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# NURSES' ATTITUDES TOWARDS NURSING RESEARCH 

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#### Abstract

The main problem of this study was to examine the nurses' attitudes towards nursing research in selected hospitals in Laguna. The study is anchored on the Donabedian's structure-process-outcome framework. A convenience sample of (93) staff nurses and a purposive sample of (7) expert nurses answered Boothe's Attitudes on Nursing Research Scale. This study made use of a mixed method. Researcher used frequency count and weighted mean to assess degree of nurses' attitudes towards nursing research, ANOVA was used to note significant deifference among the ratings of the staff nurses, additionaly, thematic analysis was employed to identify areas that will increase nurses engagement to nursing research. Also, frequency count and percentage agreement at $85 \%$ were used to categorize nurses' attitudes into research infrastructure (structure, process, and outcome).


The results showed that the most positive attitudes of the nurses are related to subscale payoffs and benefits described as "Strongly Agree" which entails that nurses are to engross in research if time time permits and if there are monetary and promotion benefits. Meanwhile, subscale interest and environmental support was described as "Agree" and subscale barriers to conducting research was described as "Uncertain". Moreover, out of 46 items in Booth Scale, 10 items were identified as structure, 3 items as process, and 2 items for outcome. This study revealed no significant difference among the ratings of the staff nurses. Thematic analysis uncovered three emerging themes namely, time, financial support, and reward. Staff nurses agreed that their workplace should provide them time, financial support, and reward with their research endeavour.

The findings of this study recommend that hospital management should provide ample time, such as sabbatical leave or any leave of equivalence, to staff nurses wish to participate in research activities. Also, hospital management should plan/support programs leading nurses to participate in research activities, such as utilization of evidence-based practice. Also, if possible, PRC-BON should outline policies that will strengthen the structure and process of the research infrastructure supporting staff nurses in doing research. Specifically, policies should focus on time, continuing education programs, opportunities to conduct research, and comprehensive assistance for nurses engaging in research.

Keywords: nurse, attitudes, nursing, research

## INTRODUCTION

Nursing profession has long recognized the importance of research as an indispensable foundation for its development. More recently, the movement supporting evidence-based practice has brought this aim into focal point. Nurse involvement in research is essential to the expansion of nursing science and improved care for patients. Nurses must provide care and intervention based on up-to-date knowledge and research that supports the delivery of the highest standards of care possible.

Preceded, are few heavy-weighted reasons for nurses to appreciate research. However, as policies and professional developments over the last fifteen years placed increasing pressure on nurses to be more accountable for their actions. Nursing has seen a shift away from the heavily theoretical work of nursing academics to stronger emphasis on practice. Nurses, nowadays, are more concern on what is than how it is to be done. Research is an essential part of fast pacing health environment; it is a must to deliver effective and efficient quality health care services to patients. Further, research is significant in today's nurses' professional role and responsibility intertwined with concepts of efficiency, effectiveness and quality improvement in delivering care to patients. Nurses develop their own professional knowledge out from strong foundations built on research. Consequently, nurses have a responsibility in some way to contribute to the development of the profession's knowledge through research.

The on-going change in the field of nursing strengthened the standpoint of research as a milestone in nursing profession. Various nursing organizations/agencies, both local and
international, are focus in uplifting nurses' desire to indulge in research activities. There is a felt need to understand the grounds of dissension between research as fundamental to the nursing profession and the narrow application and utilization of nursing research in the hospital setting, an appreciation of the staff nurses' attitudes in nursing research is warranted.

The studies performed over the last two decades cannot be generalized on their own but when combined several themes emerge. An article compiled the common barriers to research as reported by researchers using the BARRIERS scale, these include: (a) lack of time; (b) lack of confidence in critical appraisal skills, (c) lack of authority; (d) organizational infrastructure; (e) lack of support; (f) lack of access; and (g) lack of evidence. ${ }^{[15,16]}$

The researcher, a nurse by profession working in a private hospital, was motivated to conduct this study to determine nurses' attitudes towards nursing research and to exude out and initiate discussions to nurses' attitude in nursing research, as there is dearth of studies of this matter in the Philippines. Result of this study aimed to encourage fellow nurses to indulge in the world of nursing research.

