

CHAPTER 4

RESULTS OF DATA ANALYSIS

The researcher presents the data analysis results in response to the research objectives and classifies the results into three parts as the followings.

Part 1: The results of factor analysis of Health Promotion Leadership

Part 2: The results of creative and development the Model for Health Promotion Leadership

Part 3: The results of implementation of the Model for Health Promotion Leadership Development

Part 1: The results of factor analysis of Health Promotion Leadership

The researcher presented the results of correlation of Performance Criteria in Health Promotion Leadership before presents the results of factor analysis of Health Promotion Leadership. The results are show in Table 16.

Table 16 The results of correlation of performance criteria of Health Promotion Leadership

Testing	Results
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.967
Bartlett's Test of Sphericity	
Approx. Chi-Square	23342.743
df	1225
Sig.	.000

Table 16 shows that the KMO is .967, nearby 1, it means the data is suitable for analyze the factors. The Bartlett's Test of Sphericity has significant at .01 that means the Correlation Matrix is suitable for analyzed the factors.

The results of factor analysis of Health Promotion Leadership is presented by 3 steps for factor analysis as follows: (1) The results of Factor Extraction (2) the results of Factor Rotation (3) Factor Naming. The results are given in Table 17-24.

1.1 The results of Factor Extraction is used the technique of Principle Component Analysis. Reveal that factors, Eigenvalue, Percentage of Variance and Cumulative Percentage of Variance. The result is shown in Table 17.

Table 17 Eigenvalue, Percentage of Variance and Cumulative Percentage of Variance.

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage of Variance.
1	24.946	49.892	49.892
2	3.842	7.684	57.576
3	1.707	3.414	60.990
4	1.290	2.580	63.570
5	1.138	2.276	65.847
6	1.118	2.236	68.082

Table 17 There are 6 factors that have Eigenvalue more than 1. It shows that the 50 Performance Criteria have six Common Factors by Cumulative Percentage of Variance is 68.082.

1.2 The results of Factor Rotation. After factor extraction of 6 factors by Orthogonal Rotation with Varimax Method to find out clear up correlation of the Health Promotion Performance Criteria and then select the Health Promotion Performance Criteria that have Factor Loading more than .30, shown in Table 18.

Table 18 Factor Loading of Health Promotion Performance Criteria in each Factor

Performance Criteria	Factor					
	1	2	3	4	5	6
1			.562			
2			.764			
3			.825			
4			.763			
5			.814			
6			.815			
7			.579			
8			.424			
9				.725		
10				.676		
11				.737		
12				.579		
13				.517		
14				.604		
15				.572		
16						.527
17				.519		
18						.603
19						.622
20						.649
21						.576
22						.384

Table 18 (cont.)

Performance Criteria	Factor					
	1	2	3	4	5	6
23					.568	
24					.603	
25					.662	
26					.722	
27					.494	
28		.452				
29		.596				
30		.706				
31		.654				
32		.656				
33		.703				
34		.691				
35		.631				
36		.605				
37	.493					
38		.511				
39		.484				
40	.535					
41	.551					
42	.595					
43	.451					
44	.664					

Table 18 (cont.)

Performance Criteria	Factor					
	1	2	3	4	5	6
45	.692					
46	.757					
47	.688					
48	.574					
49	.725					
50	.708					

Table 18 the Factor Loading after Orthogonal Rotation by Varimax technique. There are 6 factors that have factor loading more than .30

Post Orthogonal Rotation, The researcher considers that 1) the Health Promotion Performance Criteria must has Factor Loading more than .30. 2) the principle of Orthogonal Rotation, the Health Promotion Performance Criteria are free to each other, so when post the rotation, the Health Promotion Performance Criteria must be present into one factor, although if the Health Promotion Performance Criteria present more than one factor, considered the maximum Factor Loading Performance Criteria. 3) To setting the factor must be more than 3 Performance Criteria.

Post Orthogonal Rotation by Varimax Methods, there are 6 Factors and 50 Health Promotion Performance Criteria. Each Factors consist of the Health Promotion Performance Criteria, shown that followings;

Factor 1 has 12 Health Promotion Performance Criteria, these are 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50

Factor 2 has 11 Health Promotion Performance Criteria; these are 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39

Factor 3 has 8 Health Promotion Performance Criteria; these are 1, 2, 3, 4, 5, 6, 7, 8

Factor 4 has 8 Health Promotion Performance Criteria; these are 9, 10, 11, 12, 13, 14, 15, 17

Factor 5 has 5 Health Promotion Performance Criteria; these are 23, 24, 25, 26, 27

Factor 6 has 6 Health Promotion Performance Criteria; these are 16, 18, 19, 20, 21, 22

1.3 Factor Naming. There are 6 Factors after Orthogonal Rotation by Varimax Method, in each Factor has Health Promotion Performance Criteria that able to explain their Factor, and can naming them. That show in Table 19-24.

Table 19 Health Promotion Performance Criteria and Factor Loading of Factor 1

Order	Health Promotion Performance Criteria	Factor Loading
37	Train the self-care depend on individual potential	.493
40	Produce awareness to community and local government for participate in health promotion by individual consideration	.535
41	Encourage communities to mobilize resources that can be different to health.	.551
42	Help people access their health information.	.595
43	Promote research based for health problem solving by individualized.	.451
44	Create the health promotion project on family, group of persons and community based.	.664
45	Encourage, promote and develop the individual experience as suitable.	.692
46	Individual counseling and participate on self-health problem solving.	.757
47	Individual consideration by treating people differently according to their needs and abilities of each person.	.688
48	Evaluate the potential of others in now capability and future responsibility.	.574
49	Promote two-way communication.	.725
50	Ability to provide reliable information.	.708

Table 19 shows that Factor 1 has 12 Health Promotion Performance Criteria, the Factor Loadings are between .451-.757. The First Three maximum Factor Loading is the Performance Criteria, order at 46, which is the individual counseling and participates on self-health problem solving has the Factor Loading at .757. The Performance Criteria, order at 49, is the promote two-way communication that has Factor Loading at .725 and Performance Criteria, order at 50, is the ability to provide reliable information that has Factor Loading at .708.

After analyzed 12 Health Promotion Performance Criteria, the researcher naming the Factor 1 is “The leadership of Individual Consideration.”

Table 20 Health Promotion Performance Criteria and Factor Loading of Factor 2

Order	Health Promotion Performance Criteria	Factor Loading
28	Reinforcement to motivate and create a good atmosphere in their work.	.452
29	To stimulate public awareness of the issues that affect health.	.596
30	According to the new ways to solve problems.	.706
31	To confidential the public for problem solving and set goal for promote community health.	.654
32	The public is encouraged to think and reason. And criticism of his ideas.	.656
33	People feel that the problem is a challenge and an opportunity to solve common problems.	.703
34	To encourage community participation in health promotion for the physical, cultural, social and ecological harmony with the community.	.691
35	Stimulate people to life and health care	.631
36	Help clients understand the determinants the affect to health.	.605
38	Be encouraged to assess community problems and needs. Participation in the planning and implementation of health problems	.511
39	Encourage community participation in the control of the supervision and evaluation of health promotion practices.	.484

Table 20 shows that Factor 2 has 11 Health Promotion Performance Criteria, the Factor Loadings are between .452-.706. The First Three maximum Factor Loading are the Performance Criteria, order at 30, that is the according to the new ways to solve problems that has the Factor Loading at .706. The Performance Criteria, order at 33, is the people feel that the problem is a challenge and an opportunity to solve common problems that has Factor Loading at .703 and Performance Criteria, order at 34, is the encourage community participation in health promotion for the physical, cultural, social and ecological harmony with the community that has Factor Loading at .691.

After analyzed 11 Health Promotion Performance Criteria, the researcher naming the Factor 2 is “The leadership of Intellectual Stimulation.”

Table 21 Health Promotion Performance Criteria and Factor Loading of Factor 3

Order	Health Promotion Performance Criteria	Factor Loading
1	Recognizing the importance of the rights of individuals.	.562
2	Respect the worth and dignity of human beings	.764
3	Responsibility for their actions.	.825
4	Discipline.	.763
5	Honest	.814
6	Follow professional ethics.	.815
7	A good example to others and to sustain their operations.	.579
8	Help people get to know and understand their rights	.424

Table 21 shows that Factor 3 has 8 Health Promotion Performance Criteria, the Factor Loadings are between .424-.825. The First Three maximum Factor Loading is the Performance Criteria, order at 3, that is the Responsibility for their actions that has the Factor Loading at .825. The Performance Criteria, order at 6, is the Follow professional ethics that has Factor Loading at .815 and Performance Criteria, order at 5, is the Honest that has Factor Loading at .814.

After analyzed 8 Health Promotion Performance Criteria, the researcher naming the Factor 3 is “The leadership of Moral.”

Table 22 Health Promotion Performance Criteria and Factor Loading of Factor 4

Order	Health Promotion Performance Criteria	Factor Loading
9	Knowledge and understanding of the essence of nursing science.	.725
10	Knowledge and understanding of the essence of the nursing process and its use in health promotion service	.676
11	Knowledge and understanding of the essence of the process of acquiring knowledge. Knowledge management	.737
12	Knowledge and understanding about health promotion and able to health promotion service.	.579
13	Able to use of local knowledge for health promotion	.517
14	Diagnostic evaluation of risk factors. Planning and health promotion.	.604
15	Knowledge and understanding of key information technologies in the field of health promotion	.572
17	Creative thinking and Critical thinking	.519

Table 22 shows that Factor 4 has 8 Health Promotion Performance Criteria, the Factor Loadings are between .517-.737. The First Three maximum Factor Loading is the Performance Criteria, order at 11, that is the Knowledge and understanding of the essence of the process of acquiring knowledge. Knowledge management has the Factor Loading at .737. The Performance Criteria, order at 9, is the Knowledge and understanding of the essence of nursing science that has Factor Loading at .725 and Performance Criteria, order at 10, is the Knowledge and understanding of the essence of the nursing process and its use in health promotion service that has Factor Loading at .676.

