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# Satisfaction in clinics and hospitals: Does context matter?

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**ABSTRACT**

Patient satisfaction with their healthcare is of concern to healthcare administrators. Antecedents include utilitarian and hedonic value, empathy, and sacrifice. This study investigates empathy, utilitarian and hedonic value, and sacrifice as antecedents to patient satisfaction. Resource advantage theory and service-dominant logic provide a theoretical basis for the importance of operant resources in achieving patient satisfaction. The data originates from a U.S. consumer panel across two contexts and includes 143 hospital and 182 clinic patients as respondents. Structural equation modeling and moderation analysis are used to test hypotheses. Results provide a strategic direction for hospitals and clinics to achieve patient satisfaction.

In 2018, healthcare spending in the United States was $3.8 trillion, which accounted for 17.7% of Gross Domestic Product (GDP) and "is projected to grow 0.8 percentage point faster than the GDP per year over the 2018–27 period; as a result, the health share of GDP is expected to rise from 17.9% in 2017 to 19.4% by 2027 (Centers for Medicare and Medicaid Services, n.d.a). This growth includes spending by government (federal 28.3%, state and local combined 16.5%), private businesses (19.9%), and households (28.4%), with the remainder, spend by other private entities. This growth increase has the potential to be unsustainable. With the increased costs, patients have higher expectations regarding the quality of care that they receive. Finding ways to cut costs for all stakeholders while providing quality care is crucial. One method for improving quality and lowering costs proposed by researchers for the Mayo Foundation for Medical Education and Research (Trastek et al., 2014) is to use servant leadership as a management model for health care organizations. Listening, empathy, awareness, healing, and persuasion are the driving characteristics of servant leadership that are key to the patient-provider relationship. When these characteristics are combined with patient-centered communication, previous research has linked this to higher patient satisfaction, better adherence to suggested treatment plans, better health outcomes, and lower costs for treatment (Trastek et al., 2014).

The government attempts to cut costs is to tie Medicare and Medicaid reimbursements to patient surveys that, for many years, were called patient satisfaction surveys. The federally mandated Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) has recently scrubbed the label "satisfaction" from its healthcare survey in favor of "perceptions of patient care" (Center for Medicare and Medicaid Services, n.d.a). Insurance companies negotiate rates with healthcare facilities and providers to cut costs for those they insure but do not send satisfaction surveys to their insured. Thus, there is no direct financial loss to a provider if a patient is dissatisfied with the service received. A patient's only option is to look for a different provider for future services. In small communities, this may not even be an option since there may be limited providers available. This can lead to additional costs since unsatisfied patients may not follow through with preventative care.

As healthcare administrators develop strategic plans based on best utilizing their operant resources, they must first understand the attributes that lead to satisfaction and other prominent outcomes in the healthcare context in which they compete. Higher-order constructs traditionally used to measure success or failure in serving the customer, such as satisfaction and value, are absent as most of the satisfaction surveys in healthcare focus on perceptions of room cleanliness, courtesy of staff, the taste of food, and perception of attentiveness to needs (Joiner & Lusch, 2016). While these need to be present in a healthcare context, healthcare has yet to adopt outcome variables such as satisfaction even when administering satisfaction surveys. The HACHPS survey does not use any constructs to measure satisfaction, and even the single items are perception questions that are not directly related to satisfaction.

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One reason for the emphasis on experience and the removal of concerns for satisfaction could be the traditional notion that healthcare operates from a patient orientation perspective versus a customer orientation perspective. In a patient orientation, a healthcare patient can be defined as the healthcare recipient who is more passive and makes few decisions regarding care. In a customer orientation, healthcare patients are consumers who make difficult decisions regarding an array of healthcare options including but not limited to choosing a particular type of insurance, the amount of palatable financial risk, and if the provider service is valuable to the healthcare consumer. However, both patients and consumers make judgments about the healthcare service received, including and not limited to the quality of care received, the service provider's ability to solve the medical problem, and the sacrifice necessary to receive care (Wilets, 2017). How recipients make value judgments about care received can ill afford to remain unanswered. This work attempts to fill that void by examining operant resources in multiple contexts to understand better the healthcare recipient's path to satisfaction.

## Research questions and agenda

This work attempts to determine higher-order antecedents to satisfaction and the relative strength of each across a clinical setting and a hospital setting measured from healthcare recipients' perspective using multi-item scales. Focal antecedents to satisfaction include value, which is conceptualized as a two-dimensional construct of hedonic and utilitarian value (Babin et al., 1994; Camp et al., 2017), empathy, and sacrifice. In the following sections, each relationship is discussed, and individual hypotheses are derived using the urgency of care as a logical way to develop hypotheses. Prior research provides evidence that a hospital visit is typically more emergency-oriented than clinical visits (Camp et al., 2017). Thus, a moderation by context section explains the reasoning for proposed differences between contexts. Clinical visits also tend to be with a primary care provider with whom the patient may feel a relationship exists regarding healthcare. In contrast, with an emergency or hospital visit, the patient likely does not choose which individuals will provide their healthcare. A sample of healthcare consumers from both settings provides the sample frame used to test the individual hypotheses and ultimately determine the path to healthcare consumer satisfaction across two settings.

## Literature review and hypotheses development

### *Resource advantage theory (RA theory)*

Resource advantage theory is a general theory of competition that is dynamic and describes the process of competition (Hunt, 2002). Every organization has its own set of operand and operant resources, which are used to achieve and maintain a comparative advantage over its competitors to achieve superior financial performance (Hunt & Madhavaram, 2006; Hunt & Morgan, 1995). The operand resources are physical such as land and equipment, whereas operant resources include human, organizational, informational, and relational (Hunt & Madhavaram, 2006, p. 70).

