韓國農村醫學會誌 : 第25券 第2號 2000
Korean J of Rural Med Vol. 25, No. 2, 343~352, 2000

A Study of Current Status and Activities of the Community Health Practitioners in Rural Areas in Korea

Jin-Soon Kim*
Department of Health Service Administration, Yuhan College

한국의 농촌지역에서의 보건진료원 현황 및 활동분석연구

유한대학 의무행정과
김진순*

= 국문초록 =

한국의 농촌 보건의료 문제를 해결 하기위하여 일차보건의료가 도입되었으며 일차보건의료에서 핵심적인 역할을 수행하고 있는 보건진료원의 활동을 분석하였다. 분석 목적은 보건진료원의 일반현황과 보건진료원 활동에대한 구체적인 분석을 통하여 활동개선 방안을 제시하는데있다. 분석방법은 사회조사 방법을 적용하였으며 조사는 1998년 7월과 11월기간에 구조화된 설문지를 보건진료원 전원에게 송부하여 스스로 작성하게 하였다. 1880명의 보건진료원을 대상으로 설문지를 배포하였으며, 1663명의 응답자가 작성한 설문지가 최종분석되었으므로 분석율은 88.5%였다. 분석결과 보건진료원의 일반현황으로 광역시의 보건진료원 평균 연령은 39.7세이며 시지역 보건진료원의 연령이 군지역보다 높았으며 통계적으로도 유의한 차이가 있었다. 총근무기간도 시지역의 보건진료원이 12.4년-13.6년으로 농촌지역보다 길었으며 통계적으로도 유의한 차이가 있었다. 보건진료원의 평균 관할 인구수는 901명이었다. 보건진료소 관할지역의 노인인구 및 만성질환자의 분포가 매우 높았다. 보건진료소로부터 민간의료기관이 위치한 거리는 시지역(7.1-11.3km)보다 농촌지역이 12.1km로서 지리적 접근성이 시지역보다 낮은 것으로 나타났다. 활동건수분석결과 월평균 가정방문수는 평균 47.8건, 일평균 내소자수는 14.1건 및 일평균 전화상담은 5.2건으로 나타났다. 연령별 활동수준은 40세이상이 40세 이하보다 월평균 가정방문수와 일평균 내소자수가 많았으며 통계적으로도 유의한 차이가 있었다. 경력이 많을수록 일평균가정 방문수 및 전화상담 건수가 많았으며 통계적으로 유의한 차이가 있었다. 근무조건에 대한 만족도는 80%정도로 높았다. 연구결과 보건진료원의 활동지역내 노인인구 및 만성질환자의 비율이 높고 민간의료기관의 지리적 접근성도 낮고, 관할인구규모가 적어서 인구규모를 늘리고 노인 및 만성질환자 건강관리 프로그램의 개발이 더욱 요구되며 농촌지역주민의 건강관리자로서 보건진료원의 활동을 강화할 필요가 있다.

KEY WORDS : Activities, Current status, Community health practitioner

* 교신저자(Tel : 02-261-0841, Fax : 02)689-2079, E-mail : jskim@yuhan.ac.kr)

INTRODUCTION

In general, issues in the health care system include an uneven distribution of health care resources and the improvement of accessiblity, equality and availability of health care with lower costs for the people.

The Korean government has also had difficulty with insufficiency or lack of health services in remote rural areas of the country. "A Special Law for Rural Health Service", was established by the government at the end of 1980. Under this law "Community Health Practitioners(CHP)", which was comprised of nurses, were developed. CHP posts or primary health posts are the entry point for local health services and provide services in areas where the health needs of the villagers actually exist.

The CHPs posts were supposed to be the entry point for local health problems and their worksites were the areas villagers live and heslth needs exist. Under the law they operate the posts independently for a reasonably large proportion of the services. Nevertheless, over the 20 years time, following the growth of the nation, there have been great changes and developments in health related environments such as population size and age, rapid urbaniztion, up-grading of the educational level and the total coverage by health insurance schemes, and these have necessitated amendments to health policies. Naturally, the CHPs' function must be included in these amendments for further improvment and effectiue activities. One component which was of concern was payment and post security in order to maintain the CHPs as long lasting and professional health care providers.

