Enhancing Compliance Rates: The Impact of Implementing a Bed Bath Bundle

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Enhancing Compliance Rates: The Impact of Implementing a Bed Bath Bundle

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School of Nursing and Health Professions, University of San Francisco

NURS 653: Internship

Professor Kelly Ingram

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Abstract

Problem: Bed baths are routine bedside procedures offered in hospitals to support patients' cleanliness and promote comfort and overall well-being. This bedside procedure represents fundamental care provided by healthcare professionals. Ensuring proper bed bathing compliance in the healthcare setting of a medical-surgical observation and telemetry unit has been significantly challenging. After thorough monitoring of the unit, key factors contributing to low bed bath compliance include time constraints, staffing shortage, and barriers specific to patients and staff. The evidence-based interventions to improve bed bath compliance include a bed bath bundle emphasizing teamwork and effective communication, as identified through an extensive literature review.

Context: This quality improvement project took place in a local hospital's medical-surgical observation and telemetry unit, aiming to enhance bed bath compliance for improved workflow and patient care.

Interventions: The project involved rigorous monitoring of the unit and the implementation of a comprehensive bed bath bundle. This bundle included visual signs to indicate bed bath preferences and completion, a well-equipped bath cart, and the utilization of Vocera communication devices by unit leaders for reminders.

Measures: The bed bath bundle's effectiveness will be evaluated through audits of team members' charting in the Electronic Health Record (EHR). The assessment encompassed visual reminders, bath supply distribution, and audio reminders from unit leaders. Additional process measures involved charge nurse rounding to ensure visible signs are posted on patient room door frames and unit clerk distribution of bath supplies to rooms with signs. To measure the efficacy of the bath bundle project among staff, a bath auditing tool will be utilized and post-intervention
surveys will assess the nurse’s perceptions of the effectiveness of the bath bundle in aiding with the completion of bed baths.

**Results:** Auditing of bed bath compliance in the medical-surgical observation and telemetry unit revealed an average daily bed bath rate of approximately 12% for the patient population from October 2021 to September 2022. Staff surveys and analyses identified staff resistance and poor charting compliance as common challenges. In response, a bed bath bundle was implemented, incorporating visual coding, improved interdisciplinary communication, and Vocera reminders to enhance charting compliance. Preliminary findings indicate a significant difference in compliance rates among healthcare members. These results suggest the bundle's potential effectiveness in improving bed bath adherence and patient care, with an expected minimum of an 11% increase in charted baths.

**Conclusion:** By addressing noncompliance root causes and implementing evidence-based interventions such as bed bath bundles, healthcare institutions can foster a culture of compliance, elevating patient care quality and resulting in improved outcomes and higher overall satisfaction during hospital stays.
Introduction

Bed baths are constituted as routine procedures that are offered in hospitals to support patients’ cleanliness and promote solace and overall well-being (Möller & Müller de Magalhães, 2015; El-Soussi & Asfour, 2016; Souza Costa et al., 2018; Tai et al., 2021). They are well accepted and acknowledged as an important factor in one’s healing during hospital stays. However, in practice, bed baths are not regularly performed. After conducting surveys among staff in the medical-surgical observation and telemetry unit, we gained insight into several barriers they face when conducting bed baths: time, prioritization, short-staffing, patient refusal, or merely forgetting to offer or conduct the bed bath. Incidentally, it was discovered that the staff on this unit struggles with resistance to change in unit practice. After extensive surveillance of the unit’s current bed bath protocols, we developed a bundle that uses interpersonal teamwork amongst staff and patients to increase rates of bed bath compliance. The bundle includes graphic signs to indicate the desire or completion of a bed bath, developing a dedicated bath cart, and utilizing Vocera communication device reminders. To address issues related to resistance, management should further encourage unit-based council participation for all staff members, survey staff regarding their resistance to change, and implement an educational program that introduces a transformational leadership style. This inclusive approach fosters a culture of teamwork and empowers employees to contribute their insights, ultimately enhancing the overall effectiveness and success of interventions to improve patient care and organizational outcomes. (Dawass et al. 2023).
Methods

