Relationship between Portrayals of VA Hospitals in the Media, and Employee and Patient Satisfaction: An Exploratory Analysis

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Abstract

We examined the relationship between public perception of the VA hospitals as reflected in the media, and employee and patient data associated with these hospitals. The media data consisted of daily briefings of VA news coverage for the year 2006. Using the grounded theory method, we developed categories for coding the articles. Once finalized, the categories included the scope, valence, informativeness, format, and content of the media coverage. Each specific VA hospital was assigned a value (e.g. high, medium, low) on each of the media coverage categories. Several significant relationships in the expected direction were found between these data and employee satisfaction and patient satisfaction data for the specific VA hospitals, independently collected through annual VA surveys of employees and patients.

Key Words:
Public perception, media, healthcare, VA hospitals

1. Introduction and Background

Mass media has an important, but complex, relationship with healthcare (Parrot, 1996). On one hand, it represents an important source of information about public health issues (Chapman, 1995; Flay, 1987; Flinn, 1988; Simpkins, 1984). As demonstrated by a meta-analysis of 20 studies (Grilli, Ramsay, and Minozzi, 2002), mass media has an impact on health care utilization through both planned and unplanned news coverage. More specifically, mass media helps promote health initiatives (Flay, 1987), healthcare trends (Flinn, 1988), and encourages individuals to seek medical care (Flinn, 1988; Humiston et. al., 2009; Parrot, 1996). On the other hand, mass media has been criticized for providing the public with inaccurate or incomplete information (Angell and Kassirer, 1994; Ettinger, Grady, Tosteson, Pressman, & Macer, 2003; Moynihan et. al.. 2000), and such information has been shown to affect consumer decisions about health treatments (e.g. Ettinger, Grady, Tosteson, Pressman, & Macer, 2003).

In this study, we expect employees and patients of Veterans Health Administration

(VHA) hospitals would be particularly aware of and influenced by the media's portrayal of their VHA facilities. This expectation was based on a consideration that, in terms of media consumer characteristics, community integration is an important factor in news consumption. This is true both generally for media coverage and specifically for media coverage of healthcare: for example, in previous research, community integration has been linked with increased exposure and recall of health messages (Viswanath, Steele, & Finnegan, 2006).

With respect to the present study, we presume a greater relevance of information about VA hospitals to VHA employees who work there, and to patients who use the local hospital services, than to community residents in general. This greater relevance defines employees and patients of VA hospitals as a distinct and particularly interested audience of consumers of media coverage related to these hospitals.

To our knowledge, no one has systematically examined the relationship between the amount and quality of media exposure received by particular hospitals and patient and employee perceptions of these hospitals' characteristics. The current study sought to address this gap by comparing media portrayals of VA hospitals to employee and patient ratings of quality of care and aspects of the healthcare environment. We examined the nationwide sample of medical centers, all within the same larger organization—Veterans Health Administration (VHA), in the year 2006.

Beyond presenting a conceptual interest for understanding the relationship between mass media coverage of healthcare organizations and perceptions of those organizations by the insiders (employees and patients), the topic of the current study is also of operational interest to the VHA. This is because employee and patient overall satisfaction with the hospitals where they work, as well as their endorsement of particular organizational climate characteristics that VHA strives to support, are seen as important performance metrics for medical centers in the VHA system. This directs our interest in exploring the public perception context of these variables as reflected in the media—that is, an interest in further understanding which aspects of media portrayals of VA hospitals may influence, or be influenced by employee and patient perceptions of the organizational environment and quality of care at VA hospitals. In previous work, employee perceptions of VHA workplace have been found to be related both to patient satisfaction with healthcare received at the hospitals, and to a number of other organizational outcomes for VA hospitals (Moore, Osatuke, & Howe, 2008; Mohr, Meterko, Charns, Dyrenforth & Osatuke, 2007; Mohr, Warren, Hodgson, Osatuke, Ward & Dyrenforth, 2007; Nagy, Warren, Osatuke & Dyrenforth, 2007; Osatuke & Dyrenforth, 2006).

2. Design and Method

2.1. Design of This Study
This study explored the relationship between three perspectives on VHA hospitals that came from mass media coverage, employees of these hospitals, and patients who receive clinical care at the hospitals. Our access to these three perspectives was provided,

respectively, by three different independently collected sources: (a) briefings of VA news coverage for year 2006 compiled daily from public press by the Office of Public and Intergovernmental Affairs; (b) 2006 All Employee Survey (AES): a census survey conducted annually by VHA; (c) sampling-based annual Survey of Patients Healthcare Experiences (SHEP) for 2006. Each dataset was aggregated to the hospital level; the datasets were then joined together for correlational analyses.