## METHODS

This study made use of a mixed method. Mixed method approach is one in which the researcher tends to base knowledge claims on pragmatic grounds. It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best
understand research problems. The data collection also involves gathering both numeric information as well as text information so that the final database represents both quantitative and qualitative information. ${ }^{[11]}$

Participants of the study consisted of (93) staff nurses, chosen using a convenience sampling technique, employed in selected hospitals in Laguna from any nursing setting and (7) expert nurses, selected using purposive sampling technique and were limited to those who have masters and/or doctorate degree and with experience in nursing administration, to categorize nurses' attitudes into research infrastructure (structure, process, and outcome). Staff nurses when characterized by gender: $83.87 \%$ (78) were females and 16.13\% (15) were males. Also, when group by age: 32.26\% (30) were 21-25 years old, $21.51 \%$ (20) were $31-35$ years old, $19.35 \%$ (18) were $26-30$ years old, $13.98 \%$ (13) were $36-40$ years old, $7.53 \%$ (7) were $41-45$ years old, and $5.38 \%$ (5) were $46-50$ years old. Furthermore, staff nurses were distributed according to professional levels: $80.65 \%$ (75) were RNs, $11.83 \%$ (11) were RNs with specialization and $7.53 \%$ (7) were RNs with masters units.

The main tool of the study was a questionnaire lifted from Dr. Patricia Boothe (Boothe's Attitude on Nursing Research Scale). The scale was developed by Boothe in 1981 as part of her dissertation ${ }^{[7]}$ and used by Dr. Bostrom and colleagues in 1989, ${ }^{[8]}$ later by Dr. Hofmeister in 2007. ${ }^{[14]}$ The original survey consisted of 46 was items designed to determine attitudes related to nursing research. All items in the questionnaire have been subjected to reliability test with its Cronbach's alpha, 0.84 for subscale interest and
environmental support, 0.80 for subscale payoff and benefits, and 0.64 for subscale barriers to research. The survey questionnaire was answerable by a five-point Likert scale from " 1 " indicates strongly disagree (SD) to " 5 " specifies strongly agree (SA). Added to the lifted questionnaire is an open-ended question and a comment aimed to yield emerging themes to support quantitative findings. Attached to the questionnaire is a cover letter discussing the purpose of the study and assuring the anonymity of the nurse respondent.

The researcher secured a permit to conduct a study through Hospital Administrator/Medical Director of selected hospitals. Upon approval, the researcher personally administered the survey questionnaire to the participants. Researcher handed the questionnaire in person to promptly answer any questions regarding the study. Data were collected by a self-reporting method. The study started on the last week of August 2016 and ended on second week of October 2016.

Subsequently, questionnaires were retrieved. Data collected were summarized and analyzed using various statistical treatment: frequency count and weighted mean to assess degree of nurses' attitudes towards nursing research; frequency count and percentage agreement at $85 \%$ were used to categorize nurses' attitudes into research infrastructure (structure, process, and outcome), it was done to better understand which procedure in research do staff nurses needs reinforcements; ANOVA was used to note significant deifference among the ratings of the staff nurses; and thematic analysis was employed to identify areas that will increase nurss engagement to nursing research.

## RESULTS

Tables under present the analysis and interpretation to data gathered in this study. Note that the higher weighted mean signifies more positive nurse's attitudes towards nursing research; legend in the table is a guide for interpretation of computed weighted means.

Table 1 recaps computed mean ratings of nurses' attitudes towards nursing research. As shown, subscale payoffs and benefits ranked first with general weighted mean of 4.51 followed by subscale interest and environmental support with general weighted mean of 3.58 , and last is the subscale barriers to conducting research with 3.27 as general weighted mean.

Results express that staff nurses strongly agree that they are likely to engage in nursing research when there is positive enticement. Enticement were not limited to promotion and salary increase only, rather, results suggest that staff nurses will be entice to join in nursing research if they are rewarded with time to participate, evident as item numbers 38 and 39 - under subscale payoffs and benefits - both got weighted mean of 5 and interpreted as strongly agree. Also, staff nurses conveyed that they have strong desire to indulge in nursing research, manifested by a mean rating of 4.97 interpreted as strongly agree for item number 1 under subscale interest and environmental support, if chance will permit them. However, staff nurses voiced that they get little to no support from their workplace in conducting or participating in research, shown in 1.26 mean rating of item number 16 under subscale interest and environmental support. Meanwhile, subscale
barriers to conducting research was seen uncertain as a factor for staff nurses to be reluctant in participating research.

