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Best Practices of Nursing Research in Liceo de Cagayan University, Cagayan de Oro City, Mindanao, Philippines

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ABSTRACT

This study identified the "best practices" in research of the College of Nursing of Liceo de Cagayan University. The study sought to achieve the following objectives: (1) To identify best "practices" beginning with a systematic document review; (2) To identify "best practices" domains, marking areas to improve; and (3) To validate the "best practices as identified and prioritized by respondents. This study used the descriptive method of research with questionnaire and in-depth interview as tools for data gathering. The best practices in nursing research revolved around common themes on STRUCTURE: Administrative Philosophy, Budget Allocation, Research Agenda; Process: Advising and Paneling, Technology and Resources; OUTCOME: Attitude, Achievement, Accomplishment, Awards, and Affiliation. The identified and validated best practices in nursing research imply that the research component of the College of Nursing of the Liceo de Cagayan University has met the international standards. The Level III accreditation granted by the PACUCOA to the programs Bachelor of Science in Nursing and Graduate Nursing Education evidences excellence in nursing research. Sustaining the quality of nursing research poses a challenge to the College of Nursing as it strives to meet international standards.

Keywords - Nursing education, best practices, structure, process, outcome, nursing research, descriptive design, Philippines.

INTRODUCTION

The Commission on Higher Education, (CHED) pursuant to the provisions in the Republic Act (R.A.) 7722, otherwise known as the "Higher Education Act of 1994," clearly stipulating that the purpose of rationalizing Nursing Education in the country with the end in view of meeting the health needs of the people through quality health services and keeping it relevant and apace with the demands of global competitiveness, espouses policies and standards for Nursing Education.

The CHED Memorandum Order No. 30, Series of 2010, stipulates the Updated Policies and Standards for Nursing Education, Article VIII on Research, to wit:

Section 1. The administration should encourage and support research among its students and faculty and promote utilization of research findings for the improvement of nursing care, educational management, and other aspects of the nursing program.

Section 2. There should be a budget for research and publications.

The Nursing education of the Philippines is committed to the development of a critically thinking nurse generalist, who upon completion of the program demonstrates the eleven core competencies in the key areas of responsibility wherein research is one among the professional competencies a nurse must demonstrate (PRC, BON, 2001).

Introduction to Nursing Research as a subject offering in a College of Nursing forms part of the four (4) -year BSN curriculum. CMO 30 S. 2001 includes the offering of the said subject with 3-unit credit at level III during the second semester

Nursing research is a systematic inquiry designed to develop trustworthy evidence about the issues of importance to the nursing practice, education, administration and informatics. Research purposes for nursing include identification, description, exploration, explanation, prediction and control (Polit and Beck, 2008).

With a vision to be the leading Bachelor of Science in Nursing Program in Mindanao, the College of Nursing of Liceo de Cagayan University identified mechanisms to fulfill her vision. These mechanisms include among others the conduct and utilization of research findings in the practice of the profession in response to the changing health care needs and the provision of quality health services locally and internationally (College of Nursing Manual, Revised Edition 2006).

New knowledge based on nursing and related interdisciplinary research is rapidly expanding. Provision of high quality care depends on translating research-based knowledge into real-life nursing practice. Regrettably, methods used by many nurses

in the past, such as attending conferences, networking with colleagues, and reading professional journals, can barely keep pace with the array of potentially valuable practice-related reports released.

As new procedures and medicines become available, nurses committed to excellence must be highly adoptable to the trends of time. Institutionalizing a "best practice" helps Nursing students develop competencies necessary for the provision of high-quality care to patients. Best practice refers to the clinical practices, treatments, and interventions that result in the best possible outcome in the nursing practice (Munden, 2007).

Thus, this study is pursued to identify, validate, and document the best practices in nursing research at Liceo de Cagayan University. The results of this study will bring about changes in structure and processes directed towards quality research outcome.

FRAMEWORK

This study is anchored on a new model of quality systems inspired by the works of Donabedian (Kunkel, 2007) that included three factors: structure (resources and administration), process (culture and professional co-operation), and outcome (competence development and goal achievement); and the three phases of identifying best practices model used by Desai et al. (2008), namely: Phase 1: identify "best practices," beginning with a systematic document review to develop a taxonomy of best practice categories; Phase 2: explore the "best practices domains," marking areas to improve; Phase 3: validate the "best practices," using the "best practices" instrument and key persons interviews.