After analyzed 8 Health Promotion Performance Criteria, the researcher naming the Factor 4 is “The leadership of Knowledge of Nursing and Health Promotion.”

Table 23 Health Promotion Performance Criteria and Factor Loading of Factor 5

Order	Health Promotion Performance Criteria	Factor Loading
23	Strategies implemented in the community. To build a strong community.	.568
24	The empowerment process for health promotion participatory	.603
25	The ability to coordinate with health team, the organized and community for health promotion activities operation	.662
26	Able to produce the community for health promotion leadership	.722
27	Able to give reasonably to convince others	.494

Table 23 shows that Factor 5 has 5 Health Promotion Performance Criteria, the Factor Loadings are between .494-.722. The First Three maximum Factor Loading is the Performance Criteria, order at 26, that is the able to produce the community for health promotion leadership that has the Factor Loading at .722. The Performance Criteria, order at 25, is the ability to coordinate with health team, the organized and community for health promotion activities operation that has Factor Loading at .662 and Performance Criteria, order at 24, is the empowerment process for health promotion participatory that has Factor Loading at .603

For study the 5 Health Promotion Performance Criteria, the researcher naming the Factor 5 is “The leadership of Inspiration Motivation,”

Table 24 Health Promotion Performance Criteria and Factor Loading of Factor 6

Order	Health Promotion Performance Criteria	Factor Loading
16	Reliable personality	.527
18	The emotional maturity	.603
19	Healthy behaviors and present of reducing the healthy risk factor	.622
20	Show willingness and eager to serve	.649
21	Awareness of the rights and duties in the profession	.576
22	Can behave appropriately in providing health care to individuals	.384

Table 24 shows that Factor 6 has 6 Health Promotion Performance Criteria, the Factor Loadings are between .384-.649. The First Three maximum Factor Loading is the Performance Criteria, order at 20, that is the willingness and eager to serve that has the Factor Loading at .649. The Performance Criteria, order at 19, is the healthy behaviors and present of reducing the healthy risk factor that has Factor Loading at .662 and Performance Criteria, order at 18, is the emotional maturity that has Factor Loading at .603.

After analyzed 6 Health Promotion Performance Criteria, the researcher naming the Factor 6 is “The leadership of Personality.”

In conclusion, the naming of factor 1-6 are shown; 1) Individual Consideration, 2) Intellectual Stimulation, 3) Moral, 4) Knowledge of Nursing and Health Promotion, 5) Inspiration motivation, and 6) Personality.

Part 2 The results of creative and development the Model for Health Promotion Leadership

The presentation of this part, the researcher divided to 2 steps, 2.1) present of the Model and 2.2) present the quality testing of the Model.

2.1 Creative the Model for Health Promotion Leadership

For proper understanding, the researcher will present the meaning and the principle of model, then present the model with diagram and explain the detail on each factor.

The meaning and the principle of Model Development for Health Promotion Leadership.

The Model is the structure that show of the multi factors correlation for develop the health promotion leadership in nursing student. The operation is go on by participatory of personnel involved, these are Nursing College, PCU, Community and Nursing Student. The goal is to develop the health promotion of nursing student in knowledge, attitude and skill.

The Factor of Model

For setting the factors, the researcher was synthesis result of study of 12 research. Reveal that there are 7 factors. They are goal of development, boundary of development, management structure, and strategies of development, development structure, development unit and target of development.

The structure of the multi factors correlation for develops the health promotion leadership in nursing student. The operation is go on by participatory of personnel involved, these are Nursing College, PCU, Community and Nursing Student. The goal is to develop the health promotion of nursing student in knowledge, attitude and skill. There is shown in Figure 3.

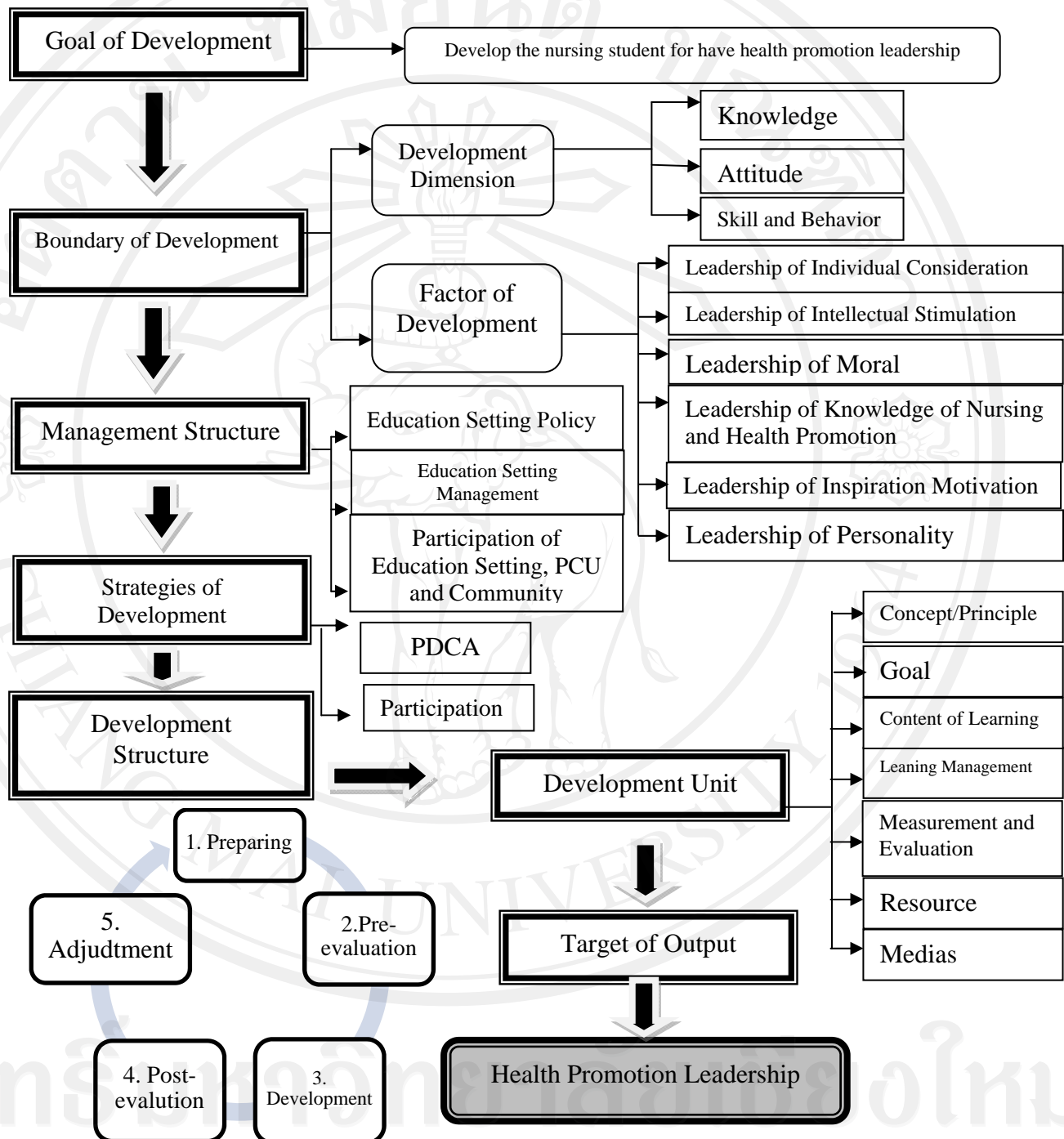


Figure 2 Model for Health Promotion Leadership Development (draft 2)

Definition: Factors of the Model for Health Promotion Leadership

Factor 1 Goal of Development

The goal of development is produce the nursing student to have knowledge, capable and health promotion leadership characteristic, follows by 6 factors of leadership, that are 1) Individual Consideration 2) Intellectual Stimulation 3) Moral 4) Knowledge of Nursing and Health Promotion, 5) Inspiration Motivation, and 6) Personality.

Factor 2 Boundary of Development

The boundary of development is 2 parts.

1. The dimension of development for health promotion leadership

Consist of Knowledge, Attitude and Skill of nursing student in order to adapt for working at PCU.

2. The factor of development for health promotion leadership, cover of 6 factors of health promotion leadership. They are 1) Individual Consideration 2) Intellectual Stimulation 3) Moral 4) Knowledge of Nursing and Health Promotion, 5) Inspiration Motivation, and 6) Personality.

Factor 3 Management Structure

Consist of

1. Education setting policy

It is the statements that define the dimension for development of the College, that focus on identity. In Praboromrajchanok Institue was set the identity that “created the human from community for treat community in healthy system” and leaning management for produce the nurse have identity as “service mind”

That is the aim of education setting for set the policy to produce the nurses who must have health promotion leadership performance.

This factor consist of 2 principles

- 1) Setting the education policy
- 2) Transforms to practice

2. Education setting management

The meaning is the organization and management system for made the development to efficacy and continuous.

Aiming for education setting to has continuous administrate follow by development model include planning for development, organization, supervisor and evaluation under the coordinate of personnel in education setting, PCU and community setting.

The goal of this factor is to raise the management for the education setting to developing, that are 3 guidelines on operation.