2.2. Process of Collecting and Comparing the Data

The media dataset was developed using a full set of the daily compiled news articles from March to August 2006 that pertained to specific VHA hospitals. Media coding categories were first developed, based on the grounded theory method (Glaser & Strauss, 1967; Glaser, 1978; Charmaz, 1983; Corbin & Strauss, 1990). This approach is based on the assumption that an optimal way of generating a complex theory that is close to the data is by going through a process of constant comparison between specific observations, and theoretical statements about them. In this process, the emerging categories are compared to observations, to check their fit; new categories are added; and the process is repeated until new observations no longer suggest new categories. Constant comparison has been used successfully in content analysis of media by several other researchers (Benoit & McHale, 2003; Fairhurst, 1993; Lange, 1993).

The categories that we derived using the grounded theory method were used to code all of the media articles available in the set. That is, each hospital specifically referenced in each media article within the examined period was assigned a value of each of the coded categories. Relationships were then examined between hospital scores on the media categories, and two other data sets, the AES and SHEP, containing, respectively, employees' and patients' ratings of various aspects of organizational environment of these hospitals.

2.3. Media Coverage Data from News Briefings on VHA Hospitals

Once finalized, the broad categories of the media coverage included:
1. Number of articles for hospital within the examined period.
2. Scope: national or local.
3. Format: TV, journal, magazine, web.
4. Valence: positive perspective, negative, neutral, or balanced positive and negative
5. Informativeness: direct information from a knowledgeable source, mixed (information + opinion), or editorial opinion.
6. Source: VA, or non-VA source.
7. Content: for example, research conducted at the hospital; community outreach; health care and performance; Iraq War.

2.4. Employee Data from VHA All Employee Survey

The AES, which contains ratings of satisfaction and workplace climate from employees from each VA hospital, was the first dataset that we compared to the media data. The AES consists of 3 parts.

The first part, the Job Satisfaction Index (JSI), includes ratings of satisfaction with: the

type of work, amount of work, pay, relationships with coworkers, quality of direct supervision, quality of senior managers, number of opportunities for promotion, working conditions, praise, the quality of work the respondent provides to the organization, current overall level of satisfaction with the job, overall level of satisfaction compared to two years ago, and perceived customer satisfaction. Examples of the item wording are: "Compared to what you think it should be, how satisfied are you with the type of work that you currently do?" or, "Compared to what you think it should be, how satisfied do you think the customers of your organization are with the products and services it provides?" These items are rated on a 5-point scale, from 1("Not At All Satisfied") to 5 ("Very Satisfied"). In this study, we examined the correlations of each of these aspects of job satisfaction to the hospitals' scores on the media categories.

The second part, the Organizational Assessment Index, contains 31 statements that name desirable characteristics of the respondents' immediate workplace ("this workgroup" or "my workgroup"): e.g., "It is safe to take a risk in this workgroup"; or "Members of my workgroup are able to bring up problems and tough issues". Respondents are asked to rate agreement with these descriptions on a 5-point scale, from 1 ("Strongly Disagree") to 5 ("Strongly Agree"), with the "Don't Know" option available. In this study, we focused on examining the OAI ratings of the two items named above, the rating of the item "If I were able, I would leave my current job because I am dissatisfied", and also the following dimensions identified as separate factors through the previous factor analyses (Meterko, Osatuke. Warren, Benzer, Mohr, Charns, Dyrenforth, submitted). The examined factors included:

(a) Civility: score based on the following items:
- People treat each other with respect in my work group
- A spirit of cooperation and teamwork exists in my work group
- Disputes or conflicts are resolved fairly in my work group
- The people I work with take a personal interest in me
- The people I work with can be relied on when I need help
- This organization does not tolerate discrimination
- Differences among individuals are respected and valued in my work group
- Managers/supervisors/team leaders work well with employees of different backgrounds in my work group

(b) Leadership, or Management for achievement: score based on the following 10 items:
- My supervisor is fair in recognizing individual accomplishments.
- My supervisor is fair in recognizing team accomplishments.
- In my work group, employees are rewarded for providing high quality products and services to customers.
- I am given a real opportunity to develop my skills in my work group.
- New practices and ways of doing business are encouraged in my work group.
- Managers set challenging and yet attainable performance goals for my work group.
- Supervisors/team leaders understand and support employee family/personal life responsibilities in my work group.
- My workgroup manager reviews and evaluates the progress toward making goals

and objectives of the organization.
- My supervisor provides fair and accurate ratings of employee performance.
- I have a lot of say about what happens on my job.

