보건소 재가 암환자 관리사업에 대한 환자의 요구도 및 제공정도

조 현·손주영*·허점도†·진은희‡

인제대학교 보건행정학부 보건과학정보연구소, *인제대학교 의용공학과, †동아대학교 사회복지학과, ‡진주보건대학 간호과

A Study on Demand and the Supply for Home-based Cancer Patient Management Projects of Public Health Centers

Hyun Cho, Joo-Young Son*, Jeom-Do Heo† and Eun-Hee Jin‡

Department of Health Care Management, Inje University, Institute of Health Science and Information, *Department of Bio Medical Engineering, Inje University, Gimhae, †Department of Social Welfare, Dong-A University, Busan, ‡Nursing Department of Jinju Health College, Jinju, Korea

Purpose: As a part of the analysis of home-based cancer patients management of public health centers in cities, counties and districts across the nation, this study is to understand the degree of patient demands for that management and the degree and scope of the supply for the patient's demand. **Methods:** Developed the questionnaire which was constituted of degree of demand and supply for home-based cancer patient management and analyzed data centering on the frequencies and percentages by utilizing SPSS WIN 12.0. **Results:** The services provided through the home-based cancer patients management project include physical, emotional, spiritual and educational/informative services. A survey was conducted for home-based cancer patients about these services, and its result showed that the degree of demand and supply was highest for emotional service, followed by educational/informative service, spiritual service and physical service in the order of the demand-supply degree. When main items for each service were examined, it was found that: in the case of physical service, pain control was provided much lower than its demand, while excretion disorder control and individual hygiene is provided much more than its demand. In the case of emotional service, the degree of demand was overall higher than that of supply; spiritual service was provided appropriately to the degree of demand. **Conclusion:** This study examines the home-based cancer patients management project of public health centers and compares and analyzes the degree of demand for patient services and the degree of services that are actually provided. The findings could be used as based data for the development of effective programs in future on the basis of actual demands of home-based cancer patients. **(Korean J Hosp Palliat Care 2007;10:195-201)**

Key Words: Home-based cancer patients, Pain control, Physical service, Emotional service, Spiritual service

BACKGROUND

In Korea, cancer is the greatest factor in death as the number of deaths caused by the cancer reached 66 thousand at the end of 2005, as occupying 27.0% of the all deaths (the mortality per 1 billion people, 136), despite of the developed modern medicine (National Statistical Office, 2007). The

접수일: 2007년 7월 18일, 승인일: 2007년 8월 20일
교신저자: 조 현
Tel: 055-320-3288, Fax: 055-335-8253
E-mail: hcmcho@hanmail.net
본 연구는 보건복지부 국민건강증진기금으로 수행되었음.

incidence of cancer patients becomes the serious economic loss to the nation as well as families and communities and such a loss is recognized as an obstacle to build the welfare society. Especially in case of cancer patients at the terminal stage, they mostly stay at home without any plan or treatment, or depend on folk remedies after leaving hospitals, without continuous and systematic medical treatment. The situation can be thought the patients are left in negligence by no related systems between hospitals, public health centers and families.[1)]

Therefore, the government has implemented the management project for home-based cancer patients and has made efforts to increase their life quality by supplying the public health service, which is possible to be provided in the local community, intending for caring the home-based cancer patients.[2)]

However, the project did not work as expected by several adverse factors on the home-based cancer patients management, such as check and registration of such patients in local communities, regular evaluation of patient condition and visiting service, formation and operation of volunteer organizations, and construction of the networking to health·welfare institutions concerned and associations in local areas. It can be, thus, thought that it is the time to consider the effective management method of public health centers for home-based cancer patients, through analyses on the actual condition of home-based cancer patient management projects which are conducted in the health centers.

As a part of the objective analysis on the management projects for home-based cancer patients of public health centers in cities, counties and districts across the nation, this study is to understand the degree of patients' demand for that management and the degree of the supply for the patients' demand, intending for the home-based cancer patients as the major subject for the project.

METHOD

1. Development and Analysis of Questionnaire Instrument

1) Period of Development and Survey: July to December 2006

2) Development of Questionnaire Instrument

(1) Step 1: Primary survey questions developed through literature studies and meeting with professionals such as responsible persons for the management project for home-based cancer patients in public health centers.[3,4)]

(2) Step 2: Visits of two public health centers as preparatory surveys, and correction and compliment of contents of the questionnaire.

