Improving Nurse Support of Patient Satisfaction Surveys through Team Huddle Education

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Improving Nurse Support of Patient Satisfaction Surveys through Team Huddle Education

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N670 ME-MSN Internship

University of San Francisco, School of Nursing and Health Professions

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Abstract

**Problem** As a leading cause of death and disability in the US, strokes often require complex, multifaceted care. Often ignored, patient satisfaction is a crucial aspect of this care and is positively linked to key health indicators. Regulatory guidelines underscore the need for stroke-specific patient satisfaction survey (SSPS) utilization in post-stroke care. **Context** Hospital X is a large Comprehensive Stroke Center in the Bay Area, serving patients with various stroke etiologies and complexities. At present, its Neuro Observational Unit (NOU) does not administer a SSPS. **Intervention** To address this gap in care, an educational presentation using literature evidence in support of SSPS was presented to nursing staff during the monthly department meeting. **Measures** The aim of this presentation was to ensure 100% of nurses in the NOU acknowledge SSPS importance by April 18, 2024 to maintain safe, quality care for stroke patients and meet regulatory standards. Successful change in practice was evaluated through a questionnaire administered before and after the education module. It gauged nursing staff attitudes toward SSPS and their likelihood of encouraging patient participation on a Likert scale from 1 to 5. **Results** The QI team found average pre-intervention scores of 4.4 and 3.6 for significance and likeliness to encourage, respectively, and post-intervention Likert scores of 4.1 and 3.6, respectively. Optional comments from nurses implied confusion about their role in SSPS implementation. **Conclusions** These results suggest that Hospital X NOU nursing staff are open to implementing a SSPS, but require clarification on their role.

*Keywords:* registered nurse, comprehensive stroke center, stroke patient, patient satisfaction, patient satisfaction tool
Improving Nurse Support of Patient Satisfaction Surveys through Team Huddle Education

Every 40 seconds an American has a stroke, a life-threatening condition which also happens to be the leading cause of long-term, severe disability (Centers for Disease Control and Prevention, 2021). Consequently, the 795,000 annual survivors and their caregivers are at risk for great physical, emotional and financial hardship due to the complexity of care necessary for diagnosis, treatment, and recovery of this condition. It is therefore not surprising that the Joint Commission outlines specific, strict guidelines for distinct designations of stroke care centers, depending on their medical capabilities and resources. Sitting atop the stroke care strata is the Comprehensive Stroke Center. In addition to offering advanced neurological procedures and round-the-clock neurosurgical availability, hospitals with this designation must also adhere to the many other criteria that constitute lower levels of care. One such criterion that must be implemented in order to maintain Comprehensive Stroke Center status is the evaluation of patient satisfaction that is specific to stroke patients (The Joint Commission 2022).

Problem Description

Evaluation of patient satisfaction may seem low-priority within the complicated realm of stroke survivor care. However, studies show that there is a correlation between patient and caregiver satisfaction and key health indicators such as self-perceived healthiness, quality of life, and safety (Baumbach et al., 2023; Cramm et al., 2012; Oksholm et al., 2023). Furthermore, patient evaluation of care allows healthcare professionals and institutions an opportunity to reinforce important safety measures or evaluate the patient’s knowledge of the care they received. Unfortunately, this opportunity is not always implemented effectively or consistently, to the detriment of the patients (Oksholm et al., 2023).
At Hospital X, a Comprehensive Stroke Center in the Bay Area, there is currently no stroke-specific patient satisfaction survey (SSPS) in use on the Neuro Observation Unit (NOU). This unit routinely cares for patients who have experienced strokes of all types. Considering the potential benefits of evaluating patients in this way, in addition to the Joint Commission guidelines on maintaining Disease-Specific Certification, this unit may benefit from a SSPS. In order to implement such a survey, it is first necessary to gauge nurses’ attitudes toward patient satisfaction, to determine whether this microsystem would be receptive or appropriate for the intervention. As the proverbial “tip of the spear” nurses play a direct role in the delivery of care to stroke patients. Therefore, interventions that affect nursing actions may have the greatest potential to affect patient care and perception of patient care, whether positive or negative.

**Available Knowledge**

**PICO Question**

Having critically appraised the problem facing Hospital X, the student quality improvement (QI) team devised a PICO question in an attempt to determine the perceived significance of patient satisfaction and increase nursing staff awareness of it. The PICO question is as follows: Among nurses on the NOU in a comprehensive stroke center, how does an educational huddle presentation affect nurses’ perceptions of patient satisfaction?

**Search Methodology**

In effort to glean background information and the current evidence concerning stroke patient satisfaction, a literature review was performed using search terms such as *patient satisfaction*, *tool*, *survey*, *questionnaire*, and *stroke*. The additional search term of *huddle* was added to determine the effectiveness of this medium for implementing a stroke survivor satisfaction survey. This literature search yielded ten articles - a mix of both Level II and Level
III non-experimental studies and systematic reviews. They were evaluated for strengths using the Johns Hopkins Evidence Appraisal Table (Appendix A). Many of the articles that resulted from this search were from countries other than the United States. This may suggest that more research considering the importance of patient satisfaction in American hospitals is warranted. In the absence of extensive United States healthcare data on this subject, the origin country of a study did not exclude it from this literature review. Literature was included if the research question assessed the validity, feasibility, and reliability of a patient satisfaction tool, whether applied broadly or specifically to stroke patients. Literature was also included if it examined potential links between patient satisfaction and patient outcomes.