- 1) Planning/development project
- 2) Organization for plan/project. The teams are
 - Broad of Director consist of the director of Nursing College as a president, the sub of director as a vice president, the head office of department and representative of nursing instructor as supporter the operation.
 - Broad of consultant consist of the president of education setting, the representative of head of commune, are work as comment, problem solving and coordination.
 - Broad of operation consist of head office of community nursing department. Works are operation planning, setting goal and indicator for successes and evaluation.
 - Operating team consist of instructor and officer from PCU, working follow by planning.
3. **The cooperation of education setting, PCU and community** for made the develop the nursing leadership as the need of community.

Factor 4 Strategies of Development

Consist of

1. **The strategy of management with quality process used.** It is the Deming cycle, PDCA (Plan, Do, Check, Act). It is the basic for develop the efficacy. The Deming Cycle consist of 4 steps (Varapol Maneerat, 2000: 7), these are Plan, Do, Check and Act.
2. **The strategy of participatory promotion for produce the nurse.** These are cooperation of organization, Nursing College, community, PCU, local government and nursing student.

Driving mechanism for development

Although there is the good strategy, the important is operating for achieve goal. The driving mechanism are the education administrators, instructor, student, guideline, technology information and participatory of PCU, public and community.

Factor 5 Development Structure

It is the factor of model implementation; there are 5 steps; 1) preparing 2) pre-evaluation 3) development 4) post-evaluation and 5) adjustment.

Step 1 Preparing: Adjust the organization for participate the role of the stakeholders. In addition, set goal of development, set the basic concept of health promotion leadership, create the positive attitude and knowledge for the participants.

Step 2 Pre-evaluation: Evaluate the Buddhist Range, Given Range and the Health Promotion Leadership Performance, for self-understand level of the Health promotion Leadership and priority of the Factor.

Step 3 Development: There are 4 steps. Followings;

3.1 Pre-preparing. For understand the detail of each the development unit.

3.2 Operation of the Development of 6 Factors; 1) Individual Consideration, 2) Intellectual Stimulation, 3) Moral, 4) Knowledge of Nursing and Health Promotion, 5) Inspiration Motivation, and 6) Personality. That is for rise the knowledge, attitude and skill for leadership.

3.3 Post-evaluation and Follow up. That is produce evaluating criteria, evaluate and follow up the participants for have leadership or not.

3.4 Adjustment. Adjust for achieve goal.

Step 4 Post-evaluation: For analysis the operation what are adjust of development, looking for guidelines.

Step 5 Adjustment: It is the conclusion of evaluation for analysis and looking for the adjustment, development and model reform.

Factor 6 Development Unit

It is create from data analysis of the 6 factors and 50 Health Promotion Performance Criteria. So the Development Unit is the document that shown the content detail of learning experience for the participants. Each Development Unit has the factor that 1) concept/principle 2) goal of learning 3) content of learning 4) learning management 5) measurement and evaluation 6) resource 7) learning media. The researcher was review literature and then creates the Development Unit, shown in Table 25.

Table 25 Factor, Development Unit and Content of Development for Health Promotion Leadership

Development Unit	Content of Development
1. the Leadership of Individual Consideration	1. Communication for coordinate with the health promotion
	2. Counseling for health promotion
2. the Leadership of Intellectual Stimulation	1. Motivation for health promotion leadership
	2. Community management for health promotion participatory
	3. Design and using research for health promotion
	4. Setting the project for health promotion in community
3. the Leadership of Moral	1. Moral, ethics and professional ethics for health promotion leadership
	2. Service with a human heart
4. the Leadership of Knowledge of Nursing and Health Promotion	1. Develop the nursing role to health promotion leadership
	2. Information technology of health promotion
	3. Leadership thinking
	4. Knowledge management
5. the Leadership of Inspiration Motivation	1. Create the community activities for strengthening commune of health promotion
	2. Create team work and connection
6. the Leadership of Personality	1. Personality development for health promotion

Factor 7 Target of Output

The Output is the development of the potential and quality of nursing student for performance in health promotion leadership in 6 parts. Consist of 1) Individual Consideration, 2) Intellectual Stimulation, 3) Moral, 4) Knowledge of Nursing and Health Promotion, 5) Inspiration Motivation, and 6) Personality.

2.2 The results of qualities assessment of the Model

The quality assessment of the model approved by 6 experts; Nursing Education, Education, Education Administration and Health Promotion. The results are shown in Table 26.

Table 26 The results of Qualities Assessment Mean Standard Deviation and interpret of Mean

Assessment	Results of Assessment		
	Mean	Standard deviation	Interpret of Mean
1. Feasibility	3.89	0.36	High
2. Utility	4.40	0.06	High
3. Propriety	4.17	0.28	High
4. Accuracy	4.09	0.10	High
5. Adequacy	4.25	0.22	High
Total	4.16	0.19	High

Table 26 reveals that the results of qualities assessment of the Model are at high level, the average value is 4.16. The average values are between 3.89 and 4.40 in each a part of assessment.

Table 27 The results of Feasibility Assessment Mean Standard Deviation and interpret of Mean

Assessment	Results of Assessment		
	Mean	Standard deviation	Interpret of Mean
1. The Model able to practice in Nursing college	3.89	0.60	High
2. The operation feasible for coordinate with other	3.78	0.67	High
3. The Model easy to understand, not complex in operation	3.22	0.67	Moderate
4. The result of the study is worth by timing	3.67	0.50	High
5. The Model is opened the opportunity for the student of self-evaluation and commitment for good development	4.11	0.33	High
6. The Model help the student for contact the expert	4.44	0.88	High
7. The Model promote the student for creative thinking in health promotion working	3.89	0.60	High
8. The Model promote the student for develop the skill, personality in leadership	4.11	0.60	High
9. The Model conducive the student for practice in health promotion as effectiveness	4.11	0.33	High
10. The Model able to adjusted for situation and community context	3.67	0.71	High
Total	3.89	0.36	High

Table 27 reveals that the results of feasibility assessment are at high level, the average value is at 3.89. Consideration in each part, the mostly comments are high level, the average values are between 3.67 and 4.44.

Table 28 The results of Utility Assessment Mean Standard Deviation and interpret of Mean

Assessment	Results of Assessment		
	Mean	Standard deviation	Interpret of Mean
1. The Model is useful to development the nursing student	4.44	0.73	High
2. The Model is useful to development the quality of education	4.44	0.73	High
3. The Model is useful to development the health service system	4.33	0.71	High
4. The Model is response to need and useful to the user	4.00	0.87	High
Total	4.40	0.06	High

Table 28 reveals that the results of utility assessment has high level, the average value is 4.40. Consideration in each part found that utility assessment is at high level, the average values are between 4.00 and 4.44.

Table 29 The results of Propriety Assessment Mean Standard Deviation and interpret of Mean

Assessment	Results of Assessment		
	Mean	Standard deviation	Interpret of Mean
1. The Model suitable for the context of Nursing College	3.78	0.67	High
2. The Model suitable for the capability of Nursing Student	3.78	0.67	High
3. The Model suitable for education reform	4.44	0.53	High
4. The Model suitable for the insurance of education	4.33	0.71	High
5. The Model suitable for the health care reform	4.44	0.53	High
6. The Model has continuous operation	4.33	0.71	High
7. The development health promotion leadership is suitable	4.44	0.73	High
8. The Model is according to the Nursing Course	3.89	0.93	High
9. The Model evaluation is suitable, clearly, transparency and able to check.	4.00	0.87	High
10. Able to evaluation as individualized	4.22	0.83	High
total	4.17	0.28	High

Table 29 reveals that the results of propriety assessment has high level, the average value is 4.17. Consideration in each part found that propriety assessment is high level, the average values are between 3.78 and 4.44.

Table 30 The results of Accuracy Assessment Mean Standard Deviation and interpret of Mean

Assessment	Results of Assessment		
	Mean	Standard deviation	Interpret of Mean
1. The Factor of Model is right in academic principle	4.00	0.87	High
2. The Development Unit is right in academic principle	4.00	0.87	High
3. The concept is right and clearly	4.22	0.44	High
4. The setting content of development is right to the development of the nursing student	4.11	0.60	High
5. The Model has goal, clearly	4.11	0.33	High
6. The method of operation is right with situation	4.00	0.50	High
7. The evaluation of Model is right and reliable	4.22	0.44	High
Total	4.09	0.10	High

Table 30 reveals that the results of accuracy assessment has high level, the average value is 4.09. Consideration in each part found that accuracy assessment is high level, the average values are between 4.00 and 4.22.

Table 31 The results of Adequacy Assessment Mean Standard Deviation and interpret of Mean

Assessment	Results of Assessment		
	Mean	Standard deviation	Interpret of Mean
1. The goal of Model is adequacy for the leadership development	4.00	0.50	High
2. The boundary of development is adequacy for the leadership development	4.00	0.50	High
3. The administration structure is adequacy for the leadership development	4.44	0.73	High
4. The development strategy is adequacy for the leadership development	4.56	0.53	Highest
5. The preparing step of development structure is adequacy for the leadership development	4.56	0.53	Highest
6. The pre-evaluating step of development structure is adequacy for the leadership development	4.22	0.44	High
7. The development step of development structure is adequacy for the leadership development	4.11	0.33	High
8. The post-evaluating step of development structure is adequacy for the leadership development	4.22	0.44	High
9. The adjustment step of development structure is adequacy for the leadership development	4.11	0.60	High
10. The development unit and content of development are adequacy for the leadership development	3.78	0.83	High
Total	4.25	0.22	High

Table 31 reveals that the results of adequacy assessment has high level, the average value is 4.25. Consideration in each part found that the mostly comment of adequacy testing are high level, the average values are between 3.78 and 4.44. There are two parts of testing that have the comment level at highest, there are the development strategy is adequacy for the leadership development and the preparing step of development structure is adequacy for the leadership development. The average value is 4.56.

