

# UTILIZING AN ACUITY-ADJUSTED STAFFING MODEL TO IMPROVE STAFF AND PATIENT OUTCOMES

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## PROJECT METHODOLOGY

The use of an evidence-based staffing model that represents both the needs of the patient and available nursing resources is necessary to ensure ideal patient outcomes and staff satisfaction.<sup>2,4</sup> This project aims to correctly identify and represent the variable-acuity of patients cared for on the Surgical Intermediate Care Unit (SIMC) to allow for optimal use of nursing resources. The appropriate allocation of resources ensures both patient and nurse satisfaction as there are the right number of staff, with the right skill level, in the right place, at the right time, with the right patient assignment.<sup>2,4,5,11</sup> Interdisciplinary collaboration and involvement of stakeholders through deliverables and ongoing evaluations will perpetuate the success of this project.



**The Right number of staff**



**The Right skill level**



**The Right place**



**at The Right time**



**with The Right assignment**

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## PLAN & IMPLEMENTATION

To ensure the success of this project, an interdisciplinary teamwork approach will be utilized.

- The SIMC educator and unit manager will be instrumental in identifying the educational needs of the nursing staff regarding patient acuity.
- Input from physicians and SIMC staff nurses will be evaluated and further education will be provided as needed to ensure understanding of variability in patient acuity and its impact on patient care.
- The Intermountain Cerner representative will be consulted about staff education to ensure accurate documentation of patient acuity through Clairvia patient acuity software.

## TRAINING PROGRAMS

- The SIMC nursing staff, as well as physicians who frequently attend to patients on the unit, will receive training relating to patient acuity and staffing implications.
  - Patient Acuity & Nursing Workload PowerPoint Training Module
  - Cerner Clairvia & Patient Documentation Interactive Training Module