**Literature Synthesis**

Broadly, evidence from the literature seems to support use of both universal and patient satisfaction surveys in the stroke patient population, while some studies highlight potential barriers to reliably measuring patient satisfaction. However, several studies seem to suggest that more generalized approaches to patient satisfaction surveys may not be adequate for stroke patients in ways that are not easily measured through research. This may indicate that a SSPS is more favorable, even if the evidence supports both targeted and generally surveys. Lastly, many studies express a correlation between patient satisfaction and health status, though a causal relationship has not been established.

In a study done by Baumbach and colleagues (2023), analysis of nearly 5000 patients who received care in one of many departments within a particular German hospital found strong, positive correlation between ratings of nurse and physician care and quality of life and self-reported health. Similarly, a study of the Dutch healthcare system by Cramm and colleagues (2012), found positive correlation between quality of life and satisfaction scores of both stroke
survivors and their caregivers. While the generalizability of these studies to the United States may be limited by the settings in which they took place, the reproducibility in different nations across a decade with entirely different patient populations provides evidence for the importance of patient satisfaction and its correlation with key health measures.

If the correlation between patient satisfaction and improved health outcomes are accepted, a reliable measurement tool for stroke patient satisfaction is necessary for the scope of this QI project in garnering support from nurses. Evidence from the literature seems to impart that both stroke-specific and universal surveys are reliable and valid tools to determine satisfaction with care. Validation studies for universal satisfaction tools by Konerding and colleagues (2019) and Joseph and colleagues (2021) provided analysis of SERVQUAL and HCAHPS, respectively. However, it is important to note that Konerding’s team evaluated data from six different countries in stroke and diabetes clinics, while Joseph’s research group sampled orthopedic patients from one hospital only. Regardless, the strength and scope of the Konerding study provides ample evidence for utilization of a universal tool to measure stroke survivor satisfaction with care.

Perhaps conversely, an extensive evaluation of the Satisfaction-with-Stroke-Care (SASC) questionnaire by Boter and colleagues (2003) found the tool was reliable, feasible and valid when compared to more general satisfaction and quality of life surveys such as the General Satisfaction questionnaire, the Hospital Anxiety and Depression Scale, the Short Form 36, and Barthel Index. In concordance with these findings, Aznida and colleagues (2020) were able to provide evidence for a condensed, post-discharge adaptation of the SASC, the Homesat. While neither of these studies boast the same scope as the Konerding research, there may be other
reasons to consider a patient satisfaction survey tailored specifically to stroke survivors and their caregivers.

A systematic review by O’Halloran and colleagues (2019) investigating research of the standardized Australian Hospital Patient Experience Set (AHPES) found that only four of thirty-nine articles adequately addressed communicative vulnerabilities in their samples. Considering the effect a stroke can have on a patient’s communication skills, it logically follows that this potential barrier should be addressed. This could be made possible by a SSPS.

Consistency within a healthcare system may be key to determining which interventions and tools are effective whether the tool is specific or generalized. A systematic review by Oksholm and colleagues (2023) provided evidence that patient satisfaction and safety during periods of transition are not consistently measured, which makes evaluation of interventions that affect these aspects of care difficult. While they acknowledge an observed correlation between patient satisfaction and quality of life, the authors propose further research in order to determine which measurement tool and interventions significantly impact patient care and satisfaction.

Having shown the validity, reliability, feasibility and significance of a SSPS, the next step in implementing such a tool is to raise awareness among nursing staff and leaders as to the benefits of the tool and how to implement it successfully. In a systematic review of stroke patient satisfaction survey research, Abu and colleagues (2023) found that the major factors contributing to patient satisfaction are as follows: “Healthcare Professional–Patient Relationship, Delivery Service, Perceived Patient Autonomy, Expectations Shape Satisfaction, and Culture Influences Satisfaction”. It is important to note that at least three of these aspects of care can be directly influenced by nursing staff, that is the nurse-patient relationship, perceived patient autonomy, and expectations of care. This suggests that nurses play a large role in patient satisfaction with
care. Additionally, a study by Lin and colleagues (2022) analyzed 44 huddles and surveyed the multidisciplinary teams on this format's effectiveness in identifying and solving unit problems as a team. They found that during this time 81 unit issues were addressed with over 80% of issues deemed "quick hits". They also found that almost 93% of staff agree huddles "help to expedite the process to reach treatment goals, reduce clinical mistakes, near misses, reduce patient incidences, and help teamwork enhancement" (Lin et al., 2022). These results support dissemination of knowledge about stroke-specific patient satisfaction surveys during team meetings and huddles in order to improve adoption of the tool by nurses, who are powerful change agents in improving patient outcomes.

To summarize the evidence from the literature, NOU adoption of a SSPS could help Hospital X accurately measure this important aspect of patient care and improve health outcomes such as quality of life for patients and caregivers, safety, and self-reported health. Given the nurse-patient relationship, successful implementation of such a survey is contingent on increasing awareness of the significance of such tools among nurses through education during huddles.