Standards can be classified and formulated according to frames of references (used for setting and evaluating nursing care services) relating to nursing structure, process and outcome, because standard is a descriptive statement of desired level of performance against which to evaluate the quality of service structure, process or outcomes.

Structure Standard

A structural standard involves the 'set-up' of the institution. The philosophy, goals and objectives, structure of the organisation, facilities and equipment, and qualifications of employees are some of the components of the structure of the organisation, e.g. recommended relationship between the nursing department and other departments in a health agency are structural standards, because they refer to the organisational structure in which nursing is implemented. An evaluation of

structure is designed to find out the degree to which goals are achieved. The evaluation concerns nursing staff, the setting, and the care environment. The use of standards based on structure implies that if the structure is adequate, reliable, and desirable, the standards will be met or quality care will be given.

Process Standard

Process standards describe the behaviours of the nurse at the desired level of performance. The criteria that specify desired method for specific nursing intervention are process standards. A process standard involves the activities concerned with delivering patient care. These standards measure nursing actions or lack of actions involving patient care. The standards are stated in action-verbs, that is, in observable and measurable terms. The focus is on what was planned, what was done, and what was communicated or recorded. Therefore, the process standards assist in measuring the degree of skill, with which technique or procedure was carried out, the degree of client participation or the nature of interaction between nurse and client. The process standard has an element of professional judgment in determining the quality or the degree of skill in the demonstration of nursing care techniques, procedures, regimens, and processes.

Outcome Standards

Descriptive statements of desired patient care results are outcome standards because patient's conditions are outcomes of nursing interventions. Outcome as a frame of reference for setting the standards refers to description of the results of nursing activity in terms of the change that occurs in the patient. An outcome standard measures change in the patient's health status. This change may be due to nursing care, medical care, or as a result of variety of services offered to the patient. Outcome standards reflect the quality of results rather than the process of giving care

OBJECTIVES OF THE STUDY

The study was geared towards the fulfillment of the following objectives with reference to the phases of the framework used: Phase 1: review documents to develop a taxonomy of "best practices.", Phase 2: identify "best practices domains," marking areas to improve; Phase 3: validate the "best practices" as identified and prioritized by the respondents.

METHODOLOGY

This study used the descriptive method of research. It involves qualitative systematic documentary review and analysis of secondary data (to include photo and video coverage retrieval and reviews) available in the College of Nursing Office, Nursing Research Office, Research and Publication Office, and mini-library of the College of Nursing. The study reviewed documents generated for four years (2007 -2010). A researcher-made questionnaire was used to gather qualitative data to support the inquiry on "best practices" conforming to the three phases of identifying "best practices". The respondents were asked to indicate their (3) top-priority best practices in nursing research as observed and experienced. Verbatim transcription of the qualitative data was done and themes were established and categorized to arrive at the analyses and implications of the findings and to develop a taxonomy of best practices. Areas to improve and gaps or problems expressed by the respondents were identified and weighed to determine the best practices. To validate the findings, indepth interviews with the research coordinator, senior research advisers, research class advisers and students were done during their available time.

RESULTS AND DISCUSSION

(See **Exhibit 22**). Also, two had their posters presented during the First Asia-Pacific Conference on Nursing Research (See **Exhibit 23**). Attendance of Nursing

