscale that asked about the likelihood of changes affecting the total job (e.g., “How likely is it that you may lose your job?”). Potential loss of valued job features was measured as the product of (1) the importance of specific job features, and (2) the likelihood that these features will change for the worse. An 8-item subscale with job features like autonomy, scheduling freedom, and co-worker relations was used. Responses on both subscales ranged from 1, “very unlikely,” to 5, “very likely.” On the second subscale, responses for importance of job features ranged from 1, “no importance,” to 4, “great importance.”

Powerlessness was measured through a 5-item subscale using response formats ranging from 1 “strongly agree” to 5 “strongly disagree.” A sample item is “I understand this organization well enough to control things that affect me or my job.” Coefficient alphas for the total job, job feature, and powerlessness subscales were .85, .83, and .73, respectively. Job insecurity scores were computed by multiplying the powerlessness score with the sum of scores on the other two subscales.

**Self-Esteem**

Self-esteem was measured with a 10-item instrument developed by Pierce, Gardner, Cummings, and Dunham. Respondents were asked to indicate, on a 5-point scale, the degree to which they agreed or disagreed with items such as “I feel I can make a difference in my organization” and “I am taken seriously in this organization.” The self-esteem score was calculated as the mean of the 10 items. Coefficient alpha for self-esteem was .85.

**Role Conditions: Role Conflict and Supervisory Support**

Subscales from the Michigan Assessment of Organizations survey were used to assess role conflict and supervisory support. Two items measured role conflict (e.g., “To satisfy some people on my job, I have to upset others”). A 6-item subscale on personal support, goal clarity, work facilitation, and other supervisory behaviors was used to measure supervisory support (e.g., “My supervisor would protect my interests in this firm”). Both measures used a 5-point response format ranging from 1, “strongly disagree,” to 5, “strongly agree.” Coefficient alphas for role conflict and supervisory support were .75 and .88, respectively.

**Organizational Commitment**

The 9-item Organizational Commitment Questionnaire developed by Mowday, Steers, and Porter was used to measure commitment (e.g., “I am willing to put in effort beyond that normally expected in order to help this organization be successful”). The 7-point response format ranged from “strongly disagree” to “strongly agree.” Coefficient alpha was .90.

**Job Satisfaction**

The 5-item satisfaction scale of the Job Diagnostic Survey was used to measure job satisfaction (e.g., “Generally speaking, I am very satisfied with this job”). The response format ranged from 1, “strongly disagree” to 7, “strongly agree.” Coefficient alpha was .77.

**RESULTS**

Table 1 lists the means, standard deviations, and correlations of the study variables. The respondents were just as likely to perceive managed care as an opportunity as they were to perceive it as a threat. On average, they reported a low level of job insecurity.
and fairly high levels of organizational commitment, self-esteem, and supervisory support. Regression analyses were performed to test the relationships between employee perception of managed care and their levels of job insecurity, job satisfaction, and organizational commitment (Hypothesis 1). The results are presented in Table 2 and indicate that Hypothesis 1 was supported. The degree to which managed care was perceived as more of a threat than an opportunity had a significant positive relationship with job insecurity (p < .01), and significant negative relationships with job satisfaction (p < .05) and organizational commitment (p < .05). Employees who perceived managed care as a threat felt more insecure in their jobs and experienced lower levels of job satisfaction and organizational commitment than employees who perceived it as an opportunity.

Hierarchical multiple regression analyses were performed to test for the mediating effect of job insecurity on the relationships between perception of managed care and the levels of job satisfaction and organizational commitment than employees who perceived it as an opportunity.

Employees who perceived managed care as a threat felt more insecure in their jobs and experienced lower levels of job satisfaction and organizational commitment than employees who perceived it as an opportunity.

