Learning Needs Assessment and Preferred Instructional Methods Among Nurses Participating in Continuous Professional Education

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ABSTRACT

Globally, the concept of continuing professional education (CPE) has been acknowledged by all professionals as a primary method for regular enhancement of basic professional education. In the clinical sector, when providing in service programs, learning needs assessment provides the basis for the design of effective educational programs. The purpose of the study was to examine the learning needs and preferred instructional method among nurses. Also, the significant difference of professional development learning needs, clinical skills learning needs and instructional method was measured in relations to sex and years of clinical experience. The study utilized descriptive research design. Convenient sampling was used to sample 120 nurses from selected hospitals in Laguna. A self-constructed questionnaires were used as the instruments of the study. The statistical treatment used were mean, standard deviation, t-test, and ANOVA. The study showed that highest priority of learning needs in terms of professional development was stress management. Emergency management was the highest priority perceived by the nurses in terms of clinical skills. The learning method most preferred by the nurses was the use of lectures. There was no significant difference in terms of professional development learning needs, clinical skills learning needs and instructional method when considering sex and years of clinical experience. The study recommends the nurse educator and managers of the selected hospitals to utilize learning needs assessment results to implement educational programs. It is further recommended that learning needs assessment should be an ongoing process involving other professional and clinical topics to promote better quality service.

Keywords: Continuous Professional Education, Learning Needs Assessment, Instructional Methods, Nurses

INTRODUCTION

Globally, the concept of continuing professional education (CPE) has been acknowledged by all professionals as a primary method for regular enhancement of basic professional education. Nurses are the largest group of medical professionals worldwide, hence, are required to participate in CPE in order to develop skills and implement evidence-base practice. The International Council of Nurses Code of Ethics for Nurses endorsed that nurses carry personal accountability and responsibility for continuous learning to maintain competence (Chong, Francis, Cooper, & Abdullah, 2014).

In the clinical sector, when providing in service programs, learning needs assessment provides the basis for the design of effective educational programs. A variety of tools can be used to gather evidence about learning needs which includes survey (Pilcher, 2016). The assessment's objective would be to identify, prioritize, plan and evaluate nursing staff's educational needs. This evaluation is referred to as the cyclical educational process. The education program implementation process uses the nursing process which includes learning needs assessment, diagnosis (prioritization), implementation, and evaluation (Johnston-Hanson, 2012).

Dyson, Hedgecock, Tomkins, and Cooke(2009) argues that a well-conducted needs assessment not only identifies staff training needs but also continues to increase member participation, supports management and provides information for a comprehensive assessment process. Learning needs evaluation tools, or training needs analytical generate subjective data based on participant assumptions. Surveys or questionnaires are frequently used to complete a study on perceived learning needs.

In order to promote a continuous professional education program, it is important to also consider the learning style preferences of the intended learners. Learning styles are the usual cognitive and affective behaviors that determine how everyone interacts in learning situations or environments. Mangold, Kunze, Quinonez, Taylor, and Tenison (2018) investigated the learning styles of registered nurses. The results showed that there was a significant difference of the nurses learning styles in terms of sex and years of clinical experience.

In understanding the learning style of learners, it's important to select strategies for teaching which involve participants in an active learning process. Nurses are more likely to retain the information associated with the lecture if a combination of different strategies are used including lectures, discussions, case presentations, personal reading, role play, upon many others To deliver high-quality education, it is important for nurse educators to select appropriate teaching strategies.

A study conducted by Dyson, Hedgecock, Tomkins, and Cooke (2009) examined the learning needs of nurses in an acute care setting. The results showed that one of the highest learning needs of the nurses were the findings highlighted that the highest learning needs of registered focused on direct client care activities rather than team work or professional issues. Interpreting results from diagnostic test and emergency care was ranked the highest learning needs of direct care activities. A significant difference in the learning needs in terms of years of clinical experience between registered nurses and senior nurses. Therefore, the authors recommended

nurse educators and managers to conduct learning needs assessment in different groups and specialized areas to provide educational programs to the nurses.