Table 1
Mean Ratings of Nurses' Attitudes towards Nursing Research

| Item No. | Indicator | Weighted Mean | Description | Rank |
| :---: | :---: | :---: | :---: | :---: |
|  | Interest and Environmental Support | 3.58 | Agree | 2 |
| 1 | I would like to conduct research. | 4.97 | Strongly Agree | 1 |
| 2 | I would like to put research high on my list of priorities. | 4.88 | Strongly Agree | 5 |
| 4 | I believe my place of employment would provide me ample assistance during the research process. | 1.99 | Disagree | 17 |
| 5 | I believe my place of employment would provide me ample consultative assistance during the research process. | 1.98 | Disagree | 18 |
| 6 | My supervisor would allow time in my daily assignment to conduct research. | . 92 | Disagree | 19 |
| 8 | I know what is expected of me when submitting my research proposal to the hospital nursing research committee. | 4.78 | Strongly Agree | 6 |
| 11 | I am familiar with selected statistical procedure for the analysis of research findings. | 1.80 | Disagree | 20 |
| 12 | I believe my job provides the time necessary to conduct research. | 3.62 | Agree | 12 |
| 13 | My colleagues (other professionals) would encourage me to conduct research. | 4.44 | Agree | 10 |
| 14 | My peers in nursing would encourage conducting research. | 4.51 | Strongly Agree | 9 |
| 15 | I believe my peers in nursing would assist in conducting research. | 4.59 | Strongly Agree | 8 |


| 16 | My job provides ongoing professional programs in order to conduct research. | 1.26 | Strongly Disagree | 21 |
| :---: | :---: | :---: | :---: | :---: |
| 18 | I believe my working environment provides ample opportunity to conduct research. | 2.98 | Uncertain | 13 |
| 19 | I believe my place of employment has ample secretarial assistance for anyone wishing to conduct research. | 2.92 | Uncertain | 14.5 |
| 20 | I believe my place of employment has ample statistical assistance for anyone wishing to conduct research. | 2.92 | Uncertain | 14.5 |
| 21 | I believe my place of employment has ample assistance for anyone for the analysis of results and findings of the research that is conducted. | 2.01 | Disagree | 16 |
| 27 | Nursing research requires more from me than I am willing to give to my job. | 4.20 | Agree | 11 |
| 31 | Nursing research is more essential in the medical setting than in the psychiatric setting. | 4.95 | Strongly Agree | 2 |
| 35 | Time spent giving patient care is more important than time spent conducting research. | 4.63 | Strongly Agree | 7 |
| 36 | I am interested in conducting research. | 4.90 | Strongly Agree | 3.5 |
| 45 | Nursing research should be initiated by nurse researchers. | 4.90 | Strongly Agree | 3.5 |
|  | Payoffs and Benefits | 4.51 | Strongly Agree | 1 |
| 3 | Nursing research is conducted because it allows nurses to be promoted. | 4.74 | Strongly Agree | 8.5 |
| 9 | The informed consent necessary for employee participation in research prevents me from conducting research in my work areas. | 2.84 | Uncertain | 17 |
| 22 | I would conduct research if I had the | 4.92 | Strongly | 5 |

time.
I would conduct research if I knew how
to write the proposal, conduct and analyze the results and findings.

Research findings that are
advantageous to good patient care can be implemented in my working environment.

Nursing research is the means
whereby the theoretical basis for nursing practice is derived.

Members of the treatment team other
than nurses should conduct research relative to patient.

I would like to conduct a study of a
problem in patient care.
I would conduct research if patient assignments were lightened.

Nursing research should be initiated by nurses in the clinical area.

Nurses would conduct more research if more funds were available for them to use for this purpose.

Nurses receive praise from their peers and colleagues when they conduct research.

Nurses would conduct research if they were provided time for research.

Nurses would conduct research if relief time were given to conduct research.

I would do research if I knew more about it.

Agree

Strongly Agree

Strongly Agree

4
4.81

Strongly
Agree
Strongly
Agree $\quad 1.5$

Agree
13

Nurses criticized too much by their peers when they conduct research.

I believe that I would conduct research
44 if someone more knowledgeable would help me in the process.
$3.74 \quad$ Agree 16
4.74 Strongly

Agree
8.5
3.27 Uncertain 3

The process of submission of the research proposal to the hospital nursing research committee is too detailed.