(c) Safety: score based on the following items
- Employees in my workgroup have the appropriate supplies, materials, and equipment to perform their jobs well
- The safety of workers is a big priority with management where I work

(d) Customer Focus: score based on the following items
- Products, services and work processes are designed to meet customer needs and expectations.
- Customers of my work group are informed about the process for seeking assistance, commenting, and/or complaining about products and services.
- Employees in my work group are involved in improving the quality of products, services, and work processes.
- Employees in my work group have the job-relevant knowledge and skills necessary to accomplish organizational goals.

(e) A single-item factor based on the item: "My job requires that I work very fast".

The third part of the AES contains ratings of the organizational culture, and was not focused upon in this study.

2.5. Patient Data from VHA Survey of Healthcare Experiences of Patients

The second dataset compared to the media data was the SHEP. The SHEP dataset provided inpatient and outpatient ratings of quality of care, and satisfaction with aspects of healthcare care received at VHA hospitals. On the SHEP, inpatients only rate (a) involvement of family and friends, (b) physical comfort (including pain management), and (c) transition from the hospital. Outpatients only rate (a) continuity of care, (b) overall coordination of visits over time, (c) specialist care, (d) in-person pharmacy service, (e) mail pharmacy service. Both inpatients and outpatients rate: (a) access to care, (b) courtesy, (c) emotional support, (d) patient education, (e) coordination of care (during the outpatient visit or inpatient stay), (f) attention to patient preferences, (g) overall quality of the healthcare experience. SHEP scores are based on ratings from randomly selected patients from each hospital. Scores are reported as the percentages of favorable responses on a combination of 2, 4, 5, and 7-point response scales.

3. Results

3.1 Media Coverage and Employee Perceptions of Their VHA Workplace

For scale scores and single-item scores alike, endorsement of positive workplace characteristics by employees correlated with more extensive, positive, and informative media coverage. Interestingly and unexpectedly, however, the number of articles about the hospital with negative valence was unrelated to VHA employee perceptions of their workplace characteristics.

Table 1: VA Hospital Employees' Job Satisfaction Ratings and Media Coverage of the Hospitals: Correlations (N=140 hospitals)

Satisfaction with	Number of articles coded for ... -->	Total N of articles	National Level (eg, AP, or network television)	TV Coverage	Website Coverage	Positive Valence	Negative Valence	Directly Informative	Mixed Informative	Source: VA Employee or Volunteer	Topic: Health Care and Performance	Topic: VA Outreach and Community Contact	Topic: Iraq War
Promotion opportunities	Mean	.228**	.200*	.206*	.222**	.267**	.081	.241**	.235**	.260**	.202*	.192*	.199*
	% over 4	.229**	.228**	.204*	.171*	.272**	.044	.243**	.223**	.247**	.207*	.226**	.228**
	% under 3	-.225**	-.211*	-.186*	-.237**	-.247**	-.090	-.233**	-.238**	-.254**	-.169*	-.158	-.161
Amount of praise	Mean	.276**	.299**	.184	.257**	.299**	.102	.298**	.267**	.298**	.168*	.160	.195*
	% over 4	.246**	.314**	.176	.194*	.269**	.083	.267**	.228**	.259**	.147	.173*	.223**
	% under 3	-.295**	-.296**	-.176	-.285**	-.306**	-.116	-.314**	-.288**	-.318**	-.180*	-.158	-.171*
Quality of direct supervision	Mean	.212*	.219**	.157	.185*	.240**	.097	.210*	.234**	.208*	.191*	.150	.193*
	% over 4	.166*	.190*	.142	.109	.185*	.076	.154	.193*	.143	.143	.153	.185*
	% under 3	-.224**	-.225**	-.132	-.215*	-.252**	-.104	-.231**	-.242**	-.232**	-.194*	-.126	-.197*
Quality of senior managers	Mean	.193*	.217**	.091	.255**	.295**	.017	.229**	.202*	.268**	.182*	.113	.146
	% over 4	.210*	.237**	.083	.212*	.301**	.009	.249**	.200*	.267**	.160	.152	.156
	% under 3	-.185*	-.200*	-.080	-.268**	-.291**	-.012	-.221**	-.197*	-.266**	-.184*	-.104	-.140

Note: Purple=significant positive ($p < .05$); orange=significant negative ($p < .05$); white= non-significant ($p > .05$).