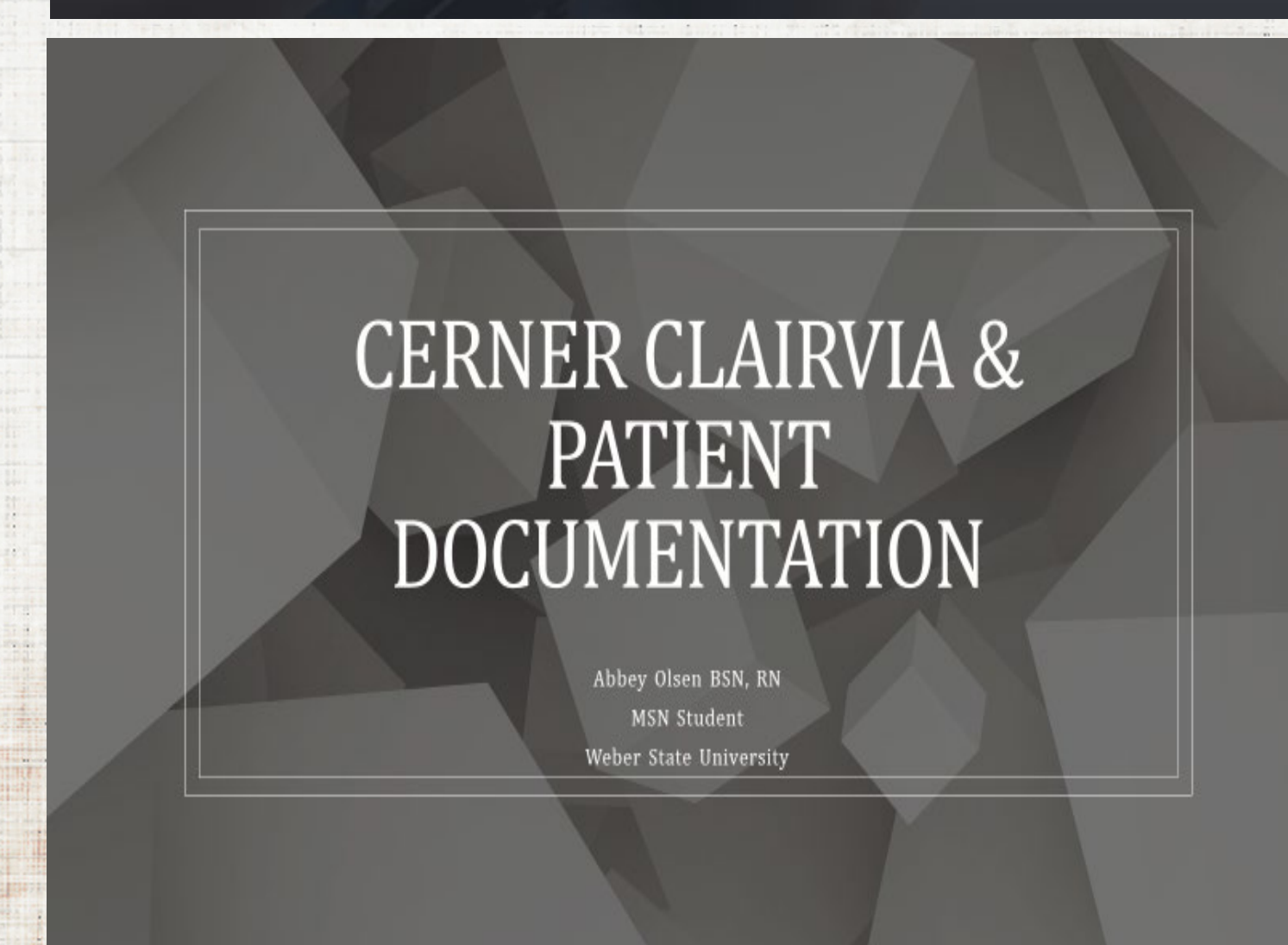
## DEVELOPMENT OF A PATIENT ACUITY-ADJUSTED STAFFING MODEL

- In conjunction with the SIMC manager, an algorithm that appropriately represents the adjustable acuity and associated workflow of the SIMC patient population will be developed.
  - The algorithm will be a modification of several algorithms found in a literature review and integrated with the current staffing tool used on SIMC.

