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Academic Leadership Model of Administrators in Faculty of Nursing, Praboromrajchanok Institute: Factor and Indicators

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บทคัดย่อ

การวิจัยแบบขั้นตอนเชิงอธิบายนี้มีวัตถุประสงค์เพื่อพัฒนารูปแบบความเป็นผู้นำทางวิชาการของผู้บริหารวิชาการพยาบาล คณะพยาบาลศาสตร์ สถาบันพระบรมราชชนก (สบช.) ประกอบด้วย 2 ขั้นตอน คือ ขั้นตอนที่ 1 เป็นการวิจัยเชิงคุณภาพ โดยการวิเคราะห์เอกสาร และการสัมภาษณ์ออนไลน์เพื่อระบุปัจจัยและตัวชี้วัดของร่างแบบจำลอง AL ผู้ให้ข้อมูลสำคัญในการสัมภาษณ์ คือ ผู้บริหารวิชาการพยาบาล 13 คน นักศึกษาพยาบาล และผู้ปกครอง อย่างละ 11 คน และการอภิปรายกลุ่มเพื่อรวบรวมความคิดเห็นของผู้เชี่ยวชาญ 9 คน ในการพัฒนาแบบจำลอง AL โดยแบบจำลองโมเดลประกอบด้วย องค์ประกอบหลัก 5 ด้าน องค์ประกอบย่อย 16 ด้าน และ 97 ตัวบ่งชี้ แบบจำลองได้ถูกทดสอบความตรงด้านเนื้อหา ซึ่งได้ค่า IOC อยู่ในช่วง 0.6-1.0 และขั้นตอนที่ 2 เป็นการวิจัยเชิงปริมาณเพื่อทดสอบแบบจำลอง AL โดยใช้การวิเคราะห์ปัจจัยยืนยัน (CFA) กับกลุ่มตัวอย่าง 271 คน ผลการวิจัย พบว่า

การวัดลำดับที่สองของแบบจำลอง AL มีดัชนีความสอดคล้องกลมกลืน (χ^2/df) เท่ากับ 0.68237, *GFI* = 0.97, *AGFI* = 0.94, *SRMR* = 0.0063, *RMSEA* = 0.000 โดยองค์ประกอบย่อยที่สำคัญของแบบจำลอง คือ VE2 (L = 0.60) FP2 (L = 0.55) FP3 (L = 0.55) CL1 (L = 0.57) RI4 (L = 0.65) SQ1 (L = 0.60) และ SQ2 (L = 0.60)

จากผลการวิจัยครั้งนี้ แบบจำลองควรนำไปใช้ในการเตรียมและพัฒนาผู้บริหารมือใหม่และผู้บริหารที่กำลังดำรงตำแหน่งในคณะพยาบาลศาสตร์ สบช.

คำสำคัญ: ภาวะผู้นำทางวิชาการ, ผู้บริหาร, องค์ประกอบ, ตัวบ่งชี้

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Abstract

The present exploratory sequential mixed methods study from the Faculty of Nursing (FoN), Praboromarajchanok Institute (PBRI) aimed to develop academic leadership (AL) for nursing academic (NA) administrators. The research consisted of two phases. In the first phase, qualitative research was conducted to identify factors and indicators of the proposed AL model throughout document analysis and online-interviews. Participants were 13 nursing academic administrators were recruited for online interviews, as well as 11 nursing students and their parents. A focus group discussion was conducted so to gather the opinions and observations from participants. Then a group of 9 experts developed a new AL model. A total of 97 indicators were hypothesized to form 5 factors and 16 sub-factors. The content validity (IOC) of the proposed AL model ranged from 0.6-1.0. In the second phase, quantitative research was conducted to test the new AL model and for confirmatory factor analysis (CFA) with 271 faculty participants.

The second-order measurement of the final proposed AL model showed that the model fit indices were χ^2/df = 0.68237, *GFI* = 0.97, *AGFI* = 0.94, *SRMR* = 0.0063, *RMSEA* = 0.000. The model revealed that VE2 (L = 0.60), FP2 (L = 0.55), FP3 (L = 0.55), CL1 (L = 0.57), RI4 (L = 0.65), SQ1 (L = 0.60), and SQ2 (L = 0.60) had the highest path loadings.

Per the findings, this model should be taken into account in preparing and training novice and current NA administrators of FON, PBRI.