**Rationale**

Innovations in patient care can only improve outcomes if they are consistently implemented and evaluated by staff who have “bought in” to the change. Utilization of theoretical frameworks can help change champions predict how certain staff may react to and adopt new processes or technologies in order to increase buy-in (Barrow et al. 2022). As a “growth-mindset” change theory that encourages leaders to adopt a transformative outlook focusing on opportunities and possibilities, Appreciative Inquiry allows change champions to visualize, plan, implement, and evaluate evidence-based practice in the microsystem (Armstrong
et al. 2020). It forces positivity in change agents, causing them to be more “strategic, resilient, and strengths-based” in the future (Armstrong et al. 2020). Considering the ideological climate and medical prowess of Hospital X, a strengths-based, growth-centered approach to improving stroke patient care would be most effective. Therefore, AI change theory is the most appropriate framework to adopt when improving stroke care in this microsystem.

Designated as one of two comprehensive stroke centers in Northern California, Hospital X is a regional leader in caring for neurological maladies. Due to this designation and the culture that permeates this hospital, it is important to take into account the staff values of excellence in patient care and evidence-based practice. Appreciative Inquiry is an apt change theory to improve stroke care at this hospital. Having observed nurses during huddles, on the floor, and in new-hire training specific to the NOU, it is clear that a change theory promoting positivity would best suit this microsystem. The hospital’s culture and status as a Comprehensive Stroke Center necessitates an approach that emphasizes strengths and conceptualizes patient care goals as opportunities to improve.

**Project AIM**

Through the lens of AI and guided by the organization’s goals to improve patient outcomes by bolstering patient satisfaction, the student QI team formulated the following Aim statement. By April 18th, 2024, the aim of this project is to ensure that 100% of nurses in the NOU will acknowledge the importance of a SSPS in order to maintain safe, quality care for all stroke patients and meet regulatory compliance standards.

**Ethical Considerations**

This project meets the guidelines for an evidence-based QI project. An IRB review was not required. A statement of non-research determination (SONRD) form was completed to
validate this QI initiative (Appendix B) followed by a review and approval by University of San Francisco School of Nursing and Health Professions clinical faculty. The project described received no funding and the project group members declare no conflict of interest for the project.

Additionally, this project simultaneously embodies Provision 3 of the American Nursing Association (ANA) and the USF value of *cura personalis*. Provision 3 states, “the nurse promotes, advocates for, and protects the rights, health, and safety of the patient” (ANA, 2015). By aiming to improve a process that provides patient-specific feedback to the microsystem, this project promotes the safety and health of the patient while also considering their needs as a whole person.

**Methods**

**Context**

The microsystem targeted for this QI project is the NOU in a Comprehensive Stroke Center within the San Francisco Bay Area. This unit was evaluated using the 5Ps method in an attempt to elucidate an effective approach to the project’s aim.

**Purpose**

The purpose of the NOU at Hospital X is to provide primary and secondary stroke prevention, care, and education to patients in the San Francisco Bay Area community and beyond. As the primary neurology unit in one of two Comprehensive Stroke Centers within Hospital X’s Northern California healthcare system, the NOU provides care to a wide range of patients with neurological conditions according to American Heart Association and American Stroke Association guidelines.

**Patients**

While this unit is capable of caring for patients with a plethora of neurological maladies,
many of those served are survivors of stroke. This includes patients who have experienced ischemic, ischemic thrombotic, transient ischemic, subarachnoid hemorrhagic, and intracerebral hemorrhagic strokes.

**Professionals**

The professionals that impact care on the NOU include hospitalists, neurologists, neurosurgeons, interventional radiologists, pharmacists, registered nurses, patient care technicians, speech therapists, occupational therapists, physical therapists, and social workers.

**Processes**

The main processes that affect NOU care are triage and assessment, imaging and procedures, pharmaceutical and lab communications, admissions, transfers, and discharges. Additionally, there are four stroke alert processes depending on whether it is an early (<6 hours) or late (6-24 hours) alert and whether it is inpatient or through the emergency department (T. Mostasisa, personal communication, February 2, 2024). More specific to the aim of this project, the process of disseminating information typically occurs during huddles and the monthly staff meeting.

**Patterns**

A potential new shift in an established pattern that may affect the workflow of the microsystem is the administration of the patient satisfaction survey. Currently, Assistant Nurse Managers (ANMs) are responsible for this important process, as noted by several nurses that work on the unit. A pattern of uncertainty among the unit staff as to who should have the patient complete the satisfaction survey may contribute to lower survey response rate.
Further Analysis and Project Development

Once the microsystem assessment was completed, more detailed analysis and formulation of the intervention began. Project planning and execution of necessary steps was outlined in a Gantt chart (See Appendix C). Root cause analysis and further study of the microsystem within the context of the problem statement was facilitated by a fishbone diagram (See Appendix D) and a SWOT analysis (See Appendix E), respectively. These analyses helped narrow the intervention to an educational presentation about SSPS. The fishbone diagram highlights key factors, such as a gap in Joint Commission policy standards, the role of patients and their caregivers, and the dissemination of nursing knowledge. With these influences in mind, the QI team developed a SWOT analysis, which showed the greatest opportunity for gauging and improving nurses’ attitudes toward patient satisfaction may be education at the monthly meeting, with baseline and post-intervention data collected during huddles. The analysis also revealed a potential weakness in the microsystem in the recent change in nursing leadership, as well as a threat in the form of the pending hire of a stroke coordinator. However, given the opportunities of Hospital X as a Comprehensive Stroke Center with nurses used to strict policy guidelines and evidence-based practice, the team was confident that threats and weaknesses could be overcome.

