

ทัศนคติต่อการวิจัย การสนับสนุนทรัพยากร และการมีส่วนร่วมในการวิจัย  
ของอาจารย์พยาบาล สังกัดวิทยาลัยพยาบาลเครือข่ายภาคเหนือตอนล่าง  
Attitudes Toward Research, Facilitating Resources and  
Participation in Research of Nursing Instructors in Boromarajonani  
Colleges of Nursing, Lower Northern Region of Thailand

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### บทคัดย่อ

การวิจัยเชิงพรรณานี้มีวัตถุประสงค์เพื่อศึกษาทัศนคติต่อการวิจัย การสนับสนุนทรัพยากร และการมีส่วนร่วมในการวิจัยของอาจารย์พยาบาล รวมทั้งศึกษาความสัมพันธ์ระหว่างทัศนคติต่อการวิจัย การสนับสนุนทรัพยากร กับการมีส่วนร่วมในการวิจัยของอาจารย์พยาบาล และความสามารถในการทำนายของทัศนคติต่อการวิจัย การได้รับทรัพยากรสนับสนุนการวิจัย กับการมีส่วนร่วมในการวิจัยของอาจารย์พยาบาลในสังกัดวิทยาลัยพยาบาลเครือข่ายภาคเหนือตอนล่าง

กลุ่มตัวอย่างคือ อาจารย์พยาบาล จำนวน 128 คน คัดเลือกกลุ่มตัวอย่างโดยการสุ่มอย่างง่าย เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูล คือแบบสอบถาม แบ่งเป็น 4 ส่วน คือ ส่วนที่ 1 ข้อมูลทั่วไป ส่วนที่ 2 ข้อมูลทัศนคติต่อการวิจัย ส่วนที่ 3 ข้อมูลการสนับสนุนทรัพยากรเพื่อการวิจัย และส่วนที่ 4 ข้อมูลการมีส่วนร่วมในการวิจัย ส่วนที่ 2, 3, และ 4 เป็นข้อคำถามแบบ 5-rating scale (คะแนนสูงสุดหมายถึง เห็นด้วย/ตรงกับลักษณะของข้อคำถามมากที่สุด) ตรวจสอบคุณภาพเครื่องมือโดยการหาความเที่ยง จากค่าสัมประสิทธิ์ครอนบาร์ค แอลฟา เท่ากับ 0.81, 0.84 และ 0.94 วิเคราะห์ข้อมูลโดย ความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน สัมประสิทธิ์สหสัมพันธ์เพียร์สัน และการวิเคราะห์การถดถอยพหุคูณ ชนิด Stepwise

ผลการศึกษาพบว่า อาจารย์พยาบาลมีทัศนคติต่อการวิจัยในระดับสูง ( $\bar{x}$  = 3.86; SD = .51) ได้รับการสนับสนุนทรัพยากรในระดับปานกลาง ( $\bar{x}$  = 3.13; SD = .52) และการมีส่วนร่วมในการวิจัยอยู่

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ในระดับปานกลาง ( $\bar{x} = 2.62$ ;  $SD = .71$ ) ทศนคติต่อการวิจัย และการได้รับการสนับสนุนด้านเวลา สำหรับการวิจัย มีความสัมพันธ์อย่างมีนัยสำคัญทางสถิติกับการมีส่วนร่วมในการวิจัย ( $r = .34$  และ  $.20$  ตามลำดับ) นอกจากนี้ทศนคติต่อการวิจัย การสนับสนุนเวลาเพื่อการทำวิจัย และการสนับสนุนทุนวิจัย สามารถทำนายการมีส่วนร่วมในการวิจัยของอาจารย์พยาบาลได้ร้อยละ 18 โดยสามารถเขียนเป็นสมการได้ดังนี้ การมีส่วนร่วมในการวิจัย =  $.193 + .381$  (ทศนคติต่อการวิจัย +  $.276$  (การให้เวลาเพื่อการทำวิจัย -  $.197$  (การสนับสนุนด้านทุนวิจัย)

ทศนคติต่อการวิจัย การสนับสนุนเวลาเพื่อการทำวิจัยและการสนับสนุนทุนวิจัยสามารถทำนายการมีส่วนร่วมในการวิจัยของอาจารย์พยาบาล ดังนั้นผู้บริหารสถานศึกษาควรมีกลวิธีในการอำนวยการรักษาทัศนคติที่ดีของอาจารย์พยาบาลต่อการวิจัย ให้เวลาสำหรับทำวิจัยแก่อาจารย์พยาบาล และให้การสนับสนุนทุนวิจัยที่ตอบสนองต่อความต้องการของผู้วิจัย

