**Improving the Staffing Grid for Ortho/Spine/Neuroscience: Minimizing Charge Nurse in Staffing and Onboarding of New Residents**

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**Introduction**

The healthcare sector constantly changes, posing fresh problems that necessitate creative answers. Addressing staffing shortages, in particular, has become a top priority, particularly in the orthopedic, spine, and brain units. Addressing these changing requirements and the global nursing shortage needs creative thinking (Klinedinst, 2022). By lowering the charge nurse's participation in staffing and improving the onboarding process for new residents, this approach intends to minimize these difficulties by optimizing staffing. In line with the facility's patient-centric and ratio-driven staffing approach, the project seeks to improve nurse and patient outcomes by addressing these problems.

**Goal Statement**

The initiative’s primary goal is to staff the orthopedic, spine, and neurology unit efficiently. The two goals include directly minimizing the charge nurse's engagement in patient care and improving new resident nurses' onboarding. For the safety of both nurses and patients, achieving a balanced nurse-to-patient ratio is essential, which is also anticipated to improve patient outcomes significantly. The project hopes to solve the nursing shortage and improve patient care by achieving these goals.

**Project Objectives**

The project aims to create and implement a staffing model to reduce the charge nurse's direct patient care duties by 50%. This decrease is essential to lighten their workload, avoid fatigue, reduce mistakes, and improve patient outcomes. The second goal is to reduce nurse turnover by 10% by streamlining the onboarding process for new resident nurses. According to research, efficient onboarding affects nurse retention rates, making it a smart strategy for long-term staffing issues. These goals are consistent with the project's main objective of effectively staffing the orthopedic, spine, and neurology units.

**Evidence-Based Review of the Literature for Project Justification**

A thorough evidence-based literature review that included at least five academic articles was done to support the significance of this endeavor. This comprehensive research sought to investigate the effects of adequate staffing on nursing staff and patient outcomes, focusing on the necessity of a well-balanced nurse-to-patient ratio.

Griffiths et al.'s (2020) thorough investigation of nursing workload, staffing strategies, and tools substantially contributed to this review. Their study revealed different staffing approaches and highlighted the significance of making staffing decisions based on solid data. Professional judgment, benchmarking, volume-based techniques, patient prototypes, multi-factorial indicators, and scheduled activities are just a few of the tactics essential for maximizing staffing levels while ensuring high-quality patient care. Griffiths et al. (2020) underlined that healthcare facilities should avoid conventional or convenience-based staffing practices and instead base their decisions on scientific data. Their research shows that evidence-based staffing approaches result in better nurse-to-patient ratios, more effective resource management, and, ultimately, better patient outcomes.

The MATRIX staffing technique was introduced by Riley et al. (2021), and it stands out as a model that can increase nurse-to-patient ratios while minimizing charge nurse participation in staffing. The importance of striking the right balance between nurse resources and patient needs is highlighted by this approach. The MATRIX staffing model uses data-driven techniques to adapt staffing levels to patient demand, ensuring that nurses are well-spent and utilized. According to the research of Riley et al., (2021) data-driven staffing models represent the future of modern healthcare, increasing nurse satisfaction and overall staffing effectiveness.

Another layer of project justification is added by assessing specialized professional practice standards and guidelines for the healthcare facility (Saville et al., 2019). These criteria are crucial yardsticks for assessing how well the suggested staffing options perform. The highest patient care and safety levels depend on adherence to these rules. The research by the researchers highlights the significance of matching staffing methods with defined standards to guarantee uniform care quality across healthcare institutions. The retention outcomes of new graduate nursing residency programs were examined in an Asber (2019) study. This study emphasized the beneficial effects of carefully designed residency programs on nurse retention rates. The project's emphasis on onboarding new residents to increase staffing is consistent with the study's finding that effective residency programs significantly lower turnover rates.

