

A Study on the Requirements for Health Education of Middle School Students

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I. Introduction

1. Background

In the early-twentieth century, the public health focus shifted from hygiene based on sanitation to psychosocial matrix of human bodies. The new concept was concerned with individual physical, mental and social beings. The new focus on personal health demanded education and training to control human behavior.

The importance of health behavior introduced the guiding physical body movements in elementary school physical education classes. Guided physical education class arose hygiene education, and this was the beginning of health education in the United States(Rubinson & Alles, 1984). In early 1970, the most of states in the U.S.A

adopted comprehensive health education curriculum plans for kindergarten through high school seniors.

The idea of health education lead to the studies of health behaviors and developing curriculum for health education. The health professionals began to accepted the idea that modification and improvement in personal behaviors.

Green(1988) has defined the health education as follows; "Health education is any combination of learning experiences designed to facilitate voluntary adaptations of behavior conducive to health". That is, since the personal health was effected by the behavior, health educators should focused on the children to prevent the development of undesirable behaviors before they are formed.

Posner and Rudnitsky(1978) have provided a model of curriculum development process including the various activities and sequence of steps or events. The health instruction framework for California public schools was developed by a Curriculum Framework Criteria Committee on Health, California State Department of Education in 1978. The framework encompasses 10 topic areas; 1) personal health, 2) family health, 3) nutrition, 4) mental-emotional health, 5) use and abuse of substances, 6) disease & disorders, 7) consumer health, 8) accident prevention & emergency health services, 9) community health, 10) environment (J.H.Cho, 1992).

However, until now in Korea, there was few studies on the establishment for health education in middle school. The importance for health education are increasing, studies on requirements for health education of students are few. Even though Health is a basic element of education and contents of health education should be included in educational processing, we do not have the curriculum for health except the military education in girl's high school.

Therefore, there is a need to conduct study on requirements for health education before performing the health education as curriculum in middle school. Then we examined the satisfaction with current health knowledge, the need of health education and the requirements for health education in middle school students by the questionnaire method.

2. Objectives

We carried out this study to find out:

- 1) the current requirements for health education in middle school students
- 2) the factors associated with the satisfaction with health knowledge and the need of health education
- 3) the relation of the satisfaction with health knowledge and the requirements for health education
- 4) the relation of the need of health education and requirements for health education.

3. Key Words

- ◆ Satisfaction with health knowledge
: The satisfaction with current health knowledge through the other subjects
- ◆ Need of health education
: The need of health education in middle school processing
- ◆ Requirements for health education
: The requirements of students for the establishment of health curriculum, the start for performing the health education, the class hours for health education, the teachers in charge of health and suitable contents for health education in middle school.

II. Methods

The study was conducted on 688 student's self-reported data of M, S middle school in Kyung Gi-do, Korea, representing a survey on middle school students discharged during Dec., 1994. The respo-

ndents were constructed that 479(69.9%) of 1, 2 grade in M middle school and 209(30.4%) of 1, 2 grade in S middle school. And 408 students(59.3%) were male, 280 students(40.7%) were female.

To find out the requirements for health education, we made a questionnaire containing 40 questions; 7 questions are concerned with individual characteristics, 1 question is the satisfaction with current health knowledge, 1 question is the need of health education, and 31 questions are concerned with the requirements for health education.

The analysis step was divided into first and second step. First step was to know

how individual characteristics affect the satisfaction with current health knowledge and the need of health education. Second step was to know how the satisfaction with health knowledge and the need of health education affect the requirements for health education<Figure 1>.

And logistic regression in PC-SAS was performed to determine the independent predictors of the satisfaction with health knowledge and the needs of health education such as sex, birth order, educational level of parent, school record and health status. A chi-square was used to determine relationships between the requirements for health education and

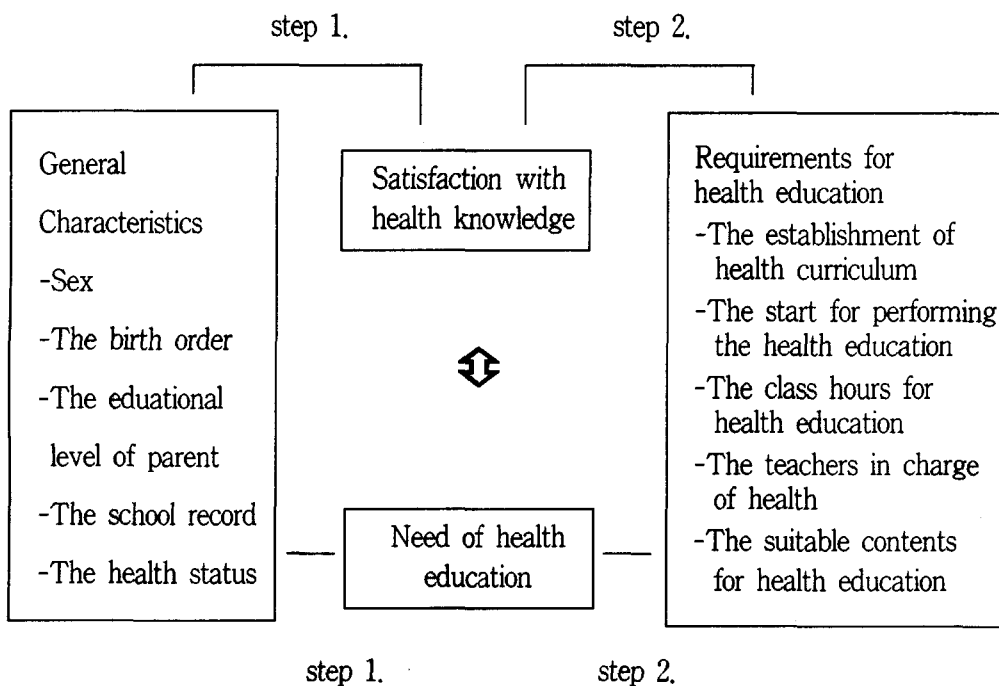


Figure 1. A Schematic model of assessing requirements for health education

effective factors such as the satisfaction with health knowledge and the need of health education.