Context

Microsystem assessment

The setting of our project is a licensed 548-bed capacity non-profit hospital. The microsystem selected for this quality improvement project is a 38-bed capacity medical-surgical observation and telemetry unit. The top three diagnoses of the admitted patients include chest pain, congestive heart failure (CHF), and transient ischemic attack (TIA). The average bedside mobility assessment tool (BMAT) score is three. This tool determines the level of assistance needed for each patient that grades one’s mobility level from 1 to 4 (Boynton et al., 2014). A lower score means that the patient is at a higher level of dependence and needs greater assistance. The average length of stay for patients is two days. Depending on various factors, such as patient census and acuity, the nurse-to-patient and aide-to-patient ratio varies. A total of 76 registered nurses and 40 clinical nursing assistants are staffed for this unit. A licensed vocational nurse is staffed outside of this microsystem but floats to this unit to assume care for registered nurses during their breaks. In this unit, the average nurse-to-patient ratio is 4:1, indicating that one nurse is responsible for the care of four patients. The typical aide-to-patient ratio is 8:1, indicating that one nurse aide attends to the needs of eight patients.

The microsystem team includes a clinical director, clinical manager, registered nurses, certified nursing assistants, and a unit clerk. Other interdisciplinary team members include physicians, case managers, social workers, physical therapists, and patients’ families. The unit has routine patient admission and discharges throughout the day and night shifts. The staff uses an electronic health record (EHR) system to communicate and acknowledge physician orders. They utilize Vocera communication devices to verbally communicate with team members during
the shift. Registered nurses conduct shift change reports at the nurses’ stations and later introduce themselves to the patients. After complete face-to-face handoff at the beginning of the shift, the registered nurses provide reports to their assigned patient care technicians.

From October 2021 through September 2022, leaders of medical-surgical units reviewed the raw data of average daily bed baths performed for our observation and telemetry floor and others such as post-operative, respiratory, renal, telemetry, oncology, and neurology. The observation and telemetry unit observed the lowest compliance rates, illustrating only 12% of days with complete baths performed. All other units’ compliance ranged from 23% to 49% of days with complete baths. A staff survey was conducted before creating the proposed bed bath bundle. This survey was open to answers from June 15, 2023 and received its last response on July 22, 2023. 24 registered nurses, one licensed vocational nurse, and 13 clinical nursing assistants participated in this survey, accounting for 31.6% of the total staffed registered nurses and 32.5% of the total staffed certified nursing assistants. This sample included 26 individuals who worked during the day shift and 12 individuals who worked during the night. The questionnaire aimed to identify the staff’s barriers to bed bath compliance and what they believed needed improvement or implementation to increase the percentage of daily baths performed. The given barrier options that may impact the amount completed bed baths were based on several studies that discussed the complexities of bed bath performance (Möller & Müller de Magalhães, 2015; El-Soussi & Asfour, 2016; Souza Costa et al., 2018; Tai et al., 2021).

**Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis**

Many determinants can influence the implementation of a bed bath bundle for the medical-surgical observation and telemetry unit. A Strengths, Weaknesses, Opportunities, and
Threats (SWOT) analysis examines the unit’s strengths and weaknesses, helps identify opportunities for growth and improvement, and assesses possible threats to the implementation. Staff teamwork, camaraderie, and sufficient resources to implement the bed bath cart provide a strong initiation for the project. The major challenges appeared to be staffing inadequacies, prioritization of more critical tasks, and staff resistance. Opportunities for improvement include effective staff communication, intentional rounding, and consistent patient hygiene education.

Threats to the medical-surgical observation and telemetry unit include short lengths of stay that can result in patient refusal of bed baths due to anticipated discharge and a required bathing order from physicians for telemetry patients to be temporarily removed from the monitor. Refer to Appendix D for a visual representation of the SWOT analysis.

**Root Cause Analysis**

Through the results of our staff survey and observation of unit practices, a fishbone diagram was created to conduct a root cause analysis of the determining factors that lead to inadequate bed bath compliance (see Appendix E). These factors were divided into the following categories: process, people, work culture and environment, and management. The process includes poor shift change handoff, no current bed bath schedule, inconsistent charting, heavy workflow, and short patient lengths of stay. The people category includes the lack of a bed bath unit champion and inadequate staffing. The work culture and environment have unclear work expectations and standards of care, staff resistance, lack of reminders on the unit, a larger unit of 38 beds, and a busy nurse station with multiple interruptions. The management category includes the lack of closed-loop communication between staff, lack of accountability by management, and lack of auditing of patient charts.

**Culture Assessment**
Assessment of the unit culture was conducted while collecting information for our bed bath barriers survey. With the collection of surveys, the initial lack of participation was a major shortcoming that required reinforcement from the leaders going up the chain of command. Staff on the unit expressed their resistance to the initiation of the quality improvement project. A staff member shared, “What’s the point of doing the survey if it's not going to help,” while other staff members commented that they were “very busy and had no time.” This feedback from the staff revealed the work culture's negative impact on implementing new practices.

