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An Analysis of Interrupting Factors in Collaboration between Medical Professionals in Home Health Service[1]

Seon Hye Woo[2]

Abstract

The propose of this study is to give a theoretical basis for better home health service by looking at the subjective structure the collaboration between the home health nurse and doctor and at how collaboration can be improved.

There are at least three types of recognition that can help the collaboration.

The first type is to put more weight on the relationship between doctors and home health care nurses. This means that doctors and home health care nurses should make an effort to improve, their collaboration.

The second type is to put more weight on the reward for doctors' participation. Reward will help collaboration.

The third type is to put more weight on organization support. Organization support will bring about trust between doctors and home health care nurses

The following conclusion were reached:

1) Trust should exist between doctors and home health care nurses.
2) Doctors should maintain an equal relationship with home health care nurses and accept them as professionals.
3) Appropriate reward should be given to doctors for their participation.
4) Home health care nurses should reinforce their skills through education, training, and professionalization.
5) Home health care nurses should cooperate with doctors by building a system that centers on patients.
6) Collaboration between doctors and home health care nurses is important because it is useful to recognize patients and their families in a broader light.
7) Doctors and home health care nurses need to be more concerned about patients.
8) More active support of hospital administrators and systems is needed to enhance collaboration between doctors and home health care nurses.
9) The present legal system for collaboration between doctors and home health care nurses can be a factor.

1. This Study is a thesis for a doctorate in Nursing at the Busan National University.

2. Department of Nursing, College of Medicine, Gyeong-sang National University

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The nine nursing strategies above will help doctors and home health care nurses build more positive relations and get closer to their patient, more effective home healthcare will get closer to people who want quality medical service.

Key words : Collaboration, Home Health Service

Introduction

1. Importance of the Study

The health care system of the 21th century is changing to one that meets customer's needs, and the place of the medical service is moving from hospital to community, and then from community to home. (Kim, 1994). This kind of change will increase demand for home health care services.

Home health care services is the system that has been developed and applied as an alternative to solving the problems healthcare delivery systems are facing. Home health services are also comprehensive health care projects that diminish the effects from disease and handicaps and offer health administration services to individuals or families.

The narrow meaning of home health care services is to offer medical treatment, health care, social security and service to patients at home as extended medical treatment outside hospitals.

The comprehensive meaning of home health care services is to offer general service such as clothes, food, and housing.(Christy & Frasicca, 1983; Rogatz, 1985; Zimer, 1985)

Therefore, it is more important that home health care uses strategies to get close to people who want high quality healthcare service.

One of the tough things home health care nurses have faced is controlling and solving the conflict that results from a lack of collaboration and agreement between doctors and home health care nurses. It means that home health care nurses feel severe stress from collaboration with doctors.

Collaboration is the process that happens among individuals and their responsive actions(Stern & Keffer, 1996). The results of successful collaboration are union, condensation, creation of an intellectual and educational environment, and satisfaction. It also brings about an increase in productivity, a decrease in cost, and a low rate of job turn over.

In contrast, without good collaboration conflict increases and care quality goes down.

This results in patient dissatisfaction, higher mortality rates, and frequent medical accidents. (Nicoll, 1992)

According to studies concerning home healthcare, there is no study that has tried to solve the problems with a focus on nurses, the demand for home health care, the analysis of subjects, the contents of service, the education of home health nurses, the project model, the selection standards of subjects and the effects of projects.

The only study related to collaboration with doctors is the "Analysis of nurses' experience on relationship with doctors"(Han & Park 1994), in terms of women, and "The analysis of the concept of collaboration" (Woo & Park1996).

In this country, there is no study on collaboration between doctors and nurses.

Overseas, there have been many active discussions about collaboration between doctors and nurses.

Michelson(1998) suggests that we study how collaboration between doctors and nurses influences patients and try to find ways to increase collaboration in terms of practice, administration, and education.

To offer successful strategies for home healthcare in korea, we have to analyze and recognize collaboration between doctors and home health care nurses correctly.

Therefore, this study is useful for generalizing abstraction that is likely to be recognized differently by different individuals. It offers a theoretical base and healthcare strategies for high quality home health care services by using the Q

methodology (Kim,1991 & Kim,1997), which measures human subjectivity and shows aspects of collaboration and causes of interference.

2. Purpose of Study

The purpose of this study is to offer successful strategies for home healthcare and a theoretical basis by recognizing the subjective structure of collaboration between doctors and nurses.

1) To analyze recognition of aspects of collaboration between doctors and nurses.
2) To classify recognition of aspects of collaboration into type.
3) To offer a theoretical base and care strategies for collaboration between doctors and nurses.

Literature Review

1. Home Health Nursing

Home has an attribute to help patients reach satisfying treatment, and home health service began with human history. Home health service projects offer care and education by means of visiting care, which relieves patients of time, money and inconvenience.

Home health care projects originated in Liverpool, England, where they gave home health service to poor people, and they spread to another cities, and into Europe, and North America, where it has adapted to their environment.(Woo, 1988)

2. Collaboration between doctors and nurses

The American Heritage Dictionary(1983) of the English Language, Third Edition defines "collaborate" as, "to work together, especially in a joint intellectual effort.