For hospitals and clinics, the healthcare providers (human element) are essential operant resources who have specific service skills, which are crucial to the success of a management model of servant leadership (Trastek et al., 2014). Providers (human element) may have traits, such as empathy, that contribute to developing relationships with patients (customers) that create a comparative advantage. Providers' use of their communication skills with the patients may create a higher level of trust that contributes to the patient better following healthcare plans and utilizing preventative treatments that lower costs and prompt the patient to spread positive word-of-mouth regarding both providers and the healthcare facility.

In 2017, there were 6,210 hospitals in the United States, of which 1,322 are for-profit, investor-owned community hospitals. The remainder are not-for-profit community hospitals (2,968), state/local government community hospitals (972), federal government community hospitals (208), nonfederal psychiatric hospitals (620), and "other) (120) (American Hospital Association, 2020). RA theory is based on the premise of organizations having a competitive advantage that can be used for achieving superior financial performance. This theory is also an appropriate theory for the not-for-profit sector and government sector for hospitals. Topaloglu et al. (2018) argue that nonprofits will better provide social value when providing more cost-effective social value services delivery. Using operant resources more effectively can aid the organization in achieving superior financial performance. Nonprofits compete for sponsorships, donations, and grants; thus, they are more likely to look attractive as a social investment when they achieve superior financial performance by efficiently delivering these services. Therefore, RA theory applies to both nonprofit and for-profit healthcare organizations.

### *Service-dominant logic (SDL)*

Service-Dominant Logic (SDL) endorses the use of operant resources and service skills as a means to formulate, create, and maintain a competitive advantage in the marketplace (Vargo & Lusch, 2004). SDL also emphasizes the need for the customer to be a co-producer of the value offering. Thus, the patient becomes a co-

producer in the service encounter. In the healthcare environment, this co-production of value is only possible when the patient's perception is that the provider is listening to patient concerns. A provider that shows empathy is more likely to engage the patient in a dialogue that co-produces value.

In the healthcare setting, SDL is the basis for the Customer Value Cocreation Practice Styles (CVCPS) typology (McColl-Kennedy et al., 2012). They defined customer value co-creation as "benefit realized from integrating resources through activities and interactions with collaborators in the customers' service network (McColl-Kennedy et al., 2012, p. 382). Using focus groups and depth interviews with patients at a cancer center, they identified five practice styles for dealing with cancer treatment: team management, insular controlling, partnering, pragmatic adapting, and passive compliance. Their typology is based on a 2 × 2 matrix using the dimensions of activities and interactions. They found that team management and partnering, which required more interactions with collaborators (providers and those in their personal networks), contributed to reports of a higher quality of life and better health outcomes. Since communication skills contribute to these interactions, operant resources, including the human element, are crucial to the co-creation of value in the healthcare setting.

### Empathy and satisfaction

Perceived empathy within the medical profession has been a topic of study for decades (Aaker & Williams 1998; DiMatteo, 1979; Kurtz & Grummon, 1972). Recent work recognizes the value of a valid measurement tool to capture empathy from a patient's perspective (Hojat et al., 2001; Kane et al., 2007). Empathy is defined as the ability to recognize and understand others' expressed feelings (Aring, 1958; Williams et al., 2013). Once stimulated, empathy involves attempting to accurately put oneself in "another person's shoes" (Kemp et al., 2017). In healthcare settings, empathy is defined "as a predominantly *cognitive* (rather than an affective or emotional) attribute that involves an *understanding* (rather than feeling) of experiences, concerns, and perspectives of the patient, combined with a capacity to *communicate* this understanding, and an *intention to help*" (Hojat et al., 2017, p. 78). Thus, empathy can enhance the patient-provider relationship. Cleveland Clinic advocates for empathy in providers as a vital component of the patient experience and new staff physicians are trained on empathy, patient experience and the human experience (Talierco, 2017).

Overall, satisfaction as a measure of a service outcome has received ample attention (Dixon et al., 2010; Zeithaml et al., 1993), but it has not received as much attention when examining patient satisfaction. More recently, Vogus and McClelland (2016) called for more research about patient satisfaction antecedents in healthcare. Batbaatar et al. (2017) reviewed the research on the determinants of patient satisfaction from 1980–2014. They found contradicting results and made a call for additional research into patient satisfaction. In recent years, much of the research has come from the HCAPHS surveys or from the American Consumer Satisfaction Index (ASCI), which is one of the more prominent and known indexes to determine industry and company health (Fornell, 1992; Fornell et al., 1996). The index measures satisfaction using a psychometrically validated scale that includes three questions for respondents regarding expectations, satisfaction with service delivery, and the company's performance relative to competitors and is a recall measure (Anderson et al., 1994). The ACSI currently investigates 46 industries, which includes healthcare. In addition to their standardized questions, they ask industry-specific questions to report on the state of consumer satisfaction with the industry. However, their research does not delve into some of the psychometric constructs that are antecedents that can provide additional insight for developing strategies. Recent government actions linking hospital reimbursement to customer satisfaction scores reinforce the importance of the topic and the measurement struggle, as hospital satisfaction surveys are often void of any measure of satisfaction (Camp et al., 2017). This research uses the satisfaction concept developed by Fornell et al. (1996) as its dependent variable and established measures for the theorized antecedents.