III. Results

1. General Characteristics

The individual characteristics are shown as in Table 1, the birth order consisted of the first(43.3%), the second(33.6%), the third(15.4%) and the others(7.7%). In the educational level of parents, the educational level of fathers were high school(12 years) made up 47.8%, middle school(9 years) made up 26.3%, elementary school(6 years) made up 10.7%, and the educational level of mothers were high school(12 years) made up 42.6%, middle school(9 years) made up 33.6%, elementary school(6 years) made up 14.4%. This results are shown that the educational level of parents were mostly the middle and high school, that is 9~12 educational years.

Also in the school record, the students responded that upper 30% in class were 29.1%, from 30% to 70% in class were 48.5% and under 30% were 22.4%. Most of the students(78.9%) responded that their health were good; however, 31.4% of female thought that their health is poor.

2. The current requirements for health education

The satisfaction with health knowledge and the need of health education are shown as in Figure 2, 3. The 68.2% of the students satisfied the learned health

knowledge in the other subjects, and the 92.7% of those needed of health education. In case of males for satisfaction with health knowledge, they satisfied more than females, but females needed more than males for health education.

And the requirements for health education of the students were, first, the establishment of health curriculum(45.6%); second, the earlier start for performing the health education(82.8%) such as kindergarten and elementary school; third, the regular class hours for health education(82.4%); fourth, the specialized teachers in charge of health(89.0%) such as school doctor, nurse-teacher and health educator<Table 2, Figure 4~7>.

The preferable contents for health education were First Aid, Safety Education, Nutrition, Environment, Drinking & Smoking & Drug Abuse, Dental Health, Personal Hygiene, Food Hygiene, Communicable Diseases, Sex Education, Health and Exercise, Mental Health, Non-Communicable Disease, Public Health and Function of Medical Institution in the order named<Table 3>.

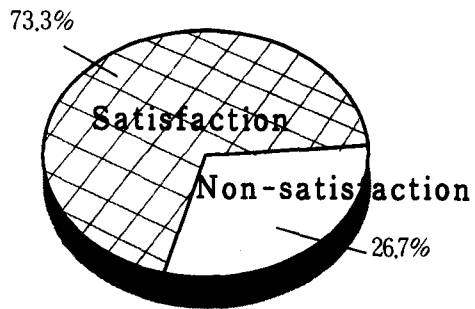
3. The factors associated with the satisfaction with knowledge and the need of health education

The satisfaction with health education knowledge was related to the sex, the birth order, the educational level of fathers, the educational level of mothers and the school records. The need of health education was related to the sex, the educational level of

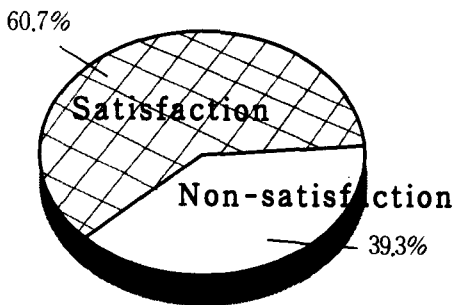
Table 1. General Characteristics

Unit:No.(%)

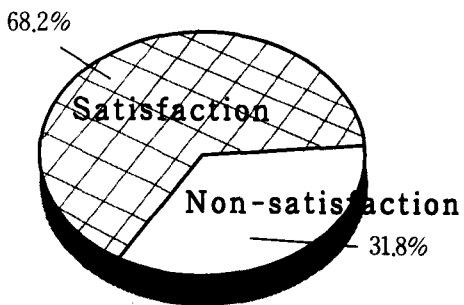
Classification	Male	Female	Total
<u>TOTAL</u>	408(100.0)	280(100.0)	688(100.0)
<u>The birth order</u>			
The first	180(44.1)	118(42.1)	298(43.3)
The second	132(32.4)	99(35.5)	231(33.6)
The third	106(14.5)	47(16.8)	106(15.4)
The fourth	21(5.1)	9(3.2)	30(4.4)
The fifth and over	16(3.9)	7(2.5)	23(3.3)
<u>The educational level of father</u>			
Illiteracy(none)	4(1.0)	4(1.4)	8(1.2)
Elementary(6years)	48(11.7)	26(9.3)	74(10.7)
Middle school(9years)	101(24.8)	80(28.6)	181(26.3)
High school(12years)	193(47.3)	136(48.6)	329(47.8)
University(14yeras and over)	41(10.0)	18(6.4)	59(8.6)
Non-response	21(5.2)	16(5.7)	37(5.4)
<u>The educational level of mother</u>			
Illiteracy(none)	7(1.7)	7(2.5)	14(2.0)
Elementary(6years)	62(15.2)	37(13.2)	99(14.4)
Middle school(9years)	139(34.1)	92(32.9)	231(33.6)
High school(12years)	169(41.4)	124(44.3)	293(42.6)
University(14yeras and over)	15(3.7)	9(3.2)	24(3.5)
Non-response	16(3.9)	11(3.9)	27(3.9)
<u>The school record</u>			
Upper 30%	123(30.2)	77(27.5)	200(29.1)
30%~70%	187(45.8)	147(52.5)	334(48.5)
Under 70%	98(24.0)	56(20.0)	154(22.4)
<u>The health status</u>			
Good	351(86.0)	192(68.6)	543(78.9)
Poor	57(14.0)	88(31.4)	145(21.1)



