

An Integrated Literature Review Comparing Magnet Designated Facilities to Acute Care
Hospitals as reflected by Patient Perception of Overall Quality of Care

Heather Gifford

University of Central Florida

Abstract

Patient perception of quality of care in acute care settings has gained significant attention in the last decade as the Centers for Medicare and Medicaid instituted Value Based Purchasing which links reimbursement dollars to patient satisfaction outcomes. Organizations are striving to improve patient perception scores with little evidence existing to guide improvement strategies. One evidence-based strategy to improve patient outcomes and nurse outcomes is the American Nurse Credentialing Center Magnet Program. This integrated literature review will compare the patient perception data of hospitals that have received or are in process of seeking the coveted Magnet designation with non-magnet hospitals. The literature search utilizing multiple databases yielded six studies that met inclusion/exclusion criteria. Results indicate that Magnet facilities have a positive impact on patient perception of quality of care and may be related to certain nursing outcomes. It is unclear as to exactly what components of Magnet designation have the greatest impact on patient satisfaction, or if other currently employed strategies are as effective. Further research is needed to answer this question definitively. The Centers for Medicare and Medicaid Services, Hospital Consumer Assessment of Healthcare Systems and Providers survey is providing valuable data that can be used for future research.

Table of Contents

Significance and Background	4
Research Question	7
Methods.....	7
Search Terms and Definitions.....	7
Inclusion/Exclusion Criteria	8
Validity of Findings	8
Coding/Themes	8
Findings.....	9
Magnet designation.....	10
Nursing Outcomes	11
Cost	12
Recommendations.....	13
Conclusion	13
References.....	15
Appendix A.....	18

An Integrated Literature Review Comparing Magnet Designated Facilities to Acute Care Hospitals as reflected by Patient Perception of Overall Quality of Care

Patient outcomes are influenced by a number of factors in any healthcare organization. As to the question; does care received in magnet hospitals improve the overall patient satisfaction in an acute care hospital; the elements inherent in magnet designated hospitals may or may not have a positive influence on the outcomes measured related to the patient experience. A robust focus on patient perception is supported by financial incentives from the Centers for Medicare and Medicaid Services (CMS) and healthcare organizations aimed at improving quality care as well as providing exceptional service. Various approaches to improving patient satisfaction exist, with very little evidence based research to guide strategies.

Significance & Background

With the advent of value-based purchasing and the requirement of patient perception surveys by CMS, researchers find themselves with large sources of data regarding patient perception and the ability to perform cross-sectional case-control studies with this information. Magnet designation requires a high level of support for nursing care which influences nursing outcomes and patient outcomes, both of which are required to be reported to the American Nurse Credentialing Center (ANCC) as a condition for credentialing (Tinkham, 2014). Designation of Magnet status through the magnet recognition program may have been shown to improve nursing perception of quality care, however, this may not be reflective of the patient's perception of the same care (Smith, 2014).

HCAHPS survey

In 2002, CMS partnered with the Agency for Healthcare Research and Quality (AHRQ) to develop and test the Hospital Consumer Assessment of Healthcare Providers and Systems

(HCAHPS) survey. Publicly reported data utilizing the survey methodology includes nine domains, comprised of 27 questions which measure communication with nurses, communication with physicians, communication regarding medications, responsiveness of staff, cleanliness and quietness of the environment, management of pain, discharge from the hospital or transition of care, overall rating of the hospital and likelihood to recommend the hospital. CMS first implemented the HCAHPS survey in October 2006, with public reporting of HCAHPS results occurring in March 2008 (Centers for Medicare & Medicaid Services, 2014). Publicly reported data can be accessed on the Internet at <http://hospitalcompare.gov>, which most recently expanded to provide a star rating of one through five for all hospitals who provide service for patients receiving Medicare benefits. According to CMS (2014), significant focus exists with regard to three goals; the development of high quality data to provide objective and meaningful comparisons for consumers, incentivizing higher quality patient perception and care, benchmarking nationwide to increase transparency and informed patient choices. The Patient Protection and Affordable Care Act of 2010 instituted the Value-Based Purchasing program, further incentivizing organizations to focus on patient experience as a measurable outcome. CMS announced that reimbursement for the current performance period will be 30% for patient perception and 70% for clinical patient outcomes. Nationwide this amounts to upwards of \$850 million dollars in reimbursement to hospitals (Centers for Medicare & Medicaid Services, 2014).