The informed consent necessary for patient participation in research prevents me from conducting research in my work areas.
I have the skills and knowledge necessary for me to conduct research.
Nursing research should be conducted by nurses with baccalaureate degree.
Nursing research should be initiated by nurses in education.
Nursing research should be conducted by nurses with a doctorate.
Nursing research should be conducted by nurses with a master's degree.
Patient participation in nursing research is difficult to obtain.
4.27 Agree 3

Disagree
8
3.55 Agree 5
$4.72 \quad \begin{gathered}\text { Strongly } \\ \text { Agree }\end{gathered} 1$
2.20 Disagree 7
2.71 Uncertain 6 4.28

Agree
2

Agree
4

| Legend: | $1.00-1.49$ | Never | $3.50-4.49$ | Very Often |
| :---: | :---: | :--- | :--- | :--- |
|  | $1.50-2.49$ | Rarely | $4.50-5.00$ | Always |
|  | $2.50-3.49$ | Sometimes |  |  |

To better examine which nurses' attitudes plays positive motivation for staff nurses to indulge in nursing research, researcher noted top and bottom quartile of nurses' attitudes towards nursing research compared across the identified professional levels.

Shown in Table 2 are the top and bottom quartile of nurses' attitudes towards nursing research. Top quartile suggests staff nurses are willing and motivated to participate in nursing research activities as they understand its importance in the evolution of quality care to patients, thus, agree that research should be initiated by those in the clinical area. However, time and nursing assignments are factors that halt them from doing so. Staff nurses pointed out that if hospital management will give them time and lessen their nursing assignments, they will put research high on their list of priorities.

Meanwhile, bottom quartile express that staff nurses see their workplace press them no support to participate in nursing research acivities. They believe that their workplace lacks technical assistance to back them. Also, statistical comprehension is a concern.

Table 2
Top and Bottom Quartile of Nurses' Attitudes towards Nursing Research Compared across the Identified Professional Levels
$\begin{array}{lcccc}\hline \hline & & \text { RN } & \begin{array}{c}\text { RN with } \\ \text { Item } \\ \text { No. }\end{array} & \text { Indicator (Subscale) }\end{array}$ Overall $\left.\begin{array}{c}\text { RN with } \\ \text { Specialization }\end{array} \begin{array}{c}\text { Masters } \\ \text { units }\end{array}\right\}$

|  | were given to conduct research. (Payoffs and benefits) | (1.5) | (2.5) | (2.5) | (2.5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | I would like to conduct research. (Interest and Environmental Support) | $\begin{gathered} 4.97 \\ \text { (3) } \end{gathered}$ | $\begin{gathered} 4.97 \\ (7) \end{gathered}$ | $4.91$ <br> (6) | $\begin{aligned} & 5.00 \\ & (2.5) \end{aligned}$ |
| 32 | Nursing research should be initiated by nurses in the clinical area. (Payoffs and benefits) | $4.96$ (4) | $\begin{aligned} & 5.00 \\ & (2.5) \end{aligned}$ | $\begin{aligned} & 5.00 \\ & (2.5) \end{aligned}$ | $\begin{gathered} 4.43 \\ (16) \end{gathered}$ |
| 31 | Nursing research is more essential in the medical setting than in the psychiatric setting. (Interest and Environmental Support) | $\begin{gathered} 4.95 \\ (5) \end{gathered}$ | $\begin{aligned} & 5.00 \\ & (2.5) \end{aligned}$ | $4.91$ (6) | $\begin{gathered} 4.43 \\ (16) \end{gathered}$ |
| 24 | Research findings that are advantageous to good patient care can be implemented in my working environment. (Payoffs and benefits) |  |  | $\begin{gathered} 4.73 \\ (11) \end{gathered}$ | $\begin{aligned} & 4.71 \\ & (8.5) \end{aligned}$ |
| 22 | I would conduct research if I had the time. (Payoffs and benefits) | 4.92 | $\begin{aligned} & 4.93 \\ & (9.5) \end{aligned}$ | $\begin{gathered} 4.91 \\ (6) \end{gathered}$ | $\begin{aligned} & 4.86 \\ & (5.5) \end{aligned}$ |
| 36 | I am interested in conducting research. (Interest and Environmental Support) | $\begin{aligned} & 4.90 \\ & (8.5) \end{aligned}$ | $\begin{gathered} 4.92 \\ (11) \end{gathered}$ | $\begin{gathered} 4.73 \\ (11) \end{gathered}$ | $\begin{aligned} & 5.00 \\ & (2.5) \end{aligned}$ |
| 45 | Nursing research should be initiated by nurse researchers. (Interest and Environmental Support) | $\begin{aligned} & 4.90 \\ & (8.5) \end{aligned}$ | $4.96$ <br> (8) | $\begin{aligned} & 4.64 \\ & (13.5) \end{aligned}$ |  |
| 25 | Nursing research is the means whereby the theoretical basis for nursing practice is derived. (Payoffs and benefits) | $\begin{gathered} 4.89 \\ (10) \end{gathered}$ | $\begin{aligned} & 4.89 \\ & (12.5) \end{aligned}$ | $\begin{aligned} & 5.00 \\ & (2.5) \end{aligned}$ | $\begin{aligned} & 4.71 \\ & (8.5) \end{aligned}$ |
| 2 | I would like to put research high on my list of priorities. (Interest and | $\begin{gathered} 4.88 \\ (11) \end{gathered}$ | $\begin{aligned} & 4.93 \\ & (9.5) \end{aligned}$ | $\begin{gathered} 4.73 \\ (11) \end{gathered}$ | $\begin{aligned} & 4.57 \\ & (12) \end{aligned}$ |