In implementing this recommendation, the study seeks to identify the nurses learning needs and learning methods at selected hospitals in Laguna. Specifically, it answers the following questions:

1. What is the learning needs of the respondents in terms of:
    a. Professional Development Topics
    b. Clinical Skills Topic
2. What is the preferred learning method of the respondents?
3. Is there a significant difference between:
    a. sex, years of clinical experience and professional development topics
    b. sex, years of clinical experience and clinical skills topics
    c. sex, years of clinical experience and learning method?
4. There is no significant relationship between
    a. sex, years of clinical experience and professional development topics
    b. sex, years of clinical experience and clinical skills topics
    c. sex, years of clinical experience and learning methods.

LITERATURE REVIEW

The literature review represents the theoretical core of an article. In this section, we will discuss the purpose of a literature review. We will also consider how one should go about to find appropriate literature on which to base a literature review and how this information should be managed. Finally, we will answer four questions that first-time researchers often battle with when compiling a literature review.

These questions are: which aspects should I include in a literature review?; how should I go about to synthesise information in a literature review?; how should I structure a literature review? what writing style should I use when compiling a literature review?

The purpose of a literature review is to "look again" (re + view) at what other researchers have done regarding a specific topic (Leedy & Ormrod 2005:70). A literature review is a means to and end, namely to provide background to and serve as motivation for the objectives and hypotheses that guide your own research (Perry et al. 2003:660)

A good literature review does not merely summarise relevant previous research. In the literature review, the researcher critically evaluates, re-organises and synthesises the work of

others (Leedy & Ormrod, 2005:84). In a sense, compiling a literature review is like making a smoothie or fruit shake: The end product is a condensed mix that differs totally in appearance from the individual ingredients used as inputs. The key to a successful literature review lies in your ability to "digest" information from different sources, critically evaluate it and resent your conclusions in a concise, logical and reader-friendly" manner.

First-time researchers often naively believe everything they read or are scared to criticise the work of others. However, academic research is all about critical enquiry! It is, therefore, extremely important that you critically evaluate the material that you read. Do you agree with the arguments and conclusions of other researchers? If you disagree, why? Can you identify contradictory arguments or findings? How could one explain these contradictions? Do the findings of previous studies applyin all contexts or are the findings context-specific? What are the criticisms against the conceptual models or measurement approaches discussed in the literature? Which limitations should be considered when interpreting the results of previous research?

You have to carefully read the most recent available literature with a view to identify specific gaps, inconsistencies and/or controversies that may form the basis of your own research. Always show that you have considered an issue from a number of angles and that you are aware of the arguments for and against a specific point of view. Many researchers in services marketing, for example, use the SERVQUAL measurement scale without considering existing criticisms against it.

To compile a proper literature review, one has to overcome three specific challenges, namely: finding appropriate literature on a specific topic; managing the information; and presenting a logical, synthesised and reader-friendly review of the current knowledge relating to a specific topic. Consider the following search strategiess: Blackwell Synergy; Proquest Data Basis; EBSCOhost (Business Source Pirmier and Business Source Pirmier); Emerald; Taylor and Francis; Infotrac; Wiley Iterscience; and others open access journal using Google Scholar.

METHODS

This study employed a descriptive design, using a structured questionnaire to conveniently collect a sample of 120 registered nurses in selected hospitals in Laguna to determine the learning needs and learning styles of the participants to assist in planning continuous professional education programs.

The demographic characteristics of the 120 respondents were elucidated according to sex and years of clinical experience. The sex group of the respondents comprised of 64 (54%) males and 56 (46%) females. The current years of clinical experience of the respondents showed that 85 (71%) has 1-4 years of experience, 25 (21%) 5-9 years of experience and 10 (8%) and had experience for 10 years and above.
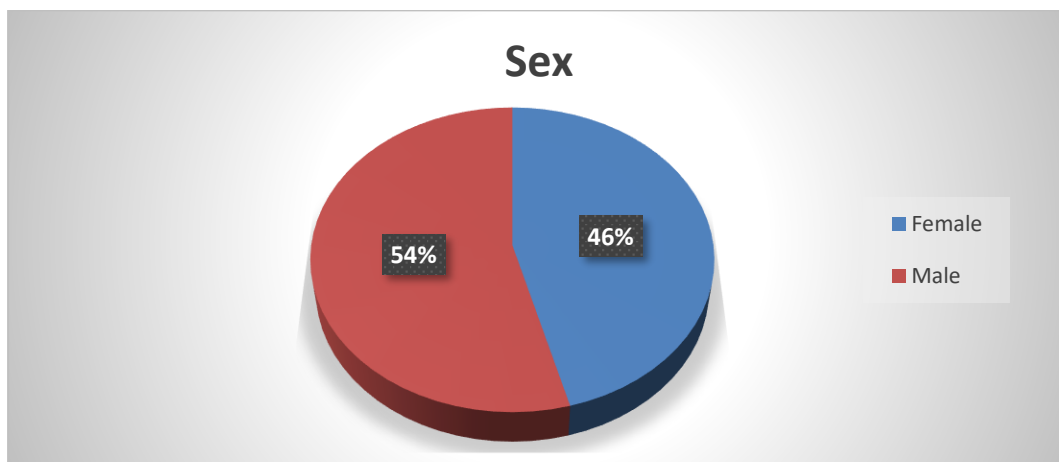