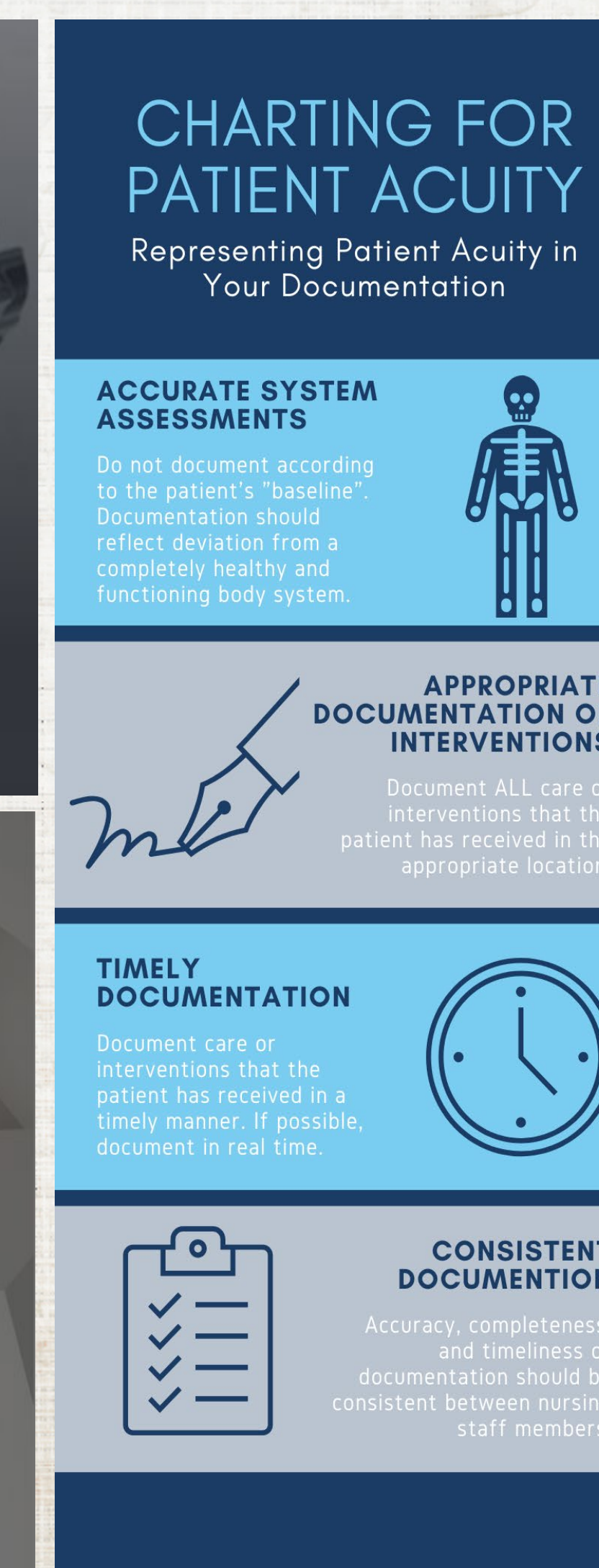
## EVALUATION

This project will be continually evaluated throughout the implementation phase.<sup>13</sup>

- Results of pre- and post-surveys of each training program will be utilized to evaluate the effectiveness of the program trainings and the general level of comprehension of the material.
- Additionally, staff and patient satisfaction will be evaluated pre- and post- acuity adjusted staffing algorithm implementation at one, three, and six months through the use of an online survey and HCAHPS scores.



Examples of MSN project deliverables including training programs and handout created by author.



Peshkov. (n.d.). Medicine and innovation concept. file 232881572. Retrieved from stock.adobe.com

## THEORETICAL FRAMEWORK

The Stetler Model of Evidence-Based Practice was selected, as it allows for the use of a thoroughly validated and structured method of review of theory, research, and evaluation on knowledge utilization, and the integration of evidence-based practice (EBP).<sup>13,14</sup> The five progressive phases of the Stetler Model were used to guide this project.

- Phase I: Problem identified with current staffing practices on SIMC
- Phase II: Validation of evidence through creation of evidence table and literature review
- Phase III: The project was evaluated for feasibility
- Phase IV: Creation of evidence-based recommendations and strategies for implementing a revised acuity-adjusted staffing model on SIMC
- Phase V: Final evaluation of overall effectiveness of implementing acuity-adjusted staffing

## CONCLUSIONS

- By implementing an evidence-based acuity-adjusted staffing model, nursing resources will be allocated more appropriately, and the satisfaction of the patients and nursing staff will be improved.<sup>2,3,4,5,9,12</sup>
- By further educating about concepts of patient acuity and the Clairvia patient-acuity software, this project will create a feasible process for integrating an acuity-adjusted staffing model on SIMC with the objectives of improving the quality of patient care delivery and patient and nursing satisfaction.<sup>9,11,12</sup>

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## ABSTRACT

Healthcare organizations are streamlining their practices and striving to improve the quality of patient care to maximize their profitability. As the largest segment of healthcare workers is comprised of nursing staff, the nursing profession is tasked with accurately determining nursing workload to ensure optimal use of resources and overall patient experience.<sup>1</sup> Selection and utilization of a staffing model that represents both the needs of the patient and available nursing resources is necessary to ensure patient satisfaction and nursing job satisfaction.<sup>2,3,4</sup> Literature encourages the use of an acuity-adjusted staffing model as it adjusts for changes in both the needs of an individual patient and the availability of staffing resources.<sup>5</sup>

## PICO QUESTION

On the Surgical Intermediate Care Unit (SIMC), how does implementing patient staffing assignments based on patient acuity improve nurse and patient satisfaction scores?

## LITERATURE REVIEW

The following four themes were recurrent in the literature review for acuity-adjustable staffing:

- Patient outcomes and mortality
  - Decreases in the allocation of nursing time per patient are associated with adverse patient outcomes, and rising mortality rates.<sup>2,6,7</sup>
- Patient satisfaction
  - Patient satisfaction has been found to be related to lower nurse to patient ratios, less wait time for requests, and fewer adverse outcomes.<sup>8,9,10</sup>
- Nursing job satisfaction
  - Nurses who work in settings with appropriate nurse staffing levels report increased job satisfaction and staff engagement.<sup>2,11</sup>
- Use of technology for measuring staffing acuity measures
  - Further development of patient acuity staffing software is needed, as a real-time representation of patient acuity is currently unavailable, and aspects of the nursing workload, such as patient turnover, are not represented adequately.<sup>12</sup>