Empathy is conceptualized as a cognitive construct based on a provider's ability to understand and then communicate that understanding to the patient (Hojat et al., 2002). In contrast, satisfaction is defined as an affect-driven response to a service experience (Choi et al., 2004). The relationship between empathy and satisfaction in a healthcare context has received empirical support (Alrubaiee & Alkaa'ida, 2011; Kim et al., 2004; Raposo et al., 2009). The majority of work relating the two constructs focuses on consumers' perception of the physician's empathy toward the patient and how that relates to the consumer or patient satisfaction. However, physicians are only one of several touchpoints within a hospital or clinical service encounter that can affect the patients' overall assessment of the service experience. Touchpoints can also include front desk personnel, nurses, laboratory technicians, physician assistants, and hospital administrators (Naidu, 2009). This work examines the relationship between empathy and satisfaction beyond the physician-patient relationship. It explores the level of understanding of the empathy-to-satisfaction relationship between front-line service providers and healthcare consumers in

a clinical and hospital context. The following hypothesis is proposed:

H1: Empathy will relate positively to satisfaction in a hospital setting (H1a) and a clinical setting (H1b).

### Utilitarian value and satisfaction

Utilitarian value and satisfaction link have been explored in the previous marketing literature (Chaudhuri & Holbrook, 2001) but are noticeably absent from healthcare. Utilitarian value to patients is able to accomplish a consumer-oriented task (Babin et al., 1994). In the healthcare setting, is being able to obtain healthcare solutions (Camp et al., 2017). Goetzinger et al. (2007) use utilitarian value in an e-health online search component and find utilitarian value is a key driver of satisfaction. Prior research asserts that healthcare is predominantly a utilitarian value-dominant industry (Cronin Jr. et al., 2000). Healthcare consumers in a hospital setting could be particularly utility-driven due to increased urgency, often associated with pain or immediate problem reduction, heightening the task's temporal immediacy. Thus, operant resources could include process speed, the ability to solve many medical problems, and process efficiency.

Clinics also focus on the utility aspects associated with patient care when considering patient wait times, prescription fill processes, and the medical care itself to overcome the medical problem. Clinics use technology to simplify patient care and often focus on utilitarian value by automating record keeping through digital technology as mandated by the American Recovery and Reinvestment Act of 2009 (Blumenthal, 2009). Thus, utilitarian value is expected to relate positively to satisfaction in both contexts:

H2: Utilitarian value will relate positively to satisfaction in a hospital setting (H2a) and a clinical setting (H2b).

### Hedonic value and satisfaction

Hedonic value can be defined as the net positive outcome from the consumption experience in terms of the extent to which it is gratifying not because some goal is accomplished but rather because of the gratifying nature of the experience itself (Babin et al., 1994). Utilitarian value is central to healthcare (Cronin Jr. et al., 2000). However, the hedonic value may fail to be viewed as valuable, and patients may seek only an expedient process where a task is complete. However, Osei-Frimpong et al. (2015) found through a qualitative research study based in Ghana that accomplishing the task of healthcare is not the sole outcome that healthcare consumers consider. As such, experiential elements could have a place in the satisfaction equation.

Further, research investigating emotion uses terms such as happy, pleasant, joyful, delighted, and surprised to represent positive emotions within a public hospital setting (Ladhari & Rigaux-Bricmont, 2013). Other research presents a review into the antecedents of satisfaction within a broad healthcare context and finds the doctor-patient relationship a primary satisfaction driver, with information exchange being the key to a robust relational linkage (Crow et al., 2002). If such emotional experiences exist within a hospital setting, it is logical to conclude that hedonic outcomes are possible and expected. However, the extent to which utilitarian or hedonic value drives satisfaction remains unexplored.

Within both contexts, frontline healthcare service providers have the opportunity to make the healthcare consumer's experience better or worse via informational and interpersonal resources, including scheduling, patient flow, information exchange, interpersonal communication, and interpersonal skills. Environmental factors such as the servicescape can also make a healthcare recipient's experience better. Thus, it is expected that a positive relationship will be found between hedonic value and satisfaction in both the hospital and clinical care contexts:

H3: Hedonic value will relate positively to satisfaction in a hospital setting (H3a) and a clinical setting (H3b).

### Sacrifice and satisfaction

Value is often operationalized with a sacrifice component that includes both a monetary and nonmonetary component (Choi et al., 2004). The monetary component is the price paid in exchange for the service. In contrast, the nonmonetary component includes time spent searching for the service and effort spent to arrive at a purchase decision. Under the classic value definition, where a consumer weighs the get versus give up parts of the service delivery and personal expenditures (Zeithaml, 1988), a ratio often emerges, which relates to satisfaction. However, given the complexity in pricing within healthcare and the complicated issue of health insurance, a further examination of patients' reactions to the sacrifice and the corresponding effect on satisfaction is in order.

The importance and urgency of healthcare may make consumers less price-sensitive; however, the search effort and time spent choosing a clinic or hospital can be extensive. Smith Gooding (2000) measured sacrifice

using monetary costs, comprised of out-of-pocket expenses not covered by insurance, and nonmonetary costs were measured using perceived distance for travel. As the sacrifice increases, the bar to exceed satisfaction and the associated expectations is likely to increase, thereby making the chances of exceeding expectations more difficult. Sacrifice is often operationalized within the value equation, asking the customer how sacrifice relates to money spent and quality received for what was paid is appropriate (Choi et al., 2004; Zeithaml, 1988). While this is appropriate, separating value into a utility and hedonic concept and including sacrifice as a separate concept might further explain the path to patient satisfaction, particularly considering the duality between the complexities in pricing within healthcare and the often-temporal immediacy to solve the healthcare need as found in the hospital setting. It is expected that a negative relationship will be found between sacrifice and satisfaction across both contextual settings.