**คำสำคัญ:** ทศนคติต่อการวิจัย การสนับสนุนทรัพยากร การทำวิจัย อาจารย์พยาบาล

### Abstract

**Objectives:** This descriptive study aimed to examine 1) attitudes towards research, facilitating resources, and participation in research of nursing instructors; 2) the relationships between attitudes toward research, facilitating resources, and research of nursing instructors; 3) the predictor variables of the participation in research of nursing instructors in Boromarajonani College of Nursing (BCNs) in lower northern region of Thailand.

**Methods:** Simple random sampling was used to recruit 128 nursing instructors. The questionnaires were employed to collect data and composed of 4 parts: 1) socio-demographic data; 2) attitudes toward research; 3) facilitating resources, and 4) participation in research of nursing instructors. Part 2, 3, and 4 were 5-rating scale questionnaires, which high score means a high level of those variables. The Cronbach's Alpha Coefficient reliabilities of the questionnaires part 2, 3 and 4 were .81, .84, and .94, respectively. Data were analyzed using frequency, percentage, mean, standard deviation, Pearson's correlation, and Stepwise multiple regression.

**Results:** The findings revealed that the attitudes toward nursing research was at a high level ( $\bar{x} = 3.86$ ;  $SD = .51$ ), facilitating resources was at a moderate level ( $\bar{x} = 3.13$ ;  $SD = .52$ ), and participation in research of nursing instructors was at a moderate level ( $\bar{x} = 2.62$ ;  $SD = .71$ ). The attitudes toward research and time support for participating in research correlated with participation in research of nursing instructors, statistic significantly ( $r = .34$ , and  $r = .20$ , respectively). Attitudes toward research, time support for participating in research, and funding support predict 18

percent of participation in research of nursing instructors ( $R^2 = .184$ ). The predictive equation can be written as: participation in research of nursing instructors =  $.193 + .381$  (attitude towards research) +  $.276$  (time support) -  $.197$  (funding support).

**Conclusions:** Attitudes toward research, time support for participating in research, and funding support helped to predict research participation of nursing instructors. Therefore, the administrative board of committee should maintain positive attitudes toward research continuously in nurse educators, provide more time to participate in research activities and provide research funding which fits the researchers' needs.

**Keywords:** Attitude towards research, Facilitating resources, Research conduct, Nursing instructors

## Introduction

Nursing research leads to new knowledge and nursing practices. Research findings will contribute to the quality and reliability of nursing practice. Nursing research is not only a method for developing nursing science that has contributed to the improvement of quality of nursing care, but it is also an indicator of the strength and reputation of the discipline. Therefore, it is a professional nurses' responsibility to undertake research in order to maintain the nursing profession and societal acceptance<sup>1</sup>.

Nursing instructors take both responsibilities for teaching and research conduct. Due to the fact that teaching will be effective if knowledge disseminated to students is validated and updated. Nursing instructors can participate in research in two different ways: being a researcher and being a research finding user.

The Announcement of the Ministry of Education about the standard of bachelor degree curriculum 2015 B.C. stated that all

nursing instructors should have at least one research publication within the duration of every five years' working<sup>2</sup>. Moreover, the criteria for internal quality assurance indicated that the sum of academic outputs weighted score should be 5. This was equal to 30 percent of the instructors having academic articles or research paper<sup>3</sup>. These effected administrative policies towards research productivity. However, it was found that only 15-25 percent of the nursing instructors in nursing colleges in the lower northern region of Thailand published their papers<sup>3</sup>.

The results of the literature review demonstrated that factors affecting the publication of university instructors' academic papers were the attitude towards research and facilitating resources. Attitude toward research included all processes of the study. This could explain that a good attitude and resources facilitating would encourage the instructors to process their works until the end up with publishing<sup>4</sup>. Furthermore,

attitude towards research had a direct effect on research publication<sup>5</sup>. In terms of resources facilitating, it referred to the support from the research experts, support from the administrators, support of time and funding, and the availability of text-books and informative resources. It was found that these supports had effects on the involvement in nursing research.<sup>6-8</sup>

All of the above, the researchers consider the importance of studying attitude towards research, facilitating resources and research participation of nursing instructors. The researchers also had a keen interest in relationships between the attitude towards research and participation in research of nursing instructors, facilitating resources, and research participation of nursing instructors in Boromarajonani College of Nursing (BCNs) at the lower northern region of Thailand. Findings in this study could be baseline information to develop good management of researching among those instructors. These may lead to not only increasing research productivity but also developing knowledge of nursing.

