Developing Educational Tool Competencies for Perianesthesia Nurse Assisting with Peripheral Nerve Blocks, Digital Nerve Blocks and Intraoperative Local Anesthesia Procedure

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Background

The quality of the health care delivered, and clinical competencies are priorities to ensure the safety of patients. Due to the increase of orthopedic volumes, nurses who assist surgical patients with Peripheral Nerve Blocks, Digital Nerve Blocks, and Local anesthetic procedures will require an assessment of competency prior to assisting with the procedure. The OR executive committee has permitted orthopedic surgeons to perform arthroscopy procedures in an outpatient surgery setting. Perianesthesia nurses expressed a desire to become more competent with assisting nerve blocks. The OR executive committee requested a rigorous competency be developed so that nurses could assist physicians with nerve block procedures. Proficiency in timeliness is necessary because the outpatient surgery center requires rapid turnover times. Performing the block in the Perianesthesia Care Unit (PACU) Phase I area can help reduce approximately 30 minutes in OR. The nursing staff competency is assessed by the Nurse Manager parallel to the staff's performance appraisal. Pre and Post competency assessment evaluations demonstrated an improvement from 20% to 80%, which reflects the positive impact of this training.

Objectives

- To develop a Peripheral Nerve Blocks, Digital Block and Intraoperative Local Anesthesia or Local Infiltration Educational Competency Tool for nursing in specialized procedure.
- To educate perianesthesia nurses of Pre-operative Digital block, Regional Block and Monitor patients under local anesthesia. Educate staff of the Local Toxicity Policy and Algorithm.
- To identify key Perianesthesia Nurses within SASC unit who expressed interest and motivation to learn about regional anesthesia and train as a block nurse.
- To improve quality patient care and safety for Peripheral Nerve Blocks, Digital Nerve Blocks, and Intraoperative Local Anesthesia patients.
- Provide Perianesthesia nurse with evidence based and supportive of education and training.

Process of Implementation

In January 2017, Sibley Ambulatory Surgery Center's (SASC) perianesthesia unit implemented an anesthesia block nurse team as a Comprehensive Unit-Based Safety Program (CUSP) safety initiative.   The pre-clinical assessment was developed by a Professional Advancement Clinical Excellence (PACE) RN III nurse and Educator to determined outcome measures guide selection of educational approaches and structure of learning experiences.

- A pre-clinical assessment survey was initiated. (See Figure 1)
- Clinical areas of needs were identified.
- Perianesthesia Nurses were educated on the new policy, standard, procedure and protocols.
- Development of the Perianesthesia Block Nurse Team
- Two of the PACU Phase I bay were designated for the blocks area (see Figure 6).

According to Wright, several verification methods are appropriate for assessing competency; return demonstrations, observation of daily work, discussion groups, presentations to department members, mock events, self-assessments and QI monitors. (See Figure 3).