In the problem-solving activity model between individuals, by Ruble and Thomas(1976), collaboration is defined as confliction-settlement, which has two concepts; one is optimistic, such as compromise and adaptation, the other is negative, such as avoidance, assertion and competition.

There are optimistic and negative sides in partnership and business.

When someone thinks their partner is competent, they respect and trust that partner. When they think their mate is cooperative, they become more satisfied as time goes by. In contrast, when they disagree with partners, it causes confliction and regret.

According to the results of collaboration, collaboration brings about high participation, sharing of professional knowledge, and increased job satisfaction.

And it results in low cost, high production, improved care, increased satisfaction of patients, and diminished medical accidents.

Characteristic definitions of collaboration in analysis of the general concept are co-work, initiative participation in decision, responsibility, professional contribution, and equal relationship. A condition precedent is divided into an individual factor and an environmental factor.

An individual factor has the group characteristics such as educational preparation, situation experience, expertise, acceptance of one's role, skill of communication, respect and trust.

An environmental factor has the horizontal structure centered on team, and emphasizes on participation, independence, and autonomy(Woo & Park, 1996).

Holladay(1995) says it can be debated how collaboration between doctors and nurses interacts with the real situation in the hospital.

While ANA believes nurses should be equal to doctors, AMA thinks doctors should be the leader because they are more trained and professional.

Bish(1998) demands an environment should be built in which common goals and responsibilities are established, roles are respected and open communication is accepted.

Collaboration suggests that nurses should take access to other institutes as partners of health improvement and another community institutes are potential partners for collaboration.

Building partnership plays an important role between partners, and it has important rules as following;

1) Partners should agree to their responsibilities, goals, and results.

2) Relationship between partners should be mutual trust, respect, and diligence.
3) Partnership should be based on resources with power and property.
4) Partners should listen to each other, and they develop their own way to communicate and prove.
5) Roles, rules and activity processes of partnership should be made by opinion collecting and agreement.
6) Partnership should be improved as time goes
7) Feedback is needed to improve partnership. (Lee, 1998)

3. Methodological Background

The science of nursing needs to use the methodological principle to determine the subject and the concept that it is going to be dealt with.

One of the challenging things for researchers in the fields health and science is to describe and explain correctly human health and disease in terms of subjects.

Kelinger(1986) says the merits of Q methodology are that it is suitable for the study of individuals and are useful to approve the effect of independent variables and help find new concepts or hypotheses.

However, Kelinger criticized Q methodology in three terms.

First, Q methodology doesn't have enough sample numbers in relation to the sample drawn.

Second, rank arrangement of items is relative and dependent.

Third, Q-sorting of oppressed distribution is not natural. When this distribution Q-sorting is applied, the average and standard deviation of each person is always the same, which can mean a lose of important information.

However, Stephenson(1935) says inter-dependence is a merit of Q methodology because Q methodology does not deal with separated deviation independently. Q methodology has been misunderstood as factor analysis, which is the reverse of data matrix of R-type, which causes confusion and misconception.

We cannot understand Q-methodology through R-type.

Methods

1. Research Plan

This study applies Q methodology to certify recognition types about aspects of collaboration, and to determine the characteristic structure of the types.

1) Research Procedure

A professor who specializes in Q methodology and a nurse discussed whether Q methodology should be applied to the research on collaboration. He suggests three ways to draw up a questionnaire.

First, the interview should be one-on-one and take half an hour with three home health care nurses and one doctor.

It was recorded and written down. The questions were about meaning and worth of collaboration, promoting and interfering factors and settlement.

Second, the questionnaire was given to 12 home health care nurses and 2 doctors working in Seoul, Daegu, and Busan. It used the same questions as was asked in the person-to-person interviews.

Third, study available research. Out of interviews, questionnaires, documents and available research, 125 questions about collaboration between doctors and nurses are decided as a Q population through the help of one professor of nursing, one professor of medicine, and two home health care nurses.

2) Selection of Q Samples and P Samples

Q samples have systemic drawing-out and non systemic drawing-out.

This study used non systemic drawing-out.

The researcher decided on and classified the subjects by arranging the 125 questions into groups with the same meaning.

The researcher picks out questions she thinks accurately represents the subject of the subject category and shows the different meaning with high distinction. Then, they are verified by a Q methodology professor, a professor of nursing, and a Korean language teacher. After several discussions, 40 Q samples were selected.

Q card out of selected questionnaire was given to two home health care nurses as pre-research to recognize their difficulty in understanding the questions. Finally, 37 Q samples are selected.

Tompson says it is better to draw out opinions from

1) people who have special interest in the subject.
2) people who suggest fair opinion
3) professionals who have authority in the subject
4) people who have general interest
5) people who have little interest or lack of knowledge in the subject.

The general number of P samples is 40±20 with over 100 theoretical causes and statistical problems.