Keywords: Academic Leadership, Administrators, Factors, Indicators

Introduction

Higher education institutions (HEIs) and nursing education institutions (NEIs), nowadays, are facing many changes such as customer and labor market needs, educational administration, educational technologies, education policies, and faculty shortages (Guthrie, 2019; Smith, Hallowell, & Lloyd-Fitzgerald, 2018). These changes have effects on academic administrators' roles in terms of leadership reformation (Guthrie, 2019). Academic administrators must develop and enhance their leadership in order to lead HEIs or NEIs to the institutional vision and goal and to transform HEIs or NEIs to align with these changes (Peterson, 2015).

Over the past decade, academic leadership (AL) was mentioned as a crucial leadership for administrators in HEIs and NEIs (Anthony & Antony, 2017; Montgomery, 2020). AL was defined as the art of educational administration in which all academic leaders, including heads of departments, directors, and deans, need to be competent for leading HEIs and NEIs toward excellence (Fernandez, Ardzejewska, & Haddad, 2019; Kiral, & Basaran, 2019). AL has many benefits in improving the quality of institutions and education (Parker, & Ahire, 2019). Administrators who master AL can develop and create effective curricula, teaching and learning strategies, learning environments, and learning achievement (Parker & Ahire, 2019). AL reflects the competency of administrators in managing human resource management and promoting faculty excellence (Parker & Ahire, 2019). Moreover, administrators with AL can be aspiring mentors and role models for faculty members (Parker & Ahire, 2019). AL administrators can encourage, inspire, promote, and instruct faculty members to be

confident and expert in their duties (Parker, & Ahire, 2019). In order to improve the quality of education, this leadership also helps administrators to develop collaboration with stakeholders and other HEIs and NEIs (Parker, & Ahire, 2019). Administrators of NEIs, therefore, should develop AL.

NEIs in Thailand are under the jurisdiction of four ministries (Pudpong, 2016). The majority of NEIs are governed by the Faculty of Nursing (FoN), Praboromarajchanok Institution (PBRI), Ministry of Public Health (Pudpong, 2016). Since FoN of PBRI has thirty nursing colleges across Thailand, many nursing academic (NA) administrators play important roles in administrating and governing colleges. Some NA administrators were trained for administrator roles and leadership; while some were not (Piyasiripan, Phuangsomjit, Sirisanglert, & Hingkanont, 2018). Moreover, NA administrators of FoN, PBRI were prepared for developing unspecific leadership. The studies regarding AL in Thailand were limited to secondary and high school settings (Mitsilapin, Anannawee, & Pruetikul, 2018; Putpa, 2022). Only one study was conducted to study AL among faculty members of private universities in Thailand (Inwang, Peechapol, Jindamanee, & Somboonpol, 2017). There was no study exploring AL in NA administrators in Thailand. In addition, there was unclear what certain factors and indicators describe AL (Anthony & Antony, 2017; Bellibas, Özaslan, Gümüs, & Gümüs, 2016). Since AL is essential for NA administrators of NEIs, knowing the perspectives of all stakeholders of NEIs toward AL can provide practical and useful information in developing AL model.

Research Objectives

The study aimed to develop AL model for NA administrators, FoN, PBRI.

Research Conceptual Framework

The study was developed based on the Competency Iceberg Model of McClelland (1973). According to McClelland (1973), an individual's competency included two main parts which were the visible iceberg above the water and the invisible part under the water. Skill and ability were above the surface that can be observed and developed. Whereas role, function, and attributes that were hidden under the surface were unable to observe and adjust. This model lent itself well to answer the research purpose regarding academic administrators' competence. The conceptual framework was shown in Figure 1.

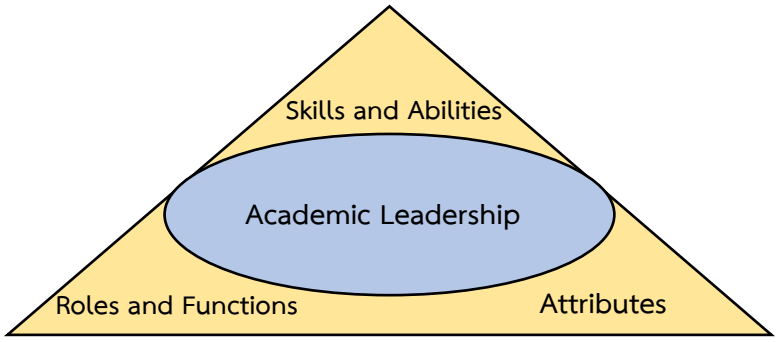

Figure 1 The Conceptual Framework

Research Methodology

The exploratory-sequential mixed method research was used to conduct the research. There were three phases of the study as follows:

The first phase: Qualitative Research

1) Document analysis was conducted to identify factors and indicators of AL. Quality synthesis was used to analyze artifacts and academic documents that were published from 2011 to 2021 on CINAHL Complete, EBSCOhost databases, ProQuest databases, Google Scholar, ResearchGate, and ThaiJo. According to the result of the document analysis, four main factors, thirteen sub-factors, and sixty-four indicators were generated to explain AL.