Phase 1

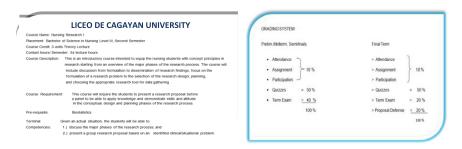


Exhibit 1. Introduction to Nursing research course syllabus



Exhibit 2. CMO 30 S. 2001

Introduction to Nursing Research as a subject is designed to equip the nursing students with concepts and principles in research starting from an overview of the major phases of the research process. The 3-unit course requires the Nursing students to present their research proposal and final research paper to a research panel. The basic subjects as pre-requisite includes Basic Statistics (Math 10) and English 10 (Term Paper Writing). The course requires students to demonstrate competencies in discussing the major phases of the research process and conducting a research in nursing-related cases. The course adopts the following grading system: Attendance, Assignment and Participation- 20%; Quizzes- 40%; and Term Exams (Prelim, Midterm, Semifinal-40%). The grading for the final term includes the following: Book-30%, Adviser's Rating-30%, and Final Defense-40% (See Exhibit 1 for Course Syllabus 2008). The research course is part of the Bachelor of Science in Nursing (BSN) Curriculum based on the Nursing Law (9173) S. 2002. The implementation of the BSN Curriculum is in line with the CMO 30 s. 1998 (See Exhibit 2).

GOAL

ONE OF THE KEY AREAS OF RESPONSIBILITY OF A NURSE IS TO DEMONSTRATE
RESEARCHCOMPETENCY, THUS THE STUDENT IN THE BACHELOR OF SCIENCE IN
NURSING PROGRAM SHOULD BE ABLE TO CONDUCT RESEARCH USING
DIFFERENT METHODOLOGIES, RECOMMENDS ACTIVITIES
FORIMPLEMENTATION AND DISSEMINATESRESULTS OF RESEARCH
FINDING S FORTHE IMPROVEMENT OF NURSING EDUCATION

Exhibit 3. Goal of the Nursing Research Unit

Consistent to the philosophy, vision mission, goal and objectives of the university and the College of Nursing, the Nursing research component is directed to the fulfillment of the goal of the research unit, "the improvement of nursing education, practice and health" (See Exhibit 3).

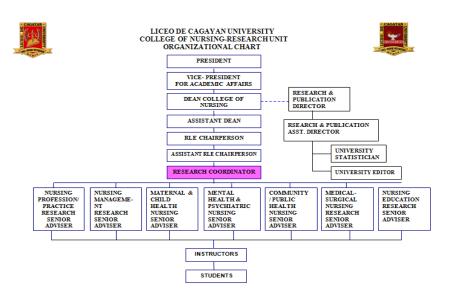


Exhibit 4. Research Coordinator in the Organizational Chart of the Nursing Research Unit

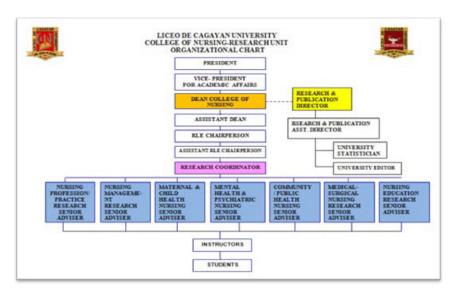


Exhibit 5. Director of Research and Publication Office, College Dean, Research Coordinator and Senior Advisers of Different Fields in the Organizational Chart of the Nursing Research Unit



Exhibit 6. Research Agenda

RESEARCH UNIT

PROTOCOL

I. APPLICATION FOR PROPOSAL DEFENSE

REQUIREMENTS:

- STEP 1. WRITTEN APPROVAL FROM THE ADVISER
- STEP 2. FOUR (4) COPIES OF THE COMPLETE PROPOSAL PAPER
- STEP 3. SUBMISSION SHOULD BE AT A MINIMUM OF 2-5 DAYS
- BEFORE THE DEFENSE SCHEDULE
- STEP 4. WEAR COMPLETE WHITE DUTY UNIFORM DURING THE DEFENSE
- STEP 5. BRING THE DESIGNATED REQUIREMENTS AS REQUESTED BY THE RESEARCH
 OFFICE
- STEP 6. GET THE MINUTES OF THE RESEARCH PROPOSAL FROM THIS OFFICE AFTER 2-3

Exhibit 7. Research Unit Protocol for Proposal Defense

APPLICATION FOR FINAL DEFENSE

REQUIREMENTS;

STEP 1. WRITTEN APPROVAL FROMT THE ADVISER

STEP 2. FOUR COPIES OF THE COMPLETE DEFENSE PAPER

STEP 3. SUBMISSION SHOULD BE AT A MINIMUM OF 4-7
DAYS REFORE THE DEFENSE SCHEDULE

STEP 4. WEAR COMPLETE WHIE DUTY UNIFORM DURING
THE DEFENSE

STEP 5. BRING THE DESIGNATED REQUIREMENTS AS REQUESTED BY THE RESEARCH OFFICE

STEP 6. GETTHE MINUTES OF THE RESEARCH FINAL DEFENSE FROM THS OFFICE AFTER 2-3DAYS

REQUIREMENTS FOR FINAL PAPER SUBMISSION:

- TWO (2) COMPLETE HARD COPIES OF FINAL PAPER
- 2. TWO (2) COMPLETE SOFT (CD) COPIES OF FINAL PAPER WITH PAPER WITH COVER COMPLET WITH TITLE, STUDENT'SNAME, DATE & ADVISER'S NAME
- 3. FILLED-UP APPLICATION FORM WITH PRELIM,
 MIDTERM, SEMIFINALS, FINAL GRADE
- ALL OF THE ABOVE SHOULD BE SUBMITTED TO YOUR ADVISER FIRST THEN YOUR ADVISER WILL FORWARD THEM TO THE RESEARCH UNIT

Exhibit 8 Research Unit Protocol for Final Defense

The Nursing research component is directed by a Research Coordinator who reports to the Dean of the College of Nursing (See Exhibit 4.). The College Dean directly coordinates with the Director of the Research and Publication Office. A research senior adviser is assigned to each of the different fields, namely Nursing Profession/Practice, Community Health Nursing, Psyche and Mental Health Nursing, Medical-Surgical Nursing, Maternal and Child Health Nursing, Education/Instruction, Nursing Management, and Nursing Informatics. All research senior

advisers report directly to the research coordinator (See Exhibit 5). These areas for research are mandated by the PRC-BON. The research agenda of the College of Nursing is shown in Exhibit 6. The Research Unit Protocol and Guidelines clearly state the number of contact hours (3) a week in four (4) terms, the grading system, the guidelines for proposal and final defense, and the class size (15-25 students). The class is divided into at least five research groups (See Exhibit 7 and Exhibit 8).

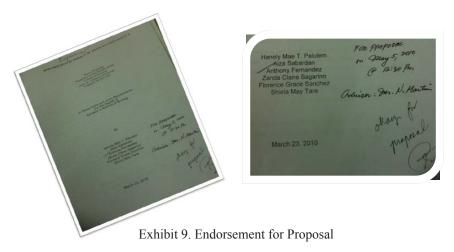






Exhibit 10. Research Adviser and Advisee Consultation

PROCESS: The officially enrolled students in nursing research are expected to attend three hours lecture per week as scheduled. The first two terms (prelim and midterm) are for lectures, while the last two terms (semifinal and final) are for consultations as the students go through the actual conduct of their research work until final defense and paper revision. The research adviser endorses the research paper for proposal and final defense (See Exhibit 9). Before the start of research classes, a meeting is called for by the research coordinator to establish uniformity in the use of instructional materials (syllabus, power point presentations, manual). Seminars for students and faculty on research are slated to further equip them in nursing research. For consultations, the research adviser, and advisees meet either in the classrooms, faculty room, or library (See Exhibit 10). When the semester is over and the students still have deficiencies in their research work, the research advisers are still obliged to render service as advisers until the students' research work is completed. After a lapse of one (1) year and the paper has not been completed, the students can re-enroll the subject for them to pursue the research work until its completed.









Exhibit 11. Nursing Research Output as Compilation in the Mini-library of the College



Exhibit 12. Nursing Research Journal



Exhibit 12. Evolution of Nursing Research Journal





Exhibit 14. SY 2008-2009 List of Researches by Specialty Areas



Exhibit 15. Research Dissemination in the Community Setting Research Dissemination within the University







Research Dissemination at Holy Name University, Bohol, Visayas, Philippines





Research Dissemination at Davao Doctor's College, Davao City, Mindanao, Philippines





Exhibit16. International Nursing Research – Jerusalem





Exhibit 17. Recognition and Incentives



Exhibit 18. Public Acclaim (Tarpauline/Streamers)