### TABLE 1

**DESCRIPTIVE STATISTICS AND CORRELATIONS**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Means</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>1. Perception of managed care</td>
<td>3.46</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Job insecurity</td>
<td>48.43</td>
<td>19.13</td>
<td>.45**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>3. Organizational commitment</td>
<td>4.86</td>
<td>1.25</td>
<td>−.15*</td>
<td>.48**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Job satisfaction</td>
<td>4.62</td>
<td>1.24</td>
<td>−.15*</td>
<td>.45**</td>
<td>.62**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Self-esteem</td>
<td>3.89</td>
<td>0.50</td>
<td>−.14*</td>
<td>−.40**</td>
<td>.44**</td>
<td>.47**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Role conflict</td>
<td>3.35</td>
<td>0.96</td>
<td>.12</td>
<td>.10</td>
<td>−.15*</td>
<td>−.16*</td>
<td>−.03</td>
<td></td>
</tr>
<tr>
<td>7. Supervisory support</td>
<td>3.73</td>
<td>0.78</td>
<td>−.23**</td>
<td>−.46**</td>
<td>.54**</td>
<td>.49**</td>
<td>.47**</td>
<td>−.05</td>
</tr>
</tbody>
</table>

*p < .05  
**p < .01

### TABLE 2

**RESULTS OF REGRESSION ANALYSES: RELATIONSHIPS BETWEEN PERCEPTION OF MANAGED CARE AND JOB INSECURITY, JOB SATISFACTION, AND ORGANIZATIONAL COMMITMENT**

<table>
<thead>
<tr>
<th>Criterion/Predictor</th>
<th>β</th>
<th>R²</th>
<th>F</th>
</tr>
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<tr>
<td>Job insecurity</td>
<td></td>
<td></td>
<td>46.51**</td>
</tr>
<tr>
<td>Perception of managed care as a threat</td>
<td>.45**</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Job satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of managed care as a threat</td>
<td>−.15*</td>
<td>.02</td>
<td>4.14*</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of managed care as a threat</td>
<td>−.15*</td>
<td>.02</td>
<td>4.04*</td>
</tr>
</tbody>
</table>

*p < .05  
**p < .01
organizational commitment in employees. According to Baron and Kenny, three regression equations must be estimated to test for mediation. The first equation has to show that the independent variable (i.e., perception of managed care) is related to the mediating variable (i.e., job insecurity). As indicated in Table 2, perception of managed care was significantly related to job insecurity \((p < .01)\). Thus, the first requirement for mediation was supported. The second equation must demonstrate that the independent variable (perception of managed care) is related to the dependent variables (job satisfaction and organizational commitment). This requirement was also supported. As shown in Table 2, perception of managed care was significantly related to both job satisfaction \((p < .05)\) and organizational commitment \((p < .05)\).

Finally, the dependent variables (job satisfaction and organizational commitment) must be regressed on both the independent variable (perception of managed care) and the mediating variable (job insecurity). Mediation is demonstrated if the presumed mediator is related to the dependent variables when these variables are regressed on both the independent variable and the mediating variable. Furthermore, if job insecurity mediates the relationships between perception of managed care and the levels of job satisfaction and organizational commitment, then these relationships must diminish or disappear when job insecurity is held constant.

Table 3 presents the results of the two hierarchical regression analyses in which job satisfaction and organizational commitment were regressed on job insecurity (entered in the first step) and perception of managed care (entered in the second step). First, the results indicate that job insecurity was significantly and negatively related to both job satisfaction \((p < .01)\) and organizational commitment \((p < .01)\). These findings support Hypothesis 2. Second, with job insecurity in the model, the relationships between perception of managed care and the levels of job satisfaction and organizational commitment were no longer significant. Whereas in the second regression equation (Table 2) the standardized coefficients for perception of managed care were significant for both job satisfaction (beta = \(-.15\), \(p < .05\)) and organizational commitment (beta = \(-.15\), \(p < .05\)), these coefficients attenuated to nonsignificant levels when job insecurity was controlled in the third equation (Table 3). These findings support Hypothesis 3. In sum, these results support the hypothesis that job insecurity mediates the effect of employee perception of managed care on job satisfaction and organizational commitment.