2) The online interviews were used to collect data from stakeholders of NEIs. Thirty colleges of nursing across Thailand were classified into five regional strata. Then two nursing colleges of each stratum were selected. One NA administrator, a nursing student, and a nursing student's parents from each selected nursing college were purposively selected to participate in online interviews. Moreover, two NA experts from the Thailand Nursing and Midwifery Council and the academic affairs department of PBRI were recruited for the interview. Therefore, the participants were twelve NA administrators and each ten of nursing students and their parents. The fourteen-question semi-structured interview protocol was generated based on the results of the document analysis. Interviews were launched on Zoom and lasted 45 to 60 minutes. Interviews were recorded and transcribed precisely with sample permission. The content analysis was used to analyze data in order to develop the preliminary proposed AL model. In this round, the preliminary proposed AL consisted of five factors, seventeen sub-factors, and eighty-five indicators. Then the model was tested for content validity by a panel of five experts. Indices of item-objective congruence (IOC) ranged from 0.6-1.0.

3) Focus group discussion was conducted to gather the opinions of experts on the preliminary proposed AL model. Nine NA administrators of selected nursing colleges were purposively invited to join this phase. The focus group discussion was recorded in the audio file and took approximately 90 minutes. Data were transcribed and then analyzed using the content analysis method.

At the end of this phase, the final proposed AL model was developed. In total, ninety-seven indicators were hypothesized to form five factors and sixteen sub-factors. The content validity (IOC) of the final proposed AL model ranged from 0.6-1.0.

The second phase: Quantitative research

Population and sample

The quantitative research was conducted to evaluate the final proposed AL model using confirm factor analysis (CFA). While Hair et al. (2018) recommended a larger sample size for Confirmatory Factor Analysis (CFA) based on the sample-to-variable ratio, the Krejcie and Morgan table provides an alternative method to determine an adequate sample size for behavioral and social science research (Hair, Black, Babin, & Anderson, 2018; Memon, Ting, Cheah, Thurasamy, Chuah, & Cham, 2020). Due to constraints related to population size and sample selection techniques, the sample size for this study was determined using the Krejcie and Morgan Table (Krejcie

& Morgan, 1970). Given the study population of 1,379 nursing faculty members, the minimum required sample size was 302. To mitigate potential data collection errors, an additional 5% of the minimum sample size was included. Consequently, the total sample for this study comprised 317 nursing faculty members. To maintain statistical significance, a stratified sampling method was employed to select ten nursing colleges from five regional strata. Subsequently, participants were randomly recruited from the chosen colleges.

Research Instrument

The AL questionnaire consisted of two parts. In the first part, seven questions were used to collect demographic data. In the second part, ninety-seven questions of five factors were used to gather information. The answers were on a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Validity and Reliability.

The AL questionnaire was tested for reliability with thirty nursing faculty members from other colleges. The Cronbach's alpha coefficient values of educational vision factor, faculty practice factor, curriculum and learning factor, research and innovation factor, and student quality and support factor were 0.98, 0.98, 0.98, 0.99, and 0.96, respectively.

Data Collection.

Data collection began after the research proposal was approved by the Research Ethics Committee of Thaksin University (COA No. TSU 2022_015 REC No. 0018). The researcher sent out an official letter requesting permission to collect data from each college. After permission was granted, participants from the selected nursing colleges were recruited to participate in the research study. Informed consent was obtained from each participant, explaining the purpose of the study and their rights as participants. Participants were then provided with the paper-based AL questionnaire to complete it honestly and thoroughly. The data collection process took approximately three months to reach the required sample size.

Data analysis

Demographic data were analyzed using frequency, percentages, mean, and standard deviation. The final proposed AL model was tested using confirm factor analysis (CFA).

Ethical Considerations

The study was approved by the IRB of Thaksin University (Approval number IRB COA No. TSU2022_015).

Results

1. Participants' demographics

The majority of participants were female (n = 254, 93.73%), while only 6.27 percent were male (n = 17). Over half of the participants had earned a master's degree (n = 178, 65.60%) and were faculty members (n = 170, 62.70%). More than one-third of participants were aged 41-50 years old (n = 99, 36.50%), 51-60 years old (n = 98, 36.20%), had been working in their current position for over 15 years (n = 111, 40.90%), and had been teaching for 21-30 years (n = 106, 40.20%).