Exhibit 19. Certificate of Appreciation for External Evaluators



Exhibit 20. Health Research Forum









Exhibit 21. Research Fora Partners

Series of nursing research for aand research agenda reviews were held since 2007 for the dissemination and utilization of research findings (See Exhibit 15). To further strengthen research dissemination activities, the Nursing faculty were sent to other universities in Visayas and Mindanao to present research papers. The enormous effort of the university to conduct religiously research fora and research agenda reviews was consistent with the university's vision for excellence and its preparation for PACUCOA and IQUAME accreditations. The study " Water Quality and Occurrence of Diarrhea in Pamalihi, Pagatpat, Cagayan de Oro" by nursing students with Ms. Donna Lou Neri as adviser met the International Nursing Research Standards as it was accepted for presentation in Jerusalem (See Exhibit 16). Both faculty and student researchers manifested high motivation to do research because of recognitions, cash incentives /prizes, (See Exhibit 17), and public acclaim through the posting of tarpaulin/streamers in strategic place inside the university campus (See Exhibit 18). External evaluators were recognized and given honoraria(See Exhibit 19) for their shared expertise. The capability of the Nursing faculty to host a research forum was put to test when the department hosted the Health Research Forum with the lone Asian Nurse Scientist in National Institute for Health, Maryland, U.S.A, as speaker (See Exhibit 20). The forum was in collaboration with CHEDRO, DOH, and the Office of the City Mayor (See Exhibit 21). Furthermore, researches on health were accepted for presentation during the Health and Environment Research Forum hosted by Liceo de Cagayan University and Xavier University with the Department of Health, Department of Science and Technology and the Commission on Higher Education. In preparation for the PAIR National Health and Environment Forum, the RPO invited health research experts to critic papers for presentation. Four of the Nursing faculty were part of the university's contingent of paper presenters



Exhibit 22. Nursing Faculty -Presenters in the National Health Forum





Exhibit 23. Nursing Faculty Poster Presenters at the First Asia-Pacific Conference on Nursing Research



Exhibit 24. Nursing Faculty Presenters First Philippine Nursing Research Society Conference –General Santos City



Exhibit 25. Philippine Journal of Nursing Article



Exhibit 26. 10 Top Researchers in the Philippines



Exhibit 27. Rodelsa Award for Research Excellence



Exhibit 28. Ecosanitation (Ms. Neri with the NorMinCoHRD) at Liceo de Cagayan University



Exhibit 29. Scaling the Heights of Inquiry with Dr. Cinches and Dr. Pagtulon-an





Exhibit 30. Theory Development





Exhibit 31. Translational Research Instructional Module Workshop Individual Category Winners



Exhibit 32. First place in: Group Category on Policy Formulation

faculty at the First Philippine Nursing Research Society (PNRS) conference in General Santos City (See Exhibit 24) paved the way for the college to host the second PNRS conference in Cagayan de Oro City. The university's reputation as excellent host was recognized, placing the college and the university in the Official Publication of the Philippine Nurses Association Journal in 2009 (See Exhibit 25). Research grants and awards were bagged by the Nursing faculty. Most recently, Ms. Donna Lou Neri was cited as one of the ten top researchers in the Philippines (See Exhibit 26). During the Emerald Jubilee Celebration of the university, Ms. Neri bagged "Platinum Award" and Ma. Chona V. Palomares, dean of the college, received the "Gold Award" (See Exhibit 27). The college has been given a seat for heath studies in the Northern Mindanao Consortium for Health Research and Development (Normincohrd), giving the college the leadership in ecosanitation research agenda (See Exhibit 28). A team of Nursing faculty participated in a seminar-workshop dubbed as "Scaling the Heights of Inquiry: A Novice Researcher's Feat." In the seminar-workshop, the team won first (See Exhibit 29). The faculty of the college were sent to a workshop on theory development. In the workshop, a Nursing faculty member was awarded best presenter (See Exhibit 30). A week after, a seminar on Translational Research and Policy Formulation was held. In the seminar, the assistant dean of the college won first -Individual Category on research-based Instructional Material (See Exhibit **31**) while the group that the assistant dean of the college represented won first for Group Category on Policy Formulation. (See **Exhibit 32**).

Phase 2

This phase established the "Best Practice Domains" as marked by the Nursing research coordinator, faculty and students. Areas to improve were identified through observations and interviews with faculty and students.