#### **Objectives:**

The present study aimed to examine:

1. Attitude towards research, facilitating resources, and participation in research among nursing instructors in BCNs in the lower northern region of Thailand.

2. The relationships between attitude towards research, facilitating resources, and participation in research of nursing instructors in BCNs in the lower northern region of

Thailand.

3. The predictor variables to participation in research of nursing instructors in BCNs in the lower northern region of Thailand.

#### **Research questions:**

1. What are the aspects of attitude towards research, facilitating resources, and participation in research among nursing instructors in BCNs in the lower northern region of Thailand?

2. What is the level of relationships between attitude towards research, facilitating

3. resources, and participation in research of nursing instructors in BCNs in the lower northern region of Thailand?

4. Which variables can predict the participation in research of nursing instructors in BCNs in the lower northern region of Thailand?

#### **Methodology:**

##### **Design**

A descriptive study.

##### **Population and samples**

The population was 205 nursing instructors working at BCNs in the lower northern region of Thailand. The sample size was recruited by using Krejcie and Morgan Table 9 of  $p < 0.05$  and obtained 132 participants. The proportion of instructors of each nursing college was calculated, then a simple random sampling technique was employed to select samples in all 3 BCNs.

##### **Research Tools**

The study used a structured questionnaire including 4 parts as follows:

**Part 1:** a socio-demographic data included age, marital status, level of education, working experiences, teaching experiences, the experience of conducting research, training in research, participating in research activities, research utilization, and time spent on conducting the research.

**Part 2:** the attitude towards research which was applied from “Attitude towards research Inventory” of Selby<sup>10</sup> and included 21 items.

**Part 3:** a resource facilitating which was developed by the researchers based on a review of the literature. The total of 27 items of 5 dimensions including receiving time support (item 1-5), research funding (item 6-10), supporting from the administrator (item 11-15), supporting from experts (item 16-21), and *informative resources* (item 22-27).

**Part 4:** the questionnaires related to participation in research, which developed by the researchers had 26 questions: 13 questions asked about conducting research and others asked about related activities involving research.

To answer the item of part 2, 3 and 4, a 5-point Likert’s scale, from 1 to 5, was used in which 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The interpretation of each part was as follows; 1.00-1.49 = Lowest level, 1.50-2.49 = Low level, 2.50-3.49 = Moderate level, 3.50-4.49 = High level, and 4.50-5.00 = Highest level.

## Quality of research tools

The questionnaires were sent to three experts in nursing research for the approval of content validity and S-CVI was 0.8. After minor revision as suggested by the experts, the reliability was tested using Cronbach’s Alpha Coefficient with the values of parts 2, 3, and 4 as .81, .84, and .94, respectively.

## Data collection

This study concerned had been approved by the BCN, Sawanpracharak Nakhonsawan research ethics committee (approval number: SPRNW-REC008/2019) and all participants were informed about the research project, purposes of the study. Informed consent was obtained from all participants before they answered the questionnaires. The returned questionnaire was 128 copies. The response rate was 96.97%.

## Data analysis

Data were analyzed by using the computer program with the statistic significant level was set at  $p < 0.05$ .

Socio-demographic data, attitude towards research, facilitating resources, and participation in the research was analyzed by using mean, standard deviation, frequency, and percentage.

The correlation between attitude towards research, facilitating resources, and participation in research of nursing instructors was analyzed by using Pearson’s

product-moment correlation coefficient. The distribution plot showed a normal distribution.

The power of prediction and predictive equation were analyzed by using Stepwise multiple regression.

**Results:**

The findings revealed that:

1. The participants' age were 31-40 years old (43.80%), marital status was single (40.60%), educational level was master's degree (56.30%), were registered nurses with senior professional level (49.20%), had teaching experience from 11 to 15 years (28.90%), had experience in participation in research during their study of master's degree (93.60%), had experience in participation in research during their teaching in nursing colleges (78.60%), served as research project leaders (42.20%), and were co-researcher

(46.90%). However, the number of had never participated in participation in research was 10.90%.