2. Examination of the first-order measurement of the final proposed AL model

The results of the first-order correlated model are presented in Table 1. The factor loading values of VE, FP, CL, RI, and SQ indicators ranged from 0.57 to 0.75, 0.51 to 0.61, 0.50 to 0.67, 0.52 to 0.76, and 0.55 to 0.69, respectively.

Table 1 The first-order measurement of the final proposed AL model

Factors	Sub-Factors	Indicators	Factor Loading	*t*	R^2
1.Educational visionary (VE)	1.1 Vision establishment (VE1)	1. Current trends in nursing education	0.57	-	0.71
		2. Stakeholders' needs	0.64	18.12	0.75
		3. Collaborative vision	0.60	16.71	0.68
		4. Healthcare and mother university policies	0.59	15.71	0.73
		5. Clear vision statement	0.58	17.64	0.73
	1.2 Vision communication (VE2)	6. Communicating vision to all college members	0.61	-	0.74
		7. Two-way vision communication	0.68	19.57	0.79
		8. Multichannel communication	0.62	17.64	0.70
		9. Effective communication system	0.71	16.76	0.73
		10. Establishing a shared vision	0.68	15.40	0.77
	1.3 Vision administration/ Implementation (VE3)	11. Strategic vision plan	0.62	-	0.78
		12. Making strategic plan	0.58	19.99	0.77
		13. Monitoring of strategic implementation	0.58	18.20	0.69
		14. Evaluating of strategic implementation	0.60	19.01	0.72
		15. Visionary motivation	0.75	18.34	0.70
		16. Team learning	0.61	15.72	0.58
	1.4 Change literacy (VE14	17. Vision adjustment	0.59	-	0.74
		18. Change management	0.61	18.57	0.73
		19. Active lifelong learning	0.64	19.22	0.76
		20. Visionary	0.59	17.25	0.67
		21. Digital literacy	0.58	17.99	0.70
2. Faculty practice (FP)	2.1 Academic role model (FP1)	22. Academic ability	0.53	-	0.63
		23. Academic mentor	0.60	17.78	0.72
		24. Curiosity	0.52	13.40	0.59
		25. Self-development	0.58	16.74	0.81
		26. Integrity	0.53	14.42	0.62
		27. Academic excellence	0.51	13.72	0.58
		28. Individual development plan (IDP)	0.61	-	0.77

Factors	Sub-Factors	Indicators	Factor Loading	*t*	R^2
	2.2 Nursing competence (FP2)	29. Implementing IDP	0.60	18.79	0.73
		30. IDP adjustment	0.59	17.75	0.69
		31. Nursing competence development	0.60	18.52	0.73
		32. Supervising and monitoring faculty development	0.61	18.28	0.71
	2.3 Health professional network (FP3)	33. Academic work/research/ innovation collaboration	0.59	-	0.69
		34. Interprofessional partnership	0.61	20.69	0.74
		35. interprofessional communication	0.58	17.52	0.73
		36. Cultural competency	0.60	16.97	0.70
		37. Nursing knowledge development	0.56	17.40	0.72
		38. Evidence-base practice	0.57	16.54	0.69
		39. Innovation usage	0.59	16.83	0.70
3. Curriculum and nursing education (CL)	3.1 Curriculum development (CL1)	40. Competency in curriculum development	0.59	-	0.72
		41. Need assessment	0.67	23.11	0.79
		42. Curriculum objectives and learning outcomes	0.60	20.05	0.79
		43. Content development	0.60	21.11	0.84
		44. Curriculum evaluation	0.61	20.51	0.82
		45. Curriculum revision	0.60	17.89	0.70
	3.2 Nursing education development CL2)	46. Instructional design	0.57	-	0.81
		47. Faculty teaching skill	0.59	24.04	0.83
		48. Technology and student-centered learning	0.54	20.96	0.74
		49. Evidence-based teaching	0.51	18.81	0.67
		50. Educational innovation	0.50	16.35	0.58
		51. Learning Facilities	0.57	16.77	0.65
	3.3 Curriculum evaluation CL3)	52. Competency in curriculum evaluation	0.62	-	0.83
		53. Curriculum consultant	0.60	23.74	0.71
		54. Curriculum transformation	0.59	28.47	0.82
		55. Content revision	0.59	21.27	0.80
		56. Curriculum reconstruction	0.59	22.79	0.78
		57. Curriculum review	0.62	23.18	0.79
		58. Systematic curriculum evaluation	0.59	23.04	0.79
		59. Curriculum viability	0.58	19.75	0.75