**Cost-Benefit Analysis**

After assessing the unit's culture, it was recognized that great improvements could be made regarding issues related to resistance and non-compliance. The cost of enrolling a new hire registered nurse through unit-based council meetings is $45 an hour. For three meetings of an hour in length, the total cost is $135 for each nurse. Integrating a strong unit council can positively influence the successful implementation of quality improvement projects. High levels of nurse engagement in their respective work environments have been linked to better workforce outcomes including lower staff turnover, lower burnout, and higher reports of job satisfaction (Kutney-Lee et al, 2016). For example, in the hospital’s neonatal intensive care unit (NICU), the unit consists of a strong unit council that has implemented many successful quality improvement initiatives. The registered nurse participation percentage in partnership councils in the NICU is 23% and their average years of experience is 17.2 years. Meanwhile, the medical-surgical observation and telemetry unit’s partnership council participation is 8% and their average years of experience is 6.5 years. It is vital to investigate these statistics of registered nurse turnover because its costs are preventable for hospitals. The NSI Nursing solutions surveyed over 3,000 hospitals and results revealed that the average cost of turnover for bedside registered nurses is
This difference in participation emphasizes the impact of a collective work culture on overall patient care. With a focus on creating a more engaged unit council, this can influence all team members to improve compliance rates with hygiene.

The cost of the 4x6-inch magnet signs that will be posted on the patient room door frames is a unit price of $2.99 each, a total cost of $107.64 for 36 units. The benefits of signs outweigh the cost as evidence revealed that color-coded signs gave healthcare workers immediate information about the room they will enter. As a result, staff are saving time and increasing compliance with isolation precautions (Ghonim et al., 2013).

**Intervention**

After multiple weeks of observation and interviewing staff members, the proposed intervention is the implementation of a bed bath bundle. The first objective of the bundle is the placement of physical magnetic signs on the door frame of each room to indicate bed bath preferences and completion. The signs include a bathtub with different colored backgrounds. A green background indicates that the patient can independently complete the bath, a red background indicates that the patient needs assistance for bathing, a blue background with a red circle-backslash symbol indicates patient refusal, and a purple background with a green check mark indicates that the bath is completed. All four signs will remain in a designated area in each patient room. At the beginning of the morning shift at 07:00, the nurse will assess the patient’s level of independence and ask if the patient would like to receive a bed bath and at what desired time. Based on the patient’s response, the appropriate sign will be placed on the door frame. These signs will remain on the door frames until 06:00 the following day but may be changed to green signs throughout the day as bed baths are completed. At this time, the unit clerk will remove all bed bath signs and return them to their designated areas. This will ensure that there is
no confusion about whether the sign is up-to-date. The second objective of the bath bundle is a bath cart that includes all the necessary supplies for patients to complete baths such as shampoo, conditioner, bath soap, toothbrush, toothpaste, towels, and fresh linens. An hour after the change of shift, the unit clerk will round the unit and provide the necessary bathing supplies to the patients who have green signs on the door frame. Providing bath supplies to ambulatory patients will promote independence and improve their comfort. This implementation step aligns with lean healthcare principles. These principles increase return on investment (ROI) in completed baths by decreasing the amount of movement that staff needs to gather bathing supplies and improve overall efficiency. The third objective of the bath bundle is the use of Vocera communication devices to remind staff routinely to complete hygiene and appropriate documentation.

**Study of Interventions**

We recommend using the Plan-Do-Study-Act (PDSA) cycle to implement the bed bath improvement project. (See Appendix H). The first step in the planning section included surveying staff to identify barriers to bed bath compliance. A SWOT analysis and fishbone diagram were used to determine areas that needed improvement. After finding the root causes that hinder compliance, a bed bath bundle was developed to improve the quality of care. The next step in the “do” section will include the implementation of the bed bath bundle. This requires an in-service to educate staff about the use of each sign, the purpose of the bath cart, and a designated time for the Vocera reminders. The following step in the “study” section will involve continuous monitoring of the different components of the bed bath bundle. Monitoring will include monthly auditing of staff charting to see if increase in bed bath compliance and the charge nurse auditing compliance with the use of bath signs. A post-implementation survey will be conducted to assess the staff’s perceptions of the effectiveness of the bed bath bundle. The
“act” step will depend on the effectiveness of the bed bath bundle. If charting of bed bath compliance increases to 23%, then we can consider implementing this quality improvement project on other floors in the hospital. Otherwise, we will restart the PDSA cycle to change the process for the ongoing project.