In addition, from the interview of nine experts, there are comments that shown in Table 32.

Table 32 The issues of consideration, the results of evaluation from the experts on the Model and the results of adjustment the Model

Issues of Consideration	Results of Evaluation	Results of Adjustment the Model
The Model of Health Promotion Leadership has 7 factors	Suitable but could be picture in the in the one page for clearly	Reform the picture in the one page
Definition and Principle of development	Suitable but could be focus on effect to the student	Adjust the statement to compact and clearly that the Model focus on student development
Factor 1 Goal of Development	Suitable and coverage	-
Factor 2 Boundary of Development	Suitable	-
Factor 3 Management Structure	Suitable but could be set the Nursing College identity that focus on the service mind. Adding the sub director in Academic group as Vice president and secretary	1. Adding the Nursing College identity and the Nurse identity in the policy 2. Adding the sub director in Academic group as Vice president and secretary
Factor 4 Strategies of Development	Suitable	-
Factor 5 Development Structure	Suitable but could be adding the detail in the factor and reject in the manual	Reject in the manual
Factor 6 Development Unit	Could be adding the service mind in the third development unit as the leadership of Moral	1. Adding the service in; - the first development unit, the leadership of Individual Consideration: counseling in health promotion - the third development unit, the leadership of Moral: service mind - the fourth development unit, the leadership of nursing knowledge and health promotion: the development of the Nursing role for leader in health promotion

Table 32 (Cont.)

Issues of Consideration	Results of Evaluation	Results of Adjustment the Model
Factor 7 Target of Development	Could be set goal of development specifically in the all 6 factors	Set the factor of health promotion leadership for the target of development
Factor 6 Development Unit	Could be adding the service mind in the third development unit as the leadership of Moral	Adding the service in; - the first development unit, the leadership of Individual Consideration: counseling in health promotion - the third development unit, the leadership of Moral: service mind - the fourth development unit, the leadership of nursing knowledge and health promotion: the development of the Nursing role for leader in health promotion
Factor 7 Target of Output	Could be set goal of development specifically in the all 6 factors	Set the factor of health promotion leadership for the target of development

Part 3 The results of implementation of the Model for Health Promotion Leadership Development

The results shown followings;

3.1 Tryout the Model

The step of tryout the Model is presented as follows:

3.1.1 Preparing

The researcher was coordinated and cooperated with the Chiang Mai Borommarajanoni Nursing College Administrator; the Director, the sub-director, the Head office of community and psychiatric nursing department for clarification the goal of research and then cooperated with the operation team; the community and psychiatric nursing instructors, the health administrator and the nurses at primary care unit that worked at community hospital and PCU, 6 persons.

Pre-evaluation

The students were evaluated by the researcher and team as knowledge, attitude and behavior.

3.1.2 Development

The operation was sat during 1st February to 1st March 2012. The activities in the first day is the clarification of operation, the committee agree with to hold the operation on vacation period of the student order to avoided the studying times of the students.

The operation was done by responsive of each speakers but the seventh development unit not done because of the students were ended by academic setting.

Post operation, the students must be adjust the guideline to daily life for 1 month then post evaluation was performed.

3.1.3 Post Evaluation

Post operation 1 week, evaluate the knowledge and attitude. Post operation, 1 month evaluate the behavior of health promotion leadership, the development project and the efficacy of the Model.

3.1.4 Adjust the Model

The researcher adjusted the Model for more completed by the comments.

3.2 The results of the Model efficacy. The researcher will present followings;

3.2.1 The evaluation of student achievement

3.2.2 The evaluation of the health promotion project

3.2.3 The comments and recommendation

3.2.4 The result of evaluation the Model by the experts

There have the following details.

3.2.1 The evaluation of student achievement

The evaluation are compare of pre and post operation of the Means for knowledge, attitude and skill of the health promotion leadership (more than high level), the compare of the score for knowledge, attitude and skill of the health

promotion leadership and evaluate by the speakers of the health promotion leadership skill. Shows in Table 33 to 35.

Table 33 Mean, Standard Deviation of knowledge, attitude and skill of Health Promotion Leadership, pre and post experimental (N=30)

Variables	Pre-experimental			Post-experimental			
	Mean	Standard deviation	Interpret	Mean	Standard deviation	Interpret of Mean	Results
1. Knowledge	24.53	7.41	Moderate	46.57	2.08	Highest	Passed
2. Attitude	3.67	0.34	High	4.39	0.29	Highest	Passed
3.Skill	3.31	0.18	Moderate	3.98	0.30	High	Passed

Tables 33 reveal that in post-experimental the sample group has knowledge and attitude at highest level, the average value are 46.57 and 4.39. And skill is high level, average value at 3.98

Table 34 Comparison of the knowledge, attitude and skill of Health Promotion Leadership, pre and post experimental (N=30)

Variable	Pre experimental		Post experimental		t-value	df
	Mean	Standard deviation	Mean	Standard deviation		
1. Knowledge	24.53	7.41	46.57	2.08	16.42**	29
2. Attitude	3.67	0.34	4.39	0.29	8.64**	29
3. Skill	3.31	0.18	3.98	0.30	12.33**	29

**p < .01

Table 34 shows that post operation the students have knowledge, attitude and skill more than pre-operation, significantly.

Table 35 Mean Standard Deviation interpret of Mean and the result of evaluation for Health Promotion Leadership skill observation (n = 30)

Items	Mean	Standard deviation	Interpret of Mean	Results
The capable for leadership	3.93	0.59	High	Passed
The capable for discussion and commendation	4.00	0.76	High	Passed
The capable for communication	4.31	0.54	Highest	Passed
The capable for counseling	4.48	0.63	Highest	Passed
The capable for accept the individualized	4.00	0.27	High	Passed
The capable for help others	4.90	0.41	highest	Passed
The capable for motivational speaking	4.03	0.82	High	Passed
The capable for problem analysis	4.34	0.48	Highest	Passed
The capable for present the creative thinking	4.69	0.47	Highest	Passed
The capable for listening another comment	4.38	0.94	Highest	Passed
The capable for brain storming	4.66	0.48	Highest	Passed
Be respect to others	4.38	0.49	Highest	Passed
Be punctually	4.07	0.84	High	Passed
Be regulation and discipline	4.62	0.49	Highest	Passed
The capable for relay knowledge about nursing and health promotion	4.69	0.47	Highest	Passed
The capable for use the informational technology for health promotion	4.66	0.48	Highest	Passed
The capable for thinking as systemic, continuous in daily life	4.03	0.19	High	Passed
The capable to be the speaker	5.00	0.00	Highest	Passed
The capable for open mind and accept the other thinking	4.69	0.47	Highest	Passed
The capable for create the acceptance inner group	4.34	0.48	Highest	Passed
The capable for create the good atmosphere in the group	4.34	0.48	Highest	Passed

Table 35 (Cont.)

Items	Mean	Standard deviation	Interpret of Mean	Results
The capable for presentation	4.97	0.19	Highest	Passed
The capable for adaptation	3.76	0.58	High	Passed
The capable for cooperation	4.69	0.47	Highest	Passed
The capable to be the good membership	4.38	0.49	Highest	Passed
The capable for confidential	4.66	0.48	Highest	Passed
The capable for leadership for exercise and health self-care	4.69	0.47	Highest	Passed
Be the friendly personality	4.68	0.47	Highest	Passed
Total	4.46	0.34	Highest	Passed

Table 35 shows that post operation, in overview, the students have passed the skill of the health promotion leadership at the highest level, average value at 4.46. The skill that has maximum average is capable to be speaker and be performing as a good, the average value at 5. The capable for presentation is the minimum average value at 4.97.

3.2.2 The evaluation of project for develop the Model by the participants in part of context, input, process and output, shown in Table 36 to 40.

Table 36 Mean Standard Deviation interpret of Mean and the result of evaluation the project (n=30)

Item	Mean	Standard deviation	Interpret of Mean	Result
1. Context	4.52	0.54	Highest	Passed
2. Input Factor	4.20	0.65	High	Passed
3. Process	4.36	0.58	High	Passed
4. Output	4.54	0.40	Highest	Passed
Total	4.41	0.54	High	Passed

Table 36 shows that the result of evaluation of project was passed at high level, the average value at 4.41. The result of context evaluation was passed at highest level, average value at 4.52. The result of input evaluation was passed at high level, average value at 4.20. The result of the process evaluation was passed at high level, average value at 4.36. And the result of output evaluation was passed at highest level, average value at 4.54.

Table 37 Mean Standard Deviation interpret of Mean and the result of evaluation the project in part of context (n=30)

Article	Item	Mean	Standard deviation	Interpret of Mean	Result
1	Set goal suitable with the development	4.33	0.55	High	Passed
2	To be explain the goal, process of the development	4.67	0.48	Highest	Passed
3	The content suitable with the goal of development	4.60	0.50	Highest	Passed
4	The title of the development suitable with the nursing course	4.47	0.63	Highest	Passed
5	The title of the development suitable with the basic ability of the student	4.53	0.57	Highest	Passed
Total		4.52	0.54	Highest	Passed

Table 37 show that the result of context evaluation was passed at highest level, average value at 4.52. And there have highest average item as follow 1) to be explain the goal and process of the development 2) the content suitable with the goal of development and 3) the title of the development suitable with the basic ability of the student, the respectively average value as follow 4.67 4.60 and 4.53.

