



## Survey

# Qualitative Study of the Impact of Patient Satisfaction Surveys on Nurses in Ambulatory Neurosurgery

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### ABSTRACT

**Background:** Literature on the impact of patient-satisfaction metrics on nursing staff is scarce and limits nurses' ability to understand the impact these metrics have on their daily practice.

**Aim:** The aim of this qualitative study is to explore nurses' perceptions of patient satisfaction surveys on their daily practice when working with patients with acute neurological changes.

**Method:** A content analysis approach was used to analyze interviews with six neurosurgical nurses. The analysis was conducted throughout the interview and analysis process, and guided interviews and rigor processes.

**Results:** Among the surveyed nurses, there was unified agreement that the current tool for obtaining the metrics did not accurately reflect the performance of the registered nurse. Themes that emerged from interview analysis included "anxiety", "frustration", "uncertainty", and "workarounds". Interviews uncovered a disconnect between clinical nurses and leadership, as well as how feedback is presented to nurses by patients, which drove many of the themes listed above. The nurses felt that the metrics should not be linked to individual performance feedback.

**Conclusion:** Nurses report that patient satisfaction surveys do not represent an ideal metric for quality of nursing care and impact their daily practice negatively. These results could be applied to improving the registered nurse performance evaluation tools utilized in neurological units.

**Keywords:** Patient satisfaction, ambulatory, neurosurgery, nursing

### INTRODUCTION

Healthcare systems often focus on quality improvement (QI) metrics to address patient experiences and improve surgical outcomes. The surgical experience is a continuum that includes the perioperative, critical care, and recovery phases (Chowdhury and Duggal, 2017). Patient satisfaction surveys (PSS) are often used to provide QI metrics (Evangelou et al., 2018) (Alazmah et al., 2021). The growing body of literature that guides practice using PSS is starting to include outpatient neurology and neurosurgery settings (Hopkins et al., 2019, Weilenmann et al., 2021).

Whereas it is commonplace to examine how nursing care impacts PSS scores, it is less common to examine how altering care

paradigms to meet PSS metrics impacts nursing practice (Bogue and Bogue, 2020). Nursing burnout is often discussed as a critical care nursing phenomenon, placing an emphasis on a particular type of nursing care (Browning, 2019). The focus on meeting external metrics such as PSS contributes to critical care nurse burnout (Bae, 2021). However, nurses involved in the continuum of care from critical care to post-acute recovery all experience additional pressure or stress as they try to improve patient care by fitting into a framework or using tools that were not designed for their work setting (Bogue and Bogue, 2020). If nurses outside of critical care share similar concerns about PSS then it may stand to reason that the impact of PSS as a hospital metric is a system-wide, and not specialty-care specific concern.

It is well-established that stress contributes to higher burnout rates (Hilcove et al., 2021, Portero de la Cruz et al., 2020). Burnout and job-related stress can lead to higher adverse patient events (Liu et al., 2018, Dacar et al., 2019). This creates a negative cycle between patients (via PSS), clinicians (nurses specifically), administrators, and healthcare systems. There is little literature that provides guidance to nurses or nursing administration on how to mitigate the stress of this cycle in the outpatient setting. To begin to tackle this negative cycle, this qualitative study aimed to better understand the impact of PSS on nurses' daily practice, experiences, perceptions, and overall career in the outpatient setting.

## BACKGROUND

Patients may express dissatisfaction more frequently when needs are not met (Rosenberg, 2021). PSS questions are often tailored to the individual institution to obtain detailed information that can be correlated to cost reduction, QI, patient satisfaction, and patient safety. These questions are sometimes ambiguous and may not appropriately reflect the care provided to the patients in the outpatient setting. For example, words like "timely" are used in questioning, and responses are often variable based on patient interpretation. However, because these metrics are often publicly accessible, as well as directly tied to hospital reimbursement, PSS results have an elevated precedent over other variables being measured in the survey. This positions patient satisfaction as the primary focus of the nurse's practice, which can cause undue stress, especially as acuity evolves and resources change in the ambulatory setting (Qoussine et al., 2021)