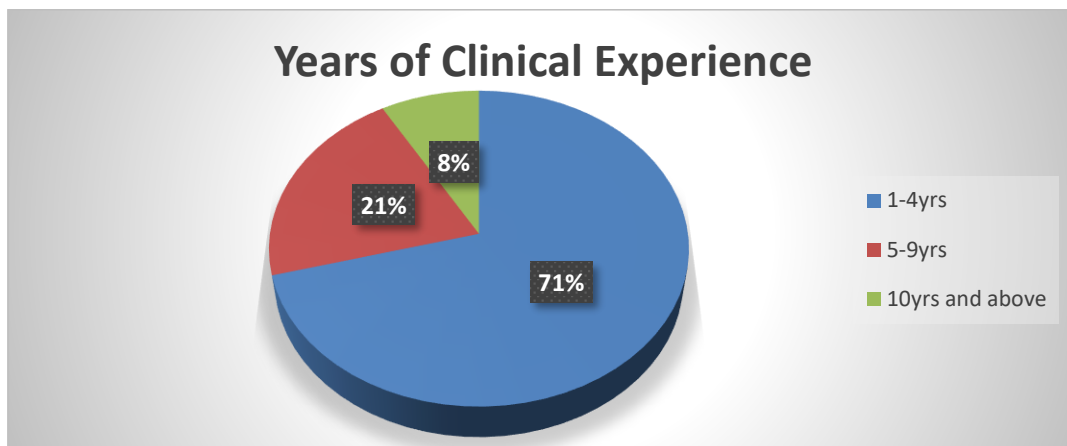**Figure 1.** Sex of the Respondents

Figure 2. Years of Clinical Experience of Respondents

One hundred twenty questionnaires were given to the nurse educator of selected hospitals in Laguna to be distributed to the registered nurses. The researcher explained the purpose and procedure of the study prior to given the questionnaire to the nurse educator. The nurse educator then distributed five questionnaires to the head nurses per unit and explained the purpose and procedure prior to administering the questionnaires. The questionnaires were collected and sealed after completion.

One hundred twenty questionnaires were received and analyzed. After data cleaning, the remaining questionnaires were encoded into the computer and further analyzed using Statistical Package for Social Sciences (SPSS Version 22.0). The data were analyzed using descriptive statistics, using the mean and standard deviation, T-test and ANOVA. Significance level was set at $p > 0.05$.

Nurses' privacy was protected by providing anonymous and voluntary participation. The purpose of the study was explained, and consent would be obtained before data collection. Participants had the right to withdraw from the study at any stage. Furthermore, the identification of the participants was not disclosed, and only aggregate data were presented.

Table 1. **Scoring System Table for Professional Development Topics and Clinical Skills Topics**

Numeric Scale	Scale Average Weight	Scaled Response
4	>3.3-4	High Priority
3	>2.5-3.2	Medium Priority
2	>1.7-2.4	Low Priority
1	>1-1.6	Not a Priority

Table 2. **Scoring System Table for Learning Methods**

Numeric Scale	Scale Average Weight	Scaled Response
4	>3.3-4	Very Desirable
3	>2.5-3.2	Desirable
2	>1.7-2.4	Undesirable
1	>1-1.6	Very Undesirable

RESULTS

Ranking the Professional Development Topics

The results indicate that the nurses ranked stress management as the *highest priority* of learning needs (M=3.92, SD=0.282). Subsequent results show that time management (M= 3.79, SD=0.415) and communication skills (M= 3.75, SD=0.676) were rank the second and third with a *high priority* according to the respondent's learning needs. Whereas, cultural competence although with a *medium priority* (M= 2.83, SD=0.868) was ranked the lowest of the respondent's learning needs.

