

Health Care Needs According to the Life-Cycle of Community Residents

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Abstract

Background/Objectives: The purpose of this study analyzes health care needs by life cycle and provides basic data for developing health care programs accordingly.

Methods/Statistical analysis: Tools for measuring the health care needs of the subjects were revised and supplemented by the tools of the Community Health Survey. Data was collected through a questionnaire from August 1 to August 21, 2018. Although 897 questionnaires were collected, 843 questionnaires were used for data analysis, except for 54 which were not clear or missing. The collected data were analyzed with the SPSS 18.0 program.

Findings: The analysis of health care needs by life cycle was the highest in adolescents with 3.41 out of 4.0, followed by 3.40 in childhood, 3.39 in elderly, 3.35 in adulthood, and 3.31 in pregnancy. The difference in the health care needs by life cycle according to the general characteristics is as follows: in the difference analysis of health needs by gender and life cycle, there was a statistically significant difference in adolescents ($t=-2.770$, $p=.006$) and adulthood ($t=-1.970$, $p=.049$). There was also a statistically significant difference in health needs in adolescence ($F=2.225$, $p=.039$) and adulthood ($F=2.449$, $p=.024$). The difference between marital status and health demand was statistically significant in adolescence ($F=4.570$, $p=.001$) and adulthood ($F=3.715$, $p=.005$).

Improvements/Applications: Therefore, in order to improve the health potential of the residents, it is necessary to develop a health care program according to the life cycle.

Keywords: Health care, Need, Life-cycle, Community, Residents

Introduction

Recently, with the aging of the population and the extension of life expectancy, there is a need for a customized healthcare approach to optimize and use an approach that is optimized for healthcare targets [1, 2]. In other words, health care has different levels and influencing factors according to age, and a differentiated approach strategy is needed.

The task of the public health center as a front line for the health administration is to broadly fulfill the primary health care needs of the local residents and at

the same time to provide a new approach to the health management of the residents [3]. In other words, by developing and expanding basic health services such as disease prevention and health promotion projects [4, 5], it is urgently required to re-establish functions and roles so as to actively cope with primary health care and new healthcare demand for local residents

In particular, local health care plans should improve the efficiency of health care projects by coordinating plans to meet the health care environment and national health care policy, and provide comprehensive, high quality health care services to the locals. It is desirable to establish a local health care plan focusing on opinions of users of public health centers in order to continuously carry out preventive activities such as health promotion and health education that meet the needs of local residents and systematically promote the contents of

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various businesses [6, 7].

The basic approach to lifelong health care programs assumes that the factors that threaten the maintenance and promotion of health during an individual's lifetime are different. Therefore, the program provided to each individual depends on the overall life cycle characteristics and individual characteristics [8].

The life cycle is the process of changing a person's life through certain stages at the individual or family level, i.e., according to the stages of human development, infancy, childhood, adolescence, adulthood, middle age, and old age.

In the case of operating health projects by life cycle, there is an advantage in that each program can be specified. However, since the current national health projects are operated by business units, life cycle health projects are distracting in terms of setting the direction of the project and there are many limitations in connection with the current health programs [8].

Therefore, this study divided the life cycle into pregnancy, childhood, adolescents, adulthood, and elderly, and analyzed health care needs of each life cycle considering current on - going health care business, we tried to provide basic data for setting the program.

Method

1. Research Design

This study is a descriptive study to analyze health care needs by life cycle and provides basic data for developing health care programs accordingly. The life cycle was divided into pregnancy, childhood, adolescent, adulthood and elderly.

2. Data Collection

The subjects of this study were 897 people from N and C city by random sampling method. They explained that the purpose of the study and the data collected were not used for anything other than the study, and the anonymity and confidentiality of the subjects were guaranteed. In addition, the subjects were explained to the subjects that they have the right to participate or refuse the study at any stage of the study. Afterwards,

the survey was conducted after receiving written consent for the research subjects who voluntarily participated. Data was collected through a questionnaire from August 1 to August 21, 2018. Although 897 questionnaires were collected, 843 questionnaires were used for data analysis, except for 54 which were not clear or missing.

3. Instruments

Health care needs

A tool for measuring the level of health services was developed by modifying and supplementing the tools in the Community Health Survey [9]. The tool is divided into four categories and evaluated on a 4-point scale: 4 points for 'very necessary', 3 points for 'need', 2 points for 'not needed', and 1 point for 'not required at all'. Higher scores indicate higher levels of health care needs. The Cronbach's α value for health care needs was 0.959.

4. Data Analysis

The collected data were analyzed with the SPSS 18.0 program:

- The frequencies and percentages of the general characteristics of the subjects were calculated.

- To analyze the health care needs by life cycle according to general characteristics of the subjects, t-test and ANOVA were done. A Scheffe test was done as a post hoc test.