(3) Step 3: Sending of printed materials and e-mails to the public health centers which show positive answers about the survey by call, giving explanation on how to fill out the questionnaire and to send the completed one, and visit for re-explanation when needed.

3) Constitution of Questionnaire

(1) General Information: 10 questions (age, sex, religion, educational background, economic level of family, family type, single or married situation, history about operations related to the diagnosis, number of hospitalizations, difficulties in the treatment for fighting cancers).

(2) Degree of Demand for Home-Based Cancer Patient Management: physical demands (8 questions), emotional demands (3 questions), spiritual demands (2 questions), educational · information demands (6 questions).

(3) Degree of Supply for Home-Based Cancer Patient Management[5)]: physical demands (8 questions), emotional demands (3 questions), spiritual demands (2 questions), educational · informational demands (6 questions).

2. Data Analysis

The data collected is analyzed, centering on the frequencies and percentages by utilizing SPSS WIN 12.0.

3. Limitations

Because most of the home-based cancer patients hesitated to expose them for the survey, researchers could not conduct the survey directly for those patients and instead, the survey was carried out with existing persons in charge of home-based cancer patients in public health centers.

RESULT

1. Demand and Supply for Home-Based Cancer Patient Management[6]

1) Sociodemographic Characteristics

(1) Distribution per Region and Sex: Total 356 patients answered the questions, as male 48.6% and female 51.4%. The respondents to the questionnaire is largely distributed in Gyeongnam as 20.2%, followed by Busan city as 11.5%, Jeonnam as 11.0% and Chungbuk as 11.0% (Table 1).

(2) Distribution per Age: Patients aged 40 to 79 are mostly occupied in the objects of the survey, as 91.5% of the all (Table 2).

(3) Educational Background: As for the distribution of the educational background of the responding patients, elementary school graduation is most highly observed as 42.7%, followed by middle school graduation as 21.6%, high school graduation as 20.8%, non-educated as 10.7% and university graduation as 4.2% (Table 3).

(4) Religion: The religions of the patients themselves are highly observed in Buddhism as 35.1%, no-religions as 29.5%, Christianity as 21.1%, Roman Catholicism as 11.0% and others as 3.4% (Table 4).

(5) Economic Level: In case of the examination on the economic level which is recognized by patients themselves, the lower level is mostly distributed as 73.3%, followed by the middle level as 24.7% and the upper level as 2.0%, which is quite a few amount, comparing to other levels. By such answers, it can be found out that more than 70% of the respondents have a great economic problem (Table 5).

Table 1. Distribution per region and sex.

Region	Sex		Total (%)
	Male	Female	
Seoul city	10	12	22 (6.2)
Busan city	14	27	41 (11.5)
Daegu city	15	14	29 (8.1)
Incheon city	4	1	5 (1.4)
Daejeon city	5	7	12 (3.4)
Gwangju city	9	12	21 (5.9)
Ulsan city	5	3	8 (2.2)
Gangwon	2	1	3 (0.8)
Gyeonggi	2	5	7 (2.0)
Chungbuk	26	13	39 (11.0)
Chungnam	2	3	5 (1.4)
Jeonbuk	13	11	24 (6.8)
Jeonnam	19	20	39 (11.0)
Gyeongbuk	11	8	19 (5.3)
Gyeongnam	30	42	72 (20.2)
Jeju	6	4	10 (2.8)
Total	173	183	356 (100.0)

Table 2. Distribution per age.

Age	Total (%)
Ages 0~9	0.3
Ages 10~19	0.3
Ages 20~29	0.0
Ages 30~39	2.5
Ages 40~49	14.6
Ages 50~59	16.9
Ages 60~69	30.3
Ages 70~79	29.7
Ages 80~89	4.5
Age 90 or more	0.9
Total	100.0

Table 3. Educational background.

Educational background	Total (%)
Non-educated	10.7
Elementary school graduation	42.7
Middle school graduation	21.6
High school graduation	20.8
University graduation	4.2
Total	100.0

Table 4. Religion.

Religion	Percentage (%)
Buddhism	35.1
Christianity	21.1
Roman catholicism	11.0
No-religions	29.5
Others	3.4
Total	100.0

Table 5. Economic level.

Economic level	Percentage (%)
Upper	2.0
Middle	24.7
Lower	73.3
Total	100.0

(6) Family Type: As the family type, the nuclear family (as the married couple-centered) is highly observed as 61.8%, followed by grandparents-grandchildren family as 8.7% and large family as 7.9% (Table 6).