Factors	Sub-Factors	Indicators	Factor Loading	*t*	R^2
4. Research and innovation (RI)	4.1 Research competency (RI1)	60. Competency in conducting and publishing research and innovation	0.59	-	0.76
		61. Role modeling excellence in research	0.63	20.28	0.75
		62. Attitudes toward research and innovation	0.52	15.66	0.59
		63. Research consultant	0.58	18.48	0.71
		64. Research grant	0.67	16.27	0.61
		65. Research utilization	0.65	21.24	0.82
	4.2 Research an innovation productivity (RI2)	66. Research and innovation trend	0.57	-	0.75
		67. Research and innovation policy	0.61	23.44	0.76
		68. Research excellence	0.60	22.07	0.79
		69. Nursing and health service research	0.60	20.43	0.78
		70. Research integration	0.59	18.36	0.75
		71. Evidence-based practice	0.58	17.60	0.67
		72. Research network	0.61	16.56	0.67
		73. Research and innovation implementation	0.64	19.37	0.79
		74. Business investment in research and innovation	0.70	17.31	0.73
		75. Impact of research and innovation	0.62	16.63	0.62
	4.3 Research publication (RI3)	76. Publication network	0.62	-	0.74
		77. National and international publication	0.57	22.44	0.69
		78. Research publication management	0.62	21.46	0.84
		79. Research publication channels	0.62	21.08	0.82
		80. Research publication database	0.61	17.71	0.68
		81. Motivation	0.72	-	0.78
	4.4 Research and innovation culture (RI4)	82. Budget and resource	0.75	29.20	0.79
		83. Research and innovation team expert	0.76	22.81	0.84
		84. Learning organization	0.72	23.11	0.85
		85. Database	0.69	22.36	0.82

Factors	Sub-Factors	Indicators	Factor Loading	*t*	R^2
5. Student quality and support (SQ)	5.1 Student quality development (SQ1)	86. Intra-and extra- curricular activities	0.63	-	0.77
		87. Academic achievement	0.69	23.42	0.86
		88. Quality evaluation of graduates	0.64	21.59	0.79
		89. Student development based on student-centered learning	0.60	20.46	0.75
		90. Counseling system	0.65	21.89	0.80
		91. Stakeholders' satisfaction graduates' quality	0.55	18.06	0.67
		92. Holistic education	0.62	20.21	0.75
	5.2 Student support (SQ2)	93. Learning environment	0.65	-	0.80
		94. Learning facilities	0.66	23.35	0.77
		95. Learning environment evaluation	0.68	23.25	0.84
		96. Nursing laboratories and equipment	0.69	18.75	0.69
		97. Learning facility evaluation	0.65	19.99	0.74

3. Examination of the second-order measurement of the final proposed AL model

The model fit indices were χ^2/df = 0.68237, GFI = 0.97, AGFI = 0.94, SRMR = 0.0063, RMSEA = 0.000. The model revealed that VE2 (L = 0.60), FP2 (L = 0.55), FP3 (L = 0.55), CL1 (L = 0.57), RI4 (L = 0.65), SQ1 (L = 0.60), and SQ2 (L = 0.60) had the highest path loadings (see Figure 2).