H4: Sacrifice will relate negatively to satisfaction in both a hospital setting (H4a) and a clinical setting (H4b).

## Moderation hypotheses

The aforementioned relationships are expected to hold for both hospital care and clinical care settings. However, it is reasonable to predict that some relationships will be stronger depending on the setting. Thus, this section outlines the moderation by context expectations based on if the provider/patient interaction happens in a clinical setting versus a hospital setting.

The relationship between empathy and satisfaction will be discussed first. Hospital care is viewed as more urgent than clinical care visits making the hospital care recipient focus on the provider's ability to address the health problem (Camp et al., 2017). Thus, the link between empathy and satisfaction is expected to be stronger in the clinical care setting as the care recipient often involves lower stress situations such as checkups and preliminary visits, which tend to be less urgent than a hospital visit allowing social relationships to increase in salience to the care recipient. Returning to theory development, R – A Theory dictates one operant resource that may also favor a stronger link between empathy and satisfaction in the clinical context, and that is relational. Clinical visits and doctor-patient relationships tend to be characterized by return visits and relationships over time, whereas hospital visits are often characterized as solving an urgent problem. Because of the tendency to have a relationship over time in the clinical setting, we propose that the link between satisfaction and empathy will be stronger in the clinical setting, or else the patient would find a provider who possesses stronger soft skills. Therefore, the following relationship is proposed between satisfaction and empath as it relates to the contextual differences between hospital care and clinical care, such as a doctor's visit:

H5: The relationship between empathy and satisfaction will be stronger in the clinical setting than in the hospital setting.

Next, we will discuss the relationship between utilitarian value and satisfaction. Returning to the temporal immediacy of removing the problem, we predict that both settings have the potential to see utilitarian value relate to satisfaction. However, given that hospital visits are often more emergency-related than clinical or doctor's office visits, we expect the relationship between utilitarian value and satisfaction to be stronger for the hospital context. Following R-A Theory, we also propose that hospitals often have stronger operand resources like equipment and devices in a single location to solve a problem. Thus, the following hypothesis is offered:

H6: The relationship between utilitarian value and satisfaction will be stronger in the hospital setting than in the clinical setting.

Within healthcare, the relationship between hedonic value and satisfaction may differ depending on whether the context is clinical versus a hospital. Hospital visits are often more emergency-oriented and, therefore, more utility-driven, whereas clinic visits are often planned further in advance and less time-critical. Returning to R-A theory and the proper use of resources, it is expected that the operant resources that focus on the relational elements will manifest stronger in the clinical settings that focus on return visits, and the doctor/patient relationship will see a stronger connection in the experiential elements that a hospital visit would. In the current sample, most hospital consumers consider the visit to be emergency-oriented, whereas the vast majority consider the clinical care setting to be routine. However, the hospital care recipient should focus on the urgency of addressing the healthcare problem, focusing less on the hedonic elements than clinical patients. Thus, the following prediction is offered based on the relationship between hedonic value and satisfaction based on the context of care:

H7: Hedonic value will relate to satisfaction stronger in the clinical setting compared to the hospital setting.

## Methodology

### Sample procedure and sample frame

The data for both clinic patients and hospital patients originate from a representative U.S. consumer panel provider. In healthcare research, HIPPA compliance must always be followed. The use of consumer panels in web surveys is one method by which researchers can be compliant with HIPPA since personally identifiable information is not collected (Dominelli, 2003). A total of 182 clinical care recipients and 143 hospital care recipients, who received care within the past 12 months, completed the survey and are included in the analysis. Two screening questions confirmed that the respondent would answer subsequent questions with the treatment setting in mind. Specifically, we asked respondents if they received care in a doctor's office or hospital. Finally, a question asks respondents to answer all questions keeping the most recent care visit in mind. All respondents agreed to the screening questions. Data quality measures include multiple integrity filters. Respondents who did not respond appropriately to those items were branched out of the survey. Twenty-five percent of the initial respondents were branched out due to failure of at least one quality check, and subsequently, their data line was removed from the final analysis. Data quality measures included a check question that instructs the respondent to choose strongly disagree with an item. Respondents who did not select strongly disagree are not included in the final analysis.

### Measures

The potential for common method bias is addressed by using different scale types within the survey. Also, Harman's single factor test is used to assess the possibility of common method bias. The primary eigenvalue accounts for approximately 40% of the variance in the total data, and, given the reliabilities and effect sizes, there is no evidence of common method bias (Fuller et al., 2016). Thus, common methods variance is not expected to bias results.

Social desirability has been found to present most with research where the researcher is present and administering the survey (Grimm, 2010). This survey is conducted via computer and without the researcher present should help alleviate the concern for social desirability. Also, we asked questions that were not directed toward any particular medical problem (i.e. socially embarrassing medical problems) and instead directed at the hospital or clinic experience.

#### Satisfaction

Scale items used for satisfaction originated from established research (Fornell et al., 1996) and included three items measured with a 100 point slider scale asking the respondent the extent of agreement or disagreement to the following questions, "I am satisfied with this medical provider," "This medical provider's performance exceeds my expectations," and "This medical provider's performance exceeds that of other similar medical providers."