Intervention

To determine and improve current nursing attitudes toward patient satisfaction and the nurses’ willingness to encourage patient completion of the form, the QI team designed a questionnaire (See Appendix H) and developed an educational presentation (See Appendix I). The questionnaire featured two questions on a Likert scale assessing nurses’ perception of patient satisfaction significance and their likeliness to encourage completion of a patient satisfaction survey. This questionnaire was also available as a QR code (See Appendix J).
the course of several weeks, the QI team collected baseline data at team huddles, at both the morning and afternoon shift changes. This allowed the team to capture the attitudes of nurses on all shifts. After baseline data was obtained, the team presented information from the literature in support of SSPS. The team meeting presentation was reinforced by an educational flier that was posted in the NOU break room (See Appendix K). Lastly, a second questionnaire was administered to nurses to reassess attitudes toward patient satisfaction and willingness to encourage patients to participate in such surveys.

**Study of the Intervention**

The intervention was implemented and evaluated through one Plan-Do-Study-Act cycle (See Appendix F), with potential to extend the project into subsequent cycles. Initial Planning included development of the PICO question, aim statement, literature review and intervention materials. Once completed, the literature review and intervention materials were integrated into a brief informational presentation, with collection of data occurring before and after implementation. This data was then analyzed in the Study section of the cycle, with comparisons between pre-interventional nurse attitudes and post-interventional nurse attitudes displayed graphically. During the Act phase, the information collected was compared to the initial aim and measures to evaluate effectiveness of the intervention. Additionally, these charts and conclusions drawn by the QI team were shared with nurse leaders on the unit, fellow masters nursing students, USF faculty and the community. Should the project continue, the next phase of Planning would reflect feedback from these groups as well as the data collected by the team.

**Outcome Measures**

The following outcome measures, collected via the nursing questionnaire, were utilized to determine the effectiveness of the educational presentation:
• Average on Likert scale question about patient satisfaction significance
• Average on Likert scale question about likeliness to encourage survey completion
• Comments left by nursing staff on questionnaire

Results

Upon surveying 28 nurses for baseline data regarding nursing attitudes toward patient satisfaction and their willingness to encourage patients to fill out a survey, the team identified average Likert scores of 4.4 and 3.6, respectively. After presenting, the QI team surveyed 14 nurses to gauge post-interventional attitudes toward patient satisfaction. The average Likert score for significance was reduced to 4.1, while likeliness to encourage did not change. These results are expressed visually in graphs and a data table (See Appendix L). It is important to note that there is an outlier in the significance data, a Likert score of 1, that if excluded the average would actually be 4.4.

Discussion

Summary

While the results do not speak to the effectiveness of the educational presentation, they suggest that nurses working in the NOU at Hospital X were already receptive to an SSPS and continue to support such a tool. However, it is important to note the discrepancy between significance and willingness to encourage. Though it may seem that these metrics should align, many nurses expressed confusion on the questionnaire comment section, citing their understanding that ANMs are responsible for collecting data in regard to patient satisfaction. Within the context of the data, these comments suggest that further explanation of the staff nurse role in implementation of a SSPS is necessary should this tool be implemented on the NOU.
Although this project did not achieve its aim of 100% acknowledgement of the significance of SSPS among NOU nurses, it laid a foundation for future assessment of this unit’s receptiveness to this tool. This information can help guide the rollout of a SSPS on the NOU, which will likely be necessary for meeting compliance standards in the near future. Concerning the outcome measures, the QI team was successful in that feedback from the nurses can guide subsequent PDSA cycles, and the data demonstrated nursing staff support of patient satisfaction assessment. This can likely be attributed to the strong nursing leadership on the unit and Hospital X’s status as a Comprehensive Stroke Center.

Limitations

Conclusions drawn from this QI project are primarily limited by the post-intervention sample size. Considering the 28 pre-intervention responses, 14 post-intervention responses may have been too small to accurately measure nurse attitudes toward the significance of patient satisfaction. Further, outcomes of this project were restricted by the confusion of nursing staff about their role in SSPS implementation. Adoption of a SSPS on the NOU and generalizability of this project to other units in Hospital X is limited until additional PDSA cycles clarify nursing roles to properly gauge attitudes.

Conclusion

The NOU nurses at Hospital X seem willing to utilize this tool. However, there may need to be clarification on who is to implement and what the nursing role actually is for a SSPS. Re-examination of nursing staff attitudes and explicit clarification of roles related to the survey can be included in the next PDSA cycle to guide future interventions. The recommendation of the QI team is for the NOU at Hospital X to redesign the educational presentation with distinct information regarding division of tasks and an example of the actual SSPS to be included,
resurvey the nursing staff, and compare the new results to the outcome of this QI project. The long-term goal of these recommendations is to effectively implement a SSPS in an effort to improve the process of patient satisfaction data collection. Ultimately, this goal should improve patient outcomes by increasing patient satisfaction through more accurate feedback and identification of areas of improvement and strength on the NOU.
References