History of Magnet designation

The American Nurses Credentialing Center (ANCC), American Nurses Association recognized the first magnet hospital in 1994. Currently, there are 395 Magnet hospitals in the United States. The original program identified 14 Forces of Magnetism that contribute to an organizations' ability to recruit and retain nurses through healthy work environments,

satisfaction, and engagement of nursing staff (American Nurses Credentialing Center, 2014).

These organizations foster nursing practice that works in conjunction with other disciplines and professions in the hospital setting. Magnet designated hospitals provide nursing organization with these specific forces of magnetism that impact the quality of care delivery and service.

Theoretically, satisfied and supported nurses with healthy work environments are more likely to produce patient satisfaction outcomes that are reflective of organizational support for nursing (Chen, Koren, Munroe, & Yao, 2014).

Initial studies regarding magnet accredited facilities were focused on nurse outcomes; nurse satisfaction with work environments, staffing, collaboration, and professional practice (Aiken, Sloane, Lake, Sochalski, & Weber, 1999). Few studies were done at the time relating magnet recognition to patient outcomes. Currently there is an increase in studies giving attention to specific patient outcomes such as pressure ulcers, falls, hospital acquired conditions, and failure to rescue (Goode, Blegen, Shin, Vaughn, & Spetz, 2011). However, additional studies need to be done regarding patient perception of the quality of care received in magnet as compared to non-magnet hospitals. With the advent of the affordable care act, value-based purchasing and the continued focus by CMS on the HCAHPS results, we are beginning to see more research evaluating patient satisfaction. The Beryl Institute (2014) defines patient experience as “The sum of all interactions, shaped by an organization’s culture, that influence patient perceptions across the continuum of care” . The nursing culture in magnet organizations has been shown by most research to produce nursing outcomes and clinical patient outcomes that are improved when compared to non-magnet organizations (Goode et al., 2011). The purpose of this literature review was to determine if there is evidence that these characteristics also impact the patient perception of care and overall satisfaction.

Research Question

In adult patients, does care received in a facility with magnet designation improve their overall patient experience as measured by the HCAHPS survey?

Methods

Search Terms and Definitions

A comprehensive search was performed to identify research articles published in English between the years 2000 and 2015 to examine the impact of Magnet designated hospitals on patient perception of the overall quality of care. A limited search using MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), ERIC, Health Source: Nursing/Academic Edition, PsycINFO, and the Cochrane Library was performed using the following key search terms: “HCAHPS”, “Magnet”, “Healthcare quality”, “Medicare”, “outcomes measurement”, “Nurs*”, “patient sat*”, “patient experience”, “non-magnet”, “healthcare environment”, “patient outcome*”, “quality of care”. The reference lists of reviewed articles were scanned for additional related studies.

A clear understanding of the accreditation criteria for Magnet designation by the ANCC, is key to this project. The ANCC produces a list of Magnet facilities annually. Non-Magnet designated hospitals are defined as any hospital included in a study that has not received such designation from the ANCC. Patient perception of care refers to any data gathered directly from patients receiving care in an acute care setting. CMS mandates the HCAHPS survey for acute care facilities. The HCAHPS survey is publicly reported and was accessed directly from the database for study purposes. It is important to be clear that patient perception outcomes referenced in this paper will be patient outcomes related to perception and not nurse related outcomes or clinical outcomes related to quality of care.