Evidence shows that stress had been described as a barrier to concentration, critical thinking and decision making which would affect the providence of a holistic, individualized nursing

care. Nursing is predisposed to a stressful environment. Therefore, it is intricate that the continuous professional education programs conducted in selected hospitals of Laguna focuses on positive coping strategies to manage stress.

Table 3. **Professional Development Topics**

|	Mean	Std. Deviation
Stress Management	**3.92**	**.282**
Time Management	**3.79**	**.415**
Communication Skills	**3.75**	**.676**
Preventing Burnout	3.75	.442
Leadership Ethics	3.75	.532
Interprofessional Collaboration	3.67	.637
Evidence Based Practice	3.58	.504
Legal Issues in Nursing	3.54	.588
Delegation	3.54	.779
Conflict Management	3.46	.658
Violence in the Workplace	2.83	1.007
Cultural Competence	**2.83**	**.868**
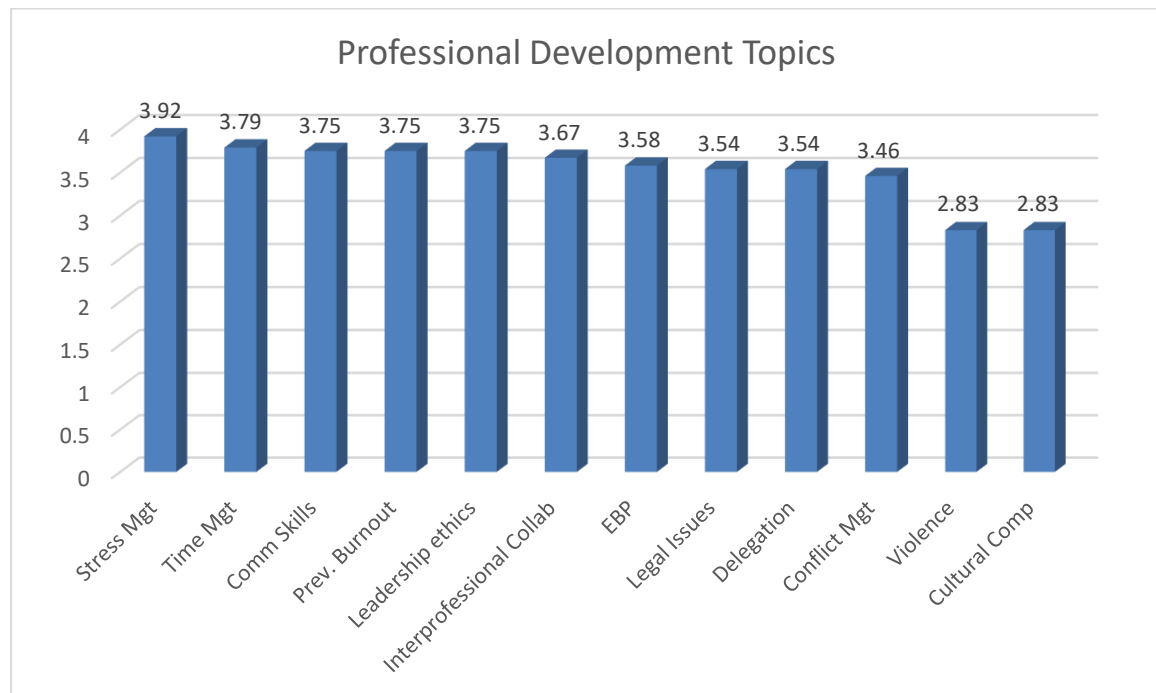
Figure 3. Professional development topics ranked by respondent

Ranking the Clinical Skills Topics

The results shows that nurses ranked emergency management as the highest priority (M=3.92, 0.282). Consequent results indicated that pharmacology update (M=3.88, SD=0.338) and health assessment (M=3.83, SD= 0.482) were ranked the second and third highest priority of nurses learning needs. However, patient education (M=2.92, SD=1.018) with a *medium priority* ranked the lowest by the nurses in terms of learning needs. This results confirms Dyson, Hedgecock, Tomkins, and Cooke (2009) study that coordinating emergency situation was one of the highest priority of learning needs.