<Male>

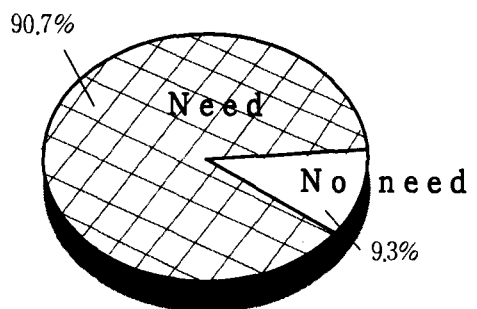


<Female>

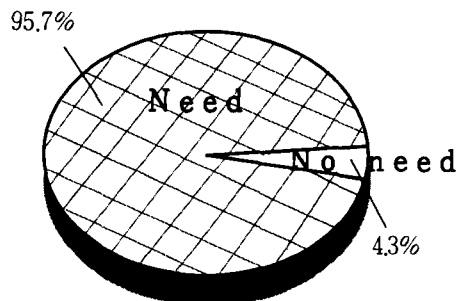


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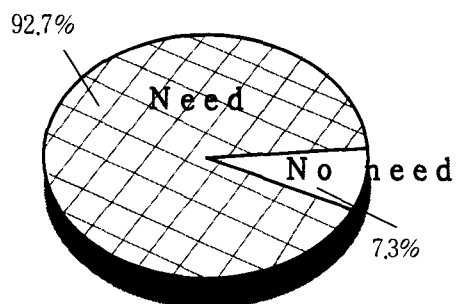
Figure 2. The satisfaction with health knowledge



<Male>



<Female>



<Total>

Figure 3. The need of health education

Table 2. Requirements for Health Education

Unit:No.(%)

Classification	Male	Female	Total
<u>TOTAL</u>	408(100.0)	280(100.0)	688(100.0)
<u>The establishment of health curriculum</u>			
For	189(46.3)	125(44.6)	314(45.6)
Against	116(28.4)	66(23.6)	182(26.5)
Unknown	103(25.3)	89(31.8)	192(27.9)
<u>The start for performing the health education</u>			
Kindergarten	142(34.8)	96(34.3)	238(34.6)
Elementary school	195(47.8)	137(48.9)	332(48.2)
Middle school	56(13.7)	36(12.9)	92(13.4)
High school	15(3.7)	11(3.9)	26(3.8)
<u>The class hours for the health education</u>			
1-2 hours per week	165(40.5)	68(24.3)	233(33.9)
1-2 hours per month	176(43.1)	158(56.4)	334(48.5)
1-2 hours per semester	31(7.6)	28(10.0)	59(8.6)
1-2 hours per year	14(3.4)	15(5.4)	29(4.2)
The others	22(5.4)	11(3.9)	33(4.8)
<u>The teacher in charge of health</u>			
School doctor	18(4.4)	8(2.8)	26(3.8)
Nurse-teacher	90(22.0)	61(21.8)	151(22.0)
Class teacher	13(3.2)	1(0.4)	14(2.0)
Health educator	250(61.3)	185(66.1)	435(63.2)
All of teacher	18(4.4)	8(2.8)	26(3.8)
Parents	19(4.7)	17(6.1)	36(5.2)

