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Evaluation of Community Health Practitioners' Activities

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In order to evaluate community health practitioners' activities through community clients, a household interview survey was done at eight areas in four counties surrounding Daegu city. A total of 1,016 households were interviewed on health service utilization, home visiting activities, work within the health posts, antenatal care and so on.

The activities of community health practitioners were mostly curative services either within or out of the health post. Activities of the community health practitioners were related to their past experience as nurses/midwives/public health nurses and attitudes to health maintenance and promotion. Activities related to preventive services are strongly recommended.

Key Words : Community health, Primary health care, Non-physician manpower, Evaluation of health services

In order to meet the health care needs more efficiently, new approaches for utilizing non-physician health professionals as well as village level health workers have been considered (Yang and Yu, 1984). One of these efforts was "Maul Geongang Saup" (community health program), (KHDI, 1978; KHDI, 1980), which was implemented in three counties (Hongcheon, Oggu and Gunwi) as pilot projects by the Korea Health Development Institute from July 1978 through December 1980 when twenty-five nurses were deployed in those project areas after one-year's training. In December 1980, a special law for rural health care was enacted and community health practitioners (hereafter, referred to as CHP) were posted to rural and/or remote areas after a 24-week on-the-job training given to nurses and/or midwives (Kim, 1979; Im, 1981). The role of CHPs is to undertake simple curative services, preventive care and health promotive activities.

The CHP system was replicated nationwide since the 1981 implementing at the three pilot project areas. However, the new system is rather different from the traditional institution-based medical care in its objective and approaches. Therefore, some problems and difficulties are expected in the settling down of the new system into the health care delivery scene in Korea. How to adapt to a new environment would be

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a key to a successful approach for efficient health care (Yang *et al.*, 1983).

A study on evaluation of CHP activities by the Korea Health Development Institute (KHDI, 1982) was done since this program was started, and it was found that CHPs were active in curative services but not for health education and promotion. In addition, CHPs spent 92% of their time within the CHP posts. Several other studies (Kim, 1982; Ko, 1982; Noh, 1983) have been implemented, which focused on analyses of CHP's activities through observing CHP's daily work. On the other hand, not many studies have been done on evaluation of CHP activities through analysis toward the client or community residents. The scale was too small and the study focused on a specific group, that is, CHP post committee members for CHP post operation, and therefore objectivity was weak.

This study is to evaluate CHP activities from the clients' side through interviewing the village houewives concerning knowledge about CHP, activities of CHP in and out of the CHP posts, antenatal care and delivery attendants. Finding out problems in CHP activities and utilization would be indispensable in formulating alternatives for improving CHP programs in Korea.

METHODOLOGY

Among the total of 132 CHP posts in Kyungsang Pookdo, eight posts in four adjacent counties (Kyungsan, Chilgok, Dalsung and Kunwi) around the Daegu city were chosen. After finding out the households having an infant in each area, every other household up to three both right and left side respectively was sampled. A total of 1,016 households (4,873 persons) were the study population and 129 women having an infant were assessed for antenatal care.

The interview survey was done by six nursing students after training and pretesting with standard questionnaires from July 23 to August 4, 1982. Interview respondents were housewives. Questions included were health service utilization of household members, knowledge about the CHP acitivities, health service contents by the CHP through home visit, frequency and reason for the CHP post visit, antenatal care and delivery attendants. Facts about CHP were obtained from the Department of Public Health in the Provincial Government.

Collected data through interview survey was coded and processed by EDPS.

RESULTS AND DISCUSSION

The total number of the studied population was 1,016 households (4,873 household members). Those under 15 of age were 28.5% and over sixty five were 8.0% (Table 1).

Those respondents who knew that the CHP was working in their area were 80% and it ranged from 52% to 98% by area (Table 2). This difference seems to be due to the attitude of the CHPs toward the residents and the geographical condition.

Among those who obtained curative services when they were ill, drug store/herb drug store usage was as high as 30.8%, CHP post 24.9%, and clinic/hospital 18.7% in that order respectively. Those who did not get any treatment were 20.4%. These results are consistent with other studies (Lee, 1983) . Those under ten years of age received services mostly from clinic/hospital and CHP posts, meanwhile, those over fifteen years old used the drug store mainly (Table 3).

Considering those who did not get treatment where CHP posts were not established

in doctor-less Myuns (town) reached 37.8%, good geographical locationing of CHP posts improved accessibility.

When the illness did not disappear after the first contact care, 59.6% visited the clinic and 17.5% the CHP post. When they were asked which they prefer as curative care sources, the CHP post rated as high as 46.5% and the clinic 22.4%. This fact may reflect the preference for the CHP post (Table 4).

