IN RETROSPECT - PERI-ANESTHESIA NURSING PRACTICE IN THE PHILIPPINES: ONWARDS TO A MODEL AND STANDARDS

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INTRODUCTION

The Peri-Anesthesia period begins when the patient was informed about the need of procedure until recovery and continues until the patient resumes his or her usual activities. Furthermore, the Peri-Anesthesia Nurse is a nurse who specializes in Peri-Anesthesia practice and provides nursing care to the anesthetic patient throughout the continuum of care. Much of Peri-anesthesia involves technical expertise that includes the different phases of Anesthesia Environment.

In reality, there were Peri-Anesthesia Standards present in other countries. Unfortunately, it has been noted that in the Philippines there was no evidence of national standards for the practice of Peri-Anesthesia Nursing. What is present are institutionalized anesthesia-nursing standards from different hospitals. Furthermore, there is no formal organization to set the standards for Peri-Anesthesia Nursing Practice in the Philippines.

With this, nurses who were exposed in Peri-Anesthesia areas perform nursing care different from one another. The lack of consistency in standards of practice creates challenges for the nurses and health-care stakeholders (Fuller, Kneeshaw, Baumann, & Deber, 2008). These challenges may affect patient care outcomes in Peri-Anesthesia environment. In addition, there is no evidence of a professional practice model specifically designed for Peri-Anesthesia Nursing. The professional practice of nursing requires the use of a model to guide performances of nurses (Gaudine, 2001).

PURPOSE OF THE STUDY

The overall purpose of this study is to describe the Peri-Anesthesia Nursing Practice in the Philippines from different perspectives. This study aims to create a Model and Standards for Peri-Anesthesia Nursing Practice that would be applicable in the Philippine setting. The development of a Model for Peri-Anesthesia Nurses will guide the delivery of safe and quality nursing care specific for patients in the Peri-Anesthesia environment.

STATEMENT OF THE PROBLEM

This study aims to answer the following questions:

- 1. How do nurses care for patients in the Peri-Anesthesia areas as recorded and reported in their documentation in the patient's charts in the last three months?
- 2. How do nurses, nurse-leaders, and anesthesiologists perceive Peri-Anesthesia Nursing practice?
- 3. What relevant literatures are available to support and integrate to the existing thoughts and principles of nurses performing Peri-Anesthesia Nursing Practice?
- 4. Based from the retrospective document analysis, interviews conducted and literature reviews, what Peri-Anesthesia Nursing Model could evolve?
- 5. From the conceived Peri-Anesthesia Nursing Model, what Standards of Peri-Anesthesia Nursing can be proposed?
- 6. How do the identified staff nurses, nurse-leaders, and anesthesiologists evaluate the developed Standards in terms of the following parameters: Relevance, Clarity, and Acceptability?
- 7. Is there a significant difference between and among the parameters as evaluated by the identified staff nurses, nurse-leaders, and anesthesiologists?
- 8. How reliable is the proposed Standards after the evaluation done by the staff nurses, nurse-leaders, and anesthesiologists?

METHODOLOGY

This study utilized Mixed Qualitative-Quantitative research approaches in 3 sequential phases. The First phase was performed using Retrospective Document Analysis, In-depth Interview, and Integrative Literature Review to describe Filipino PAN practices. The Second phase was Model and Standards Development. The Third phase was executed using t-Test, ANOVA, and Scheffé Method to evaluate the proposed P.A.N. Standards as to Relevance, Clarity, and Acceptability. Purposive Sampling technique was used in identifying staff nurses, nurse-leaders, and anesthesiologists as respondents (n=197). During Pilot study, the research tools underwent Expert Validation and the Reliability test showed good remarks (α =0.85) using Cronbach Alpha.