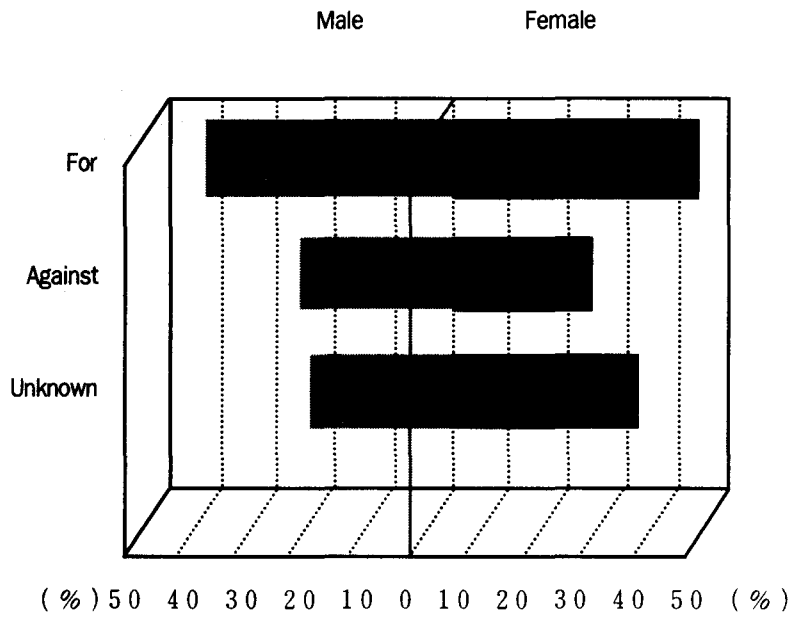


Figure 4. The establishment of health curriculum

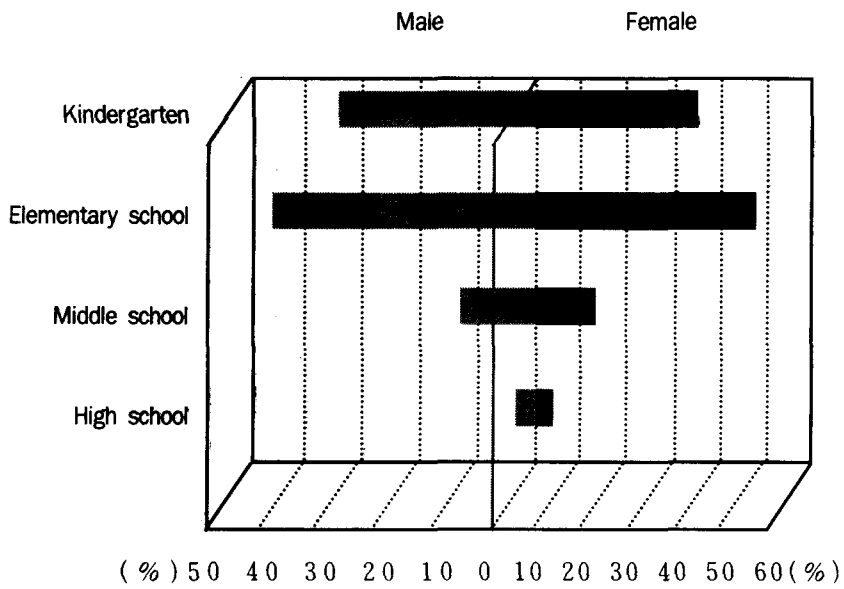


Figure 5. The start for performing the health education

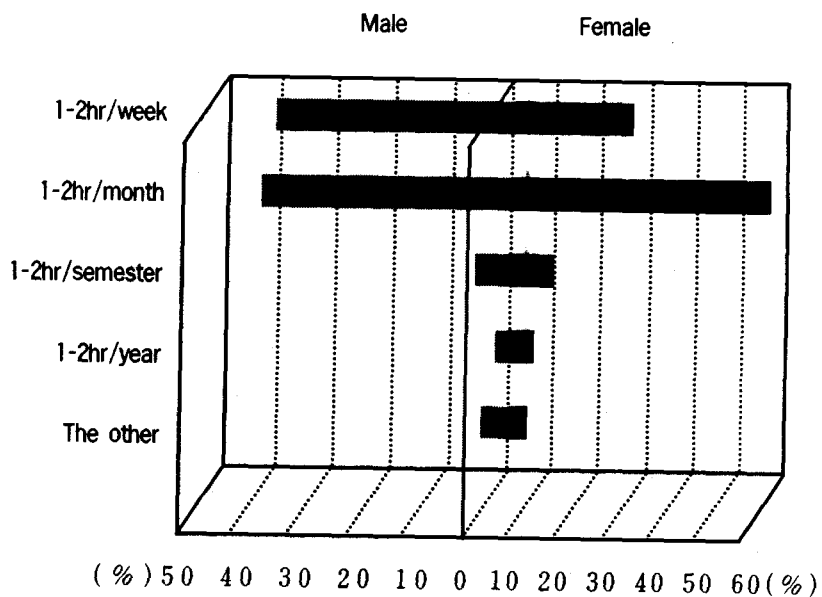


Figure 6. The class hours for the health education

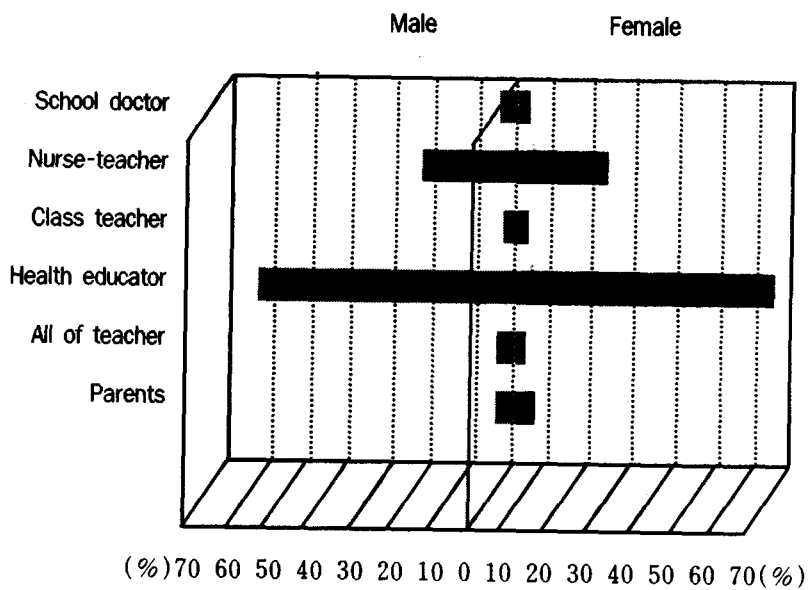


Figure 7. The teacher in charge of health

Table 3. The Requirements for Health Education Contents

Unit:No.(%)