Structure: The line of communication and budget request protocol were marked as areas to improve. The Research and Publication Office in delegating research activities to the Nursing Research Office must have a plan of activities to ensure success of the implementation of each activity. There is a need for the Nursing Research Coordinator to follow through research initiatives proven to have obtained the desired outcomes for Nursing researches. The use of plagiarism program must be institutionalized. The scheduling of the Related Learning Experience (RLE) that hinders students to finish their paper within the semester has to be adjusted. A common theme was established during validation; that is, the Medical-Surgical concerns in lecture and RLE were in conflict with their Nursing research schedule. Furthermore, the faculty pointed out that time has always been the reason for giving nursing research is the least priority among students and faculty. No clear-cut policy when students re-enroll the subject is in place since a new adviser is assigned and the former adviser ceases to follow-through.

Process: Research advising capability and willingness of faculty members to be advisers were marked as areas to improve. There are few faculty members who have the capability and willingness to become advisers. Most of the teachers are holders of MN degrees under a non-thesis program. And as claimed, they lack thesis advising competencies. Research defense scheduling must be carefully set. Sometimes the oral defense is set on a time when the panelists are not available. Research results must be disseminated to the right forum for the appropriate utilization of the research findings. Noted was the claim that there must be a connection between research and extension and "for the panel to dwell on the basics of research." Questions must be asked in line with the research process. At the early sessions in research lecture, it was revealed that the students were unprepared for the seatwork and that they were still at the stage of adjustment having gone from their psychiatric nursing affiliation in Davao. Also, there is a need to develop the data processing skills of the students to lessen the cost of research.

Outcome: Nursing research should focus on the most prioritized nursing-related problems. There is a need for nursing researches to be published in a national

specialized journal. Translational research publication is an area to consider. Several student researches are not yet utilized for lack of faculty capability for research translation. Much of the outputs remain to be disseminated and utilized. Outcomes are measured by the extent of utilization of the findings to improve identified weak areas. Dissemination of research results along the medical-surgical research agenda should be given emphasis .The faculty's and student's attitude towards research must be considered and attitude-boosting mechanisms must be in place considering that research is the least prioritized among all Nursing subjects.

Phase 3 presents the validation of the identified best practices.

STRUCTURE: Administrative support is shown in terms of the administrators' presence in all research activities other than the approval of the logistics for nursing researches. The leadership of the top management influences the middle managers, who in turn influence nursing research coordinator down the stakeholders, thus creating a culture of excellence in research. The availability of a software to detect plagiarism ensures originality of research work.

PROCESS: Nursing faculty serve as advisers though the adviser's fee, as well as defense paneling fee, is meager. Budget allocation to nursing research motivates faculty to do research. Nursing faculty are enjoined to attend research colloquia, developing in them positive attitude toward research. Furthermore, a well organized research procedure, from conceptualization of the study to the formulation of the conclusions, is evident. As cited by the student respondents, the use of Institute of Scientific Information (ISI), Opaque, and Wilson through the Liceonet allowed them to survey rich resources for their studies. Also, the students' data mining skills were enhanced through the use of computer laboratory and a provision of a wifi zone in the university campus. The students claimed that one unforgettable experience of them was visiting offices within and outside the university to seek permission to conduct the study as a matter of courtesy call. The actual conduct of the study gave the students the chance to hone their communication skills as they gather information from their respondents. Finally, the students identified teaching with passion as the hallmark of an ideal research teacher.

OUTCOME: Research topics were based on National Health Research Agenda and the problems besetting the community, hospital, and the academe. In preparation for PACUCOA visit, research dissemination activities within the Visayas and Mindanao areas were done. Liceo de Cagayan University hosted the Second

Philippines Nursing Research Society Conference. Lastly, the research findings were utilized as bases for policy formulation in academe and intervention measures in the communities to address health and development concerns.

CONCLUSION

The identified and validated best practices in nursing research imply that the research component of the College of Nursing of the Liceo de Cagayan University has met the international standards. The Level III accreditation granted by the PACUCOA to the programs Bachelor of Science in Nursing and Graduate Nursing Education evidences excellence in nursing research.

Sustaining the quality of nursing research poses a challenge to the College of Nursing as it strives to meet international standards.

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