Nursing burnout has been directly linked to negative patient outcomes, as well as high rates of employee turnover. Nurse retention is imperative to combat the nursing shortage afflicting the healthcare industry today (Nowak et al., 2010). These constructs are broad, interpretation can be varied, and concerns may not be the same for various clinical settings (e.g., inpatient vs. outpatient). This study, thereby, aims to address this gap by honing in on how patient satisfaction surveys (PSS) impact their daily practice in outpatient nurses. Data could not be found on ambulatory nurses' perceptions of the impact of patient satisfaction score on nurse satisfaction. A qualitative inquiry is needed to better understand the ambulatory nurse's perceptions and experience.

## METHODS

This qualitative study uses a conceptual and relational concept analysis approach to

explore how external metrics may impact nursing practice in an ambulatory neurosurgery clinic in a stroke-certified academic center (Creswell and Poth, 2016). The study was carried out in an outpatient neurosurgical specialty clinic in a university hospital setting. In this setting, nurses are held accountable to specific time-sensitive metrics that determine productivity, and response rate. These responsibilities are in addition to assisting physicians during clinic with outpatient procedures, entering orders, conducting patient scheduling, following, and general inquiry telephone calls, and conducting initial patient assessments. It is important to note that this means there is no extra time allotted to respond to account for the time the individual nurse must spend away from their desk as they are participating in patient care.

### **Participants**

Using purposive sampling, six clinic nurses were approached for consent. Once consented, one-on-one interviews were conducted by the primary investigator (PI). The interview guide was developed with guidance from the senior author who completed her doctoral work using qualitative methods. An outline of interview questions was provided to the participant ahead of time. All interviews were recorded. Following each interview, the PI transcribed each interview verbatim.

### **Analysis**

Next, the PI coded relevant themes and conducted content analysis. After enough salient data was collected, the PI performed cross interview analysis. Codes were developed to correspond to commonly reported themes in transcriptions. Codes were listed and recorded for frequency in each interview. Codes were stratified into four main interrelated concepts.

To ensure rigor, member checks were performed. Participants completed member checks approximately 2 months after their interviews via email. Each participant reviewed the transcription from the interview to ensure there was no additional information to provide and that the answers were still accurate. Additionally, the PI used peer debriefing to discuss general methodology and study findings with the rest of the study team.

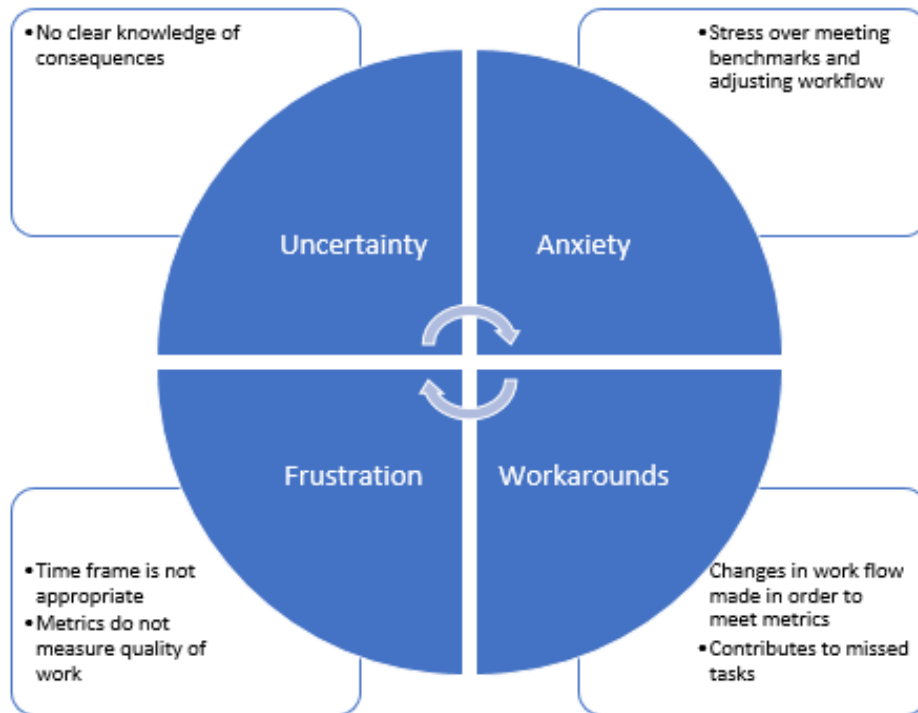
### **Ethical Considerations**

All study procedures were approved by the Institutional Review Board prior to study enrollment. Participation was voluntary and confidentiality of data and right to withdraw were assured.