Contents	Certainly need	Need	None
First Aid	522(75.9)	149(21.6)	17(2.5)
Safety Education	447(65.0)	212(30.8)	29(4.2)
Nutrition	422(61.3)	233(33.9)	33(4.8)
Environment	420(61.0)	231(33.6)	37(5.4)
Drinking, Smoking, Drug Abuse	419(60.9)	201(29.2)	68(9.9)
Dental Health	414(60.2)	231(33.6)	43(6.2)
Personal Hygiene	375(54.5)	294(42.7)	19(2.8)
Food Hygiene	337(49.0)	307(44.6)	44(6.4)
Communicable Diseases	336(48.9)	316(45.9)	36(5.2)
Sex Education	327(47.5)	325(47.3)	36(5.2)
Health and Exercise	275(40.0)	366(53.2)	47(6.8)
Mental Health	246(35.8)	358(52.0)	84(12.2)
Non-Communicable Diseases	238(34.6)	397(57.7)	53(7.7)
Public Health	219(31.8)	391(56.8)	78(11.4)
Function of Medical Institution	205(29.8)	429(62.3)	54(7.9)

mothers and the school records (Table 4); however, it has not been significant that the satisfaction with health knowledge and the need of health education.

These results were shown that males were significantly more likely than females to satisfy the current health knowledge ($p < 0.01$), but females were significantly more likely than males to need the health education ($p < 0.05$). The students in lower birth order were significantly more likely than those in higher birth order to satisfy the current health knowledge ($p < 0.05$).

In educational level of parents, the students who have lower father's education level were significantly more likely than

those who have higher father's education level to satisfy the current health knowledge ($p < 0.01$). And the students who have higher mother's education level were significantly more likely than those who have lower mother's education level to satisfy the current health knowledge ($p < 0.01$), but that were opposite to need of health education ($p < 0.05$).

The students in lower school record were significantly more likely than those in higher school record to satisfy the current health knowledge ($p < 0.05$) and to need of health education ($p < 0.01$).

Table 4. Stepwise Logistic Regrsson Models: The Effective Factors for the Satisfaction with Health Knowledge and the Need of Health Education

Unit:No.(%)

Classification	Odds Ratio	95% CI	P
<u>The satisfaction with health knowledge</u>			
Sex	0.57	0.41 - 0.80	<0.01
The birth order	1.24	1.04 - 1.48	<0.05
The educational level of father	0.72	0.59 - 0.88	<0.01
The educational level of mother	1.40	1.14 - 1.73	<0.01
The school record	1.31	1.05 - 1.65	<0.05
<u>The need of health education</u>			
Sex	2.40	1.20 - 4.79	<0.05
The educational level of mother	0.65	0.46 - 0.91	<0.05
The school record	1.75	1.27 - 2.40	<0.01

4. The requirements for health education by the satisfaction with health knowledge

The requirements for health education by the satisfaction with health knowledge is shown in Table 5. The satisfaction with health knowledge has influenced the establishment of health curriculum($p<0.05$) and the start for performing health education($p<0.01$).

As these results were significant, the non-satisfied group thought that the health curriculum is established in middle school processing and the health education is performed by kindergarten educational processing. Almost the students in the satisfied and the non-satisfied groups respond that the class hours for health

education is properly the 1~2 hours per week or 1~2 hours per month and the teachers in charge of health is properly the health educator.

Also the satisfaction with health knowledge has influenced the requirements for health education contents. It is different response to the contents by the satisfaction, which the contents are Safety Education, Sex Education, Health and Exercise, Public Health. The satisfied group require Safety Education, Health and Exercise, and Public Health; however, non-satisfied group require Sex Education<Table 6>. In addition to, the priority of contents for health education was different between the satisfied group and non-satisfied group<Table 7>.

Table 5. The Requirements for Health Education by the Satisfaction with Health Knowledge

Unit:No,(%)

Classification	Satisfied Group	Non-Satisfied Group	
<u>TOTAL</u>	469(100.0)	219(100.0)	
<u>The establishment of health curriculum</u>			
For	204(43.5)	110(50.2)	
Against	119(25.4)	63(28.8)	$\chi^2=7.617^*$
Unknown	146(31.1)	46(21.0)	
<u>The start for performing the health education</u>			
Kindergarten	149(31.8)	89(40.6)	
Elementary school	249(53.1)	83(37.9)	$\chi^2=15.277^{**}$
Middle school	53(11.3)	39(17.8)	
High school	18(3.8)	8(3.7)	
<u>The class hours for the health education</u>			
1-2 hours per week	154(32.8)	79(36.1)	
1-2 hours per month	239(51.0)	95(43.4)	
1-2 hours per semester	43(9.2)	16(7.3)	$\chi^2=9.308$
1-2 hours per year	16(3.4)	13(5.9)	
The others	17(3.6)	16(7.3)	
<u>The teacher in charge of health</u>			
School doctor	17(3.6)	9(4.1)	
Nurse-teacher	106(22.6)	45(20.5)	
Class teacher	9(2.0)	5(2.3)	$\chi^2=1.894$
Health educator	299(63.7)	136(62.1)	
All of teacher	16(3.4)	10(4.6)	
Parents	22(4.7)	14(6.4)	

* p<0.05 ** p<0.01

Table 6-1. The Requirements for Health Education Contents by the Satisfaction with Health Knowledge

Unit:No.(%)

