



Orthopedic Core Curriculum

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Abstract

Orientees on our Orthopedic/Med-Surg department consistently stated a desire for more focused orthopedic core competency training during the orientation process. Following reviews of the literature, it was initially discovered that there is limited exposure to orthopedics in nursing school curriculums, and there is a need for a body of knowledge related to orthopedics. "Increase in overall nursing knowledge for orthopedic patients fosters interdisciplinary teamwork" (Driscoll et al, 2009). In addition, there were issues centered on orientation of orthopedic diagnoses, equipment and complications. In a study done by Orsini, (2005), "The decrease in RN turnover rates one year post implementation of an Orthopedic Nurse Transition Program (ONTP) resulted in an overall drop from 22.6% to 7.7%", and new RN's turnover rates significantly decreased to 0%. The National Association of Orthopedic Nurses (NAON) states that "RNs base clinical judgment and decision making on the nursing process, nursing theory, and research as well as specific orthopedic knowledge", (2002). Continuing Competence includes the application of knowledge and the decision-making, psychomotor, and interpersonal skills expected of the licensed nurse within a specific practice setting resulting in nursing care that contributes to the well-being of patients (North Carolina Board of Nursing (NCBON), 2013). Finally, Cone Health uses orientation pathways to build knowledge specific to specialty areas, and allows for preceptors to hold weekly conferences with nurse orientees.

Departmental FY 2008/2009 Statistics	Goal/ Target	Actual
Feel adequately prepared to do my job well	77.9%	63.70%
Teamwork consistently practiced	84.7%	75.05%
Satisfied with my job	82.5%	73.20%
Patient satisfaction with pain control	84.86%	74.43%
Pressure Ulcer Prevalence	1.9	1.90
Falls	<3.7%	127 (4.9%)
Overall Patient Satisfaction	88.3%	86.5%

The purpose of this study was to assess for a correlation between a specialized core competency program and nursing knowledge, job satisfaction and departmental quality indicators.

Clinical Question: Will Introduction of an Orthopedic Core Curriculum Improve Nursing Knowledge, Job Satisfaction, Quality Indicators and Patient Satisfaction?

Objectives

Describe the process for development and implementation of an orthopedic core curriculum.

Discuss effects of an orthopedic core curriculum on nursing knowledge, employee satisfaction, patient satisfaction, and quality indicators.

Methods

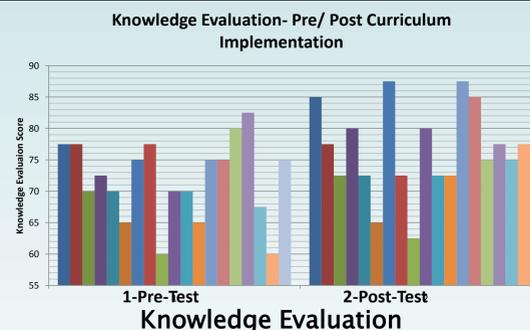
Study Design: This is an interventional study. It was designed by the investigators, whom include a committee of bedside nurses on the department. Self-perceptions of nursing job satisfaction, as well as orthopedic knowledge of study participants, were assessed pre and post implementation of the orthopedic core curriculum. The nurse investigators created two data collection tools, a Knowledge Evaluation and Employee Satisfaction Survey, to measure nursing knowledge and job satisfaction. These tools were developed based on nursing literature. Data was collected pre and post- implementation of the curriculum using a 5-point Likert scale. Informed consent was obtained from study participants prior to the start of the first orthopedic core class. Departmental quality indicators for pain, falls, pressure ulcer prevalence, and patient satisfaction, were assessed at the beginning, every three months, and at the end of the study to determine if there were improvements in the quality of care.

Sample and Setting: The knowledge evaluation tool had a sample size of 19 participants pre and post-implementation. The employee satisfaction survey had a sample size of 34 participants pre-implementation and 15 participants post-implementation. The duration of this study was from May 19, 2010 through October 5, 2011.

Knowledge Evaluation Results

T- Test Score for Knowledge Evaluation
Pre- 67.763 (average score)
Post- 76.184 (average score)
T= 3.129
P Value- .00290

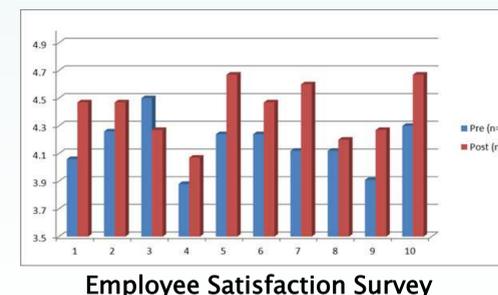
Interpretation:
There was a statistically significant increase in the average score for the Knowledge Evaluation from pre to post Orthopedic Core Curriculum implementation



Employee Satisfaction Results

- T-Test Score for Employee Satisfaction Survey
 - Pre- 4.1765
 - Post- 4.4196
 - P value- .009

Interpretation:
There is a statistically significant improvement in the Employee Satisfaction Survey Score from Pre to Post Implementation of the Orthopedic Core Curriculum



Patient Satisfaction and Quality Indicators	FY 08-09 Actual	FY 2011/2012 Goals	FY 2012 Actual
Patient Satisfaction with Pain Control	74.43%	85% (2011/2012)	72.25% (2011/2012)
Pressure Ulcer Prevalence	1.9%	<1% (2012)	0.88% (2012)
Falls	127	50% Reduction (2012)	37 Falls (2012) 71% Reduction
Overall Patient Satisfaction	86.5%	Goal 85.43 (2012)	88.8% (2012)

There was improvement in departmental quality indicators and overall patient satisfaction scores from pre to post implementation of the Orthopedic Core Curriculum. There was a decrease in patient satisfaction with pain control allowing for improvement.

Conclusion

Based on study results, introduction of an orthopedic core curriculum does improve nursing knowledge, job satisfaction, and quality indicators. It was concluded that the research study was a success with statistically improved scores detailed in the knowledge evaluation and employee satisfaction surveys. Pressure ulcer prevalence and the number of falls decreased post implementation of the core curriculum. Overall patient satisfaction improved and patient satisfaction with pain control slightly decreased from pre to post implementation. This slight decrease may be attributed to nursing staff transitioning to new patient education processes and teaching methods related to pain management that were implemented as part of the study. As a result, patient satisfaction is noted as an area for on-going opportunity, has promoted staff awareness and led to focused departmental initiatives related to patient satisfaction.

An increase in overall nursing knowledge fosters interdisciplinary teamwork and competency. This outline and training template could be used for future orthopedic new nurse hires and nursing school graduates. Mandatory continuing education, possibly via Competency Based Learning Modules, could be expanded to all nurses caring for orthopedic patients within the health system.

This curriculum is viewed as also having great potential for yearly orthopedic nursing competency validation.

Triple Aim Focus (Service, Quality, Cost):

- Service to patients and staff through a specifically designed research study for improving care methods and satisfaction.
- Change and collaboration in teaching methods may facilitate improvement in quality indicators, patient care delivery and direct patient care outcomes.
- With improvement in nurse satisfaction and patient quality indicators, comes a possible decrease in turnover rates, orientation costs, hospital costs and length of stay.

Magnet Focus: Implementation of an orthopedic core curriculum promotes new knowledge, innovations, and improvements to nurse satisfaction and patient satisfaction, as well as quality indicator improvement.

References

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Orsini, Christine (2005). *A nurse transition program for orthopedics: Creating a new culture for nurturing graduate nurses*. Orthopedic Nursing: 24, 4.

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