2. The participants' attitude towards research was at a high level ( $\bar{x}$  = 3.86; SD = .51). The facilitating resources for participation in research was at a moderate level ( $\bar{x}$  = 3.13; SD = .52). Each dimension of facilitating resources were: time support was at a low level ( $\bar{x}$  = 2.35; SD = .69), funding support was at a moderate level ( $\bar{x}$  = 3.18; SD = .79), support of the administrator was at a high level ( $\bar{x}$  = 3.53; SD = .66), support of the experts was at a moderate level ( $\bar{x}$  = 3.24; SD = .71), and information resources was at a moderate level ( $\bar{x}$  = 3.13; SD = .76), respectively.

3. The participants' participation in research was at a moderate level ( $\bar{x}$  = 2.62; SD = .71). (Table 1)

**Table 1** Attitude, facilitating resources, and participation in research conduct

Variables	$\bar{x}$	SD	Level
Attitude towards research	3.86	.51	high
Facilitating resources	3.13	.52	moderate
- time support	2.35	.69	low
- funding support	3.18	.79	moderate
- support of the administrator	3.53	.66	high
- support of the experts	3.24	.71	moderate
- <i>information resources</i>	3.13	.76	moderate
<b>Participation in research</b>	2.62	.71	moderate

3. The attitude towards research and time supporting had a significant correlation with participation in research of nursing in-

structors in BCNs in the lower northern region of Thailand ( $r$  = .344,  $p < .001$  and  $r$  = .196,  $p < .05$ , respectively). (Table 2)

**Table 2** Pearson's product moment correlation coefficient between attitude towards research, facilitating resources and participation in research of nursing instructors

Attitude and facilitating resources	Research conduct
Attitude towards research	.344**
Facilitating resources	.090
- time support	.196*
- funding support	.004
- support of the administrator	-.044
- support of the experts	.088
- information resources	.099

\*\*p<.01, \*p<.05

4. The predictor variables of participation in the research were the attitude towards research and time supporting. These two predictor variables explained approximately

18 % of the variance in the research conduct of nursing instructors in BCNs in the lower northern region of Thailand. (Table 3)

**Table 3** The predictor variables

Rank	Variables	b	B	T
1	Attitude towards research	.528	.381	4.571*
2	Time support	.281	.276	3.047*
3	Funding support	-.178	-.197	-2.126*

Constant (a) = .193, R = .429, R<sup>2</sup> = .184, F = 9.335\*, SE<sub>est</sub> = .652

\*p<.05

The predictive equation can be written as: research conduct = .193 + .381 attitude towards research + .276 time - .197 funding support.

### Discussion

The attitude toward research in his study meant a nursing instructor's perspective about all processes of research study such as literature review, research problem identification, proposal writing, tool, data

collection, data analysis, interpretation of the result, report writing, and publication. This study found the attitude towards the research of nursing instructors was at a high level ( $\bar{x}$  = 3.86; SD = .51). They had a high attitude level for literature review, research problem identification, proposal writing, data collection, and data analysis but they had a medium attitude level for discussion writing, report writing, and publication. In addition, most of them (93.60%) had to conduct

research for their master's degree and 78.60% had the experience with research conduct while working in nursing college. These indicated that experience of conducting research had an effect on the attitude of nursing instructors. Findings in this study were consistent with previous studies which said that nursing instructors having the experience of research conduct or completing dissertations would have a positive attitude towards research<sup>5</sup>. Having the research skill effected to achieve the research conduction<sup>11</sup> and positive attitude toward the research<sup>12</sup>. Furthermore, success in publishing was significantly correlated with an attitude towards research. Receiving facilitating resources of nursing instructors for their research was at a moderate level ( $\bar{x}$  = 3.13; SD = .52). Nursing instructors received a high level of support from the administrators ( $\bar{x}$  = 3.53 SD = .66) because of the standard criteria for Bachelor's Degree Program B.E. 2015 which indicated that all nursing instructors should have at least one research publication in every five years<sup>2</sup>. Moreover, the criteria for internal quality assurance required that the total academic outputs weighted score should be 5. This was equal to 30 percent of the instructors should have academic articles or research paper<sup>3</sup>. These had an effect on administrative policies on research productivity.

There was a low level of time support for conducting research ( $\bar{x}$  = 2.35 SD = .69). It might be explained that nursing instructors did not only take responsibility for conducting research, but they also took responsibility for

academic services which was time-consuming. They also took responsibility for teaching and providing supervision to the nursing students. Therefore, they needed a lot of time to prepare for those tasks. Moreover, the actual goals of the nursing study were to fulfill all students with the characteristics of the Thailand Qualifications Framework (TQF) for higher education along with 21<sup>st</sup> century skills. These made nursing instructors spending almost of their time achieving the goals.