- The correlation between the maternal health care, childhood health care, adolescent health care, adult health care & elderly health care was analyzed with the Pearson's correlation coefficient.

Result

1. General characteristics

[Table 1] presents the general characteristics of the subjects. 35.6% of males and 64.4% of females had the highest age of 20 ~ 49, 63.8% of the total. The highest educational level was 53.6% for college graduates and 32.0% for high school graduates. The marital status was the highest with 57.8% and the unmarried was 32.9%.

Table 1. General characteristics**n=843**

Characteristics	Categories	n	%
Gender	Male	300	35.6
	Female	543	64.4
Age(years)	10~19	172	20.4
	20~29	219	26.0
	30~39	172	20.4
	40~49	147	17.4
	50~59	60	7.1
	60~69	61	7.2
	70 over	12	1.4
Education	Over college	452	53.6
	High school	270	32.0
	Middle school	61	7.2
	Elementary school	60	7.1
Married status	Unmarried	277	32.9
	Spouse	487	57.8
	Bereavement	54	6.4
	Separation	13	1.5
	Divorce	12	1.4

2. Level of health care needs according to life-cycle

[Table 2] shows the results of the analysis of the health care needs of the life cycle, pregnancy, childhood, adolescents, adulthood and the elderly. The highest in adolescence was 4.0 to 3.41, followed by 3.40 in childhood, 3.39 in elderly, 3.35 in adulthood, and 3.31 in gestational age.

Table 2. Level of health care needs according to life-cycle

Division	Min.	Max.	M±SD
Pregnancy	1.00	4.00	3.31±.76
Childhood	1.00	4.00	3.40±.72
Adolescents	1.00	4.00	3.41±.62
Adulthood	1.00	4.00	3.35±.60
Elderly	1.00	4.00	3.39±.58

3. Difference in the health care needs by life cycle according to general characteristics

[Table 3] shows the analyzed the difference in the health care needs by life cycle according to the general characteristics of the subjects.

In the difference analysis of health needs by gender and life cycle, there was a statistically significant difference in adolescents ($t=-2.770$, $p=.006$) and adulthood ($t=-1.970$, $p=.049$). In both adolescents and adulthood, health needs were higher for women than for men. There was also a statistically significant difference in health needs in adolescence ($F=2.225$, $p=.039$) and adulthood ($F=2.449$, $p=.024$). Adolescence did not differ statistically by group. And in adulthood, the health needs of those in their 60s and over 70s were higher than those

in their 10s, 20s, 30s and 40s. There was no statistically significant difference in health care needs by life cycle in educational background. The difference between marital status and health demand was statistically significant in adolescence ($F=4.570$, $p=.001$) and adulthood ($F=3.715$, $p=.005$). The health needs of adolescents were higher in divorced persons than in separated persons and in adulthood, the health needs of divorced people were higher than those of unmarried, spouse and separated persons.

Table 3. Difference in the health care needs by life cycle according to general characteristics

General Characteristics	Categories		Pregnancy	Childhood	Adolescents	Adulthood	Elderly
Gender	Male	M±SD	3.31±.88	3.42±.78	3.33±.59	3.29±.58	3.35±.52
	Female	M±SD	3.29±.68	3.39±.69	3.45±.52	3.38±.62	3.41±.61
		t(p)	.691 (.490)	.582 (.561)	-2.770 (.006)**	-1.970 (.049)*	-1.315 (.189)
Age(years)	10~19, a	M±SD	3.18±.82	3.46±.81	3.32±.54	3.32±.51	3.35±.50
	20~29, b	M±SD	3.36±.78	3.45±.81	3.42±.57	3.32±.80	3.47±.75
	30~39, c	M±SD	3.23±.63	3.42±.54	3.43±.70	3.29±.49	3.40±.50
	40~49, d	M±SD	3.24±.61	3.24±.63	3.34±.55	3.34±.51	3.30±.53
	50~59, e	M±SD	3.27±.98	3.46±.93	3.51±.63	3.42±.50	3.31±.51
	60~69, f	M±SD	3.23±.56	3.33±.48	3.60±.85	3.53±.48	3.46±.47
	70 over, g	M±SD	3.69±1.71	3.50±.59	3.43±.50	3.82±1.07	3.45±.56
		F(p)	1.575 (.151)	1.920 (.075)	2.225 (.039)*	2.449 (.024)*	1.663 (.127)
					a,b,c,d<f,g		
Education	Over college	M±SD	3.32±.75	3.43±.75	3.41±.59	3.33±.60	3.39±.61
	High school	M±SD	3.35±.84	3.40±.74	3.38±.59	3.37±.61	3.40±.56
	Middle school	M±SD	3.09±.57	3.22±.68	3.36±.99	3.25±.68	3.27±.59
	Elementary school	M±SD	3.26±.53	3.40±.44	3.49±.47	3.49±.48	3.46±.44
		F(p)	2.074 (.102)	1.421 (.235)	.555 (.645)	1.751 (.155)	1.117 (.341)
Married status	Unmarried, a	M±SD	3.28±.74	3.36±.71	3.31±.53	3.28±.51	3.33±.51
	Spouse, b	M±SD	3.28±.59	3.39±.57	3.42±.52	3.33±.51	3.38±.51
	Bereavement, c	M±SD	3.29±1.00	3.40±.95	3.51±.67	3.50±.52	3.45±.44
	Separation, d	M±SD	3.26±.67	3.26±.82	3.12±.85	3.27±.89	3.44±.63
	Divorce, e	M±SD	3.61±.51	3.78±.41	3.69±.38	3.70±.40	3.61±.36
		F(p)	.723 (.576)	1.326 (.259)	4.570 (.001)**	3.715 (.005)**	1.491 (.203)
				d<e	a,b,d<e		