The need to develop leadership and capacity building for success in healthcare settings was also stressed by Hashimy et al. (2023). Their study emphasized the significance of ongoing education and growth in reaching excellence in healthcare. This aligns with the project's overarching objective: improve nursing skills and competency through strategic staffing techniques. The work of the scholars emphasizes how comprehensive workforce optimization is. It is not just about the numbers but about giving healthcare workers the abilities and information they require to flourish in their positions, ultimately resulting in better patient care. The project is supported by a solid foundation by incorporating ideas from these academic works. It becomes clear that adequate staffing is essential for delivering the greatest standard of care, positive patient outcomes, and increased nurse satisfaction. This evidence-based analysis emphasizes the importance of implementing efficient staffing techniques to address staffing issues and improve overall healthcare quality.

**Methodology**

This project's methodology has been carefully developed to address the stated objectives fully. This complex strategy includes the following crucial elements:

*Who*: For the project to be successful, collaboration between seasoned nurses and unit leaders is crucial. Their combined knowledge will be extremely helpful in developing and successfully implementing the new staffing model.

*What*: There are two main goals for the project. It tries to limit the charge nurse's participation in providing direct patient care in the first place, lowering the likelihood of burnout and mistakes. In order to reduce nurse turnover, it also aims to improve the onboarding process for incoming resident nurses.

*How*: The methodology uses a variety of tactics to accomplish goals. Professional judgment informs Data-driven staffing decisions, which coordinates resource allocation with patient and unit needs. Benchmarking compares the unit's staffing procedures to those of other hospitals, enabling the adoption of best practices (Saville et al., 2019). For prompt, high-quality service, dynamic volume-based staffing modifications are made in response to variations in the patient volume. For nurse assignments, patients with comparable needs are grouped into patient prototypes. Staffing is determined by a multi-factor indicator that considers patient and nurse satisfaction indicators. Timed-task analysis guides staff duty optimization, optimizing processes for increased effectiveness (Griffiths et al., 2020). Together, these tactics seek to increase staffing within the orthopedic, spine, and neurology units.

*Where*: The methodology will be used in the project's main area of interest, the orthopedic, spine, and neurology unit. The treatments and tactics are ensured to be suited to this unit's unique dynamics and needs through a focused approach.

*When*: Facilitating a seamless transition and adaptation to the new staffing model needs the methods to be gradually introduced and implemented over a specified time. This staged approach is crucial for minimizing interruptions to ongoing operations and guaranteeing that staff employees have the chance to adapt to the changes appropriately.

**Resources**

Identifying and justifying the human, physical, and technical resources needed to complete this project successfully is essential. Although financial matters are not covered in this plan, the plan stresses how crucial it is to have the resources required to support the project's implementation. These tools will be essential to accomplishing staffing optimization objectives. They consist of: Human Resources: Various human resources, including skilled nursing personnel and unit leaders, will collaborate on this project. The knowledgeable nursing staff will take a leading role in the creation and application of the new staffing model. Their knowledge of the unit's dynamics and proficiency in patient care will be crucial for successfully forming the model. Unit leaders will give direction, supervision, and leadership to ensure the project complies with the facility's goals and policies.

Secondly, there are physical resources. The orthopedic, spine, and neurology units' physical layouts must be altered to accommodate the new staffing strategy. This can entail rearranging workstations, designating specific areas for onboarding activities, or purchasing specialist equipment to support the ideal staffing model. These physical adjustments are necessary to create an environment that supports effective staffing methods and improved patient care.

Technical resources come in third. The project will require a lot of technical resources, especially data analysis software, to support decision-making. Utilizing cutting-edge data analytics technologies will make assessing the effects of staffing changes, optimizing nurse-to-patient ratios, and making any necessary data-driven adjustments easier. Technology use will improve the staffing strategy's accuracy and improve outcomes for nurses and patients.

Resources for education and training come last. Providing training and instructional materials for nursing staff and new residents is a crucial component of technical resources (Liu et al., 2018). With these tools, nurses will be well-equipped to adjust to the new staffing model, and new residents will receive thorough onboarding that aligns with the project's objectives. E-learning courses, instruction manuals, and access to appropriate educational platforms are examples of educational resources.