**Measures (outcome measure & process & balancing)**

The bed bath bundle's effectiveness will be measured by auditing the team members' charting of completed hygiene in the Electronic Health Record (EHR). Routine auditing will examine the outcome of the objectives of visual reminders, quick distribution of bath supplies, and audio reminders from leadership. The process measures include rounding from the charge nurse to ensure that each room has a visual sign on the doorframe of each patient room and whether the unit clerk is distributing bath supplies to patient rooms with green signs (See Appendix I). If signs are posted, the charge nurse will follow up with the assigned registered nurse. To measure the balancing of the bath bundle project among staff, surveys will assess the nurse’s perceptions of the effectiveness of the bath bundle in aiding with the completion of bed baths (See Appendix J).

**Results**

The medical-surgical observation and telemetry unit’s bed bath compliance was assessed using a multifactorial approach over ten weeks. A root cause analysis (RCA) in conjunction with a (SWOT) analysis was conducted using the data collected from staff surveys. We identified staff resistance and poor charting compliance as common themes in the unit. The average percentage of bed baths conducted on the unit from October 2021 through September 2022 alone has averaged approximately 12% across the entire patient population daily. After implementing the bed bath bundle, which includes an efficient visual coding system, enforced interdisciplinary
communication between staff members, and Vocera reminders to increase charting compliance, we anticipate no less than an 11% increase in charted baths being conducted across the unit. This percentage goal is based on the success of other medical-surgical units such as respiratory, post-operative, oncology, and neurology, which have accomplished 23% or greater bed bath charting compliance. The results will be determined by collecting data via chart auditing in the electronic health record and auditing the successful use of bath signs on patient door frames. In addition, auditing of the unit council participation will be conducted to determine if there is an increase in staff involvement in the council and a post-intervention survey can be evaluated and discussed for the effectiveness of the bed bath bundle across the unit.

Discussion

Summary

Bed bath compliance has been difficult to achieve in this medical-surgical observation and telemetry unit. Many barriers, such as heavy workload, need for assistance, patients’ level of dependence, poor staffing, and short length of stay were reported by registered nurses, a licensed vocational nurse, and certified nursing assistants; however, a greater pressing issue was observed by our clinical group. Poor staff buy-in and resistance to change have been fatal to this unit’s success, as 89.5% of participating staff reported completing between 0 - 2 bed baths per staff member daily, while 44.7% reported 0 - 2 bed baths were appropriate to perform and 52.6% reported 3 - 5 were appropriate to perform (See Appendix C). Additionally, some staff shared displeasure when students visited the unit and were hesitant to complete the initial survey. These observations were most significant to our project, as they affected the number of responses received and the length of time to begin our implementation process.
Utilizing a bed bath bundle may address the inconsistencies of bed bath compliance in the medical-surgical observation and telemetry unit. The use of signage may act as visual external cues that remove ambiguity and prompt a desired target activity or behavioral change (Igal et al., as cited in Clack et al., 2019). These cues must catch the desired audience’s attention at critical times, be positioned close to the location of desired actions, and reduce prospective memory failure. Examples, such as isolation precaution signs, have been successful in hospital organizations and have improved compliance with desired actions. Therefore, bed bath signs placed on patient door frames may increase awareness and action in the unit. In a 2019 study, a mobile medical cart was used to improve the respiratory care process in an intensive care unit (Lin & Chou, 2019). By applying a mobile cart, respiratory therapy treatment was reduced to 45 minutes and 100% of participating respiratory therapists reported improvement in the performance of tasks for critically ill patients. Thus, a proposed bed bath cart may also be used in the medical-surgical observation and telemetry unit to illustrate improvements in patient-centered care, staff workflow and workload, and time management. Our final strategy to increase bed bath compliance, which involves Vocera reminders, may aid in specifically increasing bed bath charting. 10.5% of our survey population stated that they experience charting issues related to poor bed bath compliance, including forgetfulness to chart. One registered nurse even stated, “We try [to perform a bed bath and chart it], but then we forget. I can speak for myself that I forget to remind/ask my patients when I’m working, especially in the morning/first 4 hours which is the busiest.” By using a Vocera device, which is a wearable device that facilitates voice communication between users, a designated staff member may broadcast a reminder to registered nurses, licensed vocational nurses, and certified nursing assistants to chart their completion of bed baths. Therefore, this final portion of our bed bath bundle should,
theoretically, increase compliance by at least 11%. These expected outcomes may be comparable to a successful 2021 study, where a personalized voice reminder system was employed in two hospitals in Kano to prompt healthcare workers to practice hand hygiene techniques (Ibrahim et al., 2021). As a result, overall compliance increased by 148%.