Therefore, the researcher selected 6 home health care nurses, 4 home health care doctors, 5 clients of home health care services, 3 clinic nurses, 1 community health nurse, 3 assistants, 2 professors of home health care nursing, 3 officials of home care nursing projects 2 teachers and 2 officials for a totally of 30.

2. Material Procedure and Analysis Method

After research on selected subjects are finished, its materials are graded. A grade of -4 is given to the questions with low agreement, a 0 to those with neutral agreement, and +4 to those with high agreement. The materials are analyzed by PQM. They are defined through variance analysis, relative analysis, and factors arrangement.

Results

1. Recognition types of statement to collaboration between doctors and home health care nurses.

Recognition type on interrupting factors in collaboration between home health nurses and doctors.

This study has 3 types of collaboration recognition through Q methodology.

(Table 1) The persons belonging to the first type are nine (number 1,10,15,19,23,24,25,27,30), the persons belonging to the second type are seven (number 5,6,7,14,18,21,22), and the persons belonging to the third type are seven(number 2,11,12,13,17,26,28)

The subjects who don't belong to any type are seven(number 3,4,8,9,16,20,29), number 3,4,8,9, 16,20 showed a similar coefficient of correlation to every type, and number 29 doesn't belong to either the first type or the third type.

The second type is composed of women, who are regularly spread in sex, age, religion,

Table 1. Factor analysis of P sample types and characteristics of science of demographical sociology

Type Respondent	1Type	2Type	3Type	Characteristics of Demographical						
				Sex	Age	Job	Religion	Academic attainments	Marriage	Career
1	0.5195*	0.1391	0.3231	F	22	Intern Assistant	Buddhism	Graduate	Single	None
2	-0.0987	0.2915	0.3585*	F	27	Assistant	Christian	Graduate	Single	3years
3	0.3263	0.2967	-0.2117	F	50	Professor	Christian	Postgraduate	Married	27years
4	0.4507	0.3588	0.3588	F	42	Home Health Nurse	None	College graduate	Single	20(1)years
5	0.1729	0.6373*	0.1732	F	59	Home Health Nurse	Christian	Graduate	Married	30years
6	0.1672	0.6373*	0.1122	F	59	Professor	Christian	Postgraduate	Married	37years
7	0.4377	0.5140*	0.1076	F	31	Home Health Nurse	None	College graduate	Married	5(3)years
8	0.3306	0.5122	0.4033	F	38	Home Health Nurse	Christian	College graduate	Single	15(3)years
9	0.3373	0.3011	0.3908	M	33	Doctor	Catholic	Graduate	Married	3years
10	0.5075*	0.1698	0.0592	M	56	Doctor	Catholic	Graduate	Married	30years
11	0.0588	0.1621	0.5500*	F	38	Home Health Nurse	Christian	College graduate	Married	15(4)years
12	0.3109	0.0365	0.6103*	F	44	Employer	Christian	Middle school graduate	Married	None
13	0.0849	0.0341	0.3839*	F	35	House Wife	None	College give up	Married	None
14	0.3588	0.5264*	0.2500	F	43	Business	None	Primary school	Married	17years
15	0.4053*	-0.0092	0.1827	F	46	House Wife	None	Middle school graduate	Married	None

Table 1. Continue

Type Respondent	1Type	2Type	3Type	Characteristics of Demographical						
				Sex	Age	Job	Religion	Academic attainments	Marriage	Career
16	0.3055	0.2612	0.2577	F	50	Part time job	Buddhism	Primary school	Married	2years
17	0.1253	0.2179	0.4400*	F	22	Teacher	None	Graduate	Single	2months
18	0.3586	0.6542*	0.1183	F	39	Community nurse	Buddhism	College graduate	Married	15years
19	0.4156*	0.1057	0.2731	F	46	Clinic nurse	Buddhism	Postgraduate	Married	18years
20	0.4324	0.4342	0.5649	F	41	Clinic nurse	Buddhism	Graduate	Married	18years
21	0.1748	0.5304*	0.1372	F	35	Clinic nurse	None	Graduate	Married	13years
22	-0.0391	0.3649*	0.2347	F	34	Librarian	Buddhism	Graduate	Married	10years
23	0.6104	0.2798	0.1641	M	41	Librarian	None	Postgraduate	Married	15years
24	0.5239*	0.1944	0.3155	F	23	Assistant	None	Graduate	Single	2months
25	0.3865*	0.0930	-0.1953	M	58	Principle	Buddhism	Postgraduate	Married	28years
26	0.2019	0.1467	0.3826*	M	29	Doctor	Buddhism	Graduate	Married	2years
27	0.4770*	0.2261	0.2207	M	29	Doctor	Buddhism	Postgraduate	Married	4years
28	0.2107	0.3853	0.5396	F	42	Home Health Nurse	Catholic	Postgraduate	Married	20years
29	0.6179	0.2948	0.5563	F	30	Home Health Nurse	Buddhism	Graduate	Single	8(2)years
30	0.5453*	0.4402	0.3048	F	33	Home Health Nurse	None	College graduate	Married	10(2)years

education, marriage and career.