Table 38 Mean Standard Deviation interpret of Mean and the result of input evaluation (n=30)

Article	Items	Mean	Standard deviation	Interpret of mean	Result
1	The suitable of the participant number	4.40	0.56	High	Passed
2	The suitable of the operation plan	4.30	0.70	High	Passed
3	The suitable of the budget	4.23	0.68	High	Passed
4	The suitable of timing in operation	4.03	0.67	High	Passed
5	The suitable of light, color and noise system	4.20	0.61	High	Passed
6	The suitable of the material, equipment and media	4.20	0.66	High	Passed
7	The suitable of the place	4.07	0.69	High	Passed
Total		4.20	0.65	High	Passed

Table 38 show that the result of input evaluation was passed at high level, the average value at 4.20. The first three highest average items are the suitable of the participant number, the suitable of the operation plan and the suitable of the budget, the respectively average value as follow 4.40, 4.30 and 4.23.

Table 39 Mean Standard Deviation interpret of Mean and the result of the process evaluation (n=30)

Article	Item	Mean	Standard deviation	Interpret of Mean	Results
1	The suitable of orientation	4.33	0.55	High	Passed
2	The suitable of pre-evaluation	4.47	0.57	High	Passed
3	The suitable of concept of development unit	4.37	0.62	High	Passed
4	The suitable of content	4.50	0.51	Highest	Passed
5	The suitable of the goal of development unit	4.37	0.56	High	Passed
6	The suitable of development technique	4.33	0.61	High	Passed
7	The suitable of the evaluation in each subject	4.17	0.70	High	Passed
8	The suitable of timing in each subject	4.00	0.70	High	Passed
9	The suitable of the document and media	4.20	0.61	High	Passed
10	The suitable of the speaker	4.67	0.48	Highest	Passed
11	Multi methods in development	4.27	0.52	High	Passed
12	The participatory in activities	4.47	0.57	High	Passed
13	The participatory in commendation of the student	4.40	0.56	High	Passed
14	To be opportunity for self-evaluate of the student and commitment for get more development	4.37	0.61	High	Passed
15	The development help the student to contact the experts for exchange the knowledge and commendation	4.43	0.63	High	Passed
Total		4.54	0.58	Highest	Passed

Table 39 shows that the result of the process evaluation was passed at highest level, the average value at 4.45, passed. First three highest average items are follow; the suitable of the speaker the suitable of content and the suitable of pre-evaluation and the participatory in activities, the respectively average value as follow 4.67, 4.50 and 4.47.

Table 40 Mean Standard Deviation interpret of Mean and the result of the output evaluation (n=30)

Article	Item	Mean	Standard deviation	Interpret of mean	Result
1	The suitable of post-evaluation	4.40	0.50	High	Passed
2	The development promotes the student for create the working as health promotion	4.47	0.57	High	Passed
3	The development promotes the student for develop the skill and personality for health promotion leadership	4.53	0.51	Highest	Passed
4	The development promotes the student for get knowledge about health promotion	4.63	0.49	Highest	Passed
5	The content of development to be adapted to the student for working in future	4.70	0.47	Highest	Passed
6	In overview, the student get the useful of the developed	4.67	0.48	Highest	Passed
7	The satisfaction of the student for the development	4.50	0.51	Highest	Passed
8	The value of the development	4.50	0.57	Highest	Passed
9	To be achieve goal of development	4.43	0.57	High	Passed
Total		4.41	0.46	High	Passed

Table 40 show that the result of the output evaluation was passed at high level, the average at 4.41. First three highest average items are follow; the content of development to be adapted to the student for working in future, the student get the useful of the developed and the development promotes the student for get knowledge about health promotion, the respectively average value as follow 4.70, 6.46 and 4.63

3.2.3 The commendation and recommendation of the participants

It is the step of the participants commends and recommend on operation.

The participants receipt from the operation

1. Knowledge of health promotion leadership
 - 1.1 The 6 parts of health promotion leadership
 - 1.2 Leadership and expression training
2. Teamwork technique
3. The techniques for approach community and create the relationship for produce trust and cooperation in health problem solving
4. Two ways communication
5. Develop the nursing role to the leadership of health promotion on concept, definition and strategies
6. To be the good leader must be self-training first
7. Self-development for leader of health
8. Working with the people, must be trust and service mind
9. Exchange the personality for leadership
10. Self-development and working in the future
11. Able to guide for themselves and for working in the future
12. The participants don't wasting time for the operation and useful
13. To get the guide-working with the community in the future, and able to keep goal if intended, attempt and commitment for the commune
14. Self-learning in advantage and disadvantage
15. Inspiration for self-health promotion and family
16. To be get more trust and self-confident, get the principle of leadership, able to adapt with nursing process for develop the leadership
17. To be good attitude for working as health promotion in community
18. To receipt from the operation, it is the base for continue studying
19. To get example and system working for health promotion
20. To get the model and massing of the speakers that work at PCU
21. To get the health promotion system

The participants regarding to practice in daily life and future

1. Teamwork
2. Working with others
3. Expression as well
4. Leader in idea
5. Brave in decision
6. Be awareness in self-health care
7. Get the role and guide for good leader in the future
8. Self-training for health promotion leadership
9. Individual Consideration
10. Being as good model before advise the others
11. Self-develop in 6 parts
12. Self-develop for continuing learning
13. Get the management as studying and developing,
14. Able to counseling

15. Adjust the working; listening more, thinking before doing
16. Others development skill
17. Good attitude for community working
18. Understanding in individualized and community

Commendation or recommendation

Content

1. Could be increasing the nursing performance; have more nursing process, the nursing care in 4 dimensions
2. Could be summarized the content for compact and has activities that rise the participate and not boring
3. Could be focus on application for more clearly and focus on the participant that will be work at PCU for highest useful
4. Could be set the activities for more participate, compact timing and set multi- activities
5. Need the multi-activities, recreation, into real setting
6. Could be set the relax activity

Timing

1. Could be increase the timing
2. To be long for operation, could be more compact timing

In addition commendation

1. The operation is well-useful for the student, because of able to use at real setting
2. It is the well operation, to be use in development the health officer
3. It is the activity that promote the student to brave in thinking and doing, will be more trust and confident and promote the self-developing all times
4. It is the useful operation, worthy, because of able to use at real setting
5. It is the well operation, could be focus on the first year, because of being well develop. Could be operated all classes and all students
6. The operation is well-useful for the student, get the knowledge, concept and guideline for health promotion leadership, impressed and gladdened in operation

3.4 The results of the evaluation for efficacy of the Model

The evaluation by the questionnaire, interview and group discussion of the speakers, shown in Table 41 to 42.

Table 41 Mean Standard Deviation of the quality assessment of the Model (n=7)

The measured Standard	Results of quality measure		
	Mean	Standard deviation	Interpret of Mean
1. Feasibility	4.54	0.20	Highest
2. Utility	4.75	0.35	Highest
3. Propriety	4.60	0.41	Highest
4. Accuracy	4.23	0.24	High
5. Adequacy	4.44	0.30	High
Total	4.51	0.20	Highest

Table 41 reveals that the overview quality testing of the Model by the speakers is highest level, average value at 4.51. In utility, propriety and feasibility were passed at highest level, the respectively average value as follow 4.75, 4.60 and 4.54.

The evaluation of the Model efficacy by interview and group discussion of the speakers, and then adjust the Model for completed that shown in Table 42.

Table 42 The comment by the speakers for the Model and the results of adjust the Model

Issue of Consideration	Comment	Result of Adjustment the Model
The Model of Health Promotion Leadership has 7 factors	Suitable	-
Definition and Principle of development	Suitable	-
Factor 1 Goal of Development	Suitable and cover, could be increase the channel for inform the goal of development e.g. Document, board presentation and social media	Increase the channel for informs the goal of development e.g. Document, board presentation and social
Factor 2 Boundary of Development	Suitable, could be added the definition of development skill	could be added the definition of development skill that means increasing the capable of behavior of health promotion leadership, follow by the Model of the nursing
Factor 3 Management Structure	Suitable	-
Factor 4 Strategies of Development	1.could be analyze the weak point and strong point of the College	Added analysis of the weak point and strong point of the College. Each college able to increase the development strategies that associate with the SWOT Analysis of them
	2. Keep chance for associated person and the stakeholder to get ownership and response in setting the education management	Keep chance for associated person and the stakeholder to administration, decision and set the education management with the instructor, parent, alumni and student. In that the person has participated in

Table 42 (Cont.)

Issue of Consideration	Comment	Result of Adjustment the Model
		education management, it seems of ownership and response in setting the education management.
	3. could be well information, efficacy communication system for all parties receive the corresponding information Add the information in the manual	
	4. Development the role of PCU	Setting the guideline in the manual of the development the role of PCU, followings; 1. setting the policy for promote the development of the student, clearly 2. Assigned the duty for response the cooperation and participate in produce nurse 3. Allocate the budget and the resource for the training eg. the rest home, motorcycle. 4. Participation on supervisor and follow up the student in community training practice 5. Facilitator between the College and community
Factor 5 Development Structure	1. Could be planed, the project of develop the leadership and supply the budget	1. Add the planning, the project of develop the leadership and supply the budget 2. Set the teamwork for operate the project, consist of; - the steering committee; the director of Nursing College

Table 42 (Cont.)

Issue of Consideration	Comment	Result of Adjustment the Model
		<p>as the President, the sub-director of academic as the Vice president and secretary, the head of department and the represent of instructor up to 5 as the facilitator</p> <ul style="list-style-type: none"> - the advisory committee; the president of academic setting, the represent of the parent, community mainstay as the advisor, solving the problem and cooperation - the operation committee; the head office of Community Nursing Department, the instructor as planning, setting goal, achievement indicator, setting activities, follow up and evaluation - the operation team; instructor and the officer of PCU work as planning
Factor 6 Development Unit	Suitable, could be design the development for real practice in community, could be studying for integrate the practice with the community nursing 2 of the fourth year of nursing student for 1 month. The student will learn in the real situation and cover 6 parts.	Design the seventh development unit for integrates the practice for coverage 6 parts in the subject of practice in the community nursing 2.
6.1 the development for the leadership of individual consideration	Suitable	-
6.2 the development for the leadership of intellectual stimulation	Suitable	-

Table 42 (Cont.)