(7) Marital Status: The respondents are mostly in the married state as 63.8%, followed by separation by death as 23.0%, divorce as 7.9% and single as 4.2%. And the legal separation is least observed as 1.1% (Table 7).

2) Actual Conditions of Cancer Treatment

(1) Operation History: 77.6% of the respondents to the questionnaire have experiences of medical operations, and the number of operations are highly observed in once as of 58.6% and the mean number of operation is one (Table 8).

(2) Hospitalization History: 95.9% of the responding patients have been hospitalized and the average number of hospitalizations is 2.9 times (Table 9).

Table 6. Family type.

Family type	Percentage (%)
Married couple centered family	61.8
Large family	7.9
Grandparents · grandchildren family	8.7
Others	21.6
Total	100.0

Table 7. Marital status.

Marital Status	Percentage (%)
Single	4.2
Married	63.8
Separation by death	23.0
Divorce	7.9
Legal separation	1.1
Total	100.0

Table 8. Number of operations.

Number of operations	Percentage (%)
No	22.4
1 time	58.6
2 times	12.2
3 times	4.8
4 times	1.1
Above 5 times	0.8
Total	100.0

3) Difficulties in Treatment for Cancers

(1) Difficulties: The difficulties in medical treatment for cancers are observed highly in economic problems as 38.8%, followed by physical problems as 26.7%, relations in family as 10.2%, emotional problems as 10.2%, pain control as 6.1%, emergency system as 3.6%, spiritual problems as 2.3%, communication problems with doctors as 1.8%, communication problems with nurses as 0.3% (Table 10).

(2) Difficulties in Treatment for Cancers according to Economic Levels: Patients in the middle and lower economic level are shown to have much more difficulties than patients in the upper economic level do (Table 11).

(3) Comparison of Difficulties in Treatment for Cancers, according to Family Types: In case of the analysis on difficulties according to the family type, the large family told the physical problems as the significant one than economic problems while other family types regard the economic problems as the biggest difficulties. And especially grandparents-grandchildren families have much more difficulties than married couple-centered families do (Table 12).

Table 9. Number of hospitalization history.

Number of hospitalizations	Percentage (%)
No	5.0
1 time	30.5
2 times	19.2
3 times	13.1
4 times	6.6
5 times	10.7
Above 6 times	15.0
Total	100.0

Table 10. Difficulties in treatment for cancers.

Difficulties	Percentage (%)
Economic problems	38.8
Physical problems	26.7
Relations in family	10.2
Emotional problems	10.2
Pain control	6.1
Emergency system	3.6
Spiritual problems	2.3
Communication problems with doctors	1.8
Communication problems with nurses	0.3
Total	100.0

Table 11. Comparison of difficulties in cancer treatment according to economic levels.

Difficulties	Economic Level		
	Upper	Middle	Lower
Economic problems	20.1	32.6	40.1
Physical problems	31.2	28.1	25.9
Relations in family	7.6	12.8	10.5
Emotional problems	15.4	11.3	10.9
Pain control	13.2	6.7	6.3
Emergency system	0	4.9	2.3
Spiritual problems	12.5	2.4	2.3
Communication problems with doctors	0	1.2	1.4
Communication problems with nurses	0	0	0.3
Total	100.0	100.0	100.0

Table 12. Comparison of difficulties in treatment for cancers, according to family types. (Unit: %)

Difficulties	Married ouple centered	Large family	Grandparents-grandchildren family	Others
Economic problems	39.4	28.4	40.4	38.2
Physical problems	27.1	29.7	21.2	25.1
Relations in family	10.2	17.2	14.1	8.3
Emotional problems	2.5	2.5	1.2	3.5
Pain control	10.3	11.1	8.3	12.9
Emergency system	2.5	2	4.3	3.1
Spiritual problems	6.4	7.9	7.2	7.1
Communication problems with doctors	0.4	0.4	1.8	0.5
Communication problems with nurses	1.2	0.8	1.5	1.3
Total	100.0	100.0	100.0	100.0

4) Degrees of Demand and Supply for Service

Dividing the services which are currently being provided through the management project for home-based cancer patients into physical, emotional, spiritual and educational-informational demands, the patient demands for those services are examined by the 4-point scale.