Of the P sample consisting of three types, the first type is composed of nine people, the second type is seven people, and the third type is seven people.

It means that the person who has the highest factor weight (added value) is the prototype of the type he or she belongs to.

Table 2. Eigen value and variance of each type

	First Type	Second Type	Third Type
Eigen Value	9.06	1.07	1.22
%expl.Variance	30	4	4

Each group's ability to explain is the following ; the first type is 30%, the second type is 4%,

Table 3. Relative factors and background of demographical sociology of P samples

Type	Respondent	Relative Factors	Background of respondents						
			Sex	Age	Job	Religion	Academic attainments	Marriage	Career
First Type	1	0.51	F	22	Intern Assistant	Buddhism	Graduate	Single	None
	10	0.50	M	56	Doctor	Catholic	Graduate	Married	30years
	15	0.40	F	46	House Wife	None	Middle school graduate	Married	None
	19	0.41	F	46	Clinic Nurse	Buddhism	Postgraduate	Married	18years
	23	0.61	M	41	Librarian	None	Postgraduate	Married	15years
	24	0.52	F	23	Assistant	None	Graduate	Single	2months
	25	0.38	M	58	Principle	Buddhism	Postgraduate	Married	28years
	27	0.47	M	29	Doctor	Buddhism	Postgraduate	Married	4years
	30	0.54	F	33	Home Health Nurse	None	College graduate	Married	10years
Second Type	5	0.63	F	59	Home Health Nurse	Christian	Graduate	Married	30years
	6	0.52	F	59	Professor	Christian	Postgraduate	Married	37years
	7	0.51	F	31	Home Health Nurse	None	College graduate	Married	5years
	14	0.52	F	43	Business	None	Primary school	Married	17years
	18	0.65	F	39	Community Nurse	Buddhism	College graduate	Married	15years
	21	0.53	F	35	Clinic Nurse	None	Graduate	Married	13years
	22	0.36	F	34	Librarian	Buddhism	Graduate	Married	10years

Table 3. Relative factors and background of demographical sociology of P samples

Type	Respondent	Relative Factors	Background of respondents						
			Sex	Age	Job	Religion	Academic attainments	Marriage	Career
Third Type	2	0.35	F	27	Assistant Home Health Nurse	Christian	Graduate	Single	3years
	11	0.55	F	38		Christian	College graduate	Married	15years
	12	0.61	F	44	House Wife	Christian	Middle school graduate	Married	9years
	13	0.38	F	35	House Wife	None	College give up	Married	None
	17	0.44	F	22	Teacher	None	Graduate	Single	2months
	26	0.38	M	29	Doctor	Buddhism	Graduate	Married	2years
	28	0.53	F	42	Home Health Nurse	Catholic	Postgraduate	Married	None

the third type is 4%, and the first type has the highest Eigen Value of 9.06.

It shows that the first type has the best ability to explain recognition of collaboration.

Table 4. Factor value of each type out of questionnaire selected by Q specimen

Questionnaire	Factor Value of each type		
	1Type	2Type	3Type
1. Trust comes first for collaboration between doctors and home health nurses.	3	4	-1
2. When home health nurses share information with doctors, they can cooperate well.	2	2	1
3. Human relationship is important for collaboration between doctors and nurses.	0	2	1
4. When home health nurses and doctors are determined to settle problems, they can work together well.	2	0	0
5. Open mind is needed for collaboration	1	0	0
6. Doctors don't refer to nurses for patients because they have prejudice about home health nurses' medical treatment.	-3	-1	-2
7. Doctors should accept home health nurses as professionals and keep equal relationship with them.	4	3	2
8. Doctors don't cooperate because of burden of calling	-4	-1	-1
9. Appropriate reward should be given to doctors for their participation	-3	3	-3
10. Home health nurses should fortify their service through education, training, and professional knowledge and technique.	4	4	3
11. Home health nurses should cooperate with doctors by building up system line concentrating on patients	3	2	3
12. Doctor should overcome their over-pride, while nurses their low self-esteem.	-1	-1	2
13. Effective collaboration help dissolve stress, and deal with work effectively.	0	1	0
14. Home health nurses and doctors still have something desired in their profession	-2	-4	-4
15. Doctors and home health nurses need regular meeting for their work	0	1	-1
16. Doctors and home health nurses need much time for communication to help understand each other	1	0	-1
17. Home health doctor system is needed for collaboration between doctors and home health nurses	-1	-2	0
18. Collaboration between doctors and home health nurses is important because it's useful to recognize patients and their families in broader light.	2	0	3
19. Doctors and home health nurses can't communicate well because of confliction from traditional rank system	-1	-3	-2
20. Doctors and home health nurses need more aggressive concern about patients	3	2	1
21. Doctors lack respect about nurses as colleague.	0	-2	0
22. Collaboration between doctors and home health nurses can get trust from patients	1	1	1