Those whose homes were visited by a CHP in the last month were 98 households (9.6%). The percentage of visits ranged from 2.6%

Table 1. Age-Sex distribution of study population

Age	Male	Female	Both (%)
0	66	63	129 (2.7)
1- 4	132	128	260 (5.3)
5- 9	213	225	438 (9.0)
10-14	290	271	561 (11.5)
15-19	258	278	536 (11.0)
20-24	200	201	401 (8.2)
25-29	181	174	355 (7.3)
30-34	132	120	252 (5.2)
35-39	108	101	209 (4.3)
40-44	131	143	274 (5.6)
45-49	136	173	309 (6.3)
50-54	118	143	261 (5.4)
55-59	125	144	26.9 (5.5)
60-64	102	125	227 (4.7)
65+	183	209	392 (8.0)
Total (%)	2,375(48.7)	2,498(51.3)	4,873 (100.0)

Table 2. Percentage of housewives who know the existence of the CHP* in their area

Geographical area	No. of housewives	Know No. (%)	Don't Know No. (%)
A	67	55 (82.1)	12 (17.9)
B	151	136 (90.1)	15 (9.9)
C	126	116 (92.1)	10 (7.9)
D	115	101 (87.8)	14 (12.2)
E	159	156 (98.1)	3 (1.9)
F	154	80 (51.9)	74 (48.1)
G	121	76 (62.8)	45 (37.2)
H	123	93 (75.6)	30 (24.4)
Total	1,016	813 (80.0)	203 (20.0)

*CHP : community health practitioner.

Table 3. Utilization of curative services for initial treatment during 15-day period by age group

Age group	CHP post	Clinic or hospital	Health center or subcenter	Drug/herb drug store	Folk remedy	No treatment	Total
0- 4	42 (38.5)	19 (17.4)	5 (4.6)	21 (19.3)	2 (1.8)	20 (18.3)	109 (100.0)
5- 9	15 (26.3)	22 (38.6)	1 (1.8)	7 (12.3)	1 (1.8)	11 (19.3)	57 (100.0)
10-14	8 (24.2)	6 (18.2)	2 (6.1)	10 (30.3)	2 (6.1)	5 (15.2)	33 (100.0)
15-19	5 (17.9)	2 (7.1)	–	12 (42.9)	–	9 (32.1)	28 (100.0)
20-24	5 (21.7)	4 (17.4)	–	10 (43.5)	1 (4.3)	3 (13.1)	23 (100.0)
25-29	1 (5.3)	4 (21.1)	–	9 (47.4)	–	5 (26.3)	19 (100.0)
30-34	4 (28.6)	3 (21.4)	–	5 (35.7)	–	2 (14.3)	14 (100.0)
35-39	1 (9.1)	1 (9.1)	–	8 (72.7)	–	1 (9.1)	11 (100.0)
40-44	5 (23.8)	1 (4.8)	–	7 (33.3)	–	8 (38.1)	21 (100.0)
45-49	4 (21.1)	–	–	8 (42.1)	2 (10.5)	5 (26.3)	19 (100.0)
50-54	1 (5.3)	4 (21.0)	1 (5.3)	8 (42.1)	1 (5.3)	4 (21.0)	19 (100.0)
55-59	2 (10.0)	4 (20.0)	–	10 (50.0)	–	4 (20.0)	20 (100.0)
60-64	3 (37.5)	2 (25.0)	–	2 (25.0)	–	1 (12.5)	8 (100.0)
65+	5 (20.0)	4 (16.0)	3 (12.0)	8 (32.0)	–	5 (20.0)	25 (100.0)
Total (%)	101 (24.9)	76 (18.7)	12 (3.0)	125 (30.8)	9 (2.2)	83 (20.4)	406 (100.0)

Table 4. Source of curative services for illness during 15-day period and for future illness

Source of services	Source of care			Preferred care source for similar conditions
	Initial	Secondary	Tertiary	
Local clinic	74 (18.2)	34 (59.6)	3 (30.0)	66 (22.4)
Health center or subcenter	12 (3.0)	4 (7.0)	–	7 (2.4)
Hospital	2 (0.5)	1 (1.8)	–	1 (0.3)
CHP post	101 (24.9)	10 (17.5)	1 (10.0)	137 (46.5)
Drug store	124 (30.5)	15 (26.3)	4 (40.0)	78 (26.4)
Herb drug store	1 (0.2)	3 (5.3)	2 (20.0)	1 (0.3)
Folk remedy	9 (2.2)	–	–	5 (1.7)
No treatment	83 (20.4)	–	–	–
Total	406 (100.0)	67 (100.0)	10 (100.0)	295 (100.0)