Shown in Table 1 are four employee satisfaction scores with the most consistent associations to the categories of hospital coverage by the media. These included the ratings of satisfaction with promotion opportunities, amount of praise, quality of direct supervision, and senior management.
These relationships were in the expected direction. Greater VHA hospital employee satisfaction was related to more extensive media coverage (more articles about the hospital), greater informativeness (more direct sources of information), more articles with positive valence (overall take-home message about the hospital is positive), and more high profile articles (i.e. national rather than local level of coverage). Greater VHA employee satisfaction was also associated with media coverage of the following topics: healthcare content and healthcare performance of the hospitals; and Iraq War-related content. The pattern of purple and orange shows that higher means and percentage of high satisfaction responses at hospitals relate to more extensive, positive, and informative media coverage. On the other hand, percentage of low satisfaction responses relate to less extensive, positive, and informative media coverage.

Shown in Table 2 are the organizational climate scores that had the most consistent relationship to the media coverage of hospitals. These relationships were in the expected direction, consistent with the findings (previous table) that media coverage of hospitals related to VHA employee satisfaction with direct supervision and senior management. The pattern of purple and orange shows that higher means and percentage of higher ratings of desirable aspects of workplace at hospitals relate to more extensive, positive, and informative media coverage. Percentages of lower ratings of these desirable aspects of hospital workplace relate to less extensive, positive, and informative media coverage.

Table 2: VA Hospital Employees' Workgroup Climate Ratings and Media

Coverage of the Hospitals: Correlations (N=140 hospitals)

		Total N of articles	National Level (eg, AP, or network television)	TV Coverage	Website Coverage	Positive Valence	Negative Valence	Directly Informative	Mixed Informative	Source: VA Employee or Volunteer	Topic: Health Care and Performance	Topic: VA Outreach and Community Contact	Topic: Iraq War
Workgroup: Safe to Risk	Mean	.244*	.260**	.139	.256**	.265**	.122	.285**	.215	.285**	.118	.158	.135
	% over 4	.165	.219**	.102	.166	.229**	.045	.230*	.122	.219*	.121	.127	.174*
	% under 3	-.205	-.212	-.108	-.223*	-.227**	-.105	-.240*	-.186	-.239*	-.101	-.130	-.109
Workgroup: Able to bring up problems	Mean	.151	.193	.093	.168*	.168	.096	.170*	.154	.171	.093	.080	.118
	% over 4	.144	.227*	.075	.125	.156	.073	.166	.131	.151	.081	.072	.138
	% under 3	-.136	-.164	-.076	-.182	-.162	-.085	-.140	-.161	-.164	-.082	-.073	-.080
Workgroup leadership (factor score)	Mean	.231*	.253	.164	.211	.264*	.102	.250	.228	.250	.180	.157	.198
	% over 4	.259**	.272**	.193	.197	.284**	.086	.267*	.245*	.261*	.180	.228*	.232**
	% under 3	-.223*	-.239*	-.129	-.229*	-.264**	-.089	-.242*	-.220*	-.250*	-.165	-.114	-.178*
Workgroup civility (factor score)	Mean	.205	.207	.140	.189	.201	.141	.215	.202	.208	.099	.103	.127
	% over 4	.222*	.205	.165	.165	.207	.151	.224*	.203	.211	.107	.160	.154
	% under 3	-.170	-.163	-.095	-.187	-.174	-.114	-.185	-.177	-.188	-.086	-.069	-.100
Customer focus (factor score)	Mean	.130	.159	.124	.153	.160	.051	.146	.138	.159	.093	.059	.137
	% over 4	.165	.186	.129	.128	.180*	.083	.177*	.153	.170*	.134	.115	.180*
	% under 3	-.099	-.129	-.076	-.146	-.122	-.047	-.117	-.111	-.124	-.052	-.012	-.096

Note: Purple=significant positive ($p < .05$); orange=significant negative ($p < .05$); white= non-significant ($p > .05$).

Unlike with employee perceptions, overall we found considerably fewer relationships between patient perceptions and media coverage of VHA hospitals. The relationships were small and inconsistent across rated dimensions when examining all patient populations together (i.e. inpatients from all bed sections; all outpatients). Outpatient data within SHEP were collected without differentiating outpatient subgroups so only overall analyses were possible. Similar to all-inpatients, these all-outpatients care ratings did not show any consistent, significant patterns of relationship to media coverage. Inpatients' data were differentiated by bed section and therefore could be subsequently analyzed by specific inpatient subgroups (bed sections such as Psychiatry, Medicine, and Surgery). When distinct populations of patients were examined separately, psychiatry inpatients were the only group whose ratings of care at the hospital showed several significant associations with media coverage. Table 3 presents these results.