Table 4. Continue

Questionnaire	Factor Value of each type		
	1Type	2Type	3Type
23. Collaboration between doctors and home health nurses is important in terms of home health project because it helps draw patients.	1	0	0
24. More active support of hospital administrator and system is needed for collaboration between doctors and home health nurses	2	3	4
25. Too much work of home health nurses interfere with collaboration with doctors	-4	-2	2
26. Active publicity activity is needed for collaboration between doctors and home health nurses	-1	1	1
27. Human relationship and contact system between doctors and home health nurses should be fortified.	-1	-2	-3
28. Doctors feel burden they have to treat patients after discharge, which holds back their collaboration	-3	-1	-3
29. Home health nurses lacks strong determination , which holds back their collaboration	-2	-1	-4
30. Doctors' exclusive decision should not be made for collaboration between doctors and home health nurses	1	1	-1
31. Doctors and home health nurses lack time because of physical difference like home and hospital	-2	-3	-2
32. Personality training is needed for collaboration between doctors and home health nurses	0	0	-1
33. Doctors should recognize the need of Home health care	0	0	2
34. There has been no education about interaction for collaboration between doctors and home health nurses	-1	-3	-2
35. It can be factor to arrange the present legal system for collaboration between doctors and home health nurses	0	1	4
36. Lack of responsibility between doctors and home health nurses is obstacle against their collaboration	-2	-4	0
37. Satisfaction of accomplishing results can speed up collaboration between doctors and home health nurses	1	-1	1

Table 5. Relationship between types

Type	First Type	Second Type	Third Type
First Type	1.00		
Second Type	.62	1.00	
Third Type	.54	.49	1.00

Table 6. Characteristics of subjective recognition types

First type	Trust-emphasizing
Second type	reward- emphasizing
Third type	organization-emphasizing

2. Characteristics of recognition types on interfering factors of collaboration between doctors and home health nurses

According to the analysis of the study results, the subjective structure of collaborative relationship between doctors and home health nurses is composed of three types, the trust-emphasizing type, the reward-emphasizing type and the organization-emphasizing type.

1) The first type ; the type to weigh trust

The first type of recognition on the interrupting factors in collaboration between doctors and nurses is called the trust-emphasizing type. In this type, collaboration between doctors and nurses requires individual's maturity, interest in patient, and education.

2) The second type ; the type to weigh reward

The second type shows that appropriate reward for participation, improved service through education, systemic support are needed for collaboration.

Individual factor is important for collaboration, but organization and systemic support as environmental factor is more important. In

Table 7. Questionnaire showing positive response and negative response to the type of trust-emphasizing

Questionnaire	Factor value
7. Doctors should accept home health nurses as professionals and keep equal relationship with them.	+4
10. Home health nurses should fortify their service through education, training, and professional knowledge and technique.	+4
1. Trust comes first for collaboration between doctors and home health nurses.	+3
11. Home health nurses should cooperate with doctors by building up system line concentrating on patients	+3
20. Doctors and home health nurses need more aggressive concern about patients	+3
8. Doctors don't cooperate because of burden of calling	-4
25. Too much work of home health nurses interfere with collaboration with doctors	-4
6. Doctors don't refer to nurses for patients because they have prejudice about home health nurses' medical treatment.	-3
9. Appropriate reward should be given to doctors for their participation	-3
28. Doctors feel burden they have to treat patients after discharge, which holds back their collaboration	-3

Table 8. Questionnaire showing positive responses and negative responses on reward-emphasizing

Questionnaire	Factor value
1. Trust comes first for collaboration between doctors and home health nurses	+4
10. Home health nurses should fortify their service through education, training, and professional knowledge and technique.	+4
7. Doctors should accept home health nurses as professionals and keep equal relationship with them.	+3
9. Appropriate reward should be given to doctors for their participation	+3
24. More active support of hospital administrator and system is needed for collaboration between doctors and home health nurses	+3
14. Home health nurses and doctors still have something desired in their profession	-4
36. Lack of responsibility between doctors and home health nurses is obstacle against their collaboration	-4
19. Doctors and home health nurses can't communicate well because of confliction from traditional rank system	-3
31. Doctors and home health nurses lack time because of physical difference like home and hospital	-3
34. There has been no education about interaction for collaboration between doctors and home health nurses	-3

Table 9. Questionnaire showing positive and negative responses on organization emphasizing

Questionnaire	Factor value
24. More active support of hospital administrator and system is needed for collaboration between doctors and home health nurses	+4
35. It can be factor to arrange the present legal system for collaboration between doctors and home health nurses	+4
10. Home health nurses should fortify their service through education, training, and professional knowledge and technique	+3
11. Home health nurses should cooperate with doctors by building up system line concentrating on patients	+3
18. Collaboration between doctors and home health nurses is important because it's useful to recognize patients and their families in broader light.	+3
14. Home health nurses and doctors still have something desired in their profession	-4
29. Home health nurses lacks strong determination ,which holds back their collaboration	-4
9. Appropriate reward should be given to doctors for their participation	-3
27. Human relationship and contact system between doctors and home health nurses should be fortified.	-3
28. Doctors feel burden they have to treat patients after discharge, which holds back their Collaboration	-3

addition, appropriate reward should be given. Therefore, it is named the type to reward emphasizing.