#### Value

Utilitarian value and hedonic value were taken from Camp et al. (2017), which adapted and validated the two-dimensional scale of value developed by Babin et al. (1994), one of the most widely used scales for measuring value consumers. Utilitarian value was measured with three items using a 7-point Likert scale ranging from strongly agree to strongly disagree to the prompts including, "I accomplished just what I needed to during the most recent trip," "I couldn't accomplish what I need to," and "I was able to do everything I needed to at this facility." Hedonic value used three items with a 7-point Likert scale ranging from strongly agree to strongly disagree with the prompts, including, "I like learning new things about healthcare," "This experience was a good time out," and "This experience was not a good time out."

#### Sacrifice

Sacrifice was measured using a three-item scale, capturing the extent to which items contribute to the overall sacrifice associated with receiving medical care. The items were measured on a 10-point scale ranging from no sacrifice at all to huge sacrifice and included "Spending time," "Spending money," and "Spending energy" (Babin & James, 2010).

#### Empathy

Finally, empathy was measured using a five-item scale adapted based on previous research to answer the research questions regarding the provider's empathy (Kane et al., 2007). A 7-point scale was used ranging from strongly disagree to agree strongly to measure the items of "This provider understands my emotions, feelings, and concerns," "The provider seems concerned about my family and me," "The provider can view things from my perspective," "The provider asks about what is happening in my daily life," and "This is an understanding health care provider."

### Descriptive statistic summary

Clinic patient descriptive statistics are 110 female and 72 male respondents, and insurance includes commercial insurance (55%), Medicare (19%), and Medicaid (16%). The largest percentage of respondents (30%) are between 30–39 years of age, while 22% are between 40–49 years of age. The largest share of household income is between $50,000 to 74,000 (25%), with 65% of the sample having household incomes below $75,000. Ninety-one percent of respondents consider the clinic visit to be routine. Forty-one percent of respondents report a high school degree as the highest degree earned, 37% hold an undergraduate degree, and 14% have a master's degree. Occupational data show a wide range of primary job titles ranging from retired, managers, IT consultants, engineers, and homemakers. The sample is diverse concerning respondent job titles and represents hospital service consumers, including disabled, retired, and students. No clinic control variables reached statistical significance when inserted into the model; thus, control variables are not shown in the theoretical model.

The hospital patient descriptive statistics show 88 female and 55 male respondents, and the most common insurance includes commercial insurance (53%), Medicare (17%), and Medicaid (13%). The largest percentage of respondents (32%) are between 30–39 years of age, while 25% are between 22–29 years of age. The largest household income percentage is between $50,000 to 74,000 (26%), with 72% of the sample having household incomes below $75,000. Sixty-six percent of respondents indicate that the hospital visit was an emergency. Forty-three percent of respondents report an undergraduate degree as the highest degree earned, with the next highest percentage (38%) reporting a high school degree as the highest degree earned. Again, occupational data show a broad scope of primary job titles ranging from retired, managers, IT consultants, engineers, and homemakers. The sample is diverse concerning respondent job titles and is representative of hospital service consumers, including disabled, retired, and students. No hospital control variables reached statistical significance when inserted into the model; thus, control variables are not shown in the theoretical model. Table 1 presents the demographic information in further detail.

A chi-squared test examines if the emergency orientation presented above differs statistically between the clinic and hospital respondents. Indeed, the chi-squared statistic is significant, $X^2$ (1, N = 325) = 113.24, $p < .001$. The significant chi-squared value indicates that the hospital respondents were more likely than the clinical respondents to view the service as an emergency visit, while the clinical respondents were more likely than the hospital respondents to view the service as routine.

**Table 1.** Demographic table.

| Gender | Clinic/Office Appointment | Hospital |
|---|---|---|
| Male | 72 | 55 |
| Female | 110 | 88 |
| Total | 182 | 143 |
| Insurance | | |
| Medicare | 29 | 18 |
| Medicaid | 35 | 24 |
| Veteran's administration | 4 | 5 |
| Commercial insurance | 100 | 75 |
| No insurance | 10 | 15 |
| Other insurance | 4 | 6 |
| Age range | | |
| Under 18 | | |
| 18–21 | 9 | 5 |
| 22–29 | 38 | 35 |
| 30–39 | 54 | 45 |
| 40–49 | 40 | 31 |
| 50–59 | 21 | 20 |
| 60–69 | 17 | 4 |
| 70–79 | 2 | 2 |
| 80–89 | 1 | 1 |
| Household Income | | |
| Under $30,000 | 36 | 33 |
| 30–49,000 | 37 | 33 |
| 50–74,999 | 45 | 37 |
| 75–99,999 | 28 | 22 |
| 100–149,999 | 20 | 10 |
| 150–199,999 | 11 | 4 |
| 200–249,999 | 1 | 1 |
| Over $250,000 | 4 | 3 |
| Emergency orientation | | |
| Routine | 165 | 49 |
| Emergency | 17 | 94 |

## Results and hypotheses testing

### Measurement results

Confirmatory factor analysis (CFA) is undertaken first to assess measurement theory and fit for both clinics and hospitals. The results are available in Table 2. CFA results indicate adequate fit ($\chi^2$ = 479.3 with 218 df, CFI = 0.967, RMSEA = 0.043). All construct reliability estimates are above .7. Discriminant validity compares AVEs to squared correlation estimates between constructs. All AVEs exceed squared estimates between constructs except for the relationship between empathy and satisfaction. Combining the constructs yields the following results indicating a lesser fit. ($\chi^2$ = 906 with 226 df, CFI = 0.913, RMSEA = 0.068, $\chi^2$ Δ $p$-value = 0.001). After assessing the fit of the measurement model, the next step is to test the structural model and assess the results for both clinic patients and hospital patients.