Moderated hierarchical regression analysis was used to test the extent to which self-esteem moderates the relationship between perception of managed care and job insecurity (Hypothesis 4). Job insecurity was the dependent variable. Perception of managed care was entered first into the regression, followed by self-esteem, and then the interaction term between managed care perception and self-esteem. It is advisable to control for main effects before testing for interaction effects. Moderation is indicated when there is a significant change in \(R^2\) between the main and interaction effects. The regression results are shown in Table 4. First, perception of managed care explained a significant amount of the variance in job insecurity \((R^2 = .2376^{**})\) and organizational commitment \((R^2 = .2898^{**})\).

### Table 3

<table>
<thead>
<tr>
<th>Criterion/Predictor</th>
<th>(\beta)</th>
<th>(\Delta R^2)</th>
<th>(F) (Final)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job insecurity</td>
<td>(-.49^{**})</td>
<td>.21**</td>
<td>23.76**</td>
</tr>
<tr>
<td>Perception of managed care as a threat</td>
<td>.08</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Organizational commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job insecurity</td>
<td>(-.53^{**})</td>
<td>.24**</td>
<td>28.98**</td>
</tr>
<tr>
<td>Perception of managed care as a threat</td>
<td>.09</td>
<td>.01</td>
<td></td>
</tr>
</tbody>
</table>

\(^{*}p < .05\)

\(^{**}p < .01\)
At the second level of entry, self-esteem explained a significant amount of incremental variance in job insecurity (change in $R^2 = .11, p < .01$). Finally, the interaction term explained a significant amount of additional variance in job insecurity (change in $R^2 = .02, p < .05$), indicating that self-esteem had a moderating effect on the relationship between perception of managed care and job insecurity. These results support Hypothesis 4. The coefficient of the interaction term was negative and significant, indicating that among employees who perceive managed care as a threat, high levels of organization-based self-esteem were associated with lower levels of job insecurity. High self-esteem employees felt less job insecurity from the threat of managed care than did low self-esteem employees.

The moderating effects of self-esteem, role conflict, and supervisory support on the relationship between job insecurity and job satisfaction and on the relationship between job insecurity and organizational commitment were also tested with moderated hierarchical regression analyses. Satisfaction and commitment were the dependent variables. In each equation, job insecurity was entered in the first step, followed by self-esteem, role conflict, and supervisory support in the second step, and the cross-products of job insecurity with each of the other independent variables in the third step. Table 4 presents the regression results. Job insecurity accounted for a significant level of variance in job satisfaction ($R^2 = .20, p < .01$) and organizational commitment ($R^2 = .23, p < .01$). The variables entered at the second level explained a significant amount of incremental variance in job satisfaction (change in $R^2 = .16, p < .01$) and organizational commitment (change in $R^2 = .15, p < .01$).

Finally, there was a significant change in $R^2$ between the main and interaction effects for both job satisfaction (change in $R^2 = .03, p < .05$) and organiza-

### Table 4

**RESULTS OF MODERATED REGRESSION ANALYSES: THE MODERATING EFFECTS OF SELF-ESTEEM, ROLE CONFLICT AND SUPERVISORY SUPPORT**