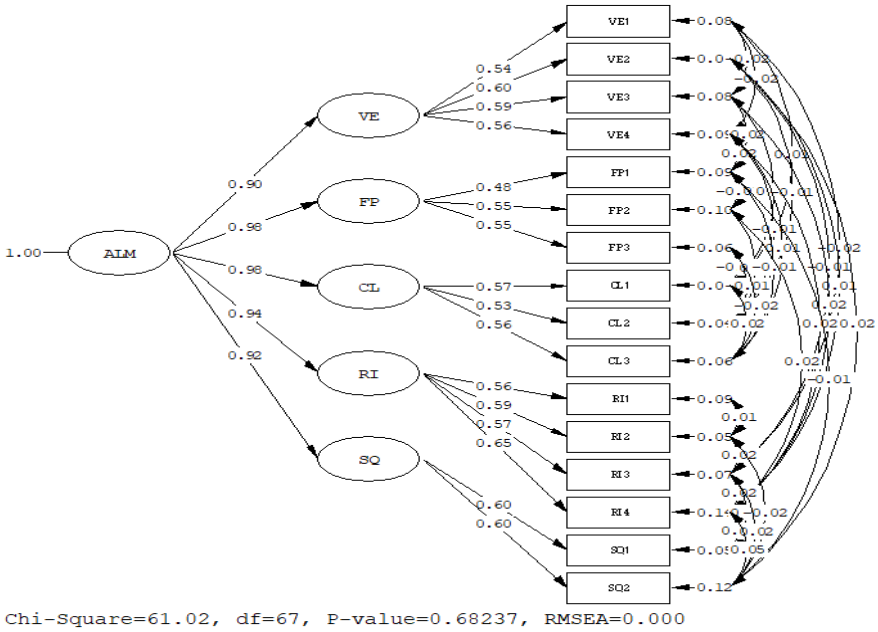

Figure 2 The second-order measurement of the final proposed AL model

Discussion

The findings of the current research revealed that the AL model fit well on its five factors and sixteen sub-factors. Seven sub-factors of all factors showed the highest path loadings: VE2 (L = 0.60), FP2 (L = 0.55), FP3 (L = 0.55), CL1 (L = 0.57), RI4 (L = 0.65), SQ1 (L = 0.60), and SQ2 (L = 0.60). Vision communication (VE2) was the first significant sub-factor of the AL model. The finding was consistent with previous studies indicating VE was an essential skill of academic leadership (Giddens & Morton, 2018; Keating & DeBoor, 2017; Mundt, 2018; Neal-Boylan, Guillett, & Sharon, 2018).

NA administrators play crucial roles in communicating institutional visions; therefore, they must be able to convey visions, including but not limited to all staff and stakeholders clearly and effectively (Keating & DeBoor, 2017). Effective vision communication results in institutional and educational quality (Keating & DeBoor, 2017; Neal-Boylan et al., 2018). In order to increase staff engagement and collaboration, NA administrators must communicate institutional visions in various approaches to inform all staff about the institutions' future direction (Charoenchai, Kunacheva, Niyomves & Kenaphoom, 2022). Udin, Handayani, Yuniawan, & Rahardja (2019) recommended that NA administrators should use appropriate communication methods and channels such as timely communication, two-way communication, creative communication, and multi-communication approaches to connect with all institutional staff. NA administrators, therefore, should develop this skill to disseminate vision and create institution collaboration for future change.

Another significant sub-factors of faculty practice factors in the AL model were nursing competence (FP2) and health professional network (FP3, which were unique skills and competencies of NA administrators. The findings were concurrent with the studies of Bouws, Madeira, & Streberger (2020), Giddens and Morton (2018), Neal-Boylan et al. (2018) confirmed that NA administrators are required to perform faculty practice because they performed specialized duties and responsibilities in nursing education administration. Bouws, Madeira, & Streberger (2020) stated that NA administrators positively influenced faculty practice culture in the NEIs. NA administrators who realized the importance of faculty practice were more likely to develop their expertise, as well as encourage and support faculty members to enhance nursing competencies. In addition, NA administrators are required to build a professional network between NEIs and healthcare settings to allow nursing faculty members to engage in faculty practice (Giddens & Morton, 2018; Neal-Boylan, Guillett, & Sharon, 2018). Faculty practice can help nursing faculty members to bridge the gap between nursing knowledge and practice and enhance nursing practice competencies (Giddens & Morton, 2018; Neal-Boylan, Guillett, & Sharon, 2018). Benefits of nursing competence and health professional network were not limited to the development of faculty member expertise but also the quality of nursing care and nursing education (Giddens & Morton, 2018; Neal-Boylan, Guillett, & Sharon, 2018). Thus, NA administrators should emphasize the value of faculty practice.

The third significant sub-factor of the AL model was curriculum development (CL1). Since the curriculum is the heart of nursing education, NA administrators must be competent in developing and revising the curriculum. The finding was consistent with previous studies representing the importance of curriculum development competency of NA administrators Bouws, Madeira, & Streberger, 2020; Neal-Boylan, Guillett, & Sharon, 2018; Oermann, De Gagne, & Phillips, 2018; Smith

et al., 2018). NA administrators must play a vital role throughout the curriculum development process, included need assessment, curriculum objectives, and learning outcomes, content development, curriculum evaluation, curriculum revision, and instructional design (Bouws, Madeira, & Streberger, 2020; Neal-Boylan, Guillett, & Sharon, 2018). Moreover, NA administrators must serve as the head or counselor of the curriculum development team to help and guide other curriculum developers (Bouws, Madeira, & Streberger, 2020).