Competency-based education development and Implementation → Carefully consider strategic planning → Anticipate policy review and revisions → Align competencies with assessments
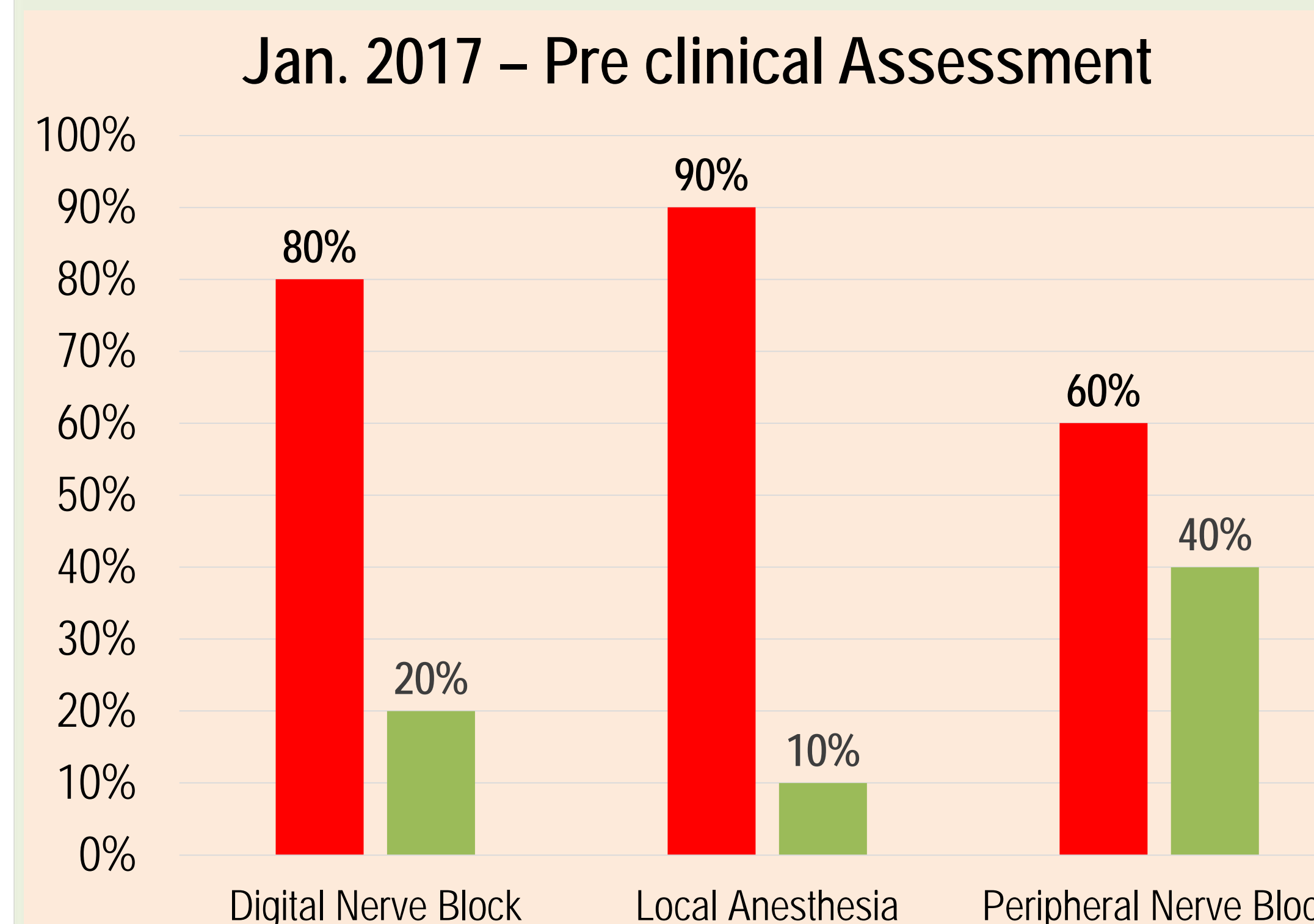
Results / Findings

Figure 1: January - Perianesthesia Nurse Pre Clinical Assessment
Perianesthesia nurse evaluation assess nurses comfort level in regards to Local Pre, Local Intra, and Regional Block.
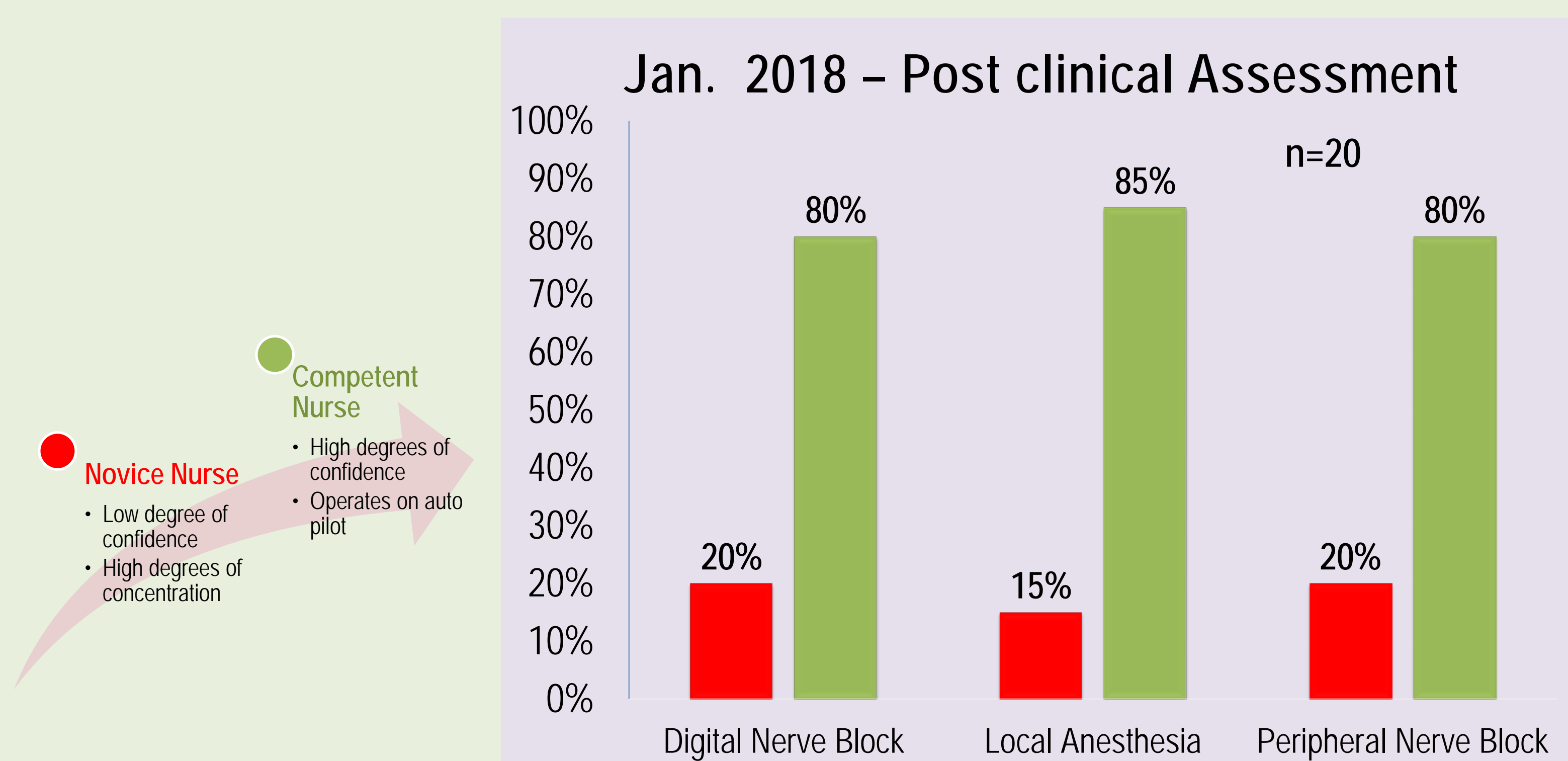
Jan. 2017 – Pre clinical Assessment