### Clinic and hospital moderation by group

Moderation is examined first by comparing two models. The first model does not allow the paths to differ based on if the respondent experienced a hospital visit or clinical visit. This model is the fully constrained model.

**Table 2.** Confirmatory factor analysis.

| | Empathy | Hedonic value | Sacrifice | Utilitarian value | Satisfaction |
|---|---|---|---|---|---|
| emp1 | 0.91 | | | | |
| emp2 | 0.83 | | | | |
| emp3 | 0.88 | | | | |
| emp4 | 0.73 | | | | |
| emp5 | 0.91 | | | | |
| HV1 | | 0.58 | | | |
| HV2 | | 0.85 | | | |
| HV3 | | 0.61 | | | |
| sac1 | | | 0.87 | | |
| sac2 | | | 0.66 | | |
| sac3 | | | 0.84 | | |
| UV1 | | | | 0.87 | |
| UV2 | | | | 0.62 | |
| UV3 | | | | 0.73 | |
| SAT1 | | | | | 0.93 |
| SAT2 | | | | | 0.95 |
| SAT3 | | | | | 0.91 |
| Variance extracted | 73.2% | 47.7% | 63.1% | 55.9% | 86.3% |
| Construct reliability | 0.93 | 0.73 | 0.84 | 0.79 | 0.95 |

Then we examine a model that does allow the paths for a clinical respondent and a hospital respondent to be estimated. This model is the unconstrained structural model. Allowing the estimation of all structural parameters (the unconstrained model) between groups yields a model $\chi^2$ of 390.5 with 218 df. By contrast, the fully constrained model yields a $\chi^2$ of 420.6 with 234 df. Adding the invariance constraints worsens fit as shown by a change in $\chi^2$ is 30.1 with 16 df, which is statistically significant ($p < .018$). Thus, this finding supports the case for moderation and suggests differences between hospital respondents and clinic respondents regarding the strength of relationships between constructs. Table 3 provides the moderation test for the reader.

Table 4 provides clarification as to the moderation sources. The figure displays the maximum likelihood estimate for each structural relationship by group as only unstandardized relationships are appropriate in this type of multi-group comparison (Hair et al., 2010). Among clinic patients, empathy significantly affects satisfaction ($\beta = 0.793$, $p < .001$), and hedonic value significantly affect satisfaction ($\beta = 3.215$, $p = .093$). Among hospital patients, empathy significantly affects satisfaction ($\beta = 0.615$, $p < .001$), utilitarian value significantly affects satisfaction ($\beta = 4.75$, $p < .001$), hedonic value significantly affects satisfaction ($\beta = 4.642$, $p < .005$), and sacrifice approaches a negative and significant relationship ($\beta = -0.849$, $p = .07$).

**Table 3.** Moderation analysis.

| |
|---|
| Fully constrained model |
| $\chi^2 = 420.6$, $df = 234$ |
| Unconstrained model |
| $\chi^2 = 390.50$, $df = 218$ |
| $\chi^2$ change between constrained and unconstrained model |
| $\chi^2$ change = 30.1, $df$ change = 16 |
| Significant at $p = .018$ |

Two relationships appear responsible for the overall moderation of the structural model. The utilitarian value – satisfaction relationship (H6), when constrained alone, yields a significant chi-square difference of 8.1 (1 df, $p < .01$). Hospital patients expect utilitarian value as it relates to and drives satisfaction, whereas utilitarian value and satisfaction do not relate in the clinic sample. Also, constraining empathy to satisfaction (H5) path produces a significant chi-square difference of 3.9 (1 df, $p < .05$). The relationship suggests that empathy is more strongly related to satisfaction in the clinic environment than in the hospital environment.

## Hypothesis testing

After testing the structural model, the hypotheses were evaluated. H1 is supported as the relationship between empathy and satisfaction is positive and significant in both contexts (H1b: Clinical: $\beta = 0.793$, $p < .001$; H1a: Hospital: $\beta = 0.615$, $p < .001$). H6 is supported as seen by the significant moderation constraining the empathy to satisfaction path to be equal yields a worse fit ($\chi 2\ \Delta = 3.1$, 1 df, $p < .05$), with the difference being in the hypothesized direction.

The second set of hypotheses evaluates the utilitarian value to satisfaction link. H2 is partially supported in that the utilitarian value to satisfaction link is positive and significant in the hospital setting (H2a: $\beta = 4.75$, $p < .001$) but fails to reach significance in the clinical setting (H2b). H5 is supported as the model constraining utilitarian value to satisfaction to be equal across groups yields a worse fit ($\chi 2\ \Delta = 8.1$, 1 df, $p < .001$), indicating the relationship is stronger in the hospital setting.

The third relationship is the hedonic value to satisfaction link and the strength of relationships between

**Table 4.** Structural model results.

| | Clinical model | | Hospital model | |
|---|---|---|---|---|
| Relationship | Unstandardized estimate | P Value | Unstandardized estimate | P Value |
| Empathy→Satisfaction | 0.793 | 0.001 | 0.615 | .001 |
| Utilitarian Value→Satisfaction | n.s. | n.s. | 4.75 | .001 |
| Hedonic Value→Satisfaction | 3.215 | 0.093 | 4.642 | .005 |
| Sacrifice Value→Satisfaction | n.s. | n.s. | −0.849 | .07 |

contexts. H3a was supported particularly in the hospital setting ($\beta = 4.642$, $p < .005$) and to a lesser degree of significance in the clinical setting testing H3b ($\beta = 3.215$, $p = .093$). Hypotheses 7 is not supported, as evident by constraining the relationship between hedonic value and satisfaction as equal between contexts did not produce a significant chi-squared value.