Contents	Satisfied Group	Non-Satisfied Group	
<u>TOTAL</u>	469(100.0)	219(100.0)	
<u>First Aid</u>			
Certainly need	347(74.0)	175(79.9)	
Need	110(23.4)	39(17.8)	$\chi^2 = 2.933$
None	12(2.6)	5(2.3)	
<u>Safety Education</u>			
Certainly need	303(64.6)	144(65.8)	
Need	150(32.0)	62(28.3)	$\chi^2 = 9.476^*$
None	16(3.4)	13(5.9)	
<u>Nutrition</u>			
Certainly need	292(62.3)	130(59.4)	
Need	154(32.8)	79(36.0)	$\chi^2 = 2.941$
None	23(4.9)	10(4.6)	
<u>Environment</u>			
Certainly need	289(61.6)	131(59.8)	
Need	156(33.3)	75(34.3)	$\chi^2 = 0.309$
None	24(5.1)	13(5.9)	
<u>Drinking, Smoking, Drug Abuse</u>			
Certainly need	283(60.3)	136(62.1)	
Need	142(30.3)	59(26.9)	$\chi^2 = 1.020$
None	44(9.4)	24(11.0)	
<u>Dental Health</u>			
Certainly need	280(59.7)	134(61.2)	
Need	164(35.0)	67(30.6)	$\chi^2 = 2.899$
None	25(5.3)	18(8.2)	
<u>Personal Hygiene</u>			
Certainly need	254(54.2)	121(55.2)	
Need	201(42.8)	93(42.5)	$\chi^2 = 0.304$
None	14(3.0)	5(2.3)	
<u>Food Hygiene</u>			
Certainly need	233(49.7)	104(47.5)	
Need	209(44.5)	98(44.7)	$\chi^2 = 1.087$
None	27(5.8)	17(7.8)	

* $p < 0.05$

Table 6-2. The Requirements for Health Education Contents by the Satisfaction with Health Knowledge

Unit: No.(%)

Contents	Satisfied Group	Non-Satisfied Group	
<u>TOTAL</u>	469(100.0)	219(100.0)	
<u>Communicable Disease</u>			
Certainly need	230(49.0)	106(48.4)	
Need	219(46.7)	97(44.3)	$\chi^2 = 2.840$
None	20(4.3)	16(7.3)	
<u>Sex Education</u>			
Certainly need	205(43.7)	122(55.7)	
Need	236(50.3)	89(40.6)	$\chi^2 = 9.015^{**}$
None	28(6.0)	8(3.7)	
<u>Health and Exercise</u>			
Certainly need	189(40.3)	86(39.3)	
Need	257(54.8)	109(49.8)	$\chi^2 = 8.760^*$
None	23(4.9)	24(10.9)	
<u>Mental Health</u>			
Certainly need	169(36.0)	77(35.2)	
Need	251(53.5)	107(48.8)	$\chi^2 = 4.400$
None	49(10.5)	35(16.0)	
<u>Non-Communicable Disease</u>			
Certainly need	156(33.3)	82(37.4)	
Need	274(58.4)	123(56.2)	$\chi^2 = 1.603$
None	39(8.3)	14(6.4)	
<u>Public Health</u>			
Certainly need	161(34.3)	58(26.5)	
Need	266(56.7)	125(57.0)	$\chi^2 = 10.263^*$
None	42(9.0)	36(16.5)	
<u>Function of Medical Institution</u>			
Certainly need	137(29.2)	68(31.1)	
Need	298(63.5)	131(59.8)	$\chi^2 = 1.176$
None	34(7.3)	20(9.1)	

* $p < 0.05$ ** $p < 0.01$

Table 7. The Priority of Contents for Health Education by the Satisfaction with Health Knowledge

Order	Contents for health education	
	Satisfied Group	Non-satisfied Group
1	First Aid	First Aid
2	Safety Education	Safety Education
3	Nutrition	Drinking, Smoking, Drug Abuse
4	Environment	Dental Health
5	Drinking, Smoking, Drug Abuse	Environment
6	Dental Health	Nutrition
7	Personal Hygiene	Sex Education
8	Food Hygiene	Personal Hygiene
9	Communicable Disease	Communicable Disease
10	Sex Education	Food Hygiene

5. The requirements for health education by the need of health education

The requirements for health education by the need of health education is shown in Table 8. The need of health education has influenced the establishment of health curriculum($p<0.01$) and the start for performing health education($p<0.01$).

As these results were significant, the need group thought that the health education is performed by the kindergarten educational processing; however, the students in needless group thought that is performed after the educational processing of middle school. The most of students in the need and the needless groups responded that the class hours for health education is properly the 1~2 hours per week or 1~2 hours per month and the teachers in charge of health

is properly the health educator.

Also the need of health education has influenced the requirements for health education contents. It is different response to the contents by the need except Drinking & Smoking & Drug Abuse, Food hygiene, Health and Exercise, Non-Communicable Disease<Table 9>. These results showed the difference of students' response attitude. While the needless group have negative attitude for selection of health contents, the need group have extremely positive attitude.

In addition to, the priority of contents for health education was different between the need group and needless group<Table 10>; however, First Aid and Drinking & Smoking & Drug Abuse were selected as certainly needed content by the need and the needless groups.