Issue of Consideration	Comment	Result of Adjustment the Model
6.3 the development for moral	Could be increase timing	Increase time to 6 hours or depend on the speaker and the participants
6.4 the development for knowledge of nursing and health promotion	Suitable	-
6.5 the development for the leadership of inspiration motivation	Suitable	-
6.6 the development for personality	Suitable	-
Factor 7 Target of Output	Suitable	-

Obstacle

From interview the speakers reveal that the operation period is also the final examine period of the students too. There is limitation of the implementation.

In addition comment for adjust the Model

The speakers comment followings;

1. Could be integrated the development with the other associated subject e.g. Health promotion, Community nursing.
2. Could be focusing on identity of the College that is service mind with development of the health promotion
3. Could be develop at the first year of nursing student, in order to continuous the development

From create, develop and adjust the Model, finally the Model for Health Promotion Leadership is shown as Figure 4.

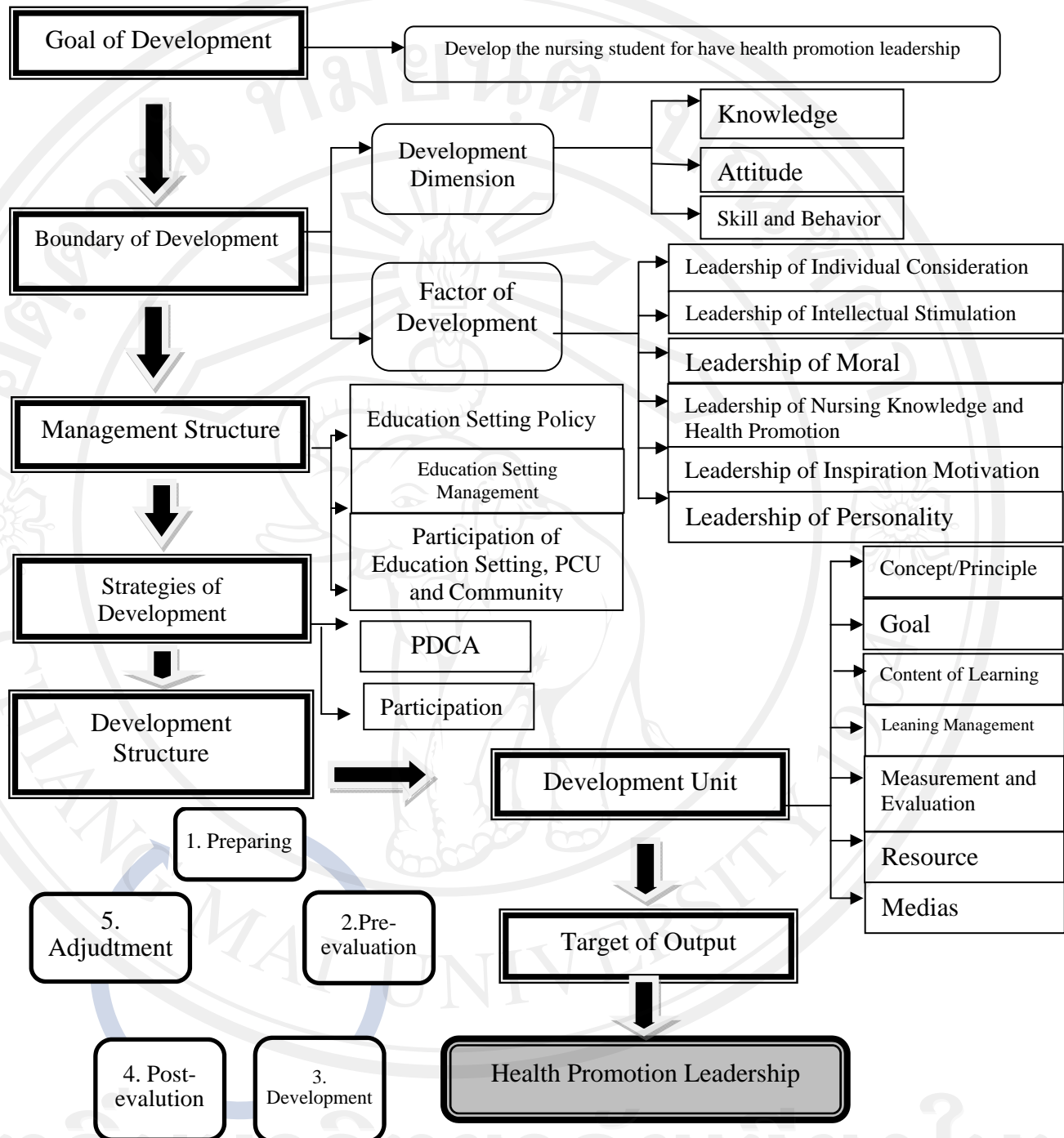


Figure 4 Model for Health Promotion Leadership Development

CHAPTER 5

CONCLUSSION, DISSCUSSION AND SUGGESTION

This research develops a Model for the Development of Health Promotion Leadership in Nursing Students in Nursing Colleges, through research and development. The objective of this research are (1) Factors analysis in health promotion leadership, (2) Create and develop a model for the development of health promotion leadership, and (3) Study the result of implementation of the Model for the Development of Health Promotion Leadership.

The methodology was divided to 3 phases. Phase 1 was studied of the factors in health promotion leadership. Phase 2 was created and developed a model for the development of health promotion leadership. Phase 3 was studied the result of implementation of the model.

Phase 1 analyzed the factors of health promotion leadership.

There were 2 steps. Step 1 was the suitable analysis of health promotion leadership performance criteria. The data sources were the document about concept, leadership theory, the health promotion of the scholars and experts, the nursing administration, the nursing education management. The testing of the suitable of the performance criteria was the questionnaire. Data analyzed by Mean and Standard Deviation. Step 2 was the Factor Analysis of the health promotion leadership. The samples were divided to 2 groups. Group 1 was 411 nurses that working at the primary care unit in 17 Northern provinces. Group 2 was the 108 nursing instructors in 5 Northern Boromarajonani Nursing Colleges. The samples were selected by Multiple Stage Sampling. The testing was a questionnaire, 5 Rating Scales. The reliability is 0.98. The data collected by the post mail. Data analyzed by Mean and Standard Deviation. The Factor Analysis of health promotion leadership was Exploratory factor Analysis.

Phase 2 was creating and developing a model for the development of health promotion leadership.

There were 2 steps. Step 1 was the creation the model (draft). There were 1) Setting the framework by review literatures and documents. 2) Data source were article, research, concept of leadership, concept of health promotion, text book and electronics mail. 3) Data tools were the data record form. Step 2 was the quality assessment. It was tested by 9 experts; health promotion, education administration and the scholars of leadership. The data tool was adapted from the quality assessment model of Somsak Phuvipadawat, et al., (2011). There were 5 standards: Feasibility, Utility, Propriety, Accuracy and Adequacy. The data collected by post mail and analyzed by Mean and Standard Deviation.

Phase 3 was studied the result of implementation of the model.

The implementation was set with the 30, fourth year, nursing students of Boromarajanoni Nursing College, Chiang Mai. The sample selected by Simple Random Sampling. It was a Quasi-experimental, One Group Pretest-Posttest Design. There had 7 tools: 1) The Manual of the Model for Health Promotion Leadership Development of Nursing Student. 2) The knowledge measurement form for health promotion leadership. The questionnaire was quilted measurement by Difficulty and Discrimination Value. The criteria for Difficulty Value were between 0.20 and 0.80, for Discrimination Value was more than 0.20. The result of Difficulty Value was between 0.44 and 0.75, and other is between 0.55 and 0.88. The quality measurement was Reliability measurement. This study used Kuder-Richardson 20 (KR 20) formula, the result was 0.96. 3) The measurement form for attitude for nursing leadership. It was created by Likert's Scale. It is 5 levels. The quality measurement by Cronbach's Alpha coefficient was 0.89. 4) The self-evaluating form for health promotion leadership skill. The quality measurement by Cronbach's Alpha coefficient was 0.89. 5) The observation form for health promotion leadership. Create the observation form by Likert's Scale. The result of Reliability measurement was .70 6) The evaluating form for the health promotion leadership development project. The IOC was between 0.67-1. 7) The Quality Testing of The Model for Health Promotion Leadership Development of Nursing Students in Nursing College under Praboromrajchanok Institue, the Ministry of Public Health. Data were analyzed by Mean, Standard Deviation and t-test

Summary of the Findings and Discussion

The Results of research are shown as the followings.

1. The factors in health promotion leadership were 6 factors, showed from maximum to minimum of validity summation, (1) Individual Consideration, (2) Intellectual Stimulation, (3) Moral, (4) Knowledge of Nursing and Health Promotion, (5) Inspiration Motivation, and (6) Personality. There were 50 Health Promotion Performance Criteria to explain the character of factors in each part.

2. The model for development of health promotion leadership were 7 factors. There were (1) The goal of development, (2) The scope of development, (3) The structure of administration, (4) The development of strategies, (5) The development of structure, (6) The development unit, and (7) The goal of output. The quality of the model was tested by experts at high grade level in Feasibility Standards, Utility Standards, Propriety Standards, Accuracy Standards and Adequacy Standards

3. The study results of implementation of the model revealed that post-implementation, the participants had knowledge, attitude and health promotion leadership skill more than pre- implementation ($\text{sig}=.01$). The evaluation of health promotion leadership development was good level.