Implementation of a bed bath bundle includes a three-tier approach that prevents five methods of waste: defects, motion, transportation, inventory, and human potential (Millard, 2023). It combats staff forgetfulness, reduces movement, prevents excess use of supplies, and holds accountability and responsibility for nurses and nursing aides. By addressing these issues, lean healthcare is established. Lean healthcare involves service strategies that minimize waste and eliminate activities that do not serve value to healthcare processes (Tlapa et al., 2020). Consequently, reduced costs and improved efficiency may be observed within an organization. Therefore, in conjunction with leadership support, our lean healthcare initiatives may be applied to positively impact patient outcomes and performance measures of the medical-surgical observation and telemetry microsystem.

**Limitations**

The implementation of this project faced limitations related to staff compliance and time constraints. Staff compliance refers to ensuring that all healthcare team members consistently adhere to the proposed bed-bath bundle and evidence-based interventions. Resistance to change and heavy workloads can all impact staff's willingness and ability to fully adopt the new practices. Time constraints were another limitation, as the clinical group only had 10 weeks to fully complete this project and limited resources available to fully implement and monitor the interventions effectively. Healthcare settings are also often fast-paced environments with
competing priorities, making it challenging to dedicate sufficient time and attention to this project.

Addressing these limitations requires a comprehensive approach that involves ongoing education, communication, and support for staff members. Additionally, clear expectations, positive reinforcement, and data-driven decision-making can help overcome barriers to compliance. Allocating adequate time and resources for training and implementation is also essential to ensure the project's success and long-term sustainability.

**CNL Role**

The Clinical Nurse Leader (CNL) role is pivotal in driving efforts to increase bed bath compliance and address the prevalent issue across the medical-surgical observation and telemetry unit, as well as the broader healthcare system. Their expertise in quality improvement methodologies allows them to identify quantitative and qualitative barriers to daily hygiene practices, thus informing potential interventions to combat staff resistance. As a leader and facilitator, the CNL can actively introduce and implement the proposed bed bath bundle in the unit, fostering increased staff compliance, improving bed bath performance, and catalyzing positive changes not only within the microsystem but also throughout the entire healthcare organization. The CNL's involvement ensures that evidence-based practices are effectively introduced and embraced, leading to sustained improvements in patient care and overall outcomes.

**Recommendations**

Although this clinical group was unable to implement and assess the value of our bed bath bundle on the medical-surgical observation and telemetry unit, the proposed interventions of bath signs, a bath cart, and a Vocera reminder would greatly improve compliance in this milieu.
However, it is imperative to utilize this bundle with interventions that address work culture issues in order to achieve change and sustainability. As observed on the unit, resistance is present throughout the microsystem. Therefore, it is recommended to integrate a stronger unit-based council that requires the attendance of at least three meetings. A 2020 study discusses that nurse engagement through advisory boards, unit councils, and hospital committees has helped align hospital organizations’ visions and policies with patient care goals (Carthon et al., 2020). This engagement also impacts the collective work culture on overall patient care. For example, the NICU’s registered nurses’ average experience is 17.2 years, while the medical-surgical observation and telemetry unit is 6.5 years. The NICU has a 23% staff engagement in partnership councils and has been given the award of “Best Application of Evidence-Based Practice.” In comparison, the medical-surgical observation and telemetry unit only has 8% engagement and no significant rewarding outcomes. Therefore, by requiring participation in at least 3 unit-based council meetings, work culture and patient care, such as bed bath compliance, may improve. Thus, by requiring more unit-based council participation in the medical-surgical observation and telemetry unit, work culture and patient care, such as bed bath compliance, may improve.

Currently, council meetings on this unit are only provided in person. To increase participation and accessibility, offering meetings via Zoom video and phone calls is also recommended.