Table 8. The Requirements for Health Education by the Need of Health Education

Unit:No.(%)

Classification	Need Group	Needless Group	
<u>TOTAL</u>	638(100.0)	50(100.0)	
<u>The establishment of health curriculum</u>			
For	303(47.5)	11(22.0)	
Against	158(24.8)	24(48.0)	$\chi^2 = 16.149^{**}$
Unknown	177(27.7)	15(30.0)	
<u>The start for performing the health education</u>			
Kindergarten	227(35.6)	11(22.0)	
Elementary school	312(48.9)	20(40.0)	$\chi^2 = 15.267^{**}$
Middle school	79(12.4)	13(26.0)	
High school	20(3.1)	6(12.0)	
<u>The class hours for the health education</u>			
1~2 hours per week	223(35.0)	10(20.0)	
1~2 hours per month	314(49.2)	20(40.0)	
1~2 hours per semester	48(7.5)	11(22.0)	$\chi^2 = 14.474$
1~2 hours per year	26(4.1)	3(6.0)	
The others	27(4.2)	6(12.0)	
<u>The teacher in charge of health</u>			
School doctor	25(3.9)	1(2.0)	
Nurse-teacher	133(20.8)	18(36.0)	
Class teacher	12(1.9)	2(4.0)	$\chi^2 = 0.202$
Health educator	414(64.9)	21(42.0)	
All of teacher	26(4.1)	0(0.0)	
Parents	28(4.4)	8(16.0)	

** p<0.01

Table 9-1. The Requirements for Health Education Contents by the Need of Health Education

Unit:No.(%)

Contents	Need Group	Needless Group	
<u>TOTAL</u>	638(100.0)	50(100.0)	
<u>First Aid</u>			
Certainly need	498(77.3)	29(58.0)	
Need	131(20.5)	18(36.0)	$\chi^2 = 10.079^*$
None	14(2.2)	3(6.0)	
<u>Safety Education</u>			
Certainly need	422(66.1)	25(50.0)	
Need	193(30.3)	19(38.0)	$\chi^2 = 8.638^*$
None	23(3.6)	6(12.0)	
<u>Nutrition</u>			
Certainly need	398(62.4)	24(48.0)	
Need	212(33.2)	21(42.0)	$\chi^2 = 5.417^*$
None	28(4.4)	5(10.0)	
<u>Environment</u>			
Certainly need	398(62.4)	22(44.0)	
Need	211(33.1)	20(40.0)	$\chi^2 = 11.632^*$
None	29(4.5)	8(16.0)	
<u>Drinking, Smoking, Drug Abuse</u>			
Certainly need	391(61.3)	28(56.0)	
Need	185(29.0)	16(32.0)	$\chi^2 = 0.592$
None	62(9.7)	6(12.0)	
<u>Dental Health</u>			
Certainly need	394(61.8)	20(40.0)	
Need	208(32.6)	23(46.0)	$\chi^2 = 11.242^{**}$
None	36(5.6)	7(14.0)	
<u>Personal Hygiene</u>			
Certainly need	356(55.8)	19(38.0)	
Need	271(42.5)	23(46.0)	$\chi^2 = 15.621^{**}$
None	11(1.7)	8(16.0)	
<u>Food Hygiene</u>			
Certainly need	315(49.4)	22(44.0)	
Need	286(44.8)	21(42.0)	$\chi^2 = 2.291$
None	37(5.8)	7(14.0)	

* $p < 0.05$ ** $p < 0.01$

Table 9-2. The Requirements for Health Education Contents by the Need of Health Education

Unit: No.(%)

Contents	Need Group	Needless Group	
<u>TOTAL</u>	638(100.0)	50(100.0)	
<u>Communicable Disease</u>			
Certainly need	318(49.8)	18(36.0)	
Need	291(45.6)	25(50.0)	$\chi^2 = 7.169^{**}$
None	29(4.6)	7(14.0)	
<u>Sex Education</u>			
Certainly need	308(48.3)	19(38.0)	
Need	303(47.5)	22(44.0)	$\chi^2 = 7.169^{**}$
None	27(4.2)	9(18.0)	
<u>Health and Exercise</u>			
Certainly need	260(40.7)	15(30.0)	
Need	336(52.5)	30(60.0)	$\chi^2 = 2.595$
None	42(6.6)	5(10.0)	
<u>Mental Health</u>			
Certainly need	232(36.4)	14(28.0)	
Need	335(52.5)	23(46.0)	$\chi^2 = 5.892^*$
None	71(11.1)	13(26.0)	
<u>Non-Communicable Disease</u>			
Certainly need	223(34.9)	15(30.0)	
Need	371(58.1)	26(52.0)	$\chi^2 = 3.404$
None	44(7.0)	9(18.0)	
<u>Public Health</u>			
Certainly need	211(33.1)	8(16.0)	
Need	359(56.3)	32(64.0)	$\chi^2 = 18.289^{**}$
None	68(10.6)	10(20.0)	
<u>Function of Medical Institution</u>			
Certainly need	194(30.4)	11(22.0)	
Need	398(62.4)	31(62.0)	$\chi^2 = 4.171^*$
None	46(7.2)	8(16.0)	

* p<0.05 ** p<0.01

Table 10. The Priority of Contents for Health Education by the Need of Health Education

Order	Contents for health education	
	Need Group	Needless Group
1	First Aid	First Aid
2	Safety Education	Drinking, Smoking, Drug Abuse
3	Nutrition	Safety Education
4	Environment	Nutrition
5	Dental Health	Food Hygiene
6	Drinking, Smoking, Drug Abuse	Environment
7	Personal Hygiene	Dental Health
8	Communicable Disease	Personal Hygiene
9	Food Hygiene	Sex Education
10	Sex Education	Communicable Disease

IV. Discussion

These results indicate that students want to learn various health information such as First Aid, Safety Education, Nutrition and so forth. They want to learn the advanced management of health education such as establishment of health curriculum, regular class hour and specialized teacher for health education in middle school processing.