Appendix A

Johns Hopkins Evidence Appraisal Table

<table>
<thead>
<tr>
<th>Journal</th>
<th>Citation</th>
<th>Evidence Type</th>
<th>Sample, Sample Size, Setting</th>
<th>How Does Article Address Problem?</th>
<th>Quality of Evidence</th>
<th>Other Insights from Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abu Saeed, H. Turish, R. Sokken, C. &amp; McNeil, P. (2023) Stroke survivors’ satisfaction and experiences with rehabilitation services: A qualitative systematic review. Journal of Clinical Medicine, 12(6), 543. [<a href="https://doi.org/10.3390/jcm12063341">https://doi.org/10.3390/jcm12063341</a>].</td>
<td>Qualitative systematic review</td>
<td>12 qualitative studies that evaluated patient satisfaction with inpatient stroke rehabilitation services. 74 articles were read in full.</td>
<td>The authors of the article had two researchers provide an independent rating of the qualitative stroke rehab studies, with a third researcher available for debate. They also had a meta-synthesis among the studies that continue to push the boundaries of stroke rehabilitation services. They are as follows: &quot;Healthcare Professional-Patient Relationship (HPR), Caregiver Service, Patient-Doctor Autonomy, Informed Consent, Patient Satisfaction, and Cultural Influence Satisfaction.&quot; (Abu et al., 2023). These results provide insight into the broader concepts related to patient-centered service satisfaction, which can help to inform a successful patient satisfaction tool.</td>
<td>Level II A: Good quality with transparency, anti-reflection diligence and scrutiny.</td>
<td>Limitations: This study is primarily limited to the one hospital and one site that was analyzed. For example, the authors mentioned that some studies that were reviewed did not include data regarding whether the patient adhered to their treatment plan, and levels of satisfaction were assessed. Outcomes: The authors were able to identify universal themes through which stroke patient satisfaction research can be compared synonymously.</td>
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<tr>
<td>Abdullah, A., Tan, C. J., &amp; M., T. S. (2023). The adjudication and validation of the satisfaction with stroke care quality index (SSC-Q) – An extension to the Stroke Specific Quality Index (SSQ) for use in public primary stroke units. The applicability of a stroke-specific stroke unit care satisfaction scale in the community. Health and Quality of Life Outcomes, 16(5), 158. [<a href="https://doi.org/10.1186/s12955-018-0729-2">https://doi.org/10.1186/s12955-018-0729-2</a>].</td>
<td>Non-experimental quantitative design</td>
<td>157 subject-patient stroke patients in Malaysia.</td>
<td>The researchers utilized a tabulated version of the SSC-Q to assess the level of satisfaction with stroke care. They found this tool to be reliable and valid. This provides support for a stroke-specific patient satisfaction tool.</td>
<td>Level II B: Good quality with transparency, anti-reflection diligence and scrutiny.</td>
<td>Limitations: This article is limited in that it was solely conducted in two public primary stroke care units in Malaysia, affecting generalization. The research findings need to be replicated among participating groups. Outcomes: This research provides empirical evidence of reliability and validity of the instrument.</td>
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<tr>
<td>Baum, L., Feria, M., Her, G., King, H. &amp; Hasegawa, A. (2023). Patient satisfaction with Cancer Pain Management and Self-Reported Health: A Cross-Sectional Study. Health Qual Life Outcomes, 20(222), 11 pages. [<a href="https://doi.org/10.1186/s12955-011-0205-9">https://doi.org/10.1186/s12955-011-0205-9</a>].</td>
<td>Non-experimental quantitative design</td>
<td>The study included general self-report survey data from 6205 respondents.</td>
<td>The researchers aimed to determine if there was a correlation between satisfaction with self-reported care and self-reported health and quality of life. Using regression analysis of the Likert-scale survey data from nearly 6000 patients among 15 hospitals, the researchers found that patient satisfaction with self-reported care was associated with self-reported health and quality of life. This highlights the importance of patient satisfaction in achieving positive patient outcomes.</td>
<td>Level II B: Good quality with transparency, anti-reflection diligence and scrutiny.</td>
<td>Limitations: This study is limited in that it does not considered multiple hospital sites. In the analysis, the researchers found that self-reported health and quality of life were strongly linked to quality of life and self-reported care. Outcomes: This study found that self-reported health and quality of life in patients at the specific hospital sites were positively correlated with self-reported care, and the researchers concluded that self-reported care can serve as a predictor of health satisfaction for patients.</td>
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<tr>
<td>Bok, M., Cho, Hee, J. N., &amp; Shin, S. J. (2023). Chronic evaluation of a tear in the flow line of a tear quality. Journal of Neurology, 2003, 54-61. [<a href="https://doi.org/10.1285/i15901098jnl-2003-1048">https://doi.org/10.1285/i15901098jnl-2003-1048</a>].</td>
<td>Non-experimental qualitative design</td>
<td>The study included 250 stroke patients and caregivers from a Dutch stroke care program.</td>
<td>The researchers utilized EuroQol and the SSD-95 data from stroke patients and caregivers to determine the correlation between quality of life and satisfaction with stroke care services in stroke units. The researchers found that caregiver scores were linked to satisfaction and quality of life scores were correlated, and patient satisfaction was strongly linked to quality of life. This highlights the importance of patient satisfaction in achieving positive patient outcomes.</td>
<td>Level II B: Good quality with transparency, anti-reflection diligence and scrutiny.</td>
<td>Limitations: This study is limited in that the data came from one hospital in Germany. Additionally, the researchers did not consider other factors such as age, gender, or socioeconomic status that may affect patient satisfaction. Outcomes: This study found that caregiver satisfaction is a global aspect of quality of life in stroke patients and caregivers, and the researchers concluded that caregiver satisfaction can serve as a predictor of patient satisfaction.</td>
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<td>Croyen, J., Strüwing, M., Naskso, A., Claissen, J., M., &amp; Michal, R. M. (2023). Satisfaction with care as a quality of life by the patient and their caregiver: Quality of Life Research, 10, 11, 1961-1967. [<a href="https://doi.org/10.1007/s11101-012-0201-6">https://doi.org/10.1007/s11101-012-0201-6</a>].</td>
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<td>Joseph, K., Udwyq, I. N., Warn, T. C., Ludvig, B., C., Boromag, K. E., Bok, H., Hurley, S., Yeoh, G., Omt, M. M., &amp; Others, B. M. (2023). Patient Satisfaction After Discharge to Secondary Care. Journal of Neurology, Neurosurgery, and Psychiatry, 84(7), 1382-1383. [<a href="https://doi.org/10.1136/jnnp-2023-381379">https://doi.org/10.1136/jnnp-2023-381379</a>].</td>
<td>Exploratory mixed-method design, including nested randomized trial experiment.</td>
<td>Exploratory mixed-method design, including nested randomized trial experiment.</td>
<td>The authors of the article had two researchers provide an independent rating of the qualitative stroke rehab studies, with a third researcher available for debate. They found two major themes among the studies that continue to push the boundaries of stroke rehabilitation services. They are as follows: &quot;Healthcare Professional-Patient Relationship (HPR), Caregiver Service, Patient-Doctor Autonomy, Informed Consent, Patient Satisfaction, and Cultural Influence Satisfaction.&quot; (Abu et al., 2023). These results provide insight into the broader concepts related to patient-centered service satisfaction, which can help to inform a successful patient satisfaction tool.</td>
<td>Level II B: Good quality with transparency, anti-reflection diligence and scrutiny.</td>
<td>Limitations: This study is limited in that the study was conducted at only one hospital, affecting generalizability. Outcomes: This study serves to provide evidence of the validity of 6HPS in accurately measuring patient satisfaction. Qualitative data from interviews coded and analyzed.</td>
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This study investigated patients from European countries that were either attending a pain clinic or participating in an online survey. The study aimed to understand the factors influencing patient satisfaction.