3) The third type ; the type to weigh system

The third type put weigh on organization and systemic administration. Therefore, the persons with this opinion are named the type to organization emphasizing.

3. Comparison of characteristics of recognition types on interfering factors

It was number 10 statement that had the most agreement in three types.(number 10 statement; home care nurses should strengthen their service with expertise and skill through education and training.(+4,+4,+3))

It shows that it is the most important statement for collaboration between home health service nurses and doctors. And then statement 1 (Trust should be based for collaboration between home health nurses and doctors. +3,+4,-1) got much agreement in the first type and the second type. But statement 1 proved negative in the third type.

Next, statement 7(+4,+3,+2) (doctors should accept home health nurses as expert and keep equal and cooperative relationship with them) got agreement more positive in order of the first type, the second type, and the third type. It means that collaboration between doctors and home health nurses is very important.

Statement 24(+2,+3,+4)(Collaboration between doctors and home health nurses needs aggressive support and system from hospital executives.) got agreement more positive in order of the third type, the second type, and the first type.

Therefore, they had agreement in that doctors and home care nurses need education, training, trust, equal relationship, aggressive and systemic support for their collaboration.

Thus, if they make strategy with statements of high interrelation(10,1,7,24) in three types, they will build up desirable relationship.

On the contrary, in the negative statement with low agreement, statement 9(-3,+3,-3) (participation in opinion decision requires appropriate reward for collaboration between doctors and home health nurses) got negative agreement in the first type and the third type, while it got positive agreement in the second type. It is the result of the second type's characteristics.

Next, statement 14(-2,-4,-4); both doctors and home health nurses think that home health nurses are poorly qualified as expert showed very negative opinion in the second type and the third type. It proved a little negative in the first type, which means home health nurses are well-qualified. It gives self-confidence and courage to home health service project.

Finally, statement 28(-3,-1,-3) (doctors feel burden to treat patients after discharge, which hinders collaboration between home health nurses and doctors) showed negative opinion in the first

Table 10. Questions showing common opinion to types

Positive questions that get high agreement in common	factor value of each type		
	1Type	2Type	3Type
10. Home health nurses should fortify their service through education, training, and professional knowledge and technique.	+4	+4	+3
1. Trust comes first for collaboration between doctors and home health nurses.	+3	+4	(-1)
7. Doctors should accept home health nurses as professionals and keep equal relationship with them.	+4	+3	(+2)
24. More active support of hospital administrator and system is needed for collaboration between doctors and home health nurses	(+2)	+3	+4
Negative questions that get low agreement in common	**factor value of each type**		
	1Type	2Type	3Type
9. Appropriate reward should be given to doctors for their participation	-3	(+3)	-3
14. Home health nurses and doctors still have something desired in their profession	-3	(-1)	-3
28. Doctors feel burden they have to treat patients after discharge, which holds back their collaboration	(-2)	-4	-4

type and the third type. It also showed a little negative opinion.

It means that collaboration between doctors and home health nurses is very important to help patients reach health recovery. Therefore, it shows both doctors and home health nurses have strong responsibility and are always ready for service.

We can tell from negative materials that doctors don't expect reward for their participation in home health service project. and that they don't feel burden for treatment after discharge. And no one thinks home health nurses are unqualified as expert.

These results show positive future of home health project.

In conclusion, the first type put much weigh on relationship between doctors and home health nurses. Their interest in patient and their effort to develop ability will help collaboration.

The second type shows that reward is needed for better collaboration. The third type shows that the legislative and systemic support helps collaboration. With this legislative and systemic action, trust between medical professionals can be built up and more cooperative home health service project can be carried out.

Discussion

1) Trust-emphasizing type

The first type is the trust-emphasizing type. This type recognizes that home care nurses should improve their expertise through education and training for collaboration between doctors and nurses.

Trust-emphasizing type is similar to the second type and the third type.

This type shows that doctors keep equal relationship with home health nurses as expert. Trust is the first to come for collaboration. This type stresses that structure line around patients should be built up, and that aggressive interest and effort are needed.

Emphasis on Trust Bradley et al. (1990) said that the strength of an individual in a caregiver group is determined by that individual's education, and that a working relationship among the caregivers begins by respecting each other's roles and professional status. Moreover, the caregiver must respect him- or herself and have a sense of worth. Weiss et al. (1985) also said that the doctor must recognize the nurse as a professional and always strive for a cooperative relationship based on equality. If a cooperative, equal relationship is not ensured by the organizational structure or by the individual, then group members or the manager should jointly assume that role and responsibility (Bisch, 1998). Prescott and Bowen (1985) said that it is important that the doctor and the nurse display mutual trust and respect and support each other in front of the patient. Alpert (1992) observed at the opening of a new cooperative ward that trust, respect, and understanding served as the basis for the relationship between doctors and nurses to grew and developed. Therefore, for a homecare nurse to be successful, there must be cooperation and mutual trust between the doctor and the nurse.