The final relationship is the sacrifice to satisfaction relationship (H4a&b). There was mixed support in that a weak negative relationship exists in the hospital context (H4a: $\beta = -0.849$, $p = .07$), while not significant in the clinical setting (H4b).

## Discussion and conclusion

### Theoretical implications

RA Theory and SDL emphasize the importance of operant resources to the competitive advantage (Hunt & Madhavaram, 2006; Hunt & Morgan, 1995; Vargo & Lusch, 2004). These operant resources include the human and relational elements. In this research, empathy is shown to be an essential driver of satisfaction in both the hospital and clinical settings, indicating that the healthcare provider's operant resources are crucial to patient satisfaction. This work points to the humanization of healthcare across settings, particularly the role of empathy as it relates to a satisfied care recipient. The importance of bedside manner and provider connection with the healthcare customer seems paramount in the customer, leaving satisfied, particularly in the clinical setting. In the clinical setting, evidence points to the importance of the relationship and the experience as seen by the stronger relationship between empathy and satisfaction than in the hospital setting and the insignificant relationship between utilitarian value and satisfaction. The insignificant result is interesting because many clinics are spending resources to make the process of attaining healthcare more efficient. Further, clinical consumers seem unaware of the sacrifice involved in attaining clinical care.

The path to satisfaction differs depending on whether a patient receives care in a hospital or a clinical setting. To date, few researchers have investigated how satisfaction occurs in healthcare settings and if the same resources like utility, empathy, or reducing sacrifice lead to satisfaction. Tangible examples that can differ across settings include creating personal connections, getting the healthcare job done, making the experience better, or reducing the healthcare recipient's cost or burden.

Another significant theoretical contribution was using multi-item scales to measure satisfaction and its antecedents in the healthcare setting. Whether in academic research or practitioner research, using survey instruments that meet the accepted statistical modeling standards is crucial if these results are used in policymaking decisions. Rather than eliminating all multi-item scales from the HCAHPS instrument, a better approach could be to create an instrument that uses a combination of scales and the specific one-item questions in the current version.

### Practical implications

Currently, for those using the HCAHPS, a misunderstanding amongst providers exists, as many still refer to the survey as a patient satisfaction survey (Cohen et al., 2017). In a recent Op-Ed in the *Journal of the American Society of Plastic Surgeons*, three surgeons suggest that the using the "satisfaction" score in the survey has created an additional problem because, in their opinion, hospital administrators are pouring more resources into facilities and relative luxuries rather than providing sound medical care. These strategies do not appear to be working since the American Customer Satisfaction Index's most recent report indicates that healthcare satisfaction has gone down. In the 2019 ACSI report (American Customer Satisfaction Index, 2019), patient satisfaction scores were down from 75% in 2018 to 72% in 2019 for hospitals, including inpatient, outpatient, and emergency room services. Emergency scored a 67%, which is down from 75% in 2018, with wait times being a severe issue and some respondents stating they left without care. Ambulatory care, which includes office visits to doctors, dentists, optometrists, and mental health professionals, held steady at 77%. These results put healthcare categories in the bottom half of the 46 industries measured far below industries such as Breweries (84%), Televisions (82%), and many others.

In addition to eliminating satisfaction items, only a single-item recommendation variable is present as an outcome variable in the mandated healthcare government surveys (Center for Medicare and Medicaid Services, n.d. a.). Many federal reimbursements decisions, such as those for Medicare, are made based on this single-item variable, which raises questions regarding reliability and validity and should concern public policymakers and taxpayers. The CMS states that a rigorous statistical process was used in developing the instrument, yet, as presented, the instrument relies on single-item measures. The accepted practice in academic research is to develop value scales that are multi-dimensional and often require thirty items or more for valid measurement (Chahal & Kumari, 2012). This disconnect between practice and validated statistical methods should concern all stakeholders since this measure is used in federal reimbursements. In 2016, the United States federal government spent $1.237 trillion on Medicare and Medicaid reimbursements (Centers for Medicare & Medicaid Services, n.d.b.).

Results provide strategic direction for hospitals and clinics concerning what resources to offer to healthcare consumers across two contexts. Operant resources in the hospital context that lead to satisfaction appear to differ from the clinical context. Hypotheses were derived with urgency as the distinguishing factor, and to a large extent, the assertion is supported. Typically, people go to the hospital for emergencies, unplanned events, or planned procedures such as surgeries. Hence, the ability to efficiently deliver the task of healthcare becomes paramount in this context. Tasks relating to efficiency, process, and making the consumer's job easier in the hospital context appear worthy of resource investment. The ability to deliver relational elements and understanding through empathy and hedonic value is viewed as necessary in the hospital setting. Still, empathy is more important in the clinical setting where, over time, relationships can be established. Patients expect that the primary care provider will be concerned with their individual healthcare needs, wellness, and preventative care. Thus, empathy in the clinical setting is a key driver of patient satisfaction, perhaps due to the inherent extended personal relationships expected in the clinical setting versus the more fleeting or less future relational expectations found in a hospital setting. Finally, the role of sacrifice in the healthcare setting can be challenging for patients to understand, given the complexity of the healthcare system, including billing, insurance, shared costs, and many other factors. While moderation showed the results not different, we see some significance in the hospital setting while insignificant in the clinic setting is of interest for discussion. Perhaps the emergency, or as hypothesized urgency factor of hospital visits, plays a role in locating a hospital for the first time or paying a larger deductible or out-of-pocket expense for a hospital versus clinic plays a role. The plight of the uninsured can also play a role as emergency medical service can often create a large and unexpected financial burden for the hospital care recipient. The current government-mandated online record-keeping system could be a reason why utility is no longer a competitive advantage but rather a requirement to compete within the service frontier.