Outcomes: This study found that pain management was a significant factor affecting patient satisfaction.

Level (I/A): Good quality study with transparency, self-reflection and integrity.

Limitations: This study is limited due to the small sample size and the use of an online survey.


This study observed 46 multidisciplinary team consultations between September 2019 and September 2020 at a Taiwanese hospital.

Outcomes: This study supports the use of interdisciplinary care in hospital settings.

Level (I/A): Good quality study with transparency, self-reflection and integrity.

Limitations: This study is limited in that it is a single-center study in a single Taiwanese hospital. This affects its generalizability.


This RCT qualitative study investigated the impact of hospital patient experience on patient satisfaction.

Outcomes: This study highlights the importance of patient experience in improving patient satisfaction.

Level (I/A): Good quality study with transparency, self-reflection and integrity.

Limitations: This study is limited in that it is a single-center study in a single hospital in Australia, affecting generalizability.


This RCT qualitative study investigated the impact of hospital patient experience on patient satisfaction.

Outcomes: This study highlights the importance of patient experience in improving patient satisfaction.

Level (I/A): Good quality study with transparency, self-reflection and integrity.

Limitations: This study acknowledges the limitations of analyzing and comparing different hospitals.


This study investigated patients from European countries that were either attending a pain clinic or participating in an online survey. The study aimed to understand the factors influencing patient satisfaction.

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Outcomes: This study supports the use of interdisciplinary care in hospital settings.

Level (I/A): Good quality study with transparency, self-reflection and integrity.

Limitations: This study is limited in that it is a single-center study in a single Taiwanese hospital. This affects its generalizability.


This RCT qualitative study investigated the impact of hospital patient experience on patient satisfaction.

Outcomes: This study highlights the importance of patient experience in improving patient satisfaction.

Level (I/A): Good quality study with transparency, self-reflection and integrity.

Limitations: This study acknowledges the limitations of analyzing and comparing different hospitals.
Appendix B

Statement of Non-Research Determination

Project: Statement of Determination and Non-Research Determination Form

Student Name: Zoe Fritz, Vanessa Li, Amanda Dao, Matt Price

Title of Project: Improving Nurse Support of Patient Satisfaction Surveys through Team Huddle Education

Brief Description of Project
Regulatory guidelines that are supported by current literature dictate the need for a Stroke-Specific Patient Satisfaction survey (SSPS). At present, Hospital X does not routinely implement SSPS survey. By April 18th, 2024, our aim is to ensure that 100% of nurses in the Neuro Observational Unit will acknowledge the importance of a SSPS to maintain safe, quality care for all stroke patients and meet regulatory compliance standards. To achieve this aim, education about the importance of SSPS data will be shared with staff during the monthly department meetings. The desired change through this intervention is that the nursing staff acknowledge the importance of SSPS surveys to meet regulatory body standards and deliver high quality patient care. Successful change in practice will be evaluated using a voluntary and anonymous nursing staff questionnaire that gauges the nurses' attitudes toward SSPS surveys and their likelihood of encouraging patients to participate.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

X This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

☐ This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:
# EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST

**UNIVERSITY OF SAN FRANCISCO**

School of Nursing and Health Professions

**Instructions:** Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive a standard of care.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP. The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: &quot;This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.&quot;</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
ANSWER KEY: If the answer to ALL of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