As mentioned above, the CHPs' program has been carried out for 20 years already but within a tremendously changed environment. This certainly needed to be reviewed the functions and activities as necessary.

CURRENT STATUS OF COMMUNITY HEALTH PRACTITIONERS

The community health practitioner (CHP), works in the 2024 primary health posts at township level in rural areas.

Qualification of CHP includes being a registered professional nurse aged 20-60 who has completed a special six-month training course in an institute designated by the government and is preferably selected by the community or province where they serve.

Their functions and responsibilities lie in areas, such as organization and development of the community, programme planning, programme implementation and management, management of community health problems, maternal and child health care, including family planning, management of common and minor ailments, and training and supervision of village health volunteers.

Primary health post with its community health practitioner is established by the chief of the county and is located so that most residents of the area can reach it within 30 minutes. The population served can range form 1000 to 5000. Support is

given by both government and community. The governmen provides salaries, medical equipment and essential drugs and the community provides the building for the primary health post. Each post is run by a primary health committee, consisting of the village chief, the leader of the new village movement and/or the community development leader, and ten to twelve executive members selected by the villagers. The committee is responsible for the collection of funds to operate the post.

MATERIALS AND METHODS

Purpose of survey on activities of the CHP was to collect the general information on present situation of the CHP and to identify the level of activities and suggest on improvement of CHP.

A questionnaire survey was conducted from July to November, 1998, during on-the job training course for the CHP which consisted of a total of 1880 CHPS, 1663 CHPS were analyzed for the purpose of the study(response rate: 88.5%)and were analyzed to identify facts such as actual numbers and percentages. ANOVA test was used for the statistical analysis of the differences in response to each item of questionnaire as it was related to the level of activities

RESULTS

The mean age and length of work experience of community health practitioners are 38.4 years of age and 8.3 years, respectively. The CHP working in urban areas have more work experience and older than that in rural areas. The average population per post is 900 persons and the CHP in urban areas cover more population than that in rural areas. The percent distribution of aged 65 years and more is 25.6% and the percent distribution of patient with chronic disease and disabled is 19.1%, 78.4% of health subcenters is located near the CHP posts and it takes approximately 17.3 minutes by bus. The mean distance between the two facilities is 7.6㎞ The majority of private medical facilities is clinics with high frequency of 71.7%, the mean distance between the two facilities is 11.7㎞.

Community health practitioners reside in or near primary health posts and provide their services whenever requested.

Home visit services are very important role for CHPs. The mean number of homevisits per month is 47.8 persons and 14 persons per day visit to CHP post to get any services such as preventive and promotive care. Health consultation by telephone per day is 5 cases on average The proportion of curative care to preventive care is 55.5, it means that preventive and promotive care should be strengthend.

In order to provide homevisit services, CHPs need approximately 27 minutes for transport and consume 28 minutes for providing care.

The CHP's activities by age indicate that the CHP aged 40 year and over provide more homevisit services, consultation by telephone and also clinic services than that aged under 40 years.

Table 1. Percent Distribution by General Characteristics of the Community Health Practitioner

General Characteristics	Metropolitan city	City	County	Total
Year	100.0(29)	100.0(598)	100.0(1036)	100.0(1663)
-29	0.0	4.0	7.0	5.8
30-39	41.4	48.5	54.4	52.1
40-49	58.6	43.8	34.7	38.4
50-59	0.0	2.8	3.5	3.2
60+	0.0	0.8	0.5	0.6
(X)**	(39.7)	(39.1)	(38.0)	(38.4)
Length of work(year)				
- 3	10.3	15.2	20.8	18.6
3- 6	10.3	11.7	18.8	16.1
6- 9	10.3	14.4	17.0	15.9
9-12	13.8	19.3	15.4	16.7
12-15	44.8	24.3	17.4	20.3
15+	10.3	15.1	10.7	12.3
(X)***	(10.2)	(9.1)	(7.8)	(8.3)
Total length of work				
- 3	0.0	3.5	4.7	4.2
3- 6	0.0	4.9	9.0	7.4
6- 9	6.9	8.2	13.7	11.6
9-12	10.3	15.1	18.2	16.9
12-15	44.8	35.9	29.5	32.0
15+	37.9	32.4	25.0	27.9
(X)***	(13.6)	(12.4)	(11.3)	(11.7)