Inclusion/Exclusion Criteria

Inclusion criteria used to determine relevant studies were any research study that included studies that compared magnet designated hospitals to non-magnet designated hospitals. In every included study, a measure of patient perception of care, must be included and the HCAHPS survey data reported by CMS was preferred. Exclusion criteria for studies that were not considered for this literature review were any non-acute care setting, measurement of outcomes that did not include patient perception of care, and populations excluded by CMS for HCAHPS survey purposes. Initial search yielded 218 results. Only six references met inclusion criteria, additional resources will be included for supportive material.

Validity of Findings

The articles presented in this review were evaluated for validity and reliability. Inclusion criteria preferentially choosing the HCAHPS results, a survey that has been extensively reviewed for validity, strengthens the validity and reliability of the studies reviewed. Limitations to this review exist in the significantly larger number of non-magnet designated hospitals as compared to those nationwide with Magnet designation. All references meet criteria for evaluating both magnet facilities and non-magnet facilities. All references address patient satisfaction as an outcome related to the organizational nature of the work environment. All references studied adult patient populations.

Coding/Themes

Three themes emerged in the literature review. In all studies the data showed that Magnet facilities do have a positive impact on measurable patient satisfaction scores. Second, though it was not a primary focus on the studies, a correlation was found between nursing outcomes associated with Magnet facilities and patient satisfaction scores. Finally, the cost

associated with improvement strategies was a theme that emerged. This theme is not only related to the cost of improvement, but further important because of the lost dollars associated with poorly performing organizations.

Findings

A literature evaluation including summary of the patient group and sample size, study design and level of evidence, outcome variables, key results, study weakness and themes for each of the 6 articles included is provided in Appendix A.

Study Characteristics

Utilizing Melnyk and Fineout-Overholt (2009), all articles meeting inclusion criteria were rated as level IV studies. Ebell et al. (2004) provided the guidance for the strength of the evidence of the studies reviewed, yielding a rating at level B for all articles, using the Strength of Recommendation Taxonomy (SORT) method. The level of evidence equaled a 2 and findings were consistent among all studies. All studies measured patient perception or satisfaction while comparing data from Magnet facilities with that of non-magnet facilities. The HCAHPS survey methodology was utilized in four of the 6 studies (Chen, Koren, Munroe, & Yao, 2014; Smith, 2014; Kidd, 2013; Smith, 2013). Two studies utilized researcher designed survey to measure patient perception of care (Aiken et al., 2012; Aiken, Sloane, Lake, Sochalski, & Weber, 1999). Five of the six studies were retrospective case control studies that gathered data for a one year period of time (Chen et al., 2014; Smith, 2014; Kidd, 2013; Smith, 2013; Aiken et al., 2012). Aiken, Sloane, Lake, Sochalski, and Weber (1999) selected patients and nurses from 20 hospitals and conducted a concurrent sample study, two of these hospitals were Magnet facilities.

HCAHPS survey data is considered patient-oriented data. Even though it is subjective in nature, it does impact the quality of life and patient outcomes related to hospitalization and

intervention. A large body of evidence linking objective patient outcomes with nursing outcomes associated with Magnet designation exists. Recent research related to subjective patient outcomes is emerging, which is fostering further research on this matter.

Sample Characteristics

The number of ANCC Magnet designated facilities for comparison is significantly smaller than non-magnet facilities in all studies. Total sample size of hospitals represented in all studies is 7,776. Of those hospitals, 570 were designated as magnet or magnet-in-process hospitals. That equates to 13.6% of the sample size. Aiken et al. (2012) studied 12 European countries and the United States (U.S.). The time period ranged from 2006-2007 in the U.S. and 2009-2010 in Europe. All other studies reviewed were solely focused in the U.S., each reviewing data for a one year period of time (Chen et al., 2014; Smith, 2014; Kidd, 2013; Smith, 2013; Aiken et al., 1999). The CMS survey is limited to adult patients over the age of 18, discharged to home after admission to an acute care setting. All other populations were excluded from the survey data.