**Formative Evaluation**

Throughout the project's execution, formative evaluation will be a continuous process. The success of the new staffing approach will be evaluated by routine feedback meetings with the nursing staff (Arrogante et al., 2021). In addition, scrutiny of the charge nurse's job after implementation will shed light on how the charge nurse's duties and workload have changed. The effectiveness of the staffing approach will be evaluated in real-time by tracking performance indicators like patient recovery rates, nurse turnover, and patient satisfaction levels. In order to make sure that the project is carried out as intended, formative evaluation will be used as a means of fine-tuning and changing the strategy as necessary.

**Summative Evaluation**

At the project's conclusion, a summative evaluation will be done to give a thorough review of its results. Compared to the initial benchmarks established at the project's inception, an end-of-year evaluation will assess overall patient outcomes, nurse approval, and turnover rates. A financial analysis will also be carried out to comprehend the return on investment, focusing on the expenses related to the onboarding and training of new residents (Gillespie et al., 2018). Summative evaluation will show how the project will affect staffing and patient care over the long run, enabling us to gauge how well the tactics have worked.

**Timeline**

A workable timeframe must be created for the workforce optimization project to be executed successfully. An approximate schedule provides a planned framework for project growth, even though the precise timeline may vary owing to unique conditions and unforeseen difficulties. The project begins with a two-week planning and kick-off period. The project is formally introduced to the nursing staff and unit leaders during this time. The roles and duties of the project team are determined.

Data collection and analysis will occur over the next four weeks (weeks 3-6). Data collection for this phase is focused on patient outcomes, nurse satisfaction, and staffing levels. A thorough investigation that includes benchmarking against comparable units in other hospitals identifies trends and areas for improvement. Weeks 7–10 are devoted to developing models. The project team creates the new staffing model in association with knowledgeable nurses and unit managers. The model specifies precise roles and duties using data analysis and benchmarking insights. The implementation phase, lasting weeks eleven through eighteen, is the longest. The new staffing strategy is being implemented gradually.

**Conclusion**

This initiative aims to improve patient care and nurse satisfaction by addressing significant staffing difficulties in the orthopedic, spine, and neurology units. Evidence-based tactics improve staffing by lowering charge nurse participation and enhancing new resident onboarding. In keeping with the facility's patient-centric philosophy, formative and summative evaluations guarantee continued success.

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**Appendices**

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| **Task/Objective** | **Start Date** | **Date Finished** | **Time Taken** |
| **Kick-off and Planning Phase** | *Nov 1, 2023* | *Nov 14, 2023* | *14 days* |
| **Data Collection and Analysis** | *Nov 15, 2023* | *Dec 12, 2023* | *28 days* |
| **Model Development** | *Dec 13, 2023* | *Jan 9, 2024* | *28 days* |
| **Implementation** | *Jan 10, 2024* | *Feb 27, 2024* | *49 days* |
| **Formative Evaluation** | *Ongoing* | *Ongoing* | *Ongoing* |
| **Summative Evaluation** | *Feb 28, 2024* | *Mar 12, 2024* | *14 days* |
| **Project Conclusion and Reporting** | *Mar 13, 2024* | *Mar 20, 2024* | *8 days* |

**A visual presentation of the timeline milestones**

Project Conclusion and Reporting (Mar 13 to Mar 20, 2024, 8 days)

Summative Evaluation (Feb 28 to Mar 12, 2024, 14 days)

Formative Evaluation (Ongoing)

Implementation (Jan 10 to Feb 27, 2024, 49 days)

Kick-off and Planning Phase (Nov 1 to Nov 14, 2023, 14 days)

Model Development (Dec 13 to Jan 9, 2024, 28 days)

Data Collection and Analysis (Nov 15 to Dec 12, 2023, 28days)