|  | Environmental Support) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | I would conduct research if patient assignments were lightened. (Payoffs and benefits) | $\begin{aligned} & 4.81 \\ & (12) \end{aligned}$ | $\begin{aligned} & 4.99 \\ & (5.5) \end{aligned}$ | $\begin{aligned} & 4.00 \\ & (24.5) \end{aligned}$ | $\begin{aligned} & 4.14 \\ & (22) \end{aligned}$ |
| Bottom Quartile |  |  |  |  |  |
| 19 | I believe my place of employment has ample secretarial assistance for anyone wishing to conduct research. <br> (Interest and Environmental Support) | $\begin{gathered} 2.92 \\ (35.5) \end{gathered}$ | $\begin{aligned} & 3.00 \\ & (34) \end{aligned}$ | $\begin{gathered} 2.64 \\ (37.5) \end{gathered}$ | $\begin{aligned} & 2.57 \\ & (39) \end{aligned}$ |
| 20 | I believe my place of employment has ample statistical assistance for anyone wishing to conduct research. <br> (Interest and <br> Environmental Support) | $\begin{gathered} 2.92 \\ (35.5) \end{gathered}$ | $\begin{aligned} & 2.97 \\ & (36) \end{aligned}$ | $\begin{aligned} & 2.55 \\ & (39) \end{aligned}$ | $\begin{gathered} 3.00 \\ (34.5) \end{gathered}$ |
| 9 | The informed consent necessary for employee participation in research prevents me from conducting research in my work areas. (Interest and Environmental Support) | (37) |  | $\begin{aligned} & 2.91 \\ & (36) \end{aligned}$ | $\begin{gathered} 3.00 \\ (34.5) \end{gathered}$ |
| 40 | Nursing research should be conducted by nurses with a doctorate. (Barriers to conducting Research) | $\begin{aligned} & 2.71 \\ & (38) \end{aligned}$ | $\begin{aligned} & 2.67 \\ & (38) \end{aligned}$ | $\begin{gathered} 2.64 \\ (37.5) \end{gathered}$ | $\begin{aligned} & 3.29 \\ & (31) \end{aligned}$ |
| 33 | Nursing research should be initiated by nurses in education. (Barriers to conducting Research) | $\begin{aligned} & 2.20 \\ & (39) \end{aligned}$ | $\begin{aligned} & 1.89 \\ & (44) \end{aligned}$ | $\begin{aligned} & 3.64 \\ & (29) \end{aligned}$ | $\begin{aligned} & 3.29 \\ & (31) \end{aligned}$ |
| 21 | I believe my place of employment has ample assistance for anyone for the analysis of results and findings of the research that is | $\begin{aligned} & 2.01 \\ & (40) \end{aligned}$ | $\begin{aligned} & 2.01 \\ & (39) \end{aligned}$ | $\begin{gathered} 2.00 \\ (41.5) \end{gathered}$ | $\begin{gathered} 2.00 \\ (40.5) \end{gathered}$ |

conducted. (Interest and
Environmental Support)
I believe my place of employment would provide me ample
4 assistance during the research process.
(41)