Body of Findings

Careful review of all six included studies, available for review in Appendix A, drive recommendations for nursing practice with regard to magnet status and patient perception data.

Magnet status

Hospitals with Magnet designation or magnet-in-process were found to have a positive impact on HCAHPS and patient perception scores in all six of the studies reviewed. Consistent findings revealed that all HCAHPS domains showed statistically significant improvement among studies except for the questions related to responsiveness of hospital staff (Smith, 2013). Chen, et al. (2014) found that higher RN hours per patient day (RN-HPPD) increased HCAHPS scores

related to the question, “always receive help as soon as you wanted it”. However, in the same study Chen et al. (2014), found that Magnet status was persistently a stronger contributor to the HCAHPS scores when compared to RN-HPPD and nursing turnover. According to Smith (2013), even magnet-in-progress facilities demonstrated higher rates of patient satisfaction with quality of care, leading the author to conclude that it is not the program title or magnet recognition that improve patient satisfaction but the care environments created through positive nurse practice environments. The evidence does not point that facilities with Magnet designation conclusively or independently influence patient perception, but rather indicate that something inherent in these organizations does. Further research is needed to determine the correlation.

Nursing Outcomes

Nursing outcomes historically associated with ANCC Magnet facilities, such as better staffing, are associated with improved patient outcomes and patient satisfaction (Aiken et al., 2012). Aiken et al (2012) found that improved measures of nursing work environment, nursing staffing and satisfaction with management, was correlated with patient overall rating of the hospital and likelihood to recommend the hospital. In a study of AIDS patient satisfaction with quality care, Aiken, Sloane, Lake, Sochalski, and Weber (1999) found that patients receiving care in environments that were positive were more than twice as likely to report higher levels of satisfaction. Chen et al., (2014) found that hospitals with lower RN turnover rates were more likely to have higher patient satisfaction scores. Tinkham (2014) pointed out that unpleasant nursing outcomes that cause nurses to be unhappy at work contribute to the perspective that nurses do not have time for their patients. If patients feel as though their nurse, who is to be entrusted with their care, does not have time to meet their needs, then concern over quality of care and perception of poor care will undoubtedly arise.

Cost

The costs of pursuing Magnet recognition can exceed 4 years in invested time and between \$100,000 and \$600,000 of financial investment (Chen et al., 2014). Though there is significant research to indicate that this investment leads to better nursing outcomes and clinical patient outcomes, it may simply not be feasible for all organizations. According to Kidd (2013), patients that are satisfied with their care have been shown to have better clinical outcomes. Careful analysis of the costs and benefits are suggested for organizations that are seeking to improve patient experience in both subjective and objective outcomes measures. Included in this analysis should be the invested time and expense carefully compared to the dollars, both hard and soft, associated with improved outcomes, reimbursement tied to value based purchasing data, as well as harder to measure market share projections related to patient perception and likelihood to rate and recommend the hospital to family and friends. Another factor related to cost involves risk assessments of liability related to potential lawsuits as a result of poor patient satisfaction. Patients who are highly satisfied with their care are less likely to pursue legal action or file malpractice claims against a healthcare provider (Kidd, 2013). Medicare reimbursement dollars have reached 30% of the pie in recent years and exceeds \$800 million dollars of potentially lost revenue for hospitals nationwide (Centers for Medicare & Medicaid Services, 2014). The best performing hospitals will reap rewards in excess of their allotted reimbursement, therefore exceptional performance with regard to patient experience could equate to a positive revenue stream. Regardless of the strategies that organizations choose to put in place to address patient experience, the costs of the performance improvement strategies should be weighed against the cost of doing nothing or doing less. Proven evidence-based strategies may be worth the investment.