The evidence suggests that a more beneficial operant resource in the clinic context would be investing resources into enhancing the patient experience and training for empathy and relational aspects of the service experience. In a six-year longitudinal study conducted on Japanese medical students, the researchers found that communication training at the beginning of their program improved communication skills and empathy in medical students. Unfortunately, the improvement was not sustained because the training was not ongoing, so the gains were lost by the end of the six years (Kataoka et al., 2019). The study results suggest that a strategy for improving communication skills and empathy would be to implement ongoing or refresher training as a part of their human resource management program.

## Limitations and future research

While this work has practical implications for healthcare researchers, limitations are inevitable in all research settings. The healthcare industry is a dynamic and rapidly changing industry, whereas cross-sectional research acts as a single snapshot in time. Longitudinal research would help provide more robust conclusions and add to the work's validity, but even a longitudinal study would still have limitations due to this dynamic nature. The global pandemic of Covid-19 serves as an example of how quickly policies, procedures, and even legal issues can evolve. Additionally, the distinction between clinics and hospital visits is only one scenario difference. Many other scenario differences exist that are worthy of future research.

A second limitation is using a consumer panel, making it difficult to generalize the results since our sample demographics are not reflective of the U.S. However, we found the same limitation in the papers we reviewed since all used convenience samples. This work must to some degree, be categorized as exploratory as scales that better fit the context must be created, and the industry as a whole must maneuver toward multi-item measures. Like other researchers, we did not collect race (Smith Gooding, 2000; Owusu-Frimpong et al., 2010), and while a limitation, this omission is expected in healthcare marketing research. Due to HIPAA restrictions, previous research into patient satisfaction has often relied upon consumer panels (Kemp et al., 2017) or convenience samples gathered from published records such as a telephone book (Smith Gooding, 2000) or voter registration records (Osei-Frimpong et al., 2015). In *Clinical and Research and Regulatory Affairs*, Dominelli (2003) suggests that the use of web surveys that follow HIPPA guidelines and approved by an Institutional Research Board for adherence can serve as a way to collect data that would then protect patient privacy. Future research not based on a convenience sample would need to be done in conjunction with an agency such as the Department of Health and Human Services, which may have other legal considerations. Based on our review of previous research, we posit that the implications are still useful despite the limitations.

A third limitation involves scales used to measure value. However, the literature supports using the value scale used within this research in a clinical context (Camp et al., 2017). The parsimony and substantial marketing precedence make using these scales in the current context logical and face valid. However, a need for a parsimonious value scale within a hospital and

clinical context will be a valuable research tool. Both utility and some form of hedonic value lead to satisfaction in healthcare. Future research should develop specific scales for the context that can be included in healthcare service providers' satisfaction surveys for testing and validation. Brevity and parsimony must be considered along with validity to achieve widespread acceptance among healthcare surveys.

A final limitation of this research involves not asking the patient's specific procedure at the healthcare facility. Due to HIPAA, and our institution's IRB protocols, asking specific medical-related questions about the medical reason for the visit was prohibited. Questions like type of illness and if the visit was a new visit or a reoccurring visit would also be suitable control variables for future research.

Future research could partner with a hospital or clinic to refine the HCAHPS to implement questions related to value, sacrifice, and empathy. This would require full compliance with HIPAA when reporting any results. These questions are currently not included in either healthcare customer survey and thus provide limitations for partnering with a medical service provider to attain the results even using existing HCAPS. The current single item scale used to measure whether a healthcare customer would recommend the provider is inadequate, given the standard practice of multi-item measures (Hair et al., 2010).

Another area of future research could examine the role of insurance and sacrifice on a larger scale. Specific work could expand on these findings to the relationship between sacrifice and satisfaction and the moderating influence of insurance. Logic dictates that the large out-of-pocket and often unexpected expense incurred for some hospital visits could account for the nearly significant negative relationship between these constructs. It's unknown what changes will arise due to the systemic problems discovered in emergency care during the Covid-19 crisis. In 2020, Congress passed two relief bills, The Families First Coronavirus Response Act (FFCRA) and The Coronavirus Aid, Relief, and Economic Security (CARES), which requires both private insurers as well as Medicare and Medicaid to eliminate all cost-sharing such as copayments, coinsurance, and deductibles associated with testing for Covid-19 and future vaccines; however, plans are not required to cover all treatment costs (King, 2020). It's unknown what the long-term health effects will be and whether people who tested positive will be susceptible to other health problems in the future as it happens with those who get chickenpox. A longitudinal study of the financial impact and sacrifice of those who have tested positive could have implications for additional healthcare reform. Future research must strive to understand how structural changes within healthcare will impact the provider-patient relationship. Future research should consider an event study to measure patient satisfaction in a longitudinal setting. When disruptive events occur, such as a pandemic, changes to medical insurance, or new laws are passed, the impact can be shown empirically before and after the event occurs.

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