Note; *<0.05, **p<0.005, ***p<0.0005

Table 2. Percent Distribution of Community Health Practitioner Posts by Size of Target Population

Population(person)	Metropolitan city	City	county	Total
- 500	17.2	16.8	23.6	21.1
501-1000	51.7	48.6	52.4	51.0
1001-1500	24.1	21.5	15.0	17.5
1501-2000	6.9	8.1	5.8	6.7
2001+	0.0	4.9	3.2	3.8
(X)	881	998	846	901

The more CHP have work experience, the more they provide home visit services and also consultation by telephone. A high percentage of the CHP has satisfaction in their work and CHPs respond that population size is proper.

Table 3. Percent Distribution of Community Health Practitioner Posts by the Elderly related Data

Contents	Metropolitan city	City	county	Total
Ratio of the elderly	28.3	25.4	25.7	25.6
Solo household of the elderly				
-10	7.1	9.6	7.8	8.4
11-20	32.1	19.6	19.1	19.5
21-30	17.9	15.0	20.3	18.3
31-40	14.3	15.4	15.3	15.3
41-50	7.1	11.5	11.3	11.3
51+	21.4	29.0	26.4	27.2
(X)	(40.4)	(47.0)	(46.3)	(46.4)
Ratio of aged 40 years and more	58.8	59.2	59.9	59.6
Ratio of chronic diseases	17.0	18.6	19.5	19.1

Table 4. Geographical Accessibility of Primary Health Post near the Public Health Facilities (unit : %)

Contents	Metropolitan city	City	county	Total
Nearest public health facilities				
health center	39.3	13.6	12.7	13.5
health subcenter	32.1	78.4	79.8	78.4
primary post	28.6	8.1	6.9	7.7
public hospital	0.0	0.0	0.6	0.4
Distance				
- 2km	0.0	3.4	2.8	3.0
3- 4km	28.6	24.3	23.8	24.1
5- 6km	14.3	25.8	25.9	25.7
7- 8km	14.3	15.7	19.6	18.1
9-10km	39.3	12.6	10.6	11.8
11-12km	3.6	6.4	5.3	5.7
13+km	0.0	11.9	11.9	11.7
(X)	(7.0)	(7.5)	(7.6)	(7.6)

DISCUSSION

Related to the contribution of the work of the CHPs to the remote, under-served rural populations and also in regarding the principles of primary health care, such as inexpensive, easy, continuous, in good quality and comprehensive as well as an adequate referral syatem, the CHPs' work could be evaluated as work of good quality and satisfactory in spite of requiring 24hours or continual work prerardness.

It has generally been said that the sites or service influenced the accessibility, but it is not always apparently true. In this sense, the work of the CHP can be

Table 5. Geographical Accessibility of Primary Health Post near the Public Health Facilities (unit : %)

Contents	Metropolitan city	City	county	Total
Nearest private medical facilities				
clinic	75.0	70.5	72.2	71.7
hospital	25.0	29.5	27.8	28.3
Distance				
- 2km	6.9	16.	1.0	1.3
3- 4km	17.2	11.0	9.4	10.1
5- 6km	17.2	15.8	16.9	16.5
7- 8km	20.7	15.5	16.9	16.4
9-10km	27.6	12.8	12.6	12.9
11-12km	6.9	10.1	8.3	9.0
13+km	3.5	33.2	34.9	33.7
(X)*	(7.1)	(11.3)	(12.1)	(11.7)

Note : *p<0.05, **p<0.005, ***p<0.0005

Table 6. Activities of Community Health Practitioners (unit : %)