Recommendations

Magnet designated hospitals and magnet in process hospitals have been found to have a positive impact on patient experience and perception of quality care. Hospitals should pursue Magnet designation for improved patient satisfaction scores which promote quality patient outcomes. Organizations that value patient experience should consider modeling improvement strategies after nursing characteristics found in Magnet facilities. It is imperative that nursing leaders, both in education and in leadership and management in organizations where nursing at the bedside must be supported, focus on providing healthy work environments where quality care is possible. Hospitals should actively pursue improvements related to nursing outcomes (nursing hours per patient day, RN turnover, and satisfaction with work environment) as these measures consistently demonstrate statistical significance related to patient satisfaction with care. Patient centered care, safety, and clinical outcomes have been pervasive in nursing research, however, patient perception of care and satisfaction with care delivery is quickly gaining attention. Nursing leaders are best capable of evaluating the nursing work environment to determine what practices provide the best outcomes on all fronts for patients and for nursing staff. If there is truth to the adage that happy nurses make happy patients, then further investigation as to the connection between nursing outcomes, work environments and patient satisfaction is paramount. Hospitals should explore the cost associated with Magnet designation and compare costs with lost reimbursement from CMS related to poor patient satisfaction when addressing strategies to improve HCAHPS scores.

Conclusion

There definitely needs to be future research specifically focused on the patient perception outcomes. The literature supports recommendations that future research explore the specific

characteristics of the work environment that is supported by magnet hospitals and how that impacts the patient perception of care. In addition, Magnet characteristics need to be compared to hospitals that employ other culture influencing principles. It will be interesting to find out if one is more effective at impacting patient perception over the other. Current research studies demonstrate that Magnet in process hospitals have a positive impact on patient perception of care, implying that the actual designation is not the influencing factor, but is possibly contributed to the culture transformation.

References

- Aiken, L. H., Sermeus, W., Van Den Heede, K., Sloane, D. M., Busse, R., McKee, M.,...Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *British Medical Journal*, 344(e1717), 1-14.
- Aiken, L. H., Sloane, D. M., Lake, E. T., Sochalski, J., & Weber, A. L. (1999). Organization and outcomes of inpatient AIDS care. *Medical Care*, 37(8), 760-772.
- American Nurses Credentialing Center (2014, November 6). *Frequently asked questions* from the 2014 ANCC national magnet conference*. Retrieved June 21, 2015, from <http://nursecredentialing.org/Documents/Magnet/MagCon-2014-FAQs.pdf>
- The Beryl Institute (2014). *Defining patient experience: A critical decision for healthcare organizations*. Retrieved July 6, 2015, from <https://theberylinstitute.site-ym.com/store/ViewProduct.aspx?id=3720810>
- Centers for Medicare & Medicaid Services (2014, September 25). *HCAHPS: Patients' perception of care survey*. Retrieved July 1, 2015, from <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html>
- Centers for Medicare & Medicaid Services (2014, December 18). *Hospital value-based purchasing*. Retrieved April 9, 2015, from <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/hospital-value-based-purchasing/index.html>
- Chen, J., Koren, M. E., Munroe, D. J., & Yao, P. (2014). Is the hospital's magnet status linked to HCAHPS scores? *Journal of Nursing Care Quality*, 29(4), 327-335.