* $p<0.5$, ** $p<0.01$.

4. Correlation between the health care needs by life cycle

As shown in table 4, the result showed that there was positive correlation of the total health care need, health care service($r=.862$, $p<.01$), health promotion

service($r=.849$, $p<.01$), elderly health service($r=.868$, $p<.01$), maternal & child health service($r=.856$, $p<.01$) in citizens of N city. This means that higher the total health care need in the citizens increase to more the level of health care service, health promotion service, elderly health service and maternal & child health service.

Table 4. Correlation between the health care needs by life cycle

Division	Pregnancy	Childhood	Adolescents	Adulthood	Elderly
Pregnancy	1				
Childhood	.842**	1			
Adolescents	.333**	.343**	1		
Adulthood	.420**	.428**	.516**	1	
Elderly	.428**	.449**	.479**	.719**	1

** p<0.01

Discussion

This study identified health care needs according to the life cycle of local residents through the survey on health care of citizens in N and C cities. Based on the research results, we attempted to develop a health care program according to the life cycle. In addition, in order to promote the health of local residents and provide high-quality health care services, it was started with the recognition that the organization needs to reinforce medical capacity and new challenges and responses by linking the organizations and functions of public health centers and public health centers [10].

As a result of this study, health care needs were the highest at 3.41 out of 4.0 in adolescents and 3.40 in childhood. Therefore, it is necessary to focus on health care in childhood and adolescence.

Various health problems occur in each life cycle, and in order to solve these problems, health care services should be provided in consideration of physical and health characteristics. Adolescence is a process of growing up into adulthood and establishing a healthy lifestyle that affects health in adulthood [8]. Therefore, it is considered that what is required in adolescence is the development of a health care program to establish a healthy lifestyle and to build a self-image of health. In childhood, it is a continuation of the growth process of infancy, in which positive self-image and healthy life habits are formed through physical, mental and social growth. Therefore, in this period, it is necessary to develop health care programs such as health education and counseling to form health lifestyles.

Adulthood is the most active period of exerting physical, mental and social potential, and forms various social positions and relationships. It is also the time

to begin to be affected by health risks, depending on the health habits formed in the previous stages of the life cycle. In particular, since the forties, the disease of chronic degenerative diseases such as cancer and cerebrovascular diseases will increase rapidly. Therefore, the early detection of diseases is the most important time because the health lifestyle and the management of disease risk factors in this period are to determine the health of the old age. In old age, the incidence of disease continues to increase and mortality is high, and the causes of death are cerebrovascular diseases and cancer. This period is relatively weak in relation to individual health risk factors and diseases [11].

Lifelong health programs should include vaccinations, regular health check-ups, counseling and health education, and development of life cycle programs that take into account age-specific health care needs. Summarizing the characteristics of the life cycle programs included in a lifelong health care program, infants and toddlers should be monitored for vaccination and physical and mental development. In childhood, it is important to strengthen health education and counseling to establish healthy lifestyles. From adolescence onwards, health checkups should be strengthened periodically for early detection of chronic diseases. Of course, clinical tests and training content should be appropriately modified according to the risk factors identified individually [10, 12].

In addition, public health centers should provide appropriate services according to life cycles and encourage the participation of community members in social activities. And they need constant efforts, such as strengthening health infrastructures and developing health programs, to create a supportive environment for local residents and to manage their chronic diseases

efficiently.

Conclusion

Each life cycle leads to a variety of health problems. To solve these problems, it is necessary to provide health care services, taking into account their physical and health characteristics. Lifelong health programs also include vaccinations, routine screenings, counseling, and health education, but health care programs should be developed to take into account the characteristics of health care by life cycle.

Ethical Clearance: Not required

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Conflict of Interest: Nil

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