<table>
<thead>
<tr>
<th>Step</th>
<th>Criterion/Predictor</th>
<th>$\beta$</th>
<th>$\Delta R^2$</th>
<th>$R^2$</th>
<th>F (Final)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Job insecurity</td>
<td></td>
<td></td>
<td></td>
<td>30.59**</td>
</tr>
<tr>
<td>2</td>
<td>Perception of managed care as a threat</td>
<td>.47**</td>
<td>.22**</td>
<td>.22**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Self-esteem</td>
<td>-.34**</td>
<td>.11**</td>
<td>.33**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Managed care x self-esteem</td>
<td>-1.14*</td>
<td>.02*</td>
<td>.35**</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Job satisfaction</td>
<td>-.45**</td>
<td>.20**</td>
<td>.20**</td>
<td>15.72**</td>
</tr>
<tr>
<td>2</td>
<td>Self-esteem</td>
<td>.25**</td>
<td>.16**</td>
<td>.36**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Role conflict</td>
<td>-.12*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Supervisory support</td>
<td>.26**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Job insecurity x self-esteem</td>
<td>.14</td>
<td>.03*</td>
<td>.39**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Job insecurity x role conflict</td>
<td>-.62*</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Job insecurity x supervisory support</td>
<td>.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Organizational commitment</td>
<td>-.48**</td>
<td>.23**</td>
<td>.23**</td>
<td>17.39**</td>
</tr>
<tr>
<td>2</td>
<td>Self-esteem</td>
<td>.18**</td>
<td>.15**</td>
<td>.38**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Role conflict</td>
<td>-.10*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Supervisory support</td>
<td>.32**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Job insecurity x self-esteem</td>
<td>-.18</td>
<td>.04*</td>
<td>.42**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Job insecurity x role conflict</td>
<td>-.05</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Job insecurity x supervisory support</td>
<td>.71**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .10

*p < .01

**p < .05
tional commitment (change in $R^2 = .04, p < .05$). The interaction between role conflict and job insecurity was significant, indicating that role conflict moderated the relationship between job insecurity and job satisfaction. The negative interaction term suggests that insecure employees who experienced high role conflict felt less satisfied with their jobs than insecure employees who experienced lower levels of role conflict. Supervisory support moderated the relationship between job insecurity and organizational commitment, as indicated by the significant interaction of job insecurity and supervisory support. The positive interaction term implies that insecure employees who perceived high levels of supervisory support were more committed to the organization than insecure employees who experienced lower levels of support. These results provide partial support for Hypothesis 5.

**DISCUSSION**

The findings of this study support the premise that health services employees react to managed care in ways that can ultimately impact organizational effectiveness. They indicate that some employees perceive managed care as a threat while others see it as an opportunity. The manner in which managed care is categorized influences the level of job satisfaction and organizational commitment felt by employees. Those who perceive managed care as a threat experience lower job satisfaction and commitment to the organization than others who see it as an opportunity. Employee reactions to managed care stem from their concerns about the fulfillment of the implicit psychological contract with employing organizations. Managed care has garnered much negative publicity and the recent cutbacks in services and personnel have been attributed to it. These events give rise to feelings of diminished personal competence and control, causing employees to doubt their fit with and value to the organization. Such feelings reduce job satisfaction and organizational commitment.

This research also supports the contention that the relationship between perception of managed care and employee attitudes is mediated by job insecurity. Employees who perceive managed care as a threat experience a higher level of job insecurity, which in turn leads to lower job satisfaction and organizational commitment. The negative cues associated with managed care arouse suspicions of possible contract violation by employers and lead employees to anticipate a loss of job continuity. Employees who experience job insecurity and uncertainty regarding their future role in the organization develop stress and anxiety, and call into question any affective attachments they have to the organization. They decide that they can no longer be committed to an organization that is likely to either take away their job or cut back some of its valued features. Such stress and the potential loss of important job characteristics also produce dissatisfaction with the job.

Finally, this study upholds, to some extent, the notion that employee reactions to managed care are moderated by individual and organizational characteristics. The results suggest that reactions to managed care are moderated by the level of organization-based self-esteem, role conflict, and supervisory support experienced by employees. Organization-based self-esteem buffers employees from the perceived threat of managed care, resulting in less job insecurity. High levels of self-esteem reduce employee perception of negative cues, make them feel less susceptible to environmental threats, and deter the passive acceptance of negative consequences. Self-esteem does not, however, seem to protect employees from the anxiety and negative affect that results from job insecurity. There was no support for the hypothesized moderation by self-esteem of the relations between job insecurity and job satisfaction or organizational commitment. It appears that the feelings of self-worth and competence associated with self-esteem, while making employees feel less vulnerable to external events, cannot help them deal with the disappointment and stress of pending discontinuity in the job.