Contents	Metropolitan city	City	county	Total
No. of home visits per month				
- 20	27.6	33.1	25.2	28.3
21- 40	20.7	28.2	28.5	28.2
41- 60	24.1	19.2	23.1	21.7
61- 80	10.3	9.2	9.5	9.4
81-100	10.3	5.1	4.9	5.1
101+	6.9	5.3	43.7	7.4
(X)	(48.7)	(43.7)	(50.1)	(47.8)
No. of visitors per day				
-10	41.4	41.7	46.8	44.8
11-20	31.0	44.0	41.4	42.2
21-30	20.7	10.3	9.0	9.6
31-40	3.5	1.9	1.8	1.8
41+	3.5	2.2	1.1	1.5
(X)	(17.5)	(14.7)	(13.7)	(14.1)
No. of consulttion by telephone per day				
- 5	77.8	74.6	74.9	74.9
6-10	11.1	19.9	18.8	19.1
11-15	11.1	3.0	4.9	4.0
16-20	0.0	2.2	1.4	1.7
21+	0.0	0.4	0.7	0.5
(X)	(5.1)	(5.3)	(5.2)	(5.2)

Table 7. Percent Distribution of Curative and Preventive Care by Home visits

Contents	Metropolitan city	City	county	Total
Rate of curative and preventive care				
curative care	63.9	54.5	55.8	55.5
preventive care	36.1	45.5	44.2	45.5
Time of transport(minutes)				
- 30	86.2	79.2	38.4	81.9
31- 60	13.8	18.2	14.8	16.0
61- 90	0.0	1.5	1.0	1.2
91-120	0.0	0.8	0.6	0.7
121+	0.0	0.3	0.2	0.2
(X)	(24.8)	(28.1)	(25.8)	(26.6)
service consumption time(minutes)				
- 30	82.8	85.6	85.1	85.2
31- 60	13.8	12.9	13.8	13.5
61- 90	0.0	0.0	0.5	0.3
91-120	3.5	1.2	0.6	0.9
121+	0.0	0.3	0.1	0.2
(X)	(29.8)	(28.2)	(27.1)	(27.6)

evaluated as a truly meanbingful system.

All of the studies showed that the CHP program has greatly contributed to the villagers transferring from drug store use to posts utilization and that the acceptability and satiafaction were sufficiently high and the program understood to provide good quality services for the under-served villagers in the country.

In general these CHP program has been well accepted either in both the developed and developing countries, looking at an example from canada, it can be seen that Nurse Practitioners are acceptable from the following.

The study on Nurse Practitioners Program in Canada compared the clinical outcomes by physicians and nurse practitioners, in mortality, physical disability, emotional and social functions. The study results showed that the clinical outcomes of both groups were more or less the same and satisfaction of patients was 97.5% for physicians and 96.5% for the nurse practitioners demonstrating that the NP program as a new concept was highly appreciated.

In U.S.A. the Graduate Medical Education National Committee which is composed mostly of physicians made a report to Minister of health in 1980, recommending the following, that "the participation of nurses on primary health care is sufficient and well accepted by patients and can made at lower cost for services" and recommended the utilization of nursing personnel in primary heslth care for public use to provide good quality and low cost services to the people.

Table 8. Percent Distribution of Community Health Practitioner's Activities by Age

Contents	-39	40+	(X)
Percentage of services			
curative care	55.8	55.1	55.5
preventive care	44.2	44.9	45.5
Opinion on population coverage			
too much	11.0	12.8	11.8
proper	71.4	76.4	73.5
few	17.6	10.8	14.7
No. of home visits per month**			
-20	303	25.7	28.3
21-40	29.6	26.1	28.1
41-60	20.1	23.9	21.7
61+	20.0	24.3	21.9
(X)	(46.1)	(50.1)	(47.8)
No. of visitors per day***			
-10	49.8	38.1	44.9
11-20	40.2	44.8	42.1
21+	10.0	17.1	13.1
(X)	(13.2)	(15.4)	(14.1)
No. of consultation by telephone			
-5	79.1	69.2	74.9
5+	20.9	30.8	25.1
(X)	(4.8)	(5.7)	(5.2)
Opinion on work condition			
satisfaction	29.5	32.9	31.0
good	50.7	48.7	49.8
non satisfaction	19.8	18.4	19.2

note; *p<0.05, **p<0.005, ***p<0.0005

CONCLUSION

The CHP program was developed in line with primary health care implementation and it had been in operation for 20 years up to present.