2.00
1.86
(Interest and
Environmental Support)
I believe my place of employment would 5 provide me ample during the research 1.981 .99
1.91
2.00
(42.5) (41.5)
(43)
(40.5)
process. (Interest and
Environmental Support)
The informed consent necessary for patient

| participation in research <br> prevents me from | 1.98 | 1.97 | 2.09 | 1.86 |
| :--- | :---: | :---: | :---: | :---: |
| conducting research in <br> my work areas. (Barriers <br> to conducting Research) | $(42.5)$ | $(43)$ | $(40)$ | $(42.5)$ |
| My supervisor would |  |  |  |  |
| allow time in my daily <br> assignment to conduct <br> research. (Interest and | 1.92 | 1.99 | 1.64 | 1.71 |

Environmental Support)
I am familiar with
selected statistical procedure for the $1.80 \quad 1.8$
1.83
1.73
1.57
analysis of research
findings. (Interest and
Environmental Support)
My job provides ongoing professional programs in
(45) (45)
(44.5)
(46)
1.26
1.15
1.73
1.71

16 order to conduct
research. (Interest and
(46)
(46)
(44.5)

Environmental Support)

Nurses attitudes were categorizaed according to Donabedian's structure-process-outcome framework, it was done to assess areas of research infrastructure ${ }^{[12]}$ which need intervention or plan to increase satff nurses engagment to nursing resrearch.

Table 3 outlines the how nurses' attitudes were identified, by expert nurses, in terms of the research infrastructure (structure, process, and outcome). Nurses' attitudes which focused on the support of the the management/workplace were seen areas to review in improving structure of research engagement of staff nurses. Meanwhile, nurses' attitudes concerning support from collegaues were perceived vital in the process of doing research. Lastly, nurses' attitudes that project benefits of nursing research associated with outcome as factor for staff nurses to participate, conduct, and implemet nursing research.

Table 3
Nurses' Attitudes identified as Research Infrastructure by Expert Nurses

| Item No. | Indicator | Scale | Frequency | Percentage of Agreement |
| :---: | :---: | :---: | :---: | :---: |
| Structure |  |  |  |  |
| 4 | I believe my place of employment would provide me ample assistance during the research process. | Interest and Environmental Support | 7 | 100 \% |
| 5 | I believe my place of employment would provide me ample consultative assistance during the research process. | Interest and Environmental Support | 7 | 100 \% | environment provides ample opportunity to conduct research. professional programs in order to conduct research. assignment to conduct research.

I believe my working

Interest and Environmental 6 Support

Interest and Environmental
Support Interest and Environmental Support
My supervisor would allow time in my daily

I believe my place of employment has ample
19 secretarial assistance for anyone wishing to conduct research.

I believe my place of employment has ample
20 statistical assistance for anyone wishing to conduct research.

I believe my place of employment has ample assistance for anyone for the analysis of results and findings of the research that is conducted.

Nursing research should
be conducted by nurses with baccalaureate degree.

Interest and Environmental

7
100 \% Support

| 6 | My supervisor would allow time in my daily assignment to conduct research. | Interest and Environmental Support | 6 | 86 \% |
| :---: | :---: | :---: | :---: | :---: |
| 16 | My job provides ongoing professional programs in order to conduct research. | Interest and Environmental Support | 6 | 86 \% |
| 18 | I believe my working environment provides ample opportunity to conduct research | Interest and Environmental Support | 6 | 86 \% |
| 19 | I believe my place of employment has ample secretarial assistance for anyone wishing to conduct research. | Interest and Environmental Support | 7 | 100 \% |
| 20 | I believe my place of employment has ample statistical assistance for anyone wishing to conduct research. | Interest and Environmental Support |  | 100 \% |
| 21 | I believe my place of employment has ample assistance for anyone for the analysis of results and findings of the research that is conducted. | Interest and Environmental Support |  | 100 \% |
| 28 | Nursing research should be conducted by nurses with baccalaureate degree. | Barriers to Conducting Research | 6 | 86 \% |
| 34 | Nurses would conduct more research if more funds were available for them to use for this purpose. | Payoffs and Benefits | 7 | $100 \%$ |