Digital Nerve Block: 80%, 20%
Local Anesthesia: 90%, 10%
Peripheral Nerve Block: 60%, 40%

Novice Nurse
- Low degree of confidence
- High degrees of concentration

Competent Nurse
- High degrees of confidence
- Operates on auto pilot

Legend: Level of Competency based on Clinical Assessment

Jan. 2018 – Post clinical Assessment

n=20

Digital Nerve Block: 20%, 80%
Local Anesthesia: 15%, 85%
Peripheral Nerve Block: 20%, 80%

Figure 4: March - Perianesthesia Nurse Post Evaluation Assessment

Results:
- Pre-Clinical Assessment survey results indicated 77% of Perianesthesia nurses expressed a desire for more structured training with Peripheral Nerve Blocks, Digital Nerve Blocks, and Intraoperative Local Anesthesia Procedure.
- Post-Clinical Assessment results indicated 80% of Perianesthesia were comfortable with the competency to assist with Peripheral Nerve Blocks, Digital Nerve Blocks, and Intraoperative Local Anesthesia Procedure.
- Post-Clinical Assessment reported of Perianesthesia Nurse increased knowledge, skills, and abilities.
- All nurses satisfactorily passed the competency.

Statement of Successful Practice

A year after the implementation, the same nursing needs assessment was performed and completed (January 2018). The survey indicated that Perianesthesia and Perioperative nurses now have the clinical knowledge and skills to safely care for the patient needing to have a local anesthesia or regional block. The learning objectives in the competency are the foundation of the required annual clinical competency skills. This competency indicates the proficiency necessary to perform this practice. (See Figure 4). The Perianesthesia nurse is formally taught nerve block competency through a structured block orientation. Ambulatory Surgery Center's environment and teams are smaller, which optimizes the proximity of key team members, allowing ease in cross-training and permitting a group focus.

Materials / Method

Figure 2 - Peripheral Nerve Block Competency

Perianesthesia Nurse Role for Peripheral Nerve Block:
The Perianesthesia nurses were trained to assist anesthesia providers in the administration of anesthetic agents. During the performance of a peripheral nerve block provided that the RN is under the direct supervision of the anesthesia provider and RN has the requisite knowledge, skills, and abilities to do so.

Competency Assessment Verification Method	
Self-Assessments	Demonstrates to an experienced, qualified observer how to safely perform a task
Return Demonstration	Assess values, opinions, and attitude. Encourage employee reflection
Mock Events	Assess responses in daily work. Used for high risk, infrequent tasks.

Figure 3 - Peripheral Nerve Block Competency

Implications for Advancing the Practice of Perianesthesia Nursing

Competence assessment is an ongoing practice. Perianesthesia and Perioperative nurses need to be competent in assisting and caring for the patients requiring block / local anesthesia.   The nurse manager and the PACE III nurse must be committed to ongoing vigilance regarding the clinical skill set necessary for the Perianesthesia nurses. Demonstration of reliable and consistent block competencies will yield safer patient care and improved overall performance.

Conclusion

Since the implementation of the educational competencies, the learning objectives have demonstrated that the level of nurse's skill has increased upwards of 60% (n=20). Clinical skills assessment will continue to examine the level of proficiency in each competency. Levels of competency are categorized into two components; "novice", & "competent". This program increased the number of competent nurses, hence, creating an environment for safer patient care. (See Figure 4).

Reference

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