## **RESULTS**

A total of 6 interviews were completed with 6 participants, ranging from 45 to 90 minutes. The average interview time was 60 minutes. The interviews occurred between January 2020 and August 2020. The average age of participants was 33, with 7 years of experience as a nurse, and 100% of the nurses were female. Analysis revealed four central themes: *anxiety*, *uncertainty*, *workarounds*, and *frustration*. Each of the participants interviewed expressed specific examples of anxiety, uncertainty, frustration, and the need to create workarounds when it relates to the assessment of patient satisfaction (Figure 1). Repeated analysis of the transcriptions and codes revealed a cyclical reciprocal relationship among themes.

**Figure 1.**  
*Four Identified Themes by Clinic Nurses When Assessing Patient Satisfaction*



### **Anxiety**

Anxiety was the most prevalent theme throughout the interviews. Anxiety was coded as: nervous, does not feel good, and stressful. It was defined as a negative feeling directed towards work duties due to timestamped metric. Each participant described a different experience with anxiety as is to be expected; however, the ways in which practice was altered to positively cope with anxiety were similar. One participant stated that patient satisfaction survey questions' failure to accurately capture delivered care directly influenced the development of their anxiety. Participant 1 stated, *"It feels like one more thing they're scrutinizing, not looking at the good nursing care we provide."* Another participant (Participant 3) expressed anxiety specifically in regard to the timestamp applied to the way each encounter must be closed. In both cases, participants selectively triaged encounters to temporarily close, allowing for more time to be given elsewhere. Anxiety was discussed by each participant as a contributing factor to navigating the daily workflow as patient care must be balanced with satisfying the timestamp for completing tasks. One participant (Participant 5) stated,

*"The timestamp has created changes to my workflow by changing the way I respond...If I know that I need an answer from the physician, I will still have to call the patient and let them know that I am going to the physician which is an extra step on my part and that I will*

*call them back once I hear back from the physician. Instead of just going straight to the physician and coming to the patient with the answer and closing the communication loop, all because of metrics."*

Other participants described marking an encounter as closed but leaving it in their work queue to return to, once time allowed. This was limited to tasks such as sending orders or returning short term disability paperwork, and not direct patient care or reported symptoms. Anxiety was also tied to watching the number of phone calls increase while being physically present in clinic with the physician.

*"I hit refresh and there are three or four new phone calls each with their little clocks running for my response, but I know due to being in clinic I cannot address them the day they come in meaning they must wait for the next day. I don't like starting my day behind the ball, it makes me anxious."* -Participant 2

### **Workarounds**

The theme of Workarounds was described as changes in workflow that the nurses made in order to meet metrics. Although workarounds contributed to missed tasks they were discussed as being created to mitigate anxiety. Workarounds were seen as a testament to the resilience of the nurses. They may not be receiving support from the healthcare system on ways to lessen the anxiety and so they create their own ways of lessening the anxiety. A participant related: "sometimes a telephone encounter can be closed without being addressed to stop the clock running on the response time, but the nurse does not delete it out of their in-basket so they can come back to it later when they can address it fully."

### **Uncertainty**

The theme of uncertainty was conveyed through expressions such as: "don't know", "am not sure", and "cannot explain". Uncertainty negatively impacted the nurses' practice as it contributed to their anxiety and frustration. Only one participant was able to partially describe ramifications of not consistently satisfying the benchmark. There were documented discussions that the metric had not been met, but there was no explanation of direct consequences. Five participants could not describe consequences, if any, for not satisfying the metric and each reported being consistently able to satisfy the requirement.