## Process

My colleagues (other
professionals) would encourage me to conduct research.
$\left.\begin{array}{llll} & \begin{array}{l}\text { My peers in nursing would } \\ \text { encourage conducting } \\ \text { research. }\end{array} & \begin{array}{c}\text { Interest and } \\ \text { Environmental } \\ \text { Support }\end{array} & 6\end{array}\right) 86 \%$

Table 4 outlines the computed ANOVA for nurses' attitudes towards nursing research. As presented, computed $p$ values of subscales are greater than the set level of significance ( $\alpha=0.05$ ). Thus, researcher accepted the null hypothesis (Ho) there is no significant difference among the mean ratings of nurses' attitudes towards nursing research. Accepting the null hypothesis was reinforced by computed F-crits of subscales greater than $F$-statistics.

Results prove that staff nurses were unanimous in their attitudes towards nursing research. Regardless of professional levels, staff nurses share same sentiments and hopes when it comes to research engagement.

Table 4
ANOVA for Nurses' Attitudes towards Nursing Research

|  | $p$ value | $F$ | F crit |
| :--- | :---: | :---: | :---: |
| Interest and Environmental Support | 0.87 | 0.14 | 3.15 |
| Payoffs and Benefits | 0.14 | 2.07 | 3.19 |
| Barriers to Conducting Research | 0.97 | 0.03 | 3.47 |
| Legend: | $\alpha=0.05$ |  |  |

Thematic analysis was employed to identify any emerging themes from the open-ended question and comment of the questionnaire.

Thirty-seven (37) comments were about time, staff nurses need administrative time in the outset of their tasks to fulfill desire for professional growth. A study was conducted that aimed to determine clinical nurses' interest in and motivation for research and foud out that clinical nurses emphasized that lack of designated time is one of the reasons why they fail to engage to research activities. ${ }^{[3]}$ Time constraints were previously identified as barrier to conducting research. ${ }^{[15,16,21]}$ Consequently, increasing available time will help increase research participation. ${ }^{[16,20]}$

Fourteen (14) comments focused on expanding financial support hoped to be given by the state and employers, to the nurses when they conduct research studies. Funding mechanisms are needed to support coherent programs of research. ${ }^{[4]}$ Financial support and a strong value for generating as well as disseminating knowledge must be present within departments and schools, in the larger academic institution, and at the national
level. This study and that of Dr. Hofmeister's both found time and support as emerging themes. ${ }^{[14]}$ However, in this study specific type of support was identified, financial support.

Also, fourteen (14) comments desire to have enticing reward in exchange of nurses' effort to professional growth and development. This result supports the finding that most of the nurses' positive attitudes are related to the subscale payoffs and benefits. Positive reinforcements (rewards) increase nusrses participation and utilization of research. ${ }^{[26]}$

## DISCUSSION

This study was not set to find significant differences in the attitudes of nurses related to research compared to other studies. Instead, this study was initiated to describe and explore the relationship among nurses' attitudes towards research and the supporting infrastructure. In general, the study shows no significant difference among nurses' attitudes towards nursing research. This suggests that staff nurses share consistent attitudes towards nursing research.

Nurses' attitudes are generally positive and interested to engage in research activities. The most positive attitudes of the staff nurses were related to the subscale payoffs and benefits. Goals for conducting research include the improvement of nursing care, credibility of the nursing profession, accountability for nursing practice and documentation of the cost effectiveness of nursing care. ${ }^{[22]}$ Research engagement has several benefits: knowledge generation, occasional cost savings (e.g. healthier workforce), better decisionmaking and the development of research skills of individuals and others. Investment in
research is important in preparing the next generation of nurse leaders which should start at the baccalaureate level and continue to the doctoral or postdoctoral levels. ${ }^{[6]}$ Staff nurses' positive attitudes signifies that nursing profession understands and appreciates the implication of nursing research. These significant contributions over recent years include, but are not limited to: (a) health services research that demonstrated the importance of nursing services and how such services are designed/organized to ensure safety and quality of care; ${ }^{[13]}$ (b) clinical research that has demonstrated the value of specific nursing interventions to improve health outcomes, including enhanced survival, reduced morbidity, and improved quality of life and consumer engagement; ${ }^{[19]}$ (c) basic science research that has advanced discoveries in terms of understanding the biological mechanisms underpinning nursing interventions; ${ }^{[18]}$ (d) epidemiological research that has advanced understanding about how individuals and populations respond to health problems; ${ }^{[9]}$ and (e) qualitative research that has advanced understanding about experiences of and responses to health and illness and the processes of care that are important to optimal outcomes. ${ }^{[24]}$ However, staff nurses feel that they get little to no support from their job. A study suggest that there is an urgent need for nurse administrators/hospital management to implement in-service educational programs for nurses in conducting and utilization of nursing research. ${ }^{[26]}$ Working environment should provide ample time, such as sabbatical leave or any leave of equivalence, to nurses wish to participate in research activities. Also, working environment should plan/support programs leading nurses to participate in research activities, such as utilization of evidence-based practice. Organizations need not only to create, disseminate and
enculturate the practice environment but evidence-based practice should be included in the framework for nursing administrative decision-making. ${ }^{[25]}$