The relationships were in the expected direction. We reexamined these relationships controlling for the levels of (1) national attention and (2) political oversight of the hospitals. These categories reflected in the media coverage presumably point to hospitals that have untypically high levels of organizational or clinical performance problems, which led us to think that such hospitals may be outliers for the purposes of this study. Controlling for the national attention and political oversight variables resulted in finding more and stronger relationships between media coverage and psychiatry inpatient ratings.

Table 3: Summary of Findings: Media Coverage and Psychiatry Inpatient Perceptions of VA Hospitals: Correlations

Hospital Ns : for Overall quality of care=58, for Physical comfort and Transition=59, for all other scores=63

Number of articles coded for… -->	Total N of articles	TV coverage	Website coverage	Positive valence	Negative valence	Directly infor-mative	Mixed infor-mative	Source: VA employee or volunteer	Topic: health care and performance	Topic: VA outreach and community contact	Topic: Iraq War
Care access	.341**	.215	.385**	.281*	.014	.343**	.339**	.294**	.054	.126	.027
Care coor-dination	.289*	.156	.326**	.247*	-.016	.292*	.317**	.300*	.024	.130	-.043
Courtesy	.223	.164	.199	.144	.092	.258*	.211	.212	.030	.103	.007
Educational information	.266*	.258*	.171	.195	.013	.288*	.198	.249*	.016	.159	-.043
Emotional support	.289*	.315**	.134	.162	.041	.318**	.213	.257*	.107	.163	-.003
Involvement of family, friends	.373**	.343**	.165	.249*	.123	.251*	.390***	.279*	.141	.366**	.124
Attention to patient	.276*	.188	.317**	.220	.062	.363**	.165	.341**	.030	.148	-.070
Physical comfort	.338**	.228	.345**	.240	-.035	.338**	.309*	.286*	.043	.132	.001
Transition from hospital	.235	.223	.177	.151	.157	.190	.270*	.246	.101	.122	-.029
Overall quality of care	.204	.113	.206	.206	.016	.283*	.179	.180	.022	.059	.054

Control variables: (1) national level (e.g. AP, network TV), (2) N of articles on political oversight of the hospital

Note: Purple=significant positive ($p <.05$); yellow= $.05 < p < .10$; white= $p >.10$

4. Discussion

We found a number of significant associations in the expected direction, between employee perceptions and media coverage of the VHA hospitals. Among other results, we found that perceptions of workplace civility are related to publicity about the hospital. The specific processes whereby this relationship works should be addressed in future studies. Previous research has shown employee civility ratings to relate to a number of important organizational and performance outcomes, and thus established civility as a crucial dimension of the VHA workplace (Moore, Osatuke, & Howe, 2008; Mohr, Meterko, Charns, Dyrenforth & Osatuke, 2007; Mohr, Warren, Hodgson, Osatuke, Ward & Dyrenforth, 2007; Nagy, Warren, Osatuke & Dyrenforth, 2007; Osatuke & Dyrenforth, 2006).

We found less extensive associations between patient perceptions and media coverage of the VHA hospitals; these latter results were specific to Psychiatry inpatients. This pattern appears consistent with previous research reflected in internal VHA papers, where relationships between employee and patient perceptions of healthcare environment were the strongest for mental health patients, compared to any other type of patients.

Relationships between media coverage and psychiatry inpatient care ratings became stronger and more extensive once we accounted for the differences in the level of national attention towards and political oversight of the VA hospitals. This was consistent with the hypothesis that hospitals receiving high amount of national attention and political

oversight may be outliers, and therefore presenting a somewhat different pattern in the relationships between patients' perceptions of these hospitals and the hospital public portrayals reflected in the media.

The preliminary and exploratory nature of our findings precludes confident interpretation of the meaning of particular associations between specific variables. However, the overall presence and particularly the expected direction of these relationships lends support to our exploratory hypothesis that media portrayals of VHA hospitals are related to perceptions of these healthcare organizations by people who are employed by them. Specifically, higher ratings of positive workplace characteristics relate to more extensive, positive, and informative media coverage. In other words, employee and media perspectives on particular VHA hospitals show some patterned overlap. Next tasks of interest would involve replicating these findings in more than one year, and examining the causal direction, for example: Do media portrayals influence employee perceptions? Alternatively, do employee perceptions become voiced, and influence media portrayals of their hospitals? Or is it both?

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