Table 5. Number of households visited by a CHP and visitor to CHP post during a month by geographical area

Geographical area	Previous job of CHP	No. of households	No. of Household visited by CHP (%)	No. of study population	No. of CHP post visitor (%)
A	Recent graduate	67	2 (3.0)	369	14 (3.8)
B	Health center nurse	151	8 (5.3)	688	144 (20.5)
C	Hospital nurse	126	40 (31.7)	561	186 (38.1)
D	Recent graduate	115	3 (2.6)	488	92 (16.4)
E	Midwife	159	17 (10.7)	813	467 (57.4)
F	Myun MCH worker	154	15 (9.7)	697	180 (25.8)
G	Health center nurse	121	7 (5.8)	650	10 (1.5)
H	Hospital nurse	123	6 (4.9)	607	73 (12.0)
Total		1,016	98 (9.6)	4,873	1,163 (23.9)

Table 6. Service contents of home visits by geographical area

Service contents	Geographical area								Total (%)
	A	B	C	D	E	F	G	H	
Curative services	1	10	108	3	47	19	11	5	204 (48.9)
Antenatal care	–	–	5	–	–	–	–	–	5 (1.2)
Delivery	–	–	1	–	3	–	–	–	4 (1.0)
Postnatal care	–	2	1	–	1	–	–	1	5 (1.2)
Family planning	–	4	5	–	6	4	1	2	22 (5.3)
Tuberculosis control	–	–	–	1	–	–	–	–	1 (0.2)
Health education	1	3	56	3	14	4	5	9	95 (22.8)
Environmental sanitation	1	4	51	–	12	2	–	8	78 (18.7)
Others	–	–	3	–	–	–	–	–	3 (0.7)
Total	3	23	230	7	83	29	17	25	417 (100.0)

Table 7. Service contents of CHPs rendered to CHP post visitor by geographical area

Service contents	Geographical area								Total (%)
	A	B	C	D	E	F	G	H	
Curative services	23	341	191	168	478	371	36	97	1,705 (80.1)
Antenatal care	–	1	6	11	11	-	–	2	31 (1.5)
Postnatal care	–	–	–	–	4	–	–	–	7 (0.3)
Family planning	–	6	5	–	8	–	–	4	23 (1.1)
Tuberculosis control	3	3	–	1	–	–	–	2	9 (0.4)
Immunization	–	12	8	10	33	13	4	2	82 (3.9)
Health education	3	48	32	15	57	77	1	20	253 (11.9)
Others	–	–	–	–	–	5	–	13	18 (0.8)
Total	26	411	245	204	592	466	41	143	2,128 (100.0)

Table 8. Women who received antenatal care by geographical area

Antenatal care	Geographical area								Total
	A	B	C	D	E	F	G	H	
No. of women	11	15	7	12	28	15	19	22	129
No. of women received antenatal care	7	13	5	5	18	9	14	19	90
(%)	63.6	86.7	71.4	41.7	64.3	60.0	73.7	86.4	69.8

Table 9. Antenatal care provider by geographical area

Provider	Geographical area								Total (%)
	A	B	C	D	E	F	G	H	
Medical doctor	22	17	15	19	24	23	47	72	239 (86.6)
CHP	–	1	1	–	18	–	–	2	22 (8.0)
Myun health worker	–	9	–	–	1	–	–	1	11 (4.0)
Others*	1	–	–	–	1	–	–	2	4 (1.4)

*Others : Mid-wife=2, Pharmacist=1, Herb medicine practitioner=1

in case of the non-experienced CHP to 31.7% in case of the experienced CHP for public health as well as clinical services. Those who visited a CHP post in the last month were 1,163 persons (23.9%) thus ranging from 1.5% to 54.5% of the studied population (Table 5).

Although testing for statistical difference is not possible because of the limited numbers of CHPs, home visiting activities and utilization of CHP posts seemed to be related to the experience and motivation of CHPs. Home visits by the CHP were mostly curative services (48.9%), while, health education on maternal and child health and health promotion was 22.8% of services rendered. Taking the 739 women in reproductive ages into account, family

planning services are needed, as CHP activities on this services were negligible. Activities in one area (area C) showed a good balance in preventive and curative services (Table 6).

Table 10. Frequency of antenatal care visit

Frequency of anatenatal care	No. of women (%)	No. of visit
1	26 (28.9)	26
2	18 (20.0)	36
3	23 (25.6)	69
4	6 (6.7)	24
5	6	30
6	0	0
7	6	42
8	0 (18.9)	0
9	1	9
10	4	40
Total	90	276

Average No. of visit per women=3.1

Services of CHP within the CHP posts were mostly curative (80.1%), and there was no difference among the geographical areas because curative services were predominant in all areas (Table 7).