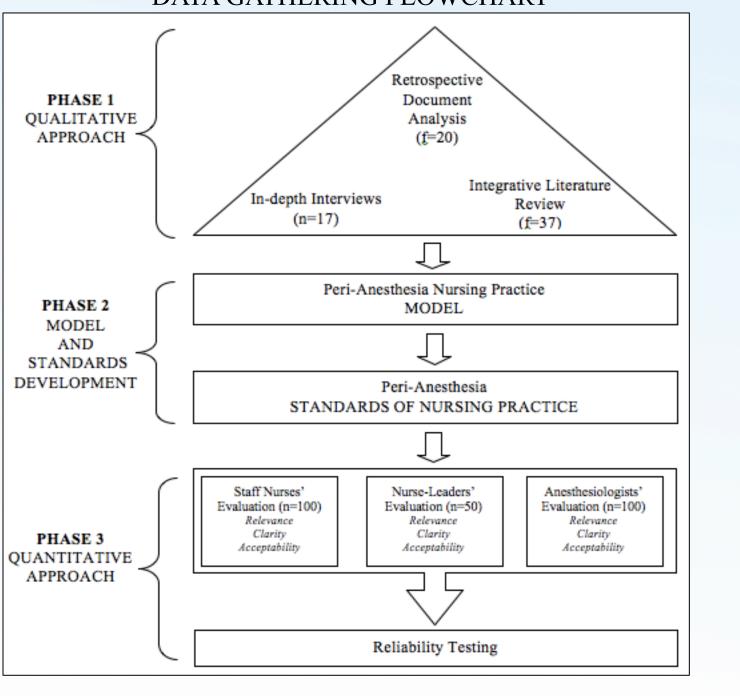
Qualitative Approaches:

During Retrospective Document Analysis, two hospitals were chosen: the "Hospital A" (refers to chosen Private Medical Institution) and "Hospital B" (refers to the chosen Government Medical Institution) satisfied the following criteria: duly recognized by Department of Health as Tertiary Hospital and accredited by PhilHealth. Hospital charts taken from different units that performed Peri-Anesthesia nursing care. In-depth Interviews were performed with the identified respondents affiliated in different medical institutions capable of conducting anesthetic procedures: 5 staff nurses, 7 nurse-leaders, and 5 anesthesiologists. For the Integrative Literature Review, the first part utilized scholarly search engines (ProQuest and OVID) and the second part used web search engines (Google and Yahoo).

Quantitative Approaches:

In the evaluation of standards for the Quantitative Approach, the researcher partnered with a specialized nursing organization (for staff nurses and nurse-leaders) and specialized anesthesia group (for anesthesiologists). Upon the support of both nurses' and anesthesiologists' group, respondents from different geographical locations (Luzon, Visayas, and Mindanao) were identified. The total respondents were 100 staff nurses, 50 nurse-leaders, and 30 anesthesiologists.

DATA GATHERING FLOWCHART



RESULTS

For Phase 1:

To answer SOP 1 using Retrospective Document Analysis, nurses care in the Peri-Anesthesia Areas can be interpreted into the four (4) emerged themes. Theme 1 was the "Nursing Process" and it included the Key Areas of Assessment, Planning, Diagnosis, Implementation, and Evaluation. Theme 2 was "Ethico-Legal" and this includes the Key Areas of Scope of Practice, Patient's Safety, and Ethical Foundation. Theme 3 was "Environment of Care" and this was composed of Infection Control, Management of Equipment, and Safe-Effective-Therapeutic Environment. And Theme 4 was "Communication and Collaboration" and this contains Collaboration (with Healthcare team), Communication (with Patient/Family/Significant Others), and Documentation.