According to the AL model, research and innovation culture (RI4) was one of the required skills of NA administrators. The previous findings also showed that NA administrators must be able to create a research and innovation culture in NEIs (Eyal & Nitza, 2020; Justice, 2019). This competency was essential because research and innovation productivity reflect the quality and profession of NA administrators and faculty members (Eyal & Nitza, 2020; Justice, 2019). In terms of research and innovation culture, NA administrators must 1) encourage and motivate faculty members to conduct research and innovation projects, 2) provide sufficient budget and resources for conducting research and innovation, 3) develop track records to monitor faculty research and innovation productivity, 4) be role models or experts of research and innovation excellence, and 5) build research and innovation climate in organizations (Justice. 2019; Youngquist, Line & Pyle, 2019).

The last significant sub-factors of the AL model were student quality development (SQ1) and student support (SQ2). Nursing students are the main stakeholders of NEIs; therefore, NA administrators must pay attention to these two sub-factors. The findings were congruent with previous findings, student quality development and support were the important responsibilities of NA administrators (Alomari, Hunt, Lord, Halcomb, Fernandez, Middleton, et al., 2021; Farahani, Ghaffari, Oskouie, & Tafreshi, 2017). Alomari, Hunt, Lord, Halcomb, Fernandez, Middleton, et al. (2021) pointed out that NA administrators should support students in four dimensions including, academic support, financial support, learning facility support, and nursing practice support. Farahani, Ghaffari, Oskouie, & Tafreshi (2017) indicated that NA administrators should create a student support system to develop student competencies and maintain student retention, such as counseling services, learning facilities, academic tutoring, scholarship, extra- and intra-curricular activities, and academic monitoring systems. Therefore, NA administrators must allocate a budget to create and develop student support systems to enhance student learning and achievement (Ratchapakdee, Sehakom, Wonganusit, & Chamnankit, 2021).

Implication of the Results

All factors and sub-factors reflect core competency, roles, and attributes of NA administrators in FoN, PBRI. It is essential for institutions to invest in leadership development initiatives that align with the identified factors and sub-factors to enhance the leadership capabilities of their NA administrators. The AL model, therefore, should be taken into account in preparing and training novice and current NA administrators. The AL model also can be integrated into faculty development programs and public health administrator training programs to advance NA administrators' administrative skills and competencies.

Recommendation of Future Study

The results of the current study offer a robust foundation for enhancing AL among NA administrators. The developed AL model can be applied as the conceptual framework for conducting future research and development studies aimed at developing the AL competence development program for NA administrators. Futuristic studies, therefore, should focus on the implication of the AL model in order to investigate its practical and long-term effects on AL of NA administrators at FoN, PBRI. Considering that the findings may not be generalizable to NA administrators in other NEIs, the model's applicability in various research settings is needed to explore through comparative research, contributing to the generalized application of this particular model.

References

Alomari, A., Hunt, L., Lord, H., Halcomb, E., Fernandez, R., Middleton, R., et al. (2021). Understanding the support needs of Australian nursing students during COVID-19: A cross-sectional study. *Contemporary Nurse, 57*(3-4), 258-268.

Anthony, S. G., & Antony, J. (2017). Academic leadership – special or simple. *International Journal of Productivity and Performance Management, 66*(5), 630-637.

Bellibas, M. S., Ozaslan, G., Gumus, E., & Gumus, S. (2016). Examining department chairs, needs in performing academic leadership in Turkish universities. *Egitim Ve Bilim, 41*(184), 91-103.

Bouws, M., Madeira, A., & Streberger, A. (2020). Fulfillment in the role of academic nurse leader: A grounded theory study. *Journal of Professional Nursing, 36*, 469-476.

Charoenchai, W., Kunacheva, N., Niyomves, B., & Kenaphoom, S. (2022). The composition synthesis of high-performance organization. *Journal of Modern Learning Development, 7*(2), 438-54 (in Thai).

Eyal, E. & Nitza, D. (2020). Academic rank and position effect on academic research output-A case study of Ariel University. *International Journal of Higher Education, 10*(1), 295-307.

Farahani, M. A., Ghaffari, F., Oskouie, F., & Tafreshi, M. Z. (2017). Attrition among Iranian nursing students: A qualitative study. *Nurse Education in Practice, 22*, 98–104.

Fernandez, J., Ardzejewska, K., & Haddad, A. (2019). Higher education private provider quality network (HEPP-QN). *Proceeding of Higher Education Private Provider-Quality Network (HEPP-QN) Forum,* Cooranbong, Australia. 1-20.