- Ebell, M. H., Siwek, J., Weiss, B. D., Woolf, S. H., Susman, J., Ewigman, B., & Bowman, M. (2004). Strength of recommendation taxonomy (SORT): A patient-centered approach to grading evidence in the medical literature. *Journal of the American Board of Family Practice, 17*(1), 59-67.
- Goode, C. J., Blegen, M. A., Shin, H. P., Vaughn, T., & Spetz, J. (2011). Comparison of patient outcomes in magnet and non-magnet hospitals. *The Journal of Nursing Administration, 41*(12), 517-523.
- Harris, D., & Cohn, T. (2014). Designing and opening a new hospital with a culture and foundation of Magnet: An exemplar in transformational leadership. *Nurse Leader, 12*(4), 62-68, 77.
- Institutes of Medicine (2010, October 5). *The future of nursing: Leading change, advancing health*. Retrieved March 4, 2015, from <http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx>
- Kidd, L. R. (2013). *Patient's experiences in magnet and non-magnet hospitals: Is there a difference?* (Doctoral dissertation). Available from CINAHL Plus with Full Text. (ISBN: 978-1-303-63061-3)
- Melnyk, B. M., & Fineout-Overholt, E. (2009). *Evidence-based nursing practice in healthcare: A guide to best practice* (2 ed.). Philadelphia, PA: Lippincott, Williams & Wilkins.
- Smith, S. A. (2013). *Magnet hospital status impact on mortality, readmission, and patient reported quality of care* (Doctoral dissertation). Available from CINAHL Plus with Full Text. (ISBN: 978-1-303-31402-5)
- Smith, S. A. (2014). Magnet hospitals: Higher rates of patient satisfaction. *Policy, Politics, and Nursing Practice, 15*(1-2), 30-41.

Tinkham, M. R. (2014). Satisfaction, Press Ganey, and magnet recognition. *AORN Journal*, *100*(5), 534-536.

Appendix A Literature Table

PICO Question: In adult patients, does care received in a facility with magnet designation improve their overall patient experience as measured by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey?

Search Strategy: A limited search using MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), ERIC, Health Source: Nursing/Academic Edition, PsycINFO, and the Cochrane Library was performed

Key Words: “HCAHPS”, “Magnet”, “Healthcare quality”, “Medicare”, “outcomes measurement”, “Nurse”, “patient sat*”, “patient experience”, “non-magnet”, “non magnet”, “healthcare environment”, “patient outcomes”, “quality of care”

Search Outcome: Review of 218 resources, of which 6 met inclusion criteria.

Literature Evaluation Table

Citation	Patient Group and Sample Size	Study Design and Level of Evidence	Outcome Variables	Key Results DATA	Study Weaknesses	Themes
Chen, J., Koren, M. E., Munroe, D. J., & Yao, P. (2014). Is the hospital's magnet status linked to HCAHPS scores? <i>Journal of Nursing Care Quality</i> , 29(4), 327-335.	110 Illinois hospitals, 20 Magnet Hospitals and 90 non-magnet hospitals. All with >100 beds.	Cross sectional, secondary data analysis	HCAHPS Scores reported through CMS, NHPPD, RNHPPD, RN turnover (Jan 1- Dec 31, 2009)	Magnet hospitals received higher scores than non-magnet hospitals in all of the 7 HCAHPS measures	Limited to Illinois and hospitals with beds >100. Variability among hospital size.	Nursing characteristics are linked to patient satisfaction outcomes. Patient demographics, magnet status.
Smith, S. A. (2014). Magnet hospitals: Higher rates of patient satisfaction. <i>Policy, Politics, and</i>	2,001 acute care hospitals: 160 Magnet hospitals, 99	Secondary analysis of data	American Hospital Associate data (hospital	Magnet hospitals and magnet in progress, have statistically significantly higher	Cross sectional nature of the study, single	Magnet and magnet in process significantly