Among those 129 housewives having an infant, 90 wives (69.8%) received antenatal care at least once (Table 8). It is comparable to the antenatal care rate of the national average of 61.6% among the counties. However, the care rate has tripled compared to Kyungsan county in 1971-2 which was 20% (Lee *et al.*, 1972).

Antenatal care providers were mostly physicians (86.6%) followed by CHPs (8.0%). The percentage of antenatal care by a CHP was higher in area E and in the rest of the posts this care was negligible (Table 9). The CHP in area E had practiced midwifery services before and area B had been the pilot project

Table 11. Antenatal care visits of women by gestational age and number of visits

No. of visit	Gestational age (week)				Total (%)
	≤12	13-24	25-36	37-40	
1st	35 (38.9)	30 (33.3)	17 (18.9)	8 (8.9)	90 (100.0)
2nd - 4th	5 (3.8)	43 (32.6)	58 (43.9)	26 (19.7)	132 (100.0)
5th - 9th	–	7 (14.0)	32 (64.0)	11 (22.0)	50 (100.0)
10th - 13th	–	–	–	4 (100.0)	4 (100.0)
Total	40	80	107	49	276

Table 12. Delivery attendant

Attendant	Number (%)
Health personnel	
Medical doctor	51 (39.5)
CHP	6 (4.7)
Mid-wife	2 (1.6)
Myun health worker	1 (0.8)
Family or relative	58 (44.9)
Neighbour	7 (5.4)
By herself	4 (3.1)
Total	129 (100.0)

Table 13. Reason not attended by CHP

Reason	Number (%)
Did not know existence	24 (19.5)
CHP post not established	22 (17.9)
Could not trust CHP's skill	17 (13.8)
Home delivery planned	13 (10.6)
Too far from CHP post	12 (9.8)
Did not know CHP's job	11 (8.9)
CHP was out of town	8 (6.5)
Refused	1 (0.8)
Others	10 (8.1)
No response	5 (4.1)
Total	123 (100.0)

area designated by the Korea Health Development Institute.

The average number of antenatal visits was 3.1, which is far below the ideal antenatal visit of ten to twelve (Last, 1980). Lee than four visits accounts for more than 80% (Table 10). However, the level of antenatal care improved compared to the study results at Kyungsan county in 1971 (Lee *et al*, 1972).

Thirty five women (38.9%) received antenatal care before twelve gestational weeks and thirty women (33.3%) between thirteen to twenty-four weeks (Table 11).

Delivery attendants were mostly physicians (39.5%) and other health workers 7.1%. Family or relatives accounted for 44.9% respectively (Table 12). This figure is much higher than the study (Ye and Lee, 1972) at Kyungsan county in 1971-2 where delivery attended by health professionals was 11%. The national average was 31.9% among the counties in 1981 (KHDI, 1981).

For those whose delivery was not attended by a CHP, the reasons why a CHP did not attend at the birth were as follows: "did not know the CHP" (19.5%) "CHP post not established" and so on (Table 13).

SUMMARY AND IMPLICATIONS

A household interview survey was done from July 23 through August 4, 1982 in eight areas where community health practitioner posts were established in order to evaluate CHP's activities through community clients on health services utilization, home visiting activities, activities within the CHP posts, antenatal care and delivery attendance. Among the total of 3,866 household in eight areas, about one quarter (1,016 households) were sampled and interviewed with the constructed questionnaires.

As expected, initial care was obtained from the drug store/herb drug store mostly (30.8%), CHP post next (24.9%). CHP posts were not well known to the villagers: those who knew about the CHP posts ranged from 51.9% to 98.1% by area although CHP post had been established for the last ten months of the period.

Those households which had been visited by a CHP during the last one month period were 9.6%, ranging from 2.6% to 31.7%. Those who visited the CHP posts during the last month were 23.9%; ranging 1.5% to 57.4%. The Frequency of home visiting activities and CHP post visits are related to the attitude of the CHP toward the clients and the motivation for the job. About 50% of home visiting services and 80% of CHP post activities were curative services.

A total 69.8% received antenatal care among the women having an infant. The average number of antenatal care visits was 3.1 and among those 41% received adequate antenatal care. Among the deliveries a total of 46.5% were attended by health personnel, where physician attendants were predominant (85.0%).

Activities of CHPs deviated toward the curative and little attention was paid to preventive care services such as antenatal care, delivery attendance, family planning services.

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