Two other recommendations include surveying the staff’s opinions on resistance to change and studying leadership practices of higher positions, such as the nursing director and nursing manager, to create an educational program that focuses on a transformational leadership style. According to a seven-series study, four factors structure the resistance to change: routine seeking, emotional reaction, short-term focus, and cognitive rigidity (Oreg 2003, as cited in Garcia, 2016). Routine-seeking refers to a reluctance to abandon old habits. Familiarity allows
for comfortability in a new environment, and when encountered with change or stimuli, stress may be induced due to the inability to utilize familiar responses to new situations. An emotional reaction may suggest a lack of psychological resilience. Because change can be a stressor, those with less psychological resilience are less willing to participate in organizational change. Change may also be found as a form of admitting that past practices were flawed, possibly resulting in humiliation. Short-term focus can be described as an intolerance to long adjustment periods to change. New and additional roles require staff to learn and adjust, which may be too time-consuming for individuals. Finally, cognitive rigidity and closed-mindedness may contribute to staff members’ reduced willingness to participate in change. If these factors are identified in a staff survey, a transformational leadership style should be introduced. Transformational leadership was stated as the best method for managing an organization through change (Bass & Avolio, as cited in Garcia, 2016). This style creates an environment that provides intellectual stimulation, individualized consideration, and inspirational motivation to restructure employees’ views of change and replace negative connotations with areas of growth and opportunities.

**Conclusion**

Increasing bed bath compliance is imperative to address, as poor adherence is not only prevalent in the medical-surgical observation and telemetry unit but hospital and healthcare system-wide. Our project serves as a baseline report of the quantitative and qualitative barriers preventing compliance to daily hygiene practices and discusses possible interventions to reduce and prevent staff resistance. Therefore, it is important to continue our research and introduce our proposed bed bath bundle to the medical-surgical observation and telemetry unit, as these
suggestions may improve staff compliance, increase bed bath performance, and facilitate positive change in this microsystem and throughout the healthcare organization.
References


http://dx.doi.org/10.5430/jnep.v6n12p1


Ibrahim, Y., Gajida, A., Garba, R., Gadanya, M., Umar, A., Jalo, R., Adamu, A., Ismai, F.,


Appendices

Appendix A

Current Percentages of Patient Days with Complete Bed Baths: October 2021 - September 2022

<table>
<thead>
<tr>
<th>Unit</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation/Telemetry</td>
<td>12%</td>
</tr>
<tr>
<td>Post-operative</td>
<td>34%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>28%</td>
</tr>
<tr>
<td>Renal</td>
<td>23%</td>
</tr>
<tr>
<td>Telemetry</td>
<td>27%</td>
</tr>
<tr>
<td>Oncology</td>
<td>27%</td>
</tr>
<tr>
<td>Neurology</td>
<td>49%</td>
</tr>
</tbody>
</table>
Appendix B

USF QI Bed Bath Survey

USF Bed Bath Survey

The University of San Francisco (USF) MSN students are conducting a survey that assesses the current amount of daily bed baths performed and what barriers prevent daily bed bath compliance in the workplace. Please answer these questions truthfully; results are completely anonymous.

This survey may take 5 - 10 minutes to complete

* Indicates required question

1. What is your job role? *
   - Mark only one oval:
     - CNA
     - RN
     - LVN

2. Do you work day shift or night shift? *
   - Mark only one oval:
     - Day shift
     - Night shift

3. How many bed baths do you perform per day? *
   - Mark only one oval:
     - 0 - 2
     - 3 - 5
     - 6 - 8
     - > 8

4. If you answered between 0 - 5, what do you believe are the barriers that prevent you from performing daily baths for all of your patients? Check all that apply:
   - Heavy workload/Time constraints
   - Poor staffing
   - Patients’ level of dependence (BMI) score/hemodynamic instability
   - Poor staff education about bed baths
   - Charting issues (forgetting to chart baths, difficulty navigating through EMR to chart baths, etc.)
   - Lack of resources & equipment
   - Limited physical space to safely perform bed baths
   - Need for assistance from other staff to perform baths
   - Infection risk/poor skin integrity
   - Risk for distal edema (drains, lines, tubes) & safety risks
   - Staff’s risk for injury/infection
   - Patients are not admitted for long periods of time to perform bed baths
   - Other
5. If you responded with "Other" please explain


6. What do you believe is an appropriate amount of daily bed baths that should be performed by each nurse/nursing assistant? *
Mark only one oval.

☐ 0 - 2
☐ 3 - 5
☐ 6 - 8
☐ > 8

7. What do you believe needs to be improved/implemented to increase daily bed baths in your unit? *
Check all that apply.