Phase 1 The result of Factor Analysis of Health Promotion Leadership

The result of Factor Analysis of Health Promotion Leadership was 6 factors. And they had Percentage of Variance from more to less. The researcher analyzed by Orthogonal Rotation with Varimax Method to variables correlation with

factors that more clear. They can explain the variance of each factor and independent for each other's. (Yuth Kaiwan, 2007: 71)

Transformational Leadership Development (Bass, 1985) has 4 factors: 1) individualized consideration 2) intellectual stimulation 3) inspirational motivation 4) idealized influence. From this study, factor of Health Promotion Leadership has 6 factors: 1) Individual Consideration, 2) Intellectual Stimulation, 3) Moral, 4) Knowledge of Nursing and Health Promotion, 5) Inspiration Motivation, and 6) Personality. There have 3 factors as follows 3) Moral, 4) Knowledge of Nursing and Health Promotion and 6) Personality that consistent of Inspirational Motivation Leadership of Transformational Leadership Development.

The consideration of details in factors of Health Promotion Leadership:

1) Individual Consideration Leadership refers to the individual characteristics of nursing students, that promotes health team membership, helps them to be a role model for health promotion and encourages client peace of mind, happiness, love, faith, belief, respect and trust. It had 49.89 of Percentage of Variance, 12 health promotion performance criteria and factor loading between .451-.757, priorities by factor loading as: 1) Individual counseling and participate on self-health problem solving. 2) Promote two-way communication. 3) Ability to provide reliable information. 4) Encourage, promote and develop the individual experience as suitable. 5) Individual consideration by treating people differently according to their needs and abilities of each person. 6) Create the health promotion project on family, group of persons and community based. 7) Help people access their health information. 8) Evaluate the potential of others in now capability and future responsibility. 9) Encourage communities to mobilize resources that can be different to health. 10) Produce awareness to community and local government for participate in health promotion by individual consideration. 11) Train the self-care depend on individual potential and 12) Promote research based for health problem solving by individualized. Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and realize aspirations, to satisfy needs, and to change or cope with the environment. Health is therefore seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being (Kaplan, Saillis & Patherson, 1993: 81; Pender, 1996: 34; Surakiat Achananupap, 1998; WHO, 1986) Moreover; it consist Graduate Identify of Praboromrajchanok Institute, "Health Service with a Human Heart". That service consider to individual, help nurses understand lifestyle, context, competency, ability that affect to people behavior. People should recognize and decision their health solution. Nurses promote people to self-reliance of health. (Praboromrajchanok Institue, the Ministry of Public Health, 2011)

The results of factor analysis in Factor 1, there have two health promotion performance criteria that are not related with others. That are (1) Create the health promotion project on family, group of persons and community and (2) Promote research based for health problem solving by individualized. Two factors are related with Intellectual Stimulation Leadership. So that, the researcher intergrade that factor into Intellectual Stimulation Leadership, Development Unit.

2) Intellectual Stimulation Leadership refers to the ability of nursing students to create strong vigorous communities, create cooperation among people to decrease health risks and create health promotion activities. It had 7.68 of Percentage of Variance, 11 health promotion performance criteria and factor loading between .452-.706, priorities by factor loading as: (1) According to the new ways to solve problems. (2) People feel that the problem is a challenge and an opportunity to solve common problems. (3) To encourage community participation in health promotion for the physical, cultural, social and ecological harmony with the community. (4) The public is encouraged to think and reason. And criticism of his ideas. (5) To confidential the public for problem solving and set goal for promote community health. (6) Stimulate people to life and health care (7) To stimulate public awareness of the issues that affect health. (8) Help clients understand the determinants the affect to health. (9) Be encouraged to assess community problems and needs. Participation in the planning and implementation of health problems. (10) Encourage community participation in the control of the supervision and evaluation of health promotion practices. And (11) Reinforcement to motivate and create a good atmosphere in their work. From the meaning of Intellectual Stimulation, that refers to the ability of nursing students to create strong vigorous communities, create cooperation among people to decrease health risks and create health promotion activities. That is consistent with Health Promotion Strategy, Advocate. (WHO, 1986) Good health is a major resource for social, economic and personal development and important dimension of quality of life. Political, economic, social, cultural, environmental, behavioral and biological factors can all be harmful to it. Health promotion action aims at making these conditions favorable through advocacy for health.

3) Moral Leadership refers to the ability of nursing students to express the well status. It had 7.68 of Percentage of Variance, 8 health promotion performance criteria and factor loading between .424-.825, priorities by factor loading as: (1) Responsibility for their actions. (2) Follow professional ethics. (3) Honest (4) Respect the worth and dignity of human beings (5) Discipline. (6) A good example to others and to sustain their operations. (7) Recognizing the importance of the rights of individuals. (8) Help people get to know and understand their rights. The finding of this research are thus consistent with Junthima Niljoy (2004) finding among nurses in Primary Health Care Unit should be responsibilities in their duties and faith of the participants and people. The same phenomenon is also finding by Jirapa Kumpisuit (2004) told that nurses should health service by ethics and professional morality, promote and protect the right of clients. That is consistent with Graduate Identify, "Health Service with Human Heart" . That is focus on friendly services, love, mercy, and care in suffering and problem of people. The service consider to private rather than public interests. (Praboromrajchanok Institue, the Ministry of Public Health, 2011: 4)

4) Knowledge of Nursing and Health Promotion Leadership refers to understanding in health promotion and nursing, then able to effective adoption. It had 2.58 of Percentage of Variance, 8 health promotion performance criteria and factor loading between .517-.737, priorities by factor loading as: (1) Knowledge and understanding of the essence of the process of acquiring knowledge. Knowledge Management (2) Knowledge and understanding of the essence of nursing science. (3) Knowledge and understanding of the essence of the nursing process and its use in

health promotion service (4) Diagnostic evaluation of risk factors. Planning and health promotion. (5) Knowledge and understanding about health promotion and able to health promotion service. (6) Knowledge and understanding of key information technologies in the field of health promotion (7) Creative thinking and Critical thinking (8) Able to use of local knowledge for health promotion. The finding of the research is consist to Junthima Niljoy (2004) studied competency of nurses in Primary Care Unit, the study found that nurses in Primary Care Unit should have nursing community knowledge. The roles of health promotion are the health education. Nurses should to use the concept of health promotion, hygiene, empowerment, change behavior to promote health behavior. In addition, Nurses should give health education to health promotion and prevention. And they should advice people to self-care and self-rehabilitate. They should develop their teaching program and participate. That helps people to have realized knowledge and skill in self-care and change their lifestyle. (American Association of Colleges of Nursing (AACN), 2005; Leaddy, 2003: 11-12; Nuttaya Puthanawanichnun, 2005: 1; Thailand Nursing and Midwifery Council, 2009)

5) Inspirational Motivation Leadership refers to the ability of nursing students to motivate the people to be concerned rising attention their health. It had 2.276 of Percentage of Variance, 5 health promotion performance criteria and factor loading between .494-.722, priorities by factor loading as: (1) Able to produce the community for health promotion leadership (2) The ability to coordinate with health team, the organized and community for health promotion activities operation (3) The empowerment process for health promotion participatory (4) Strategies implemented in the community. To build a strong community (5) Able to reasonably to convince others. The finding of the research is consist to Viravan Senarat et al. (2003) studied Primary Health Care Reform: Case Study Kunkong Subdistrict Hang Dong District, Chiang Mai. The study found that nurses that work in community could promote strength community that helps people to self-dependent. They consider to social context and coordinate with another organization in community. Similary, Choochai Supavong (2009). told that the competencies of health personnel in Tambol Health Promotion Hospital should have ability to work proactively in the community.

6) Personality Leadership refers to the ability of nursing student to show good performance and then help the colleagues to trust, warmed, love, and commitment to set health. It had 2.236 of Percentage of Variance, 6 health promotion performance criteria and factor loading between .384-.649, priorities by factor loading as: (1) Show willingness and eager to serve (2) Healthy behaviors and present of reducing the healthy risk factor (3) The emotional maturity (4) awareness of the rights and duties in the profession (5) Reliable personality (6) Can behave appropriately in providing health care to individuals. The meaning of Personality Leadership consists to the nursing curriculum purpose of Nursing College under Praboromrajchanok Institute. Graduate nurses, who are competent professional, communication skills and ethics to adhere to professional ethics, good attitude, leadership changes, a life-long learning. They can integrate knowledge of nursing and other disciplines to work in the health system and meet the needs of people in good health until the end of the life. They help the illnesses people to maintain and develop self-reliance, to the quality of life. They are the members of the profession, the good citizen and live happily. (Praboromrajchanok Institue, the Ministry of Public Health, 2002). And that consist to

Sumrherng Yangkra tok and Ruchira Mangklasiri (2004) found that nurses in Primary Care Unit should have human relationships, which are good for everyone. Speak and act on what is going well.

Phase 2 The results of creative and development the Model for Health Promotion Leadership

2.1 Creative the Model for Health Promotion Leadership

The factors of the Model for Health Promotion Leadership are 7 factors. They are: (1) Goal of Development (2) Boundary of Development (3) Management Structure (4) Strategies of Development (5) Development Structure (6) Development Unit (7) Target of Output.

(1) Goal of Development: The goal setting helps staff to achieve the target. That is consist to *Sunantha* Loahanun (2008: 61) told that setting the goal of development is to setting the need in the future. The organization should be done. That is missioning setting.