Staff nurses' attitudes were categorized into research infrastructures and was noted that subscale interest and environmental support dominated the structure and process aspect of research enagement. This means that structure (materials, facilities, and resources to do research) and the process (day-to-day activities in doing research) need to be reviewed and initiate plan of intervention to enhance staff nurses motivation to indulge in research activities. A good supporting structure and process of research infrastructure has the ability to achieve several outcomes related to nursing research. These include: (a) increasing nursing research knowledge; (b) increasing support for nursing research through mentoring; and (c) development of a nursing research education program. ${ }^{[23]}$ Meanwhile, subscale payoffs and benefits dictated the outcome research infrastructure and suggests that providing enticement or incentive to staff nurses will help them be drawn to research activities. Hospital managements should facilitate conditions of career advancement through indulgence in research activities on the basis of changing technology and knowledge, staff expectations, the necessity of decreasing cost and increasing productivity. ${ }^{[1,2]}$ In addition to providing high quality services, these career advncement are making attempt to provide opportunities for staff nurses development. ${ }^{[10]}$

Furhermore, the study identified three emeging themes: time, financial support, and reward. Staff nurses expressed that time, financial support, and reward are concepts that would increase their desire to engage in research activities. Lack of time was seen a
barrier for nurses to engage in research activities. ${ }^{[3]}$ Funding mechanisms are needed to support coherent programs of research. ${ }^{[4]}$ Financial support and a strong value for generating as well as disseminating knowledge must be present within departments and schools, in the larger academic institution, and at the national level. ${ }^{[14]}$ Positive reinforcements (rewards) increase nusrses participation and utilization of research. ${ }^{\text {[26] }}$ Previous studies identified several actions that may contribute to overcoming barriers of nursing research participation and utilization, such as providing resources, increasing release time for participation in research, continuing education on the research process and creating positions for nurse researchers in clinical settings. ${ }^{[17,19,20]}$

PRC-BON, if possible, should outline policies that will strengthen the structure and process of the research infrastructure supporting nurses in doing research. Specifically, policies should focus on time, continuing education programs, opportunities to conduct research, and comprehensive assistance for nurses engaging in research. In the United States, the American Nurses Credentialing Center (ANCC), a subsidiary of the American Nurses Association, oversees the Magnet Recognition Program, a program that recognizes nursing excellence where continuing education/research is a requirement. Research on hospitals who have achieved Magnet status shows several benefits. The benefits of achieving Magnet status include improved patient outcomes, expanded recruitment and retention of nurses and other healthcare personnel, and enhanced nursing staff satisfaction and productivity. ${ }^{[5]}$ Assimilating, disseminating and enculturating the practice environment grounded in evidence-based practice and nursing research is an
essential force of magnetism and must be present in an organization to achieve magnet status. ${ }^{[25]}$

This study is first in the Philippines setting. It is a must for us to produce more adept nurses to meet global competence. Also, to assure that we provide the best possble care and service to our patients. Emerging themes lead the researcher to suggest actions to be undertaken, such us role promotion, incentives, and sabbatical leave for nurses who wish to engage in nursing research. Further research may conduct similar study in rural hospitals to assess whether there is difference in attitudes to research of nurses with modest known resources. Also, furher research may give focused on time, financial support, and reward to establish baseline data needed in planning programs addressing these emerging themes.

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