☐ Bath cart filled with supplies
☐ Pre-made bed bath kits
☐ Voice reminders
☐ Applying signs around the unit floor to remind staff to perform daily baths
☐ Develop a scheduled time to perform daily baths
☐ Create an assessment tool to determine if a bed bath is appropriate for a patient (level of independence, assistance, vital signs, presence of lines/tubes/drains, etc.)
☐ Increase resources
☐ Education program about the importance of daily bed baths & how to properly perform bed baths
☐ Changing EHR formatting to provide reminders and/or easily chart bath completion
☐ Increasing staffing
☐ Other

8. If you responded with "Other" please explain


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Appendix C

Survey Results

I.

What is your job role?

- RN: 63.2%
- CNA: 34.2%
- LVN: 2.6%

II.

Do you work day shift or night shift?

- Day shift: 68.4%
- Night shift: 31.6%
III.

**How many bed baths do you perform per day?**

<table>
<thead>
<tr>
<th>Number of Baths Per Day</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 2</td>
<td>89.5%</td>
</tr>
<tr>
<td>3 - 5</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

IV.

**If you answered between 0 - 5, what do you believe are the barriers that prevent you from performing daily baths for all of your patients?**

38 responses

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy workload/Time constraints</td>
<td>29</td>
<td>76.3%</td>
</tr>
<tr>
<td>Poor staffing</td>
<td>10</td>
<td>26.3%</td>
</tr>
<tr>
<td>Patients' level of dependence</td>
<td>15</td>
<td>39.5%</td>
</tr>
<tr>
<td>Poor staff education about baths</td>
<td>3</td>
<td>7.9%</td>
</tr>
<tr>
<td>Charting issues (forgetting to chart)</td>
<td>4</td>
<td>10.5%</td>
</tr>
<tr>
<td>Lack of resources &amp; equipment</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Limited physical space to safely bathe patients</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Need for assistance from other medical professionals</td>
<td>21</td>
<td>55.3%</td>
</tr>
<tr>
<td>Infection risk/poor skin integrity</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Risk for dislodging devices</td>
<td>2</td>
<td>5.3%</td>
</tr>
<tr>
<td>Staff's risk for injury/infection</td>
<td>3</td>
<td>7.9%</td>
</tr>
<tr>
<td>Patients are not admitted for bath</td>
<td>9</td>
<td>23.7%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>10.5%</td>
</tr>
</tbody>
</table>
If you responded with "Other," please explain

4 responses

<table>
<thead>
<tr>
<th>Response</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patient refusal due to wanting to sleep</td>
</tr>
<tr>
<td></td>
<td>Cna are great</td>
</tr>
<tr>
<td></td>
<td>Charge RN not at the bedside as much and when most of the patients are awake I'm usually busy assigning patients.</td>
</tr>
<tr>
<td></td>
<td>Unable to perform bed baths during busy periods (ie med pass/assessment) and then pts refuse baths late at night/early morning</td>
</tr>
</tbody>
</table>

VI.

What do you believe is an appropriate amount of daily bed baths that should be performed by each nurse/nursing assistant?

- 0 - 2: 52.6%
- 3 - 5: 44.7%
- 6 - 8: 2.6%
What do you believe needs to be improved/implemented to increase daily bed baths in your unit?
38 responses

<table>
<thead>
<tr>
<th>Suggestion</th>
<th>Count</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Bath cart filled with supplies</td>
<td>8</td>
<td>21.1%</td>
</tr>
<tr>
<td>Pre-made bed bath kits</td>
<td>9</td>
<td>23.7%</td>
</tr>
<tr>
<td>Vocera reminders</td>
<td>4</td>
<td>10.5%</td>
</tr>
<tr>
<td>Applying signs around the u...</td>
<td>3</td>
<td>7.9%</td>
</tr>
<tr>
<td>Develop a scheduled time to...</td>
<td>17</td>
<td>44.7%</td>
</tr>
<tr>
<td>Create an assessment tool to...</td>
<td>15</td>
<td>39.5%</td>
</tr>
<tr>
<td>Increase resources</td>
<td>11</td>
<td>28.9%</td>
</tr>
<tr>
<td>Education program about th...</td>
<td>6</td>
<td>15.8%</td>
</tr>
<tr>
<td>Changing EHR formatting to...</td>
<td>3</td>
<td>7.9%</td>
</tr>
<tr>
<td>Increasing staffing</td>
<td>17</td>
<td>44.7%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2.6%</td>
</tr>
<tr>
<td>Help from nurses</td>
<td>1</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