Among services divided into 4 types, the emotional demand is observed mostly as 2.80 points and the degree of the emotional service supply is also observed to be the highest as 82.6%, followed by the educational·informational demand as 2.43 points, the spiritual demand as 2.40 points and the physical demand as 2.38 points. And the degree of the service supply is shown in the educational·informational demand as 59.2%, the spiritual demand as 52.1% and the physical demand as 51.7%. The service is observed to be supplied in proportion to the demand (Table 13).

Table 13. Degrees of demand and supply for service.

Services	Degree of demand (Point)	Degree of supply (%)
Physical service	2.38	51.7
Emotional service	2.80	82.6
Spiritual service	2.40	52.1
Educational · informational service	2.43	59.2

* The degree of demand has 4-point scale.

Table 14. Degrees of demand and supply for physical service.

Services	Degree of demand	Degree of supply (%)
Personal sanitation	2.19	55.6
Physical protective mechanism disorder control	2.46	54.3
Sense of security disorder control	2.64	68.1
Micturition disorder control	2.11	33.9
Dyspnea control	1.93	30.6
Dystrophy control	2.73	68.2
Elimination disorder control	2.34	55.7
Ache control	2.64	47.5
Average	2.38	51.7

* The degree of demand has 4-point scale.

(1) Physical Service: As the result of analyses on the degrees of demand and supply for each service, the physical service is supplied mostly for the dystrophy control as 68.2%, followed by for physical defense mechanism disorder control as 68.1%, for excretion disorder control as 55.7%, for personal sanitation as 55.6%, for physical protective mechanism disorder control as 54.3% and for pain control as 47.5%. And the service for dyspnea control is observed to be least supplied as 30.6%.

The degree of demand for those services is shown to be greatest in dystrophy control as 2.73 points, followed by sense of security disorder control as 2.64 points, pain control as 2.64 points and physical protective mechanism disorder control as 2.46 points, and the dyspnea control is observed to be lowest as 1.93 points (Table 14).

(2) Emotional Service: The emotional service is found out to 'be supplied' by more than 80% for the depression and anxiety management, and the sympathy by talking. Among

Table 15. Degrees of demand and supply for emotional service.

Services	Degree of demand	Degree of supply (%)
Depression management	2.69	80.4
Anxiety management	2.79	84.2
Sympathy by talking	2.93	83.1
Average	2.80	82.6

* The degree of demand has 4-point scale.

Table 16. Degrees of demand and supply for spiritual service.

Services	Degree of demand	Degree of supply (%)
Religious help	2.32	45.0
Talking together about future worries	2.53	59.1
Average	2.43	52.1

* The degree of demand has 4-point scale.

such service, the sympathy by talking is most highly demand as 2.93 points (Table 15).

(3) Spiritual Service: The spiritual service is observed to be supplied by talking together about future worries as 59.1% and by religious help as 45.0%, and the degree of demand for those services is observed as 2.53-point and 2.32-point, respectively (Table 16).

(4) Educational-Informational Service: As for the educational-information service, the supply of disease process information is shown to be highest as 86.7%, followed by explanation of required adverse symptoms at visit as 80.8%, supply of preventive information against infection as 69.1%, explanation of nursing methods according to treatment as 60.3%, explanation of treatment cost as 48.4%, supply of sex life information as 10.6%. The degree of demand is observed to be highest in explanation of required adverse symptoms at visit as 2.84 points, followed by supply of disease process information as 2.74 points (Table 17).

Table 17. Degrees of demand and supply for educational-informational service.

Services	Degree of demand	Degree of supply (%)
Supply of sex life information	1.52	10.6
Supply of disease process information	2.74	85.7
Explanation of treatment cost	2.41	48.4
Explanation of nursing methods according to treatment	2.44	60.3
Supply of preventive information against infection	2.60	69.1
Explanation of required adverse symptoms at visit	2.84	80.8
Average	2.43	59.2

* The degree of demand has 4-point scale.

DISCUSSION

The home-based cancer patients management project of public health centers is to supply public health care service to local communities, By this, the life quality of cancer patients can be improved and the burden of nursing and economic problems that their families should bear can be reduced.

There have been, however, various realistic problems such as no proper treatment supplied for patients owing to nuclear families or social participation of women, insufficient staffs in health centers despite home-based cancer patients management projects being operated, improper environmental situation of public health centers, the centers with no management project, and so on.[7)]

As the findings of analyses on the services supplied currently through the home-based cancer patients management project which are divided into physical, emotional, spiritual and educational-information service, the degree of demand and supply is observed to be highest in the emotional service, followed by the educational-informational service, the spiritual service and the physical service.