**STUDENT NAME (Please print):**

Zoe Fritz, Vanessa Li, Amanda Dao, Matt Price

Signature of Student:

Zoe Fritz, Vanessa Li, Amanda Dao, Matt Price

**SUPERVISING FACULTY/MEMBER NAME (Please print):**

Signature of Supervising Faculty Member

Theresa M. Mostasir 3/15/24
## Appendix C

### GANTT Chart

<table>
<thead>
<tr>
<th>TASK TITLE</th>
<th>START DATE</th>
<th>DUE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Initiation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research of literature</td>
<td>1/23/24</td>
<td>2/26/24</td>
</tr>
<tr>
<td>Synthesis of literature</td>
<td>1/23/24</td>
<td>2/26/24</td>
</tr>
<tr>
<td>Literature review</td>
<td>1/23/24</td>
<td>3/3/24</td>
</tr>
<tr>
<td><strong>Project Planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meet &amp; coordinate with stakeholders</td>
<td>1/23/24</td>
<td>2/9/24</td>
</tr>
<tr>
<td>Microsystem assessment</td>
<td>1/23/24</td>
<td>2/9/24</td>
</tr>
<tr>
<td>PICO question &amp; aim statement</td>
<td>1/23/24</td>
<td>2/9/24</td>
</tr>
<tr>
<td>Create nurse questionnaire &amp; educational material</td>
<td>2/19/24</td>
<td>2/29/24</td>
</tr>
<tr>
<td><strong>Project Implementation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct pre-intervention data collection</td>
<td>2/20/24</td>
<td>3/21/24</td>
</tr>
<tr>
<td>Educate at unit staff meeting</td>
<td>3/21/24</td>
<td>3/21/24</td>
</tr>
<tr>
<td>Conduct post-intervention data collection</td>
<td>3/21/24</td>
<td>4/4/24</td>
</tr>
<tr>
<td><strong>Project Evaluation and Synthesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data analysis</td>
<td>4/4/24</td>
<td>4/11/24</td>
</tr>
<tr>
<td>Poster creation</td>
<td>4/11/24</td>
<td>4/24/24</td>
</tr>
<tr>
<td>Presentation to unit leadership</td>
<td>4/18/24</td>
<td>4/18/24</td>
</tr>
<tr>
<td>Poster presentations</td>
<td>4/25/24</td>
<td>4/25/24</td>
</tr>
<tr>
<td>Pinning &amp; poster reception</td>
<td>5/15/24</td>
<td>5/15/24</td>
</tr>
<tr>
<td>Graduation</td>
<td>5/17/24</td>
<td>5/17/24</td>
</tr>
</tbody>
</table>
Appendix D

Fishbone Analysis

Fishbone Diagram

- Patients
  - Patients who are not in a proper state to answer questions/complete survey
  - Pt's Family
    - Dissemination of nursing knowledge/policies
    - Measurement of satisfaction
  - Procedures

- Providers
  - Nurses knowledge of pt satisfaction
  - Staff Buy-In

- Policy
  - Gap in knowledge compared to TJC guidelines
  - Approval process of survey

- Problem
  - Nurses unaware of importance of stroke patient satisfaction survey
  - Stroke bulletin board outdated
    - Neuro OU
  - Place
Appendix E

SWOT Analysis

**STRENGTHS**
- Monthly unit meetings
- Team huddles
- Nurses reception to education + willingness to provide feedback
- Leadership support

**WEAKNESSES**
- Challenges in the chain of command for implementation
- Limited time
- Change in leadership roles
- Policy approval process

**OPPORTUNITIES**
- Comprehensive Stroke Certification
- Get With the Guidelines (AHA) Recognition
- Stroke specific orientation

**THREATS**
- Dynamic nature of organizational policy change
- Stroke coordinator TBA
Appendix F

PDSA Cycle

Plan
- PICOT/AIM
- Create + develop poster and questionnaire to get baseline data
- Assess nurse attitudes regarding SPSS

Do
- Collect data via questionnaire
- Present at monthly unit meeting
- Collect post-intervention data

Study
- Data analysis:
  - Compare to baseline and aim statement
  - Create charts for questionnaire data

Act
- Educate + spread awareness about SPSS
- Share questionnaire data/comments to management
- Evaluate effectiveness of intervention and make necessary changes
## Appendix G

### Budget Analysis

<table>
<thead>
<tr>
<th>Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical nurse leader salary</td>
<td>200 hours x $80/hour = $16,000</td>
</tr>
<tr>
<td>Printing</td>
<td>100 pages x $0.20/page = $20</td>
</tr>
<tr>
<td>Staff time for nurse questionnaire and education (done during huddles and monthly staff meeting)</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Total Costs** $16,020

<table>
<thead>
<tr>
<th>Cost Avoidance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Joint Commission penalty</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

**Projected Savings** $100,000 – $16,020 = $83,980
Appendix H

Nurse Questionnaire

Nurse Questionnaire
We are a team of Clinical Nurse Leader (CNL) students from the University of San Francisco (USF). Through our research, we are focused on evaluating nurse awareness and utilization of a Stroke Patient Satisfaction Survey (SPSS). Our collaborative approach emphasizes the importance of partnerships with nurses and patients in completing the SPSS, aiming to elevate the quality of stroke care by fostering increased nurse awareness. We are seeking to gather valuable feedback and insights to enhance the overall quality of care received by stroke patients. Thank you for your participation in our project.