If you responded with "Other," please explain
3 responses

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses don't help &amp; the bed baths put CNAs behind with their workload</td>
</tr>
<tr>
<td>Make patients More aware of the importance of hygiene during their stay</td>
</tr>
<tr>
<td>Bed baths during day shift is more of time constraint, pt are off to</td>
</tr>
<tr>
<td>diagnostic exams and procedures, along with working with PT/OT, speech.</td>
</tr>
<tr>
<td>This unit in particular has a patients only staying for 24-48hrs, and</td>
</tr>
<tr>
<td>RN's especially on day shift have both admissions and discharges in their</td>
</tr>
<tr>
<td>same 12hr shift.</td>
</tr>
</tbody>
</table>
Appendix D

SWOT Analysis

**Strengths**
- Sufficient Resources for Bed Bath Bundle implementation.
- Teamwork and camaraderie

**Weaknesses**
- Staffing Inadequacies
- Prioritization of More Critical Tasks
- Staff Resistance

**Threats**
- Short length of stay that can result in patient refusal of bed baths due to anticipated discharge.
- Mandatory physician-approved bathing order for all telemetry patients.

**Opportunities**
- Effective Staff Communication
- Intentional Rounding
- Consistent Patient Hygiene Education
Appendix E

*Fishbone Diagram*

**Process**
- Poor shift-change reporting/handoff
- No current bed bath schedule
- Inconsistent charting
- Heavy workflow/time constraints
- Short patient lengths of stay

**People**
- Unit Champion not currently implemented
- Inadequate staffing
- Lack of closed-loop communication between staff
- Lack of accountability by management
- Lack of auditing of patient charts

**Work Culture & Environment**
- Unclear work expectations and standards of care
- Staff Resistance
- Lack of reminders on the unit
- Larger unit: 38 beds
- Nurses station: multiple interruptions, call lights, phone calls

**Management**
- Inadequate Bed Bath Compliance

*Fishbone Diagram*
Appendix F

Bed Bath Signs

I. Independent patient

II. Dependent patient

III. Does not need a bath/refused bath
IV. Bath completed
Appendix G

Bed Bath Cart
Appendix H

PDSA Cycle

**PLAN**
- Survey staff to identify barriers of bed bath compliance
- Create SWOT analysis and fishbone diagram to determine areas that need change
- Develop bed bath bundle

**DO**
- Educate staff on bed bath signs, bath cart, and Vocera reminders
- Supply each patient room with magnetic bath signs
- Create bath cart
- Create auditing tool for staff charting

**STUDY**
- Monthly audit of staff charts after implementation to see if compliance has increased to 23%
- Survey unit for bath bundle compliance by charge nurse
- Survey staff on opinions of bed bath bundle

**ACT**
- If charting of bed bath compliance has increased to 23%, consider implementing this quality improvement project on other floors in the hospital
## Appendix I

*Bat Auditing Form*

<table>
<thead>
<tr>
<th>ROOM</th>
<th>PATIENT ABOUT</th>
<th>ASKED BATH?</th>
<th>SIGN ON</th>
<th>DOOR?</th>
<th>FOLLOW UP NECESSARY?</th>
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</tbody>
</table>
Appendix J

Post-Intervention Survey

USF QI Post-Intervention Survey
The USF Nirm students would like to hear feedback from staff about your experience with our bed bath bundle intervention. Please complete this survey so that we may be able to make appropriate changes. This survey should take 5-10 minutes.

* Indicates required question

1. What is your job role? *
   - Mark only one oval:
     - RN
     - LUN
     - CNA

2. Do you work day shift or night shift? *
   - Mark only one oval:
     - Day shift
     - Night shift

3. Compared to before this quality improvement project, how many bed baths are you now performing per shift? *
   - Mark only one oval:
     - 0 - 2
     - 3 - 5
     - 6 - 8
     - > 8

4. Do you believe that the implementation of the bed bath signs helped you increase the amount of baths you performed? *
   - Mark only one oval:
     - Yes
     - No

5. If you responded "No," please state why

   [Blank space for response]

6. Do you believe that the implementation of a bath cart helped you increase the amount of baths you performed?
   - Mark only one oval:
     - Yes
     - No
7. If you responded "No," please state why

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

8. Do you believe that the implementation of Vocera reminders helped you to chart more bed baths? *

Mark only one oval.

☐ Yes
☐ No

9. If you responded "No," please state why

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

10. Do you believe that this quality improvement project has positively impacted your unit? *

Mark only one oval.

☐ Yes
☐ No

11. Why or why not? *

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

12. Overall, do you think this implementation project shows signs of longevity and sustainability? *

Mark only one oval.

☐ Yes
☐ No
13. Why or why not? *