Table 4. **Clinical Skills Topics**

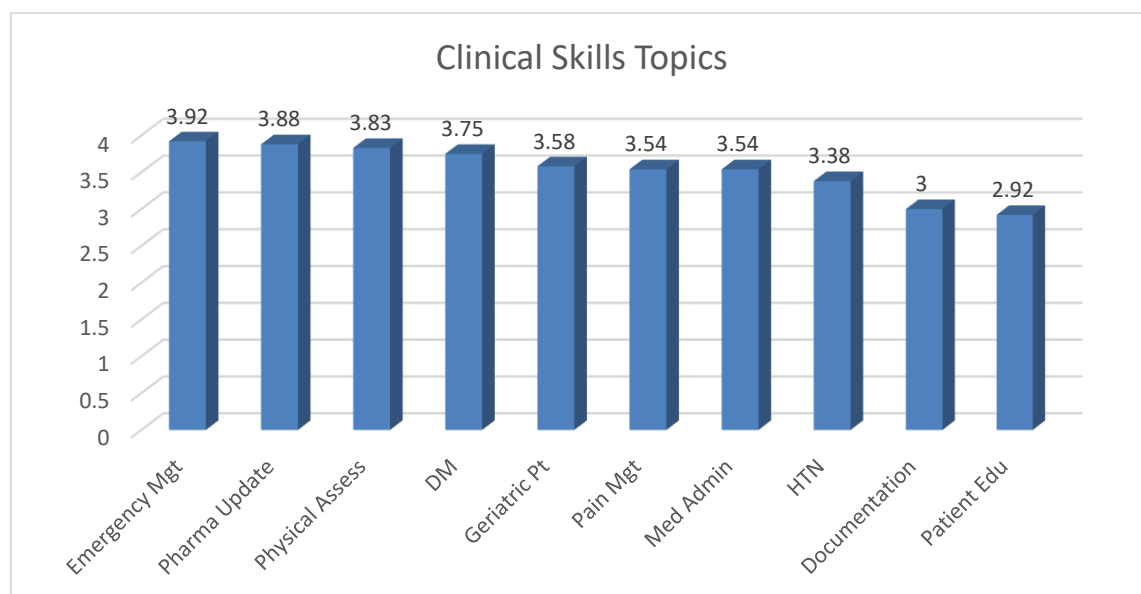|	Mean	Std. Deviation
Emergency Management	**3.92**	**.282**
Pharmacology Update	**3.88**	**.338**
Health Assessment	**3.83**	**.482**
Diabetes Management	3.75	.442
Geriatric Care	3.58	.504
Pain Management	3.54	.588
Medication Administration	3.54	.779
Hypertensive Management	3.38	.647
Documentation	3.00	.885
Patient Education	**2.92**	**1.018**

Figure 4. Clinical skills topics ranked by the respondents

Learning Methods Ranked by the Respondents

The results indicated that in relevance to the learning styles of the respondents, the use of lectures (M=3.42, SD=0.584) as a teaching method ranked the highest preference interpreted as *very desirable.* Subsequent ranking of learning methods includes group discussion (M=3.25, SD=0.944) and audiovisuals (M=3.21, SD=0.721). Case presentation was ranked the lowest learning method and interpreted as *undesirable* (M=2.21, SD=1.141).