Some support is found for the premise that employee reactions to managed care are moderated by organizational practices. Organizational practices create work role conditions that can moderate the effects of job insecurity. The results indicate that role conflict exacerbates the negative effect of job insecurity on job satisfaction but not its effect on organizational commitment. Insecure employees experience even less job satisfaction, but not lower commitment, when role conflict is high. This selective moderating effect may be attributed to the fact that role conflict increases job-related stress and uncertainty, a condition that affects employees’ job satisfaction more than it does their commitment. This study also found that supervisory support reduces the negative effects associated with job insecurity. In this case, the relationship of job insecurity with organizational commitment is moderated but not its relationship with job satisfaction. In the
presence of high supervisory support, insecure employees exhibit greater commitment, but not higher satisfaction, than they would have done otherwise. When supervisors provide personal and role support, set clear goals, and facilitate work performance, employees gain a better understanding of their own role in the organization and believe that it will be protected. When supervisors show concern for worker interests, workers reciprocate through greater commitment to the organization. It appears that this feeling of reciprocity influences organizational commitment more than it does job satisfaction.

CONCLUSION

This study fills an important gap in the research on the effects of managed care. It contributes to our understanding of how employees in health services organizations react to managed care. It also confirms that reactions to environmental forces, such as managed care, occur not only at the macro or organizational level but even at the micro or individual level. The findings of this research indicate that it is just as important to focus on employee responses to managed care as it is to study organizational responses to it. Employee reactions such as job insecurity, commitment, and satisfaction can influence the success of patient-centered teams, collaborative networks, and other organization-level responses to managed care. Future research should take a longitudinal approach to capture the dynamic nature of employee reactions. It should also use objective measures of the independent variables to counter the common method variance that may arise from self-report measures.

This research has important managerial implications. Its findings suggest that health services managers should pay attention to the manner in which their employees perceive and react to environmental forces such as managed care. Workers who perceive managed care as a threat will experience a higher level of job insecurity that in turn leads to lower job satisfaction and organizational commitment. Managers can influence this chain of events in many ways. First, they must focus on employee perceptions of managed care. The perception of managed care as a threat stems from the mostly negative coverage it has received in the media, from the fear and concerns being voiced by professional associations, and from rumors of cutbacks among health care organizations. Managers can reduce the perceived threat by portraying managed care in a positive light, by educating employees on the opportunities associated with managed care, and by promoting an open and honest discussion of its implications to the organization.

Second, managers must intervene to prevent job insecurity among employees who perceive managed care as a threat. They can reduce the uncertainty and helplessness that leads to job insecurity by helping employees cope with the job changes and cutbacks arising from managed care. This may be achieved by providing employees with new skills, job enrichment, alternative career paths, stress management programs, and career counselling. By enhancing employees’ self-esteem, managers can help them deal with the negative consequences of managed care. Finally, management must act to limit the decline in job satisfaction and organizational commitment that occurs among insecure employees. Managers can create working conditions that attenuate the effects of job insecurity on employee attitudes. Improved job design can eliminate role conflict and reduce dissatisfaction among insecure employees. Mentor programs and supervisory support can reduce the stress and uncertainty felt by insecure employees. Supervisors can be more supportive by setting clearly defined goals, by helping employees cope with work-related problems, by showing a concern for employee needs and interests, and by encouraging employee participation in decisions that affect them. Employees feel more committed when they know that the organization cares about their well-being and is itself committed to facilitating their transition to managed care. In summary, skillful management of employee reactions to managed care can enhance the effectiveness with which health services organizations adapt to it.

REFERENCES