There were 7 emerged themes that answered SOP 2 during In-depth interviews. Theme 1 presented the "Nursing Process" which was composed of Key Areas of Assessment, Diagnosis, Planning, Implementation, and Evaluation. The Theme 2 was "Ethico-Legal" having Key Areas of Scope of Practice, Patient's Safety, and Ethical Foundation. Theme 3 represented the "Communication & Collaboration" and the Key Areas were Communication (with Patient / Family / Significant Others), Collaboration (with Healthcare Team), Partnership, and Documentation. Theme 4 was "Research & Quality Improvement". Theme 5 showed "Education & Training" and the Key Areas were Professional Development, Mentoring, and Preceptorship. Theme 6 was "Environment of Care" and this was composed of Key Areas as to Infection Control, Management of Equipment, and Safe-Effective-Therapeutic Environment. Last Theme was "Leadership & Management" which composed of Governance and Direction.

Using combined strategies of Cooper, Boots' and Beiles' methodologies to answer SOP 3 in the Integrative Literature Review, 7 themes emerged. The Theme 1 showed "Nursing Process" with Key Areas of Assessment, Diagnosis, Planning, Implementation, and Evaluation. Theme 2 presented the "Ethico-Legal" having the Key Areas of Scope of Practice, Patient's Safety, and Ethical Foundation. Theme 3 was "Communication & Collaboration" that composed of Communication (with Patient / Family / Significant Others), Collaboration (with Healthcare Team), Partnership, and Documentation. Theme 4 was "Research & Quality Improvement". Theme 5 was "Education & Training" and reflected the Key Area of Professional Development, Mentoring, and Preceptorship. Theme 6 was "Environment of Care" comprised of Key Areas of Infection Control, Management of Equipment, and Safe-Effective-Therapeutic Environment. And Theme 7 was "Leadership & Management" which presented the Key Areas of Governance and Direction.

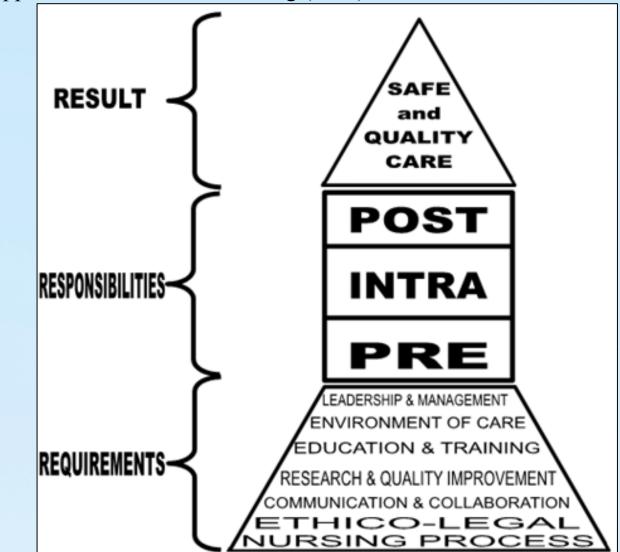
After triangulation, clustered themes resulted from Qualitative Approaches as follows: Nursing Process, Ethico-Legal Responsibilities, Communication and Collaboration, Research and Quality Improvement, Education and Training, Environment of Care, and Leadership-Management.

EMERGED THEME	KEY AREAS	Retrospective Document Analysis	In-depth Interview	Integrative Literature Review
NURSING PROCESS	Assessment, Diagnosis, Planning, Implementation, and Evaluation	✓	✓	✓
ETHICO-LEGAL	Scope of Practice, Patient's Safety, Ethical Foundation	✓	~	
COMMUNICATION & COLLABORATION	Communication (with Patient/Family/S.O.), Collaboration (with physician and healthcare team), Partnership, and Documentation	✓	~	~
RESEARCH & QUALITY IMPROVEMENT	Research and Quality Improvement		~	✓
EDUCATION & TRAINING ENVIRONMENT	Professional Development, Mentoring and Preceptorship		✓	✓
OF CARE	Infection Control, Management of Equipment, Safe-Effective- Therapeutic Environment	✓	✓	✓
LEADERSHIP & MANAGEMENT	Governance and Direction		✓	✓

RESULTS

For Phase 2:

To address SOP 4 the outcomes were extracted from emerged themes and concepts from Phase 1: Qualitative Approach. The Model development blueprint was based from Figurative Image, Architectural Design, and Mechanism of Action. Thus, the "Philippine Peri-Anesthesia Nursing (PAN) Rocket Model" surfaced.