2) Reward-emphasizing type

The second type has 5 statements mixed with the first type and the second type.

This type is similar to the first type in that service should be strengthened for trust, and equal relationship should be kept.

It is similar to the third type in that the administrative support is needed.

Therefore, this type takes a comprehensive access to the individuals and the environmental factors. Emphasis on Compensation Putting more emphasis on compensation may help change attitudes and create an atmosphere of cooperation that is future-oriented and multifaceted. Anna et al. (1983) said that the individual and organization factors that promoted the traditional doctor-dominated relationship between doctors and nurses needed to change to create a more equal relationship. In the survey done by Katzman (1989) on recognition of authority, nurses were found to want more say in regard to policy decisions and patient management. They also felt that the physical distance between the doctor and the home healthcare nurse was a negative factor on the cooperation between doctor and home healthcare nurse. Mclain (1988) felt

that a shared workspace enhances the working relationship between doctor and nurse and reasoned that problems that occur between a doctor and a home healthcare nurse are due to the fact that they do not share a workspace. Patria et al. (1985), Bradly et al. (1990), Mclan (1988), Baggs and Schmitt (1988), and Bisch (1998) stressed by communication with the doctor was important for cooperation, my research indicates that the time spend communicating with the doctor is not a large factor in regard to cooperation between the doctor and the home healthcare nurse (1, 0, -1).

3) Organization-emphasizing type

The third type emphasizes organization, and shows that support of hospital executives is needed for collaboration between doctors and nurses. Strengthening legislative structure will stimulate their collaboration. Therefore, it is urgent to prepare legislative organization and system.

Emphasis on the Organization According to Koerner et al. (1985), clinical safeguards and administrative support is needed to change professional conduct in a cooperative working relationship. The administrative system, through formal and informal means, can legitimize a nurse's role, reduce costs, and enhance job satisfaction. Anna et al. (1983) said that hospital policy, guidelines, protocols, and patient-nurse planning needed to take into consideration the home healthcare system. In addition, other systematic changes needed to be made, including education and training to standardize duties and technical expertise and information exchange through discussions, orientations, supervised debates, and workgroups. In summary, the organization can strengthen home healthcare service and cooperation through education and training, systematic administrative support, and legal and policy changes. Such policy and structural changes are urgently needed in order to improve cooperation between the home healthcare nurse and the doctor.

Conclusion and Suggestion

1. Conclusion

This study is to give a theoretical basis for better home health service by knowing the subjective structure in relation to the collaboration between the home health nurse and doctor and improving their collaboration in a more positive way

Q methodology is used as the research method, which helps us see the human as a whole and is very objective. Q methodology makes it possible to find how human subjectivity dissolves into each individual and apply actually itself.

Paper research with open questions interviews, and research on documents and theses were conducted to extract the Q population.

Finally, 37 Q written statements were selected out of 125 Q written statements on the recognition of the collaboration between home health nurses and doctors. P sample consists of doctors with experience in home health service, doctors (4), nurses (6), clients and caregivers (5), professors of home health nursing (2), professionals of the home health nursing project (2), clinical nurses (3), public health nurses (1), officials (2), teachers (2), assistants and intern workers (3). In total 30 subjects were chosen randomly. The subjects of the P sample were asked to read the 37 written statements and sort them on a distribution chart. 1 to 9 points were given according to how much the subjects agreed with the written statements. PQM program was used to analyze the causes.

Three kinds of recognition types were found as a result of studying the subjective belief or attitude on the collaboration between home health nurses and doctors.

The first type of recognition is trust - emphasizing. This is used to improve the collaboration between home health care nurses and doctors in a positive way. To do this, home health care nurses should reinforce their professional knowledge and keep abreast of the new technology through education and training. In addition, doctors should accept home care nurses as professionals and equals. For collaboration to work, mutual trust must exist. This means that the doctors, the home health care nurse and the patient must trust each other

to achieve positive interaction.

The second type of recognition is to reward doctors for their participation and explain collaboration in economic terms. Therefore, this type of recognition is called reward-emphasizing.

The third type of recognition is called organization-emphasizing. This type of recognition comes from the organization, the administration, and the environment.

In conclusion, recognition of collaboration between doctor and home health care nurse is a phenomenon that is unique to each person, and has similarities or different characteristics according to each person's recognition.

The strategies for collaboration are as follows :

1) Trust should exist between doctors and home health care nurses.
2) Doctors should maintain an equal relationship with home health care nurses and accept them as professionals.
3) Appropriate reward should be given to doctors for their participation.
4) Home health care nurses should reinforce their skills through education, training, and professionalization.
5) Home health care nurses should cooperate with doctors by building a system that centers on patients.
6) Collaboration between doctors and home health care nurses is important because it is useful to recognize patients and their families in a broader light.
7) Doctors and home health care nurses need to be more concerned about patients.
8) More active support of hospital administrators and systems is needed to enhance collaboration between doctors and home health care nurses.
9) The present legal system for collaboration between doctors and home health care nurses can be a factor.