Participants related that uncertainty produced anxiety; and that anxiety became a driving factor for meeting the requirement as further means to avoid possible consequences. Participants were unanimous in the belief that a timestamp applied to the encounters is also inappropriate. One participant described, "I now will close any encounter as quickly as I can even if it's not answered or we have not come to a resolution of the problem, just to be in step with the metrics." (Participant 4). The most common example was a telephone encounter which required response from the physician or another department. The nurse would have an initial call with the patient to confirm a response but would ultimately have to rely on another person to complete the communication loop, which could take more than 24 hours.

Oftentimes nurses have a natural inclination of "why." An understanding, via training or a seminar, of how PSS questions are developed, the purpose, and how PSS questions can be used to improve QI metrics for a clinic would be helpful in the future.

### **Frustration**

Each participant expressed frustration at the timestamp as they did not feel it was appropriate for the correlated task. Every telephone or email encounter that is sent to the nurse must be signed and closed within one business day. Due to the potential complexity of patient encounters, it is common for some to resolve over a period of days rather than hours. The nurse may have to wait for a response from a provider or other coordinating department. Patients often do not possess insight into the “behind the scenes” clinical workflow required for their treatment plan to proceed. It is therefore not appropriate to apply the timestamp in a blanket fashion if the response is to accurately reflect the given care. Participants expressed frustration that PSS were not the appropriate manner in which the quality of their work should be evaluated.

Patient encounters that do not require physician or interdisciplinary communication could still require more than the allotted 24 hours to complete. Participants described how each patient interaction is different and difficult to estimate the amount of time the nurse should anticipate needing for completion. Participants were able to describe questions posed to the patient however they were each unable to list the questions explicitly. Each described the questions as vague and open to subjective interpretation which further contributes to the experience of inaccurately reflecting the work.

### **DISCUSSION**

Recent changes to healthcare delivery related to the impact of electronic healthcare records and the availability of patient portals have resulted to higher levels of healthcare burnout (Dyrbye et al., 2017). The daily responsibilities of a nurse do not readily lend themselves to measurement in scales and can be difficult to quantify. Nursing workload is inconsistently defined, even in the inpatient & critical care settings; often a workload measure (such as staffing ratios, patient census, and acuity levels) or a metric (such as patient satisfaction scores) is substituted for a definition (Browne and Braden, 2020). Therefore, metrics for gauging nursing values and nursing employment satisfaction have been largely contingent on qualitative constructs: a sense of achievement, increased feelings of self-worth, professional growth, and intellectual stimulation (Pick and Leiter, 1991).

The metrics implemented by the study clinic are generated from a survey that is mailed to each patient following their visit. The survey contains twenty-six questions that are intended to capture the patient’s experience and satisfaction with the clinic. Patients can choose their answer from a numerical scale of 1-5 with 1 correlating to “very poor” and 5 correlating to “very good.” As it relates to the nurse, there are five subjective questions applied to the individual nurse who is assigned to the physician that assessed the patient. Each nurse in the clinic is notified monthly about their individual performance as it relates to these questions (Table 1). The goal is for each nurse to meet the metrics with greater than or equal to 90%. These questions do not reflect the workload of the nurse or capture the coordination effort made for each patient. A 2010 study (Nowak et al., 2010) showed that nurses were the least satisfied healthcare professionals in their work, highlighting profound discontentment and recommending the implementation of regular communication

between leadership and employees to forge a real partnership within the organization.

Table 1.  
*Patient Survey Questions Targeting Satisfaction with Nurse Performance*

Questions	Very Poor (1)	Poor (2)	Fair (3)	Good (4)	Very Good (5)
How well the nurse listened to you					
Concern the nurse showed for your problem					
Friendliness / courtesy of the nurse					
Nurse promptness in returning phone calls					
Nursing staff's concern in assisting with control of pain					

Anxiety, uncertainty, and frustration have similarities in that they can be viewed as negative emotional responses. But they have key differences and are each their own distinct theme which can synergistically drive or contribute to another. Uncertainty, as it applies to the transition from critical care to outpatient clinics and home refers to not having a clear understanding of any repercussions the staff nurse is subject to facing should the metric not be met (Laws et al., 2022). For example, the participants each noted feelings of anxiety towards the metric time stamp that were separate from the anxiety related to the uncertainty of the consequences for not meeting the metric.