Out from the Model came the "7 Standards of Philippine Peri-Anesthesia Nursing Practice to answer the SOP 5; and these were the following:

- NURSING PROCESS
- ETHICO-LEGAL
- COMMUNICATION & COLLABORATION
- RESEARCH & QUALITY IMPROVEMENT
- EDUCATION & TRAINING
- ENVIRONMENT OF CARE
- LEADERSHIP & MANAGEMENT

From the 7 standards, there were 20 identified Key Areas, 31 Competencies, and 40 Performance Indicators that were conceptualized. The structure and contents were guided by the National Nursing Core Competency Standards of the Philippine Professional Regulations Commission – Board of Nursing (PRC-BON) so that it would be applicable in the Philippines.

For Phase 3:

In Quantitative approaches, to answer SOP 6 Weighted Mean and Standard Deviation were used; thus, showing that respondents viewed the Standards to be Highly Relevant (x=3.76), Very Clear (x=3.62), and Highly Acceptable (x=3.60). To address SOP 7, t Test, ANOVA, and Scheffé Method were used. With this, the results showed that. Variations as to Relevance were noted between staff nurses and anesthesiologists (Sig.=0.017), while other parameters showed no significant differences.

		Sum of Squares	Df	Mean Square	F	Sig.
Relevance	Between Groups	.899	2	.450	4.146	.017
	Within Groups	19.193	177	.108		
	Total	20.092	179			
Clarity	Between Groups	.714	2	.357	2.754	.066
	Within Groups	22.931	177	.130		
	Total	23.644	179			
Acceptability	Between Groups	.659	2	.329	2.407	.093
	Within Groups	24.229	177	.137		
	Total	24.888	179			

Lastly, Reliability Testing using Chronbach Alpha was utilized to answer SOP 8. Results showed that Relevance ($\alpha = 0.862$), Clarity ($\alpha = 0.870$), and Acceptability ($\alpha = 0.881$) were interpreted as "Good" for the Internal Consistency. Despite the differences in the scores, remarks noted that each Standard of Peri-Anesthesia Nursing Practice that was rated by the three groups of respondents (staff nurses, nurse-leaders, and anesthesiologists) was Highly Reliable in nature.

CONCLUSION

The themes have enlightened the development of "P.A.N. Rocket Model" and the concepts were used in formulating "7 Standards for Peri-Anesthesia Nursing". Significant differences rooted from the variety of perceptions of nurses and anesthesiologists. But despite these differences, the respondents viewed that contents of the standards were relevant, clear, and acceptable.

The PAN Rocket Model and 7 Standards will serve as guide for Peri-Anesthesia Nurses working in the Philippines in performing safe and quality care. The results can be used for the advancement of Filipino Nursing Profession.