Nursing instructors received funding support, support from the experts, and *informative resources* at a moderate level ( $\bar{x}$  = 3.18, SD = .51;  $\bar{x}$  = 3.24, SD = .71;  $\bar{x}$  = 3.13, SD = .76, respectively). Facilitating resources was considered as the most important factors for conducting research.

The researchers needed some budget for traveling, collecting and analyzing the data, and searching for information<sup>6</sup>. However, getting funding support from nursing colleges' incomes had some limitations. For example, the documentation of the disbursement in the government regulations was cumbersome and inconvenient.

During the period of the research conducting, the researchers might confront many difficulties such as finding appropriate evidence to support their studies, making translations of language and statistics. They needed a strong motivation and a lot of supports from the experts to complete their studies on time. Although every nursing college had its own research clinics to support the researchers, some of them still had



problems with searching for evidence, research instruments, statistics, sample size determination, and so on. It was important to provide the researchers with enough informative resources such as text-books and databases.

Nursing instructors in BCNs in the lower northern region had a total score of research productivity at a moderate level ( $\bar{x} = 2.62$ ,  $SD = .71$ ). Their direct involvement with research and related involvement with nursing research were also at a moderate level ( $\bar{x} = 2.57$ ;  $SD = .95$ ;  $\bar{x} = 2.78$  ;  $SD = .77$ , respectively). Almost half of the participants were project leaders (42.2%) and co-researcher (46.9%). However, they had never participated in the research (10.9%). This can be explained that most nursing instructors spent much of their time teaching. This main mission of nursing instructors was time-consuming. Thus they did not have enough time to carry out research. Similar findings were found in a previous study about nursing research. They revealed that only 14.00% of nursing instructors were involved in research activities<sup>13</sup>.

The attitude towards the research of nursing instructors had a significant correlation with research conduct ( $r=0.344$ ;  $p<.01$ ). These findings were consistent with previous studies<sup>2,5</sup> which found that attitude towards research had a positive significant correlation with research productivity and publications.

Time supporting for research had a low significant correlation with the research conduct of nursing instructors ( $r = .196$ ,  $p<0.05$ ). This can be explained that nursing

instructors had to take responsibility for various kinds of works in nursing college. Although they were offered a vacation for conducting research, it might not be enough to complete it on time. Previous research<sup>14</sup> also supported this study's findings. They said that every activity of research such as literature review, proposal development, research process, or research seminar consumed a large amount of time to complete. Thus nursing instructors could not have enough time to complete their research papers.

The predictor variables to the participating in research of nursing instructors in BCNs in the lower northern region of Thailand showed that: attitude towards research and time support were two variables that can predict research conduct among nursing instructors. They explained approximately 18% of the variance in research conduct of nursing instructors. This means that nursing instructors in nursing colleges in the lower northern region of Thailand would be or not be conducting research depending on their attitude towards research and facilitating resources, particularly the supporting of times from the institute.

## Conclusion

Attitude towards the research of nursing instructors had a correlation with the research conduct at a moderate level, and time support had a correlation with research conduct at a low level. Attitude towards research, time support, and funding support

could predict 18 percent of the research conduct of nursing instructors. Therefore, the board of administrative committees should encourage and promote a positive attitude towards research continuously and should provide more time and funding for the researchers.

### **Limitations**

This study described only the attitude towards research and facilitating resources including their correlation with participating in research among nursing instructors working at BCNs in the lower region of Thailand. The measurement of variables was an opinion. Thus the implication of the prediction's equation should be for consideration.

### **Recommendations for applications of the findings**

The administrators of the nursing colleges should set clear policies on research management, officially announce policies to nursing instructors for practicing, regularly follow up, and report periodically. In addition, a positive attitude towards research should be encouraged and promoted continuously. Support of the experts was needed to promote nursing instructors' knowledge and experience with research. A research team should be set up to enhance the quality and

quantity of nursing instructors' research. For time support, the board of administrative committees should provide more time support for the researchers and decrease their workload to promote research conduct. In addition, nursing colleges should support more funding and set up a simple way for disbursement in order to facilitate the researchers.

### **Recommendations for future studies**

1. The study should be done on the current aspect of research among nursing instructors in order to develop a model of research administration among other nursing colleges under Praboromarajchanok Institute, Ministry of Public Health.

2. It should be studied on the development of an effective research management model that is appropriate to the context of institutes.

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