Frustration is part of daily life for many people, but when it becomes ever-present in one's career, it can affect one's wellbeing (Wang et al., 2016). Frustration, in the context of this study, is dissatisfaction and distress over the inability to perform a function in the manner most aligned with their individual practice (Hilcove et al., 2021). Inaccurately measuring the work of nurses contributed to frustration. Participants also described frustration without anxiety, specifically as it related to believing that the questions do not measure the value of work that is done by nursing. Though difficult to separate, uncertainty was also reported as an individually experienced phenomenon, as participants largely could not explain what would happen if the metric was not being met.

All participants agreed that it is necessary to have a process to ensure that patient encounters are addressed to minimize care plan disruptions and reduce patients who fail to follow up. However, consistent with the uncertainty theme, they felt that the process should be separate from the employee's annual review. Each participant expressed desire for the input on performance be directed to the physician with whom they are respectively paired over the metrics. Participants did agree that patient experience and subsequent input should also be surveyed but would prefer to revise questions to better reflect the care being delivered.

The current survey does allow patients to leave comments for each question which has contributed to a negative rating for patient experience unrelated to the clinic, for example an extended wait for valet. Additionally, the volume of encounters is not

standardized or consistent between participants or their respective physicians (Rich et al., 2010), creating a discrepancy that must also be taken into consideration. Furthermore, the results discussed suggest a disconnect between the nursing staff and leadership. While it could be argued that the clinic nurses are interpreting the metrics incorrectly, this does not diminish the observations of disconnect. Thus, the themes which emerged are highly relevant as they provide context for future efforts to align the efforts of staff with the aims of leadership.

### **Limitations**

A major limitation of this exploratory study, is the fact that the interviews and analysis were conducted by one investigator, involving participants from one clinic only. Furthermore, it is unclear if the results are transferable to other settings and contexts. Consequently, there is further research needed on the experience of registered nurses in other clinic settings in order to determine if the findings described are generalizable (Bautista et al., 2022). Changes required during the COVID-19 pandemic altered the clinic's practice as ambulatory care transitioned across the institution from in-person patient visits to a large emphasis on telemedicine (Newby et al., 2020). Nurses in the surveyed clinic have also transitioned to a work-from-home model which presented certain upfront challenges since the timestamp applied to the metrics did not change. Although the number of patients physically in the clinic decreased, the number of telephone and chart contacts to the clinic increased. With the introduction of work from home, the number of days spent in clinic with the respective physician did not change. Productivity was noted to increase. Additionally, changes in workflow altered the ways in which healthcare professional met to discuss concerns with survey results. This led to the development of a monthly e-mail being sent to the individual nurse with the scores.

### **Implications for Future Practice**

In order to foster a positive workplace environment, ambulatory settings require a clearer definition of nursing practice expectations that fit with the evolving healthcare needs of the community they serve. Further research is also needed to better understand how quality improvement metrics can be optimized to accurately reflect the quality-of-care nurses provide in the ambulatory setting, and how these metrics might impact nurse's practice and wellbeing. This data may help institutions to rethink their metrics with the aim to retain talent and delay nursing burnout, both of which are national priorities identified in the Future of Nursing 2020-2030 report (National Academies of Sciences et al., 2021).

### **CONCLUSION**

The trend towards placing PSS scores higher than other outcomes is not unique to neurological care. The interviewed participants reported that the PSS' impact on their nursing practice led to anxiety, frustration, and overall career uncertainty. The participants discussed how the individual measurements contributed to anxiety, frustration, and uncertainty, and that these feelings contribute negatively to job satisfaction and engagement. The findings support that burnout associated with PSS is likely a system-wide phenomenon and suggest that nursing administration should be aware that workarounds





are occurring due to PSS, nurses are confused about PSS questions and how this impacts their performance reviews and is creating anxiety and frustration in the workplace - known contributors to burnout.

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