REFERENCES

- American Association of Nurse Anesthetists. (2015, October 30). *Certified Registered Nurse Anesthetists Fact Sheet*. Retrieved from AANA: http://www.aana.com/ceandeducation/becomeacrna/Pages/Nurse-Anesthetists-at-a-Glance.aspx
- American Nurses Association. (2015, October 15). ANA Hall of Fame Inductee. Georgia Ave., Silver Spring, USA. Retrieved from http://www.nursingworld.org/LydiaEloiseHall
- Arde, B. O. (2015). Concept Analysis: Just Culture. *International Journal of Nursing*, 4(1), 83-89. Retrieved October 10, 2015, from http://search.proquest.com/docview/1703442026/fulltextPDF/5724CDBEC6964257PQ/29?accountid=33657
- Huber, D. L., Joseph, L. M., Halbmaier, K. A., Carlson, M., & Crill, S. (2016, February). Leadership for Transitions of Care: An Active Learning Innovation. *The Journal of Continuing Education in Nursing*, 47(2), 82-88. Retrieved February 26, 2016, from http://search.proquest.com/docview/1762022317/fulltext/6F00460AEFD0441BPQ/17?accountid=33657
- ➤ Kowalczyk, D. (2015, October 28). *Purpose of Research: Exploratory, Descriptive, & Explanatory*. Retrieved from Study.com/ http://study.com/academy/lesson/purposes-of-research-exploratory-descriptive-explanatory.html
- McInnis-Perry, G., Greene, A., & Mina, E. (2015, September). Achieving Excellence Through Contemporary and Relevant Psychiatric-Mental Health Nursing Standards of Practice. *Journal of Psychosocial Nursing & Mental Health Services*, 53(9), 32-37. Retrieved March 10, 2016, from http://search.proquest.com/docview/1708626621/fulltext/F328F5E50CAB42A5PQ/2? accountid=33657
- ▶ Parker, E. O., Chang, J., & Thomas, V. (2016, January). A CONTENT ANALYSIS OF QUANTITATIVE RESEARCH IN JOURNAL OF MARITAL AND FAMILY THERAPY: A 10-YEAR REVIEW. *Journal of Marital and Family Therapy*, 42(1), 3-18. Retrieved March 10, 2016, from http://search.proquest.com/docview/1764882821/fulltext/A372EA6580514C9EPQ/5? accountid=33657
- ➤ Patterson, B. J., & Krouse, A. M. (2015, March-April). Competencies for Leaders in Nursing Education. *Nursing Education Perspectives*, *36*(2), 76-78. Retrieved March 10, 2016, from http://search.proquest.com/docview/1665115917/fulltext/ 4ABEBF23C0E642DFPQ/3?accountid=33657
- ➤ Petipirin, A. (2015, October 15). Nursing Theory. Moss Park Road, Orlando, Florida, USA. Retrieved from http://www.nursing-theory.org/theories-and-models/hall-care-cure-core-theory-of-nursing.php
- Ranganathan, P., & Gogtay, N. (2015, April). Improving peri-operative patient care: The surgical safety checklist. *Journal of Post Graduate Medicine*, 61(2), 73-74. Retrieved October 10, 2015, from http://search.proquest.com/docview/1666345373/fulltextPDF?accountid=33657
- ➤ Rosenbloom, J. M., & Schonberger, R. B. (2015, January). Toward an Understanding of the Equality of Pain: Crawford Long and the Development of Anesthesia in Antebellum Georgia. *Journal of Anesthesia History, 1*(1), 14-17. doi:http://dx.doi.org/10.1016/j.janh.2014.11.003

➤ Sebel, P. (2015, December 15). Anesthesia - Question and Answer. Montclair, New Jersey, United States of America. Retrieved

- March 09, 2016, from http://www.spineuniverse.com/treatments/anesthesia-questions-answers
- Shuttleworth, M. (2015, October 28). *Descriptive Research Design*. Retrieved from Explorable: https://explorable.com/descriptive-research-design
- ➤ Zambricki, C. S., Horowitz, J., Blumenreich, G. J., & Fallacaro, M. D. (2015, February). Recertifying the Professional Nurse Anesthetist: A Call for National Dialogue. *American Association of Nurse Anesthetists*, 83(1), 7-14. Retrieved October 10, 2015, from http://search.proquest.com/docview/1674473645/fulltextPDF?accountid=33657

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- St. Luke's Medical Center, Quezon City and Global City (SLMC) Philippines
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- American Society of PeriAnesthesia Nurses (ASPAN) United States of America
- British Anaesthetic & Recovery Nurses Association (BARNA) United Kingdom

National Association of PeriAnesthesia Nurses of Canada (NAPANc) - Canada

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