(2) The boundary of development was 2 parts: (1) The dimension of development for health promotion leadership (2) The factor of development for health promotion leadership.

That is consistent with main factors 3 parts of Competency Model by The Leadership Center (2000). It is including: Knowledge, Skill, and Behavior, for leadership development. And consistent with Banff Center (2005) told that the leader should have Knowledge. It is base of work practice but it fast to change. The leader should have character and open mind to learning transformation education with honesty and strong. Their competencies are tools to create and sustained development. In addition to have knowledge, skill and behavior, Nursing Students should have good attitude in health promotion to work more efficiency. That is consistent with Yuwadee Luecha et al. (2006) found that good attitude in health promotion is the first needed of Graduate.

(3) Management Structure: Consist of Education setting policy Education setting management, The cooperation of education setting, PCU and community for made the develop the nursing leadership as the need of community.

Management Structure is consistent with Aruk Chaimongkol (2008: 119) told that A School Base Management, by the participation of experts and community to education. And consistent with Saowanit Chaimusik (2004: 25) told that the participation education management should help sustainable participation.

(4) Strategies of Development. Consist of

- The strategy of management with quality process used. It is the Deming cycle, PDCA (Plan, Do, Check, Act). It is the basic for develop the efficacy. The Deming Cycle consist of 4 steps (Varapol Maneerat, 2000: 7), these are Plan, Do, Check and Act. That is consistent with Utai Dulkasame (2009: 1) told that the quality management is the systematic work to have satisfaction output and stakeholder confidence.

- The strategy of participatory promotion for produce the nurse.

These are cooperation of organization, Nursing College, community, PCU, local government and nursing student. Aruk Chaimongkol (2008: 135) told that the strategy of participatory is process that people and stakeholder have opportunity to exchange their perspective and discussion. That to finding guidelines,

choices and decisions making the operation, follow up and evaluation. The health promotion leadership development is to develop nursing students to be nurses who understand context and life style of people in community. So that They can cooperative working with community. And consistent with Cheewan Kuntum (2004: 10-11) told that education in former was not intergrade the local. The education was isolated from community, not concern problem community. The learning focus on career, but they denied community and make weak community.

(5) Development Structure. It is the factor of model implementation; there are 5 steps; 1) preparing 2) pre-evaluation 3) development 4) post-evaluation and 5) adjustment. These finding is parallel with the research finding of Chawalit Kerdtip (2007) who studied Development Model of Education Technology Leadership for School Administrators under the Office of Basic Education Commission in Southern Thailand. The studied was 6 steps: 1) preparing 2) pre-evaluation 3) development 4) update 5) post-evaluation and 6) adjustment.

(6) Development Unit. It is create from data analysis of the 6 factors and 50 Performance criteria. So the Development Unit is the document that shown the content detail of learning experience for the participants. Each Development Unit has the factor that 1) concept/principle 2) goal of learning 3) content of learning 4) learning management 5) measurement and evaluation 6) resource 7) learning media.

(7) Target of Output. The Output is the development of the potential and quality of nursing student for performance in health promotion leadership in 6 parts. Consist of 1) the leadership of individual consideration, 2) the leadership of intellectual stimulation, 3) the leadership of moral, 4) the leadership of nursing knowledge and health promotion, 5) the leadership of inspiration motivation, and 6) the leadership of personality. Target of Development refer to setting the final target that student should achieved after learning. That is consistent with Bloom' Taxonomy (Bloom, 1984; 125) that has 3 goals: Cognitive Domain, Affective Domain, and Psychomotor Domain. The health promotion leadership developments focus on Knowledge, Attitude and Skill of 6 factors of health promotion leadership.

2.2 The results of qualities assessment of the Model

The result of qualities assessment of the Model was high level, the Means was 4.16. In each part had means between 3.89 and 4.40.

The result of created the Model reveal that the quality of the Model was pass the criteria. The Model was feasibility, utility, propriety, accuracy and adequacy. That means the Model able to implemented with nursing students follow by the research and development process, consist of (1) Reviewed Literature for Set Research Framework (2) Study Desirable Leadership and Requirements (3) Synthesis Model and Approach of Development (4) Construct Model (5) Validity (6) Experimental (7) Act (8) Evaluation and (9) Present Model. (Benjaporn Kaewmesri, 2002; Chawalit Kerdtip, 2007; Juntakan tunjaroenpanich, 1996; Kulyarat Meuangsong, 2007; Pakyanee Chaichanadee, 2003; Prateep Binchai, 2003; Paisan Chantarapakdee, 2005; Phichawee Mekkayai, 2007; *Somboon* Sirisunhirun, 2005; Ungsinan Intarakamhang and Tasana Tongpukdee, 2006; Worathep Poompakdee, 2007; Yongyutha Sornmai, 2007)

Phase 3 The Results of Implementation of the Model for Health Promotion Leadership Development

The results of the Model efficacy

3.1 The evaluation of students' achievement

The students had knowledge, attitude and skill at post operation more than pre-operation, significantly.

That finding shown the Model for Health Promotion Leadership Development affected to knowledge, attitude and skills of health promotion leadership in the example group. This may be due to the factors of the Model for Health Promotion Leadership Development, which consists: (1) The goal of development, (2) The scope of development, (3) The structure of administration, (4) The development of strategies, (5) The development of structure, (6) The development unit, and (7) The goal of development. Unit development has set variety of approach for development. The speakers could select the proper approach for the situation. So the sample group have high level of health promotion leadership all of 6 factors: 1) the leadership of individual consideration, 2) the leadership of intellectual stimulation, 3) the leadership of moral, 4) the leadership of nursing knowledge and health promotion, 5) the leadership of inspiration motivation, and 6) the leadership of personality. The students have passed the skill of the health promotion leadership at the highest level. This may be due to students had activities by participation learning. So they could conduct in every situation. (Bandura, 1977: 22-29)

This finding are consistent with Johnson & Johnson (1994: 60) summarize that training by experience learning, self-practice by ponder and have skill in work can create and develop the process cognitive, attitude and behavioral pattern. And consistent with Avolio & Bass (1995) that summarized, leadership can improve by variety approach The research finding consist with the research finding of Rattigorn Chongvisal (2001) who studied the effect of transformational leadership training on Kasetsart University Student Leaders. The research found that the experimental group had trends of satisfy more than control group. So leadership development is the parts of human resource development that help organization get achieve. Health promotion leadership means the learning process that help personnel have knowledge, capable and skill to lead with relationship between leader and follower. They use influence of motivation to change and achieve goal of group or organization in their situation. The leadership can learn. (Capowski, 1994 : 10 – 17; Suthep Pongsriwat, 2002: 45) Everybody have potential to be a leader and can improve their leader potential. (Vichian Vitayaudom, 2005: 31) And Kaisang Chawasiri (2005: 22). Told that, development of nursing leadership can develop in nursing students. The development makes them to have knowledge and experience of leadership. When they are graduated, they should continue the development. That makes high performance personnel and help the student have good grades.

3.2 The results of evaluation of project had high level. The result of evaluation in part of context and output had highest level, input factor and process had high level. And satisfaction of project had highest level.

From the high level of evaluation, the cause of that was come from the research implemented follow by the Model of Health Promotion Leadership, by factors of the Model especially development strategy that use quality management to develop efficacy and quality. Utai Dulkasame (2009) the quality management is the

process of satisfies, impressive and confidence of stakeholder. Moreover the researcher uses participation strategy from broad, instructors, students and community. They participated in every steps of development. Participation is preparing of planning, time setting, follow up and evaluation e.g. Chuchat Puangsomjit (1999) Participation make person feel to be the owner, learning activities help stakeholder to see and receive beneficial. So they can achieve a goal.

3.4 The results of the evaluation for efficacy of the Model

The Model by the speakers was highest level. It was more than the evaluation from 9 experts. The higher efficacy evaluation comes from the update of the Model by experts suggestions. That is consistent with Utai Dulkasame (2009) told that the update help planning to be more completely and quality. The process can achieve the targets and the purpose with efficiency and quality.

This study found reveal factors of health promotion leadership that were previously unknown. This will improve knowledge of nursing and help to improve health care in Thailand. And this study created a model for health promotion leadership development that will be available for use in nursing training facilities and all health institutions. The beneficial of the Model for Health Promotion Leadership was been to develop health promotion leadership in nursing students that will be high performance nurse in the future.

Suggestions

Policy Suggestion

1. Nursing Colleges under Praboromrajchanok Institue, the Ministry of Public Health should implement the model to develop health promotion leadership of nursing students; because health promotion leadership is competency of desirable features of bachelor and identity of Graduate of Praboromrajchanok Institue. Moreover health promotion leadership is the competency of community nursing that work for health promotion in Primary Care Unit.

2. The health promotion leadership in nursing students is the guideline for develop students to be professional leadership. And there is an education quality control. So that administrators and staff should corroborate to continue develop by use the model in nursing curriculum.

Suggestion for use the Model to Develop Health Promotion Leadership.

1. The model suitable to develop in 4 years nursing student because they have studied administration nursing subject, health promotion subject and community nursing subject. It can use in short course or intergrade with others subjects that involved.

2. The colleges that use this model should study details and process before implement.

3. The colleges that use this model should analyze Identify Institute and Identify Graduate.

4. The colleges that use this model should prepare process before implementation. These prepare their Vision, Mission, Strategy, Target, Plan, Project, and Activity. The planning is good for resource management planning.

Recommendation for Future Research

1. There should to intergrade the model to practice with Community Nursing (2), this subject is practice for 1 month in community. Nursing students can learn and practices in community.
2. There should study about different between characteristic of nursing students such as gender, age, extra experience with health promotion leadership. The colleges can use the result of study to select students who will entrance to study in the future.