The nine nursing strategies above will help doctors and home health care nurses build more positive relations and get closer to their patient, more effective home healthcare will get closer to people who want quality medical service.

On the basis of this research, collaboration between home health care nurses and doctors should be approached through varied ways, including individually, environmentally, and administratively. When positive collaboration is built on base of nursing strategy that includes the above factors an efficient home health care nursing project can be given to people who want high quality healthcare.

This study has the following implication for Nursing Science :

1) Implication for nursing practice and nursing education: It helps increase collaboration between doctors and home health care nurses and can be applied to the education of nurses.
2) Implication for nursing research: It can be used to estimate the service effect according to collaboration between doctors and home health care nurses
3) Meaning for nursing theory: It can increase collaboration to help develop the theory related to collaboration between doctors and home health care nurses

2. Suggestions

On the basis of this study, I suggest the following :

1) I suggest systemic and standardized methods to measure collaboration between doctors and home health care nurses
2) I suggest observation and the phenomenological approach to analyze collaboration between doctors and home health care nurses
3) I suggest study to evaluate the results of collaboration between doctors and home health care nurses.
4) I suggest further research on aspects of collaboration between doctors and home health care nurses at clinics.

References

Alpert, H.B., Goldman, L.D., Kelroy, C.M., & Pike, A.W. (1992). Toward an understanding of collaboration. Nursing Clinics of North America, 27(1), Mar. 47-59.American Heritage Dictionary, New York, Dell Publishing(1983). 263.

Baggs, J.G., Ryan, S.A., Phelps, C.E., Richeson, J.F., & Johnson, J.E. (1992). The association between interdisciplinary collaboration and patient outcome in a medical intensive care unit. Heart Lung, 21(1), 8-24

Barkausker V.H. (1983). "Effectiveness of public Health Nurse Home Visits to primarous Mother & their Infants", Am. J Public Health, Vol. 73(5), 573-580.

Bisch, S.A. (1998). Sharing in Practice: New partnerships for health. Int Nurse Review. 45(2), 51-54.

Christy, M.W.C. Frasca (1983). "The benefits of hospital Sponsored Home Care Programs", Am. Nurse Adm. Vol. 23(12), 7-10.

Han, H.R., & Park, Y.S. (1994). Analysis of Nurses' Experience on the Relationship with Medical Doctor, The Seoul Journal of Nursing, 18(1), 83-92.

ICN Promotes (1998). Partnerships. Int. Nurs. Review, 45(3).

Katzman, E.M. (1989). Nurses' and physicians' perceptions of nursing authority. Journal of Professional Nursing, 5, 208-214.

Kim, H.K. (1991). Q Methodology. Department of Nursing. College of Medicine. Gyeong Buk National University.

Kim, M.I. (1991). Home Health Service and Visiting Nurse. Korean Association of Nursing, 30(2), 6-12.

Kim, S.E. (1997). An Analysis of Interrupting Factors in Developing Local city Administration. Analysis and Evaluation of policy, 7(1), 5-25.

Korener, B.L., Cohen, J.R., & Armstrong, D.M. (1985). Collaborative practice and patient satisfaction. Evaluation and the Health Professions, 299-321.

Lee, M. S. (1988) Building university-community Partnership for Promoting Community Health, Symposium in celebration of the 50th anniversary of Gyeongsang National University, 109-128.

Nicoll. L. (1992). Perspective on Nursing Theory. 2nd edition, Philadelphia, PA: J.B. Lippincott Company, 372-384.

Marilyn Little (1980). Nurse practitioner physician relationships: American Journal of Nursing, 1642-1645.

McLain, B.R. (1988). Collaborative practice: A critical theory perspective. Research on Nursing and Health, 11, 391-398.

McLain, B.R. (1988). Collaborative practice : The nurse practitioner's role in its success or failure. Nurse Practitioner, 13(5), 31-38.

Michelson, E.L. (1988). The challenge of nurse-physician collaborative practices: Improved patient care provision and outcomes. Heart and Lung, 17, 390-391.

Prescott, P.A. (1989). Shortage of professional nursing practice: A reframing of the shortage problem. Heart and Lung, 18, 436-443.

Rogatz, P. (1985). "Home Health Care; Some Economic Consideration". Home Health care Nurse, Vol. 3(4), 33-36.

Stern N, Keffer J. (1996). Reflective Action strategics for Solving Client Nurse Partnerships with Women in Primary Care.

Weiss, S.J., & Davis, H.P. (1985). Validity and reliability of the collaborative practice scale. Nursing Research, 34, 299-305.

Woo, S.H. (1988). An Study on Home Nursing care Needs and the Expressed Desire of the Beneficiaries in Medical Aid Program. The Graduate school of Master Education Ewha Womans University.Woo, S. H., & Park, Y. S.(1996), A concept analysis of Collaboration, Keimung Medical Journal, 15(4).

Zimmer, J.G, Tunker, A.G., & McCusker, J. (1985). Team a randomized controlled study of home health care. American Jurnal Public Health, 75(2), 134-141.