1. **Question 1**: How significant to quality patient care is patient satisfaction?
   
   *Mark only one oval.*
   
   - [ ] 1 Not at all significant
   - [ ] 2 Not significant
   - [ ] 3 Somewhat significant
   - [ ] 4 Significant
   - [ ] 5 Very significant

2. **Question 2**: How likely are you to encourage stroke patients or their caregivers to complete a patient satisfaction survey?
   
   *Mark only one oval.*
   
   - [ ] 1 Extremely Unlikely
   - [ ] 2 Unlikely
   - [ ] 3 Neutral
   - [ ] 4 Likely
   - [ ] 5 Extremely Likely

3. **Comments**
Appendix I

Huddle Script

Hi my name is Amanda and I’m joined by my colleagues Matt, Vanessa and Zoe.
We’re USF clinical nurse leader students conducting a quality improvement project on your unit.
We appreciate your hospitality in allowing us to present at your monthly meeting.
Today, we are going to present information in the literature about patient satisfaction in stroke patients and why it is so important to assess this aspect of care.

Our project’s focus is to accurately assess patient satisfaction in stroke survivors. Evidence in the literature, as well as a close study of the Joint Commission’s comprehensive stroke center guidelines, has led us to the conclusion that a stroke-specific patient satisfaction survey is the most appropriate tool to gauge satisfaction in this population. We also feel strongly that the first step in implementing such a tool is to assess the target unit to determine whether the tool will work in this microsystem. We have been collecting data on nurse’s perspectives on a stroke-specific satisfaction survey. Hopefully over the past few weeks you have all had an opportunity to participate in our project by filling out our short questionnaire.

You may be wondering why a more generalized tool for patient satisfaction is not sufficient for stroke patients. While these surveys are valid, they may not account for all the dimensions of care necessary for stroke survivors. A patient satisfaction survey tailored towards stroke patients can account for this relationship by incorporating questions about help at home. Considering the stroke patient population, which may include a variety of communicative vulnerabilities, a more general survey is simply inadequate.

By implementing a stroke-specific patient satisfaction tool, a neuro unit can more appropriately assess the care a patient received, their ability to comply with post-discharge care, and future quality of life. Lastly, we will be reinforcing this education by posting a flyer and providing you all with research articles.

Because of the close relationships nurses make with their patients, you are in a prime position to encourage patient completion of a satisfaction survey, should such a survey be implemented in the future.

We have posted an anonymous questionnaire in the chat, as well as placed paper copies in your break room, to gauge your attitudes toward patient satisfaction. Though many of you may have filled out a similar questionnaire this morning or last week, we are asking that you please complete the questionnaire again.

We can now answer any questions you have. You may also use this time to fill out the questionnaire either by clicking on the link in the chat or filling out a hard copy in the break room. Thank you again for listening to our presentation.
Appendix J

Questionnaire Flier

---

Nurse Questionnaire regarding

Stroke Patient Satisfaction Survey (SPSS)

In partnership with

[QR Code]

UNIVERSITY OF SAN FRANCISCO
Appendix K

Educational Flier

Improving Nurse Support of Stroke Patient Satisfaction Survey (SPSS)

WHO ARE WE & WHAT ARE WE DOING

USF nursing students raising awareness of the significance of a stroke-specific patient satisfaction survey

WHY

Literature review findings:
- Lack of data on inpatient/acute stroke care patient experience (most focus on outpatient/rehabilitation care)
- Higher satisfaction with stroke care is associated with higher quality of life outcomes for both stroke patients and caregivers

INTERVENTION

Collect current nurse attitudes regarding patient satisfaction surveys via nurse questionnaire and share importance of a stroke specific satisfaction tool
Appendix L

Data Table and Graphs

<table>
<thead>
<tr>
<th>PRE-INTERVENTION</th>
<th>Significance</th>
<th>Likelihood to encourage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Not at all significant</td>
<td>0</td>
<td>1 Extremely Unlikely</td>
</tr>
<tr>
<td>2 Not significant</td>
<td>1</td>
<td>2 Unlikely</td>
</tr>
<tr>
<td>3 Somewhat significant</td>
<td>4</td>
<td>3 Neutral</td>
</tr>
<tr>
<td>4 Significant</td>
<td>6</td>
<td>4 Likely</td>
</tr>
<tr>
<td>5 Very significant</td>
<td>17</td>
<td>5 Extremely Likely</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>28</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>4.4</td>
<td><strong>Average</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POST-INTERVENTION</th>
<th>Significance</th>
<th>Likelihood to encourage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Not at all significant</td>
<td>1</td>
<td>1 Extremely Unlikely</td>
</tr>
<tr>
<td>2 Not significant</td>
<td>0</td>
<td>2 Unlikely</td>
</tr>
<tr>
<td>3 Somewhat significant</td>
<td>3</td>
<td>3 Neutral</td>
</tr>
<tr>
<td>4 Significant</td>
<td>2</td>
<td>4 Likely</td>
</tr>
<tr>
<td>5 Very significant</td>
<td>8</td>
<td>5 Extremely Likely</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>14</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>4.1</td>
<td><strong>Average</strong></td>
</tr>
</tbody>
</table>

Nursing Staff Pre- and Post-intervention Responses:

- Significance
- Likelihood to Encourage