Reviewing the analysis for each service, in case of the physical service, the degree of pain control supply is observed to be low, yet its demand is to be high and also the control for disorder of physical protective mechanism is provided at a relatively lower degree, comparing to its degree of demand, and on the contrary, the control of elimination disorder and personal sanitation are observed to be supplied at a relatively higher degree, comparing to its demand. It is, thus, thought that the supply of service needs to be adjusted by considering the priority order.

In case of emotional service, the degree of demand and supply is shown to be high comparing to other services, and especially the degree of service for anxiety management is observed to be highest and the sympathy by talking is observed to be mostly demanded, so that it is considered that

the service to support patients emotionally is required much more than now.

As for the spiritual service, its supply was found out to be proper when comparing to the demand, while the educational-informational service, say, 'Explanation of required adverse symptoms at visit', was found out to be highly demanded and highly supplied.

The results of this study have a significant meaning from the aspect that an actual satisfaction of patients was researched through the home-based cancer patients management project of public health centers, not through theoretical researches of the existing studies.[8] In addition, it is expected the results can be utilized as the basic data for future policies. There have been, however, much difficulty in carrying out surveys for the cancer patients on the environment of struggle against the disease, so it is hoped that further studies intending for families of cancer patients and responsible persons in public health centers will make up for the limitation of this study.

요 약

목적: 본 연구에서는 전국의 시·군·구 보건소 재가암환자 관리사업의 객관적 실태분석의 일환으로 재가암환자 관리 사업의 주 대상자인 재가 암환자를 대상으로 개발된 조사도구를 이용하여 그들의 재가 암환자 관리 요구도와 제공정도를 파악하는데 목적이 있다.

방법: 재가암환자 관리사업의 요구도 및 제공정도로 구성된 설문지를 개발 조사하고 수집된 자료는 SPSS WIN 12.0을 이용하여 빈도와 백분율을 중심으로 분석하였다.

결과: 현재 재가 암환자 관리사업을 통해 제공되고 있는 서비스를 신체적, 정서적, 영적, 교육·정보적 서비스로 나누어 재가 암환자들을 대상으로 조사한 결과 요구도와 제공정도는 정서적 서비스에서 가장 높고 다음으로 교육·정보적 서비스, 영적 서비스, 신체적 서비스 순으로 조사되었다. 각 서비스별 주요 항목을 살펴보면 신체적 서비스의 경우 통증조절은 요구도에 비해 그 제공정도가 낮았고 반면 배설장애조절과 개인위생은 요구도에 비해 그 제공정도가 높은 것으로 나타났다. 또한 정서적 서비스의 경우 전반적으로 요구도와 제공정도가 높았고 영적 서비스의 경우 요구도에 알맞게 서비스가 제공되고 있는 것으로 나타났다.

결론: 본 연구는 보건소 재가암환자 관리사업에 대한 환자의 서비스 요구도와 실제 제공받은 서비스 정도를 분석한 연구로서 향후 재가 암환자의 요구도에 근거한 효율적 프로그램 개발의 기초자료로 활용이 가능할 것으로 사료된다.

중심단어: 재가 암환자, 요구도, 제공정도, 통증관리, 신체적 서비스, 정서적 서비스, 영적 서비스

참 고 문 헌

1. 보건복지부. 재가암환자의 효율적 관리방안. 2005.
2. 보건복지부. 2006년도 국가암관리사업 안내. 2006.
3. 김분한, 정연. 지역사회 재가 암환자 관리체계 구축. 한국호스피스·완화의료학회지 2001;4(2):154-160.
4. 김정희, 최연순. 가정호스피스기관의 활동에 관한 연구. 한국호스피스·완화의료학회지 2003;3(1):28-38.
5. 오대규. 말기암 관리의 현황 및 방향 - 말기 암환자 삶의 질, 이대로 좋은가? 한국호스피스·완화의료 심포지움 2001
6. 조현. 보건소 재가암환자 사업에 대한 실태분석 및 효율적 관리방안 개발. 2007.
7. 한국보건산업진흥원. 공공병원 가정간호 사업과 보건소 방문보건사업 연계지침 개발. 2006.
8. 정은경. 재가암환자 요구와 보건소 대응방안. 건강보장연구. 2002;통권 6호.