The CHP as an entry point to the health care system is strengthened to provide more preventive and promotive care rather than providing curative care.

The population size covered by a post could be increased from 900 persons up to 2000 persons.

The aged 65 years and over made up 6.8% of the total population in the year 2000 and again 13.1% in 2020, therefore, the CHP's activities could be more strengthened to provide the elderly health care. For that purpose, training programe and supporting system should be developed for improvement of CHP's performance.

Table 9. Percents Distribution of Community Health Practitioner's Activities by Length of Work Experience

Contents	9years	10-12years	13-15years	16years+	(X)
Percentage of services					
curative care	55.2	55.8	56.0	55.0	55.5
preventive care	44.8	44.2	44.0	45.0	44.5
Population coverage					
too much	11.6	10.2	11.3	14.2	11.6
proper	68.9	73.7	76.9	74.7	73.5
few	19.5	16.2	11.9	11.2	14.9
Opinion on work condition					
satisfaction	25.2	33.2	34.2	31.5	31.0
good	52.3	47.6	48.2	51.2	49.8
non satisfaction	22.5	19.1	17.6	17.6	19.3
No. of home visits per month					
-20	33.3	28.6	26.8	23.6	28.4
21-40	31.3	30.2	25.4	26.6	28.4
41-60	18.2	19.4	24.9	24.2	21.6
61+	17.5	21.8	22.9	25.6	21.6
(X)[1]	(44.5)	(47.1)	(49.2)	(50.2)	(47.8)
No. of home visits per month					
-10	56.3	47.3	38.9	33.7	44.7
11-20	35.0	40.7	46.8	47.6	42.3
21+	8.7	12.0	1.3	18.7	13.0
(X)[2]	(12.1)	(13.8)	(14.9)	(16.3)	(14.1)
Telephone consultation per day					
-5case	82.5	78.6	69.8	68.1	75.0
6+	17.5	21.4	30.2	31.9	25.0
(X)[2]	(4.7)	(4.7)	(5.7)	(5.8)	(5.2)

Note: 1) non-significant by ANOVA
2) significant by ANOVA ($p<0.0005$)

REFERENCES

1. Bong Sang Park, etc., Future Dirction for the Health Policy in 90th decade, Korea Institute for Health and Socisl Affairs, 1990
2. Current Status of Community Health Program, Ministry of Health and Social Affairs, community Health Division, 1991
3. Holland, W.W(Ed.) Evaluation of Health Care, Oxford University Press, 1983
4. Jin Soon Kim, etc., Evaluation of CHPs Post Utilization, Study of Rural Primary Health Care Project, Korea Institute for Populatrion and Health, 1985
5. Jin Soon Kim, etc., Study on the Community Healty Practitioners Post Operation Analysis, Korea Institute for

Population and Health, 1987

6. Jin Soon Kim, etc., Survey of the Actual Situation of Maternal-Child Health and Family Planning in Rural Areas Coverd by Community Health Practitioners, Korea Institute for Population and Health, 1985
7. Jin Soon kim, etc., A Study on the Improvement of Community Health Practitiioner Programmes, Korea Institute for Health and Social Affairs, December, 1991
8. Korea Health Development Institute, Primary Health Care Demonstration Project in Korea: 1976-1980, 1980, 12
9. Korea Institute for Health and Social Affairs, A Survey on the improvement of Community Health practitioners Programmes - summary -, 1991 (unpublished paper)
10. Kun Yong Song, etc., A Study of Health Care in Rural Farm Fishing Vollagers - Basic Survey to Evaluate and Describe the Community Health Practitioner, Korea Institute for Population and Health, 1983
11. The Ministry of Health and Social Affairs, Republic of Korea, The Rural Health Care Special Law for the CHP, 1980
12. World Health Orgamization, Primary Health Care, Report of the International Conference on primary Health Care, Alma-Ata, USSR, 6-12 september, 1978