Table 5. **Learning Methods**

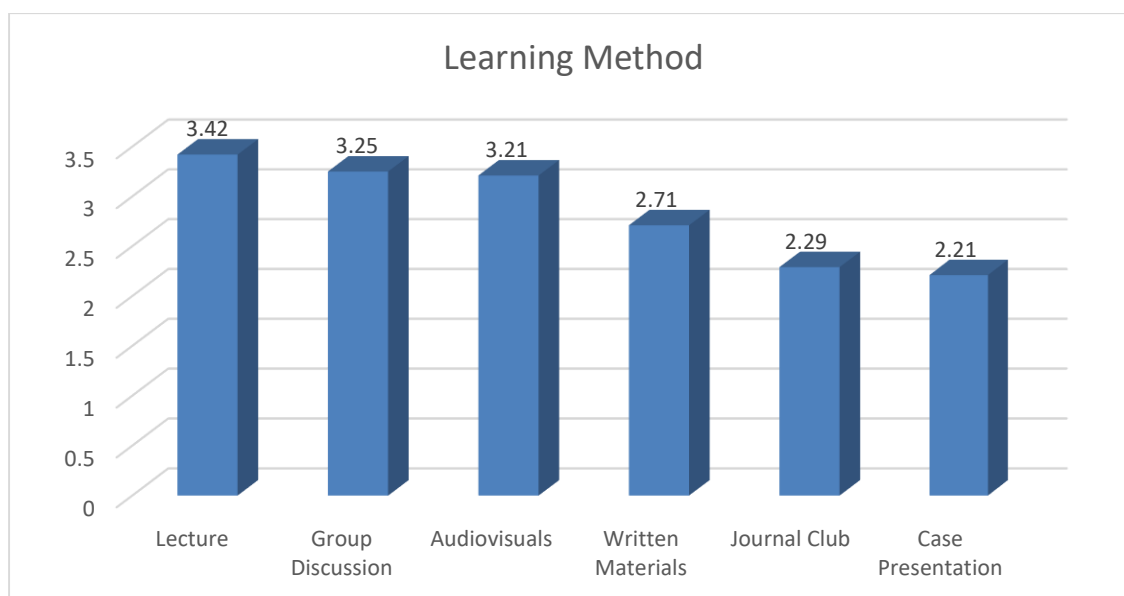|	Mean	Std. Deviation
Lecture	**3.42**	**.584**
Group Discussion	**3.25**	**.944**
Audiovisuals	3.21	.721
Written Materials	2.71	.859
Journal Club	2.29	.908
Case Presentation	**2.21**	**1.141**

Figure 5. Learning methods ranked by respondents

In investigating the significant difference in terms of sex and years of experience on professional development topics, clinical skills topics and learning method, it showed that there is no significant difference. Therefore, the study *fails to reject* the null hypothesis that there is a significant difference in terms of sex and years of experience when considering professional development topics, clinical skills topics and preferred learning method. The study contradicts

Mangold, Kunze, Quinonez, Taylor, and Tenison (2018) that there was a significant relationship between sex and years of experience when considering learning style.

This implies that regardless of the sex and clinical years of experience, the nurse's priority of learning needs and learning styles are the same. Therefore, when implementing continuous professional education programs at selected hospitals in Laguna, the sex and years of clinical experience should not be considered.

Table 6. **Professional Development Topics: Differences in terms of sex and years of experience**

	Sex	Years of Clinical Experience
F	5.930	2.258
Df	22	21
T	0.601	
P	0.554	0.129
IV	NS	NS

S=Significant, NS=Not Significant

Table 7. **Clinical Skills Topics: Differences in terms of sex and years of clinical experience**

	Sex	Years of Clinical Experience
F	0.212	2.404
Df	22	21
T	-0.201	
P	0.843	0.115
IV	NS	NS

S=Significant, NS=Not Significant

Table 8. **Teaching Method: Differences in terms of sex and years of clinical experience**

	Sex	Years of Clinical Experience
F	0.605	2.109
Df	22	21
T	-2.029	
P	0.056	0.146
IV	NS	NS

S=Significant, NS=Not Significant

DISCUSSION

Conclusion

The study concluded that the learning needs of the registered nurses in selected hospitals of Laguna includes areas from both professional and clinical skills. The highest priority of learning needs in terms of professional development was stress management. Emergency management was the highest priority perceived by the nurses in terms of clinical skills. The learning method most preferred by the nurses was the use of lectures. Therefore, in conducting continuous professional education program, it is important for the nurse educator and managers to not neglect the other topics indicated, however to priorities the educational programs geared first to the highest priority of nurses learning needs. Secondly, the involvement of different learning method should be incorporated with lectures when conducting an education program to better enhance retention and adaptation into practice.

Reccomendation

The study recommends the nurse educator and managers of the selected hospitals in Laguna to utilize this research in implementing educational programs. It is further recommended that learning needs assessment should be an ongoing process involving other professional and clinical topics to promote better quality service.

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