Giddens, J., & Morton, P. (2018). Pearls of wisdom for chief academic nursing leaders. *Journal of Professional Nursing, 34*(2), 75-81.

Guthrie, K. M. (2019). *Challenges to higher education's most essential purposes.* Retrieved from https://sr.ithaka.org/wp-content/uploads/2019/04/SR-issue-brief-challenges-higher-education-essential-problems-20190409.pdf.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate Data Analysis* (8th ed.). United Kingdom: Cengage Learning.

Inwang, C., Peechapol, C., Jindamanee, T., & Somboonpol, U. (2017). An academic leadership developmental model by knowledge management of executives from private universities. *Journal of Business Administration, The Association of Private Higher Education Institutions of Thailand, 6*(1), 114–129.

Justice, G. (2019). *How to be a dean.* Johns Hopkins University Press.

Keating, S. B., & DeBoor, S. S. (2017). *Curriculum development and evaluation in nursing* (4th ed.). Springer Publishing Company.

Kiral, E., & Basaran, R. (2019). Academic leadership. In T. Fidan. *Vocational identity and career construction in education* (238-257). Turkey: IGI Global.

Krejcie, R. V. & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610.

McClelland, D. C. (1973). Testing for competence rather than for intelligence. *American Psychologist. 28*(1), 1-14

Memon, M. A., Ting, H., Cheah, J. H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample size for survey research: Review and recommendations. *Journal of Applied Structural Equation Modeling, 4*(2), 1-20.

Mitsilapin, S., Anannawee, P., & Pruetikul, S. (2018). Instructional leadership of administrators and organization culture of schools affecting teacher's job motivation in secondary schools, Chachoengsao province under the secondary educational service area office 6. *Journal of Educational, Thaksin University, 18*(1), 191–201.

Montgomery, B. (2020). Academic leadership: Gatekeeping or groundskeeping? *The Journal of Values Based Leadership, 13*(2), Article 16.

Mundt, M. H. (2018). Reflections on a dean's career: Lessons learned. *Journal of Professional Nursing. 34*(2), 142-146.

Neal-Boylan, L., Guillett, S. E., & Sharon, C. (2018). *Academic leadership in nursing: Effective strategies for aspiring faculty and leaders.* New York: Springer.

Oermann, M. H., De Gagne, J. C., & Phillips, B. C. (2017). *Teaching in nursing and role of the educator: The complete guide to best practice in teaching, evaluation, and curriculum development* (3rd ed.). NY: Springer Publishing Company.

Parker, S. & Ahire, V. S. (2019). Role of academic leadership in bringing about a transformational change in the organizational behavior of Hei's in India. *International Journal of Trend in Scientific Research and Development, 3*(5), 2300-2305.

Peterson, J. F. (2015). Creative leadership for interdisciplinary education. *The International Journal of Educational Organization and Leadership, 22*(4), 71-89.

Piyasiripan, N., Phuangsomjit, C., Sirisanglert, K., & Hingkanont, P. (2018). Scenario of competencies of nursing education institute administrator during the next decade. *Veridian E-Journal, Silpakorn University, 11*(1), 3611-3633.

Pudpong, N. (2016). Public and private nursing schools in Thailand: How does type of training institution affect nurses' attitudes and job choices? Retrieved from https://resyst.lshtm.ac.uk/resources/public-and-private-nursing-schools-in-thailand-how-does-type-of-training-institution.

Putpa, C. (2022). Academic Leadership of School Administrators Affecting High Performance Organizations of secondary schools in Yasothon Province. *Journal of Social Science for Local Rajabhat Mahasarakham University, 6*(1), 98-106.

Ratchapakdee, P., Sehakom, V., Wonganusit, V., & Chamnankit, P. (2021). Education for sustainable development among nursing students. *Udonthani Hospital Medical Journal, 29*(3), 484-500 (in Thai).

Smith, S., Hallowell, S. C., & Lloyd-Fitzgerald, J. (2018). AACN's DNP essential II prepares clinicians for academic leadership: Three DNP graduates share their leadership journey. *Journal of Professional Nursing, 34*(1), 16-19.

Udin, U., Handayani, S., Yuniawan, A., & Rahardja, E. (2019). Leadership styles and communication skills at Indonesian higher education: patterns, influences, and applications for organization. *Organizations and markets in emerging economies, 10*(1), 111-131.

Youngquist, J., Line, D., & Pyle, S. (2019). Academic leadership and creativity. *The Department Chair, 29*(4), 20-22.