<i>Nursing Practice</i> , 15(1-2), 30-41.	Magnet in progress, 1,742 non-magnet hospitals.		characteristics), ANCC to identify Magnet status, HCAHPS data from CMS.	scores ($p < .007$) that non magnet hospitals in 6 of 7 questions on the HCAHPS survey.	period in time. Large database with risk for data entry errors.	improves patient satisfaction. Cost benefit analysis.
Aiken, L. H., Sermeus, W., Van Den Heede, K., Sloane, D. M., Busse, R., McKee, M.,...Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. <i>British Medical Journal</i> , 344(e1717), 1-14.	210 European hospitals (11,318 patients) and 430 US hospitals (over 120,000 patients)	Cross sectional data analysis	Satisfaction overall with nursing care and willingness to recommend hospital	Patients in hospitals with better work environments were more likely to rate their hospitals highly (1.16, 1.03 to 1.32) and recommend their hospitals (1.20, 1.05 to 1.37) Better work environments tend to be related to nurse patient ratio in this study.	Cross sectional data that could not definitely establish causality. Variability in survey instruments and language barriers.	Hospital environment and organizational context. Correlation with nurse reported satisfaction and patient reported satisfaction throughout all hospitals.
Kidd, L. R. (2013). <i>Patient's experiences in magnet and non-magnet hospitals: Is there a difference?</i> (Doctoral dissertation). Available from CINAHL Plus with Full Text. (ISBN: 978-1-303-63061-3)	3,539 hospitals. 289 of these were magnet hospitals (8.2%) Jan-Dec 2011	Independent t test conducted in retrospective cross sectional analysis	HCAHPS data AHA (Hospital characteristics) ANCC (Magnet Status)	Magnet status was found to be significantly associated with 9 of 10 HCAHPS survey domains. 7 of the ten are associated with magnet status. The probability values (sig.) were less than the level of significance value of 0.05, implying the Significance of the	Cross sectional data. Additional factors impacting patient satisfaction were not included in the study.	Nurse related impact on healthy work environment consistent with magnet hospitals. Skill mix of nurses.

				<p>statistics. These include the following:</p> <ul style="list-style-type: none"> • Doctors "Always" communicated well, $F(1) = 16.65; p = 0.00$ • "Always" received help as soon as they wanted, $F(1) = 23.76; p = 0.00$ • room and bathroom were "Always" clean, $F(1) = 22.94; p = 0.00$ • "Always" quiet at night, $F(1) = 43.85; p = 0.00$ • YES, given information about what to do during recovery, $F(1) = 16.22; p = 0.00$ • hospital a rating of 9 or 10 on a scale from 0 (lowest) to 10 (highest), $F(1) = 48.04; p = 0.00$ • YES, would definitely recommend the hospital, $F(1) = 133.89; p = 0.00$ 		
Smith, S. A. (2013). <i>Magnet hospital status impact on mortality, readmission, and patient</i>	2001 hospitals,	secondary data analysis, ILR	AHA Hospital database, ANCC (magnet database),	Magnet and Magnet-in progress hospitals were found to have significantly ($p <$	Large administrative databases pose risk of	Magnet status improves patient satisfaction,

<p><i>reported quality of care</i> (Doctoral dissertation). Available from CINAHL Plus with Full Text. (ISBN: 978-1-303-31402-5)</p>			<p>ACAHRQ database, HCAHPS database</p>	<p>0.007) higher scores than non-Magnet hospitals on six of the seven subjective outcome variables investigated regarding patient reported satisfaction (Welch ANOVA analysis) except for the <i>Always received help when wanted</i> ($p = 0.009$).</p>	<p>data error entry. Also cross sectional study over one limited time period. Limited to Medicare and Medicaid population only. Limited nurse specific data.</p>	<p>Cost benefit analysis</p>
<p>Aiken L, Sloane D, Lake E, Sochalski J, Weber A. Organization and outcomes of inpatient AIDS care. <i>Med Care</i>. 1999; 37 (8): 760–772</p>	<p>1,205 consecutively admitted patients in 40 units in 20 hospitals and on 820 of their nurses from Sept 1990-Dec 1991</p>	<p>Concurrent data collection and analysis with dedicated research nurses.</p>	<p>American Hospital Association data, ANCC data, Hospital admission records, 21 item questionnaire (LOPSS) and 4 investigator-developed items pertinent to AIDS care. Interviews of a subset of 25 patients per unit and linear regression process.</p>	<p>Patient satisfaction was improved in dedicated AIDS units and Magnet facilities.</p>	<p>Specific population focus on AIDS patients, may not be applied to all healthcare settings.</p>	<p>Organizational control by nurses</p>