And the sex, the educational level of parents and the school records are important factors to explain the satisfaction with health knowledge and the need of health education; however, it have not been significant that the satisfaction with health knowledge and the need of health education.

The satisfaction with health knowledge and the need of health education have influenced the establishment of health curriculum, the time for performing health

education and the selection of suitable contents for health education. For example, the difference on the selection of contents by the satisfaction and the need showed through the priority of contents for health education; however, as concerns the priority of contents for health education, both of the non-satisfied group and the needless group wanted to learn First Aid, Drinking & Smoking & Drug Abuse, Safety Education in order named. That is, the students interested in unexpected accidents and problems in adolescent period.

Also the difference on students' response attitude showed through the their choice. While the needless group have negative attitude for selection of health contents such as need or none, the need group have extremely positive attitude as certainly need.

Therefore, though the middle school students have concern to health, the

educational processing do not provide to them in school. In the contents of the current health knowledge, the students were not satisfied specially for Drinking & Smoking & Drug Abuse and Sex Education.

This study has some limitations. First, these results were not represent the middle school students' opinions because of the respondents in a rural area. Second, this study exclude the step 3. which examine the relation of general characteristics and requirements for health education.

V. Conclusion

We carried out this study in which we found out the relation of the satisfaction with health knowledge, the need of health education and the requirements for health education. Analysis was conducted on 688 students' self-reported data in Kyung Gi-do, Korea, representing a survey on middle school students discharged during Dec., 1994.

The results were as follows.

1. The requirements for health education of the students were, first, the establishment of health curriculum(45.6%); second, the earlier start for performing the health education(82.8%); third, the regular class hours for health education(82.4%); fourth, the specialized teachers in charge of health(89.0%); fifth, the preferable contents for health education were First Aid, Safety Education, Nutrition, Environment, Drinking & Smoking & Drug Abuse, Dental Health,

Personal Hygiene, Food Hygiene, Communicable Disease, Sex Education, Health and Exercise, Mental Health, Non-Communicable Disease, Public Health and Function of Medical Institution in the order named.

2. The satisfaction with health knowledge was related to the sex($p < 0.01$), the birth order($p < 0.05$), the educational level of fathers($p < 0.01$), the educational level of mothers($p < 0.01$) and the school records ($p < 0.05$). The need of health education was related to the sex($p < 0.05$), the educational level of mothers($p < 0.05$) and the school records($p < 0.01$).

3. There were different between the satisfied group and non-satisfied group for the establishment of health curriculum($p < 0.05$) and the start for performing health education($p < 0.01$). As these results were significant, the non-satisfied group thought that the health curriculum is established in middle school processing and the health education is performed by kindergarten educational processing. The satisfaction with health knowledge has influenced the requirements for health education contents($p < 0.05$). It is different response to the contents by the satisfaction, which the contents are Safety Education, Sex Education, Health and Exercise, Public Health. The satisfied group require Safety Education, Health and Exercise, Public Health, but non-satisfied group require Sex Education.

4. There were different between the need group and needless group for the esta-

blishment of health curriculum($p<0.01$) and the start for performing health education($p<0.01$). As these results were significant, the need group thought that the health education is performed by kindergarten educational processing; however, the students in needless group thought that is performed after the educational processing of middle school. And the need of health education has influenced the requirements for health contents($p<0.05$). It is different response to the contents by the need except Drinking & Smoking & Drug Abuse, Food hygiene, Health and Exercise, Non-Communicable Disease.

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〈국문요약〉

일부지역 중학생의 보건교육 요구도에 관한 조사연구

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본 연구의 목적은 중학생의 보건교육에 대한 요구도를 살피기 위해 먼저 현재 자신이 알고 있는 보건지식에 대한 만족도와 보건교육에 대한 필요도 및 이에 영향을 미치는 요인에 대해 알아보고, 이와 관련하여 보건지식에 대한 만족도와 보건교육에 대한 필요도가 보건교육 요구도에 미치는 영향을 분석해 보는 데 있다. 연구를 위한 조사대상으로 경기도 소재 M, S 중학교의 1,2학년 전체 학생 688명을 선정하였고, 1994년 12월 1일부터 15일까지 자기기입식 설문지를 통해 보건교육에 대한 요구도를 조사하였다.

본 연구의 결과는 다음과 같다.

1. 조사대상자의 분포는 남학생이 59.3%, 여학생이 40.7%였고, 자신의 건강상태에 대해 건강하다고 응답한 학생이 78.9%, 건강하지 않다고 응답한 학생이 21.1%였다. 또한 현재 알고 있는 보건지식에 대해 만족한다고 응답한 학생은 68.2%였고, 31.8%의 학생이 만족하지 않는다고 응답하였다. 보건교육에 대한 필요도에 대해서는 92.7%의 학생이 필요하다고 응답하였다.

2. 보건교육에 대한 요구도에서는 첫째, 보건교과설정에 대해 45.6%가 찬성하였고, 둘째, 보건교육 실시 시기에 대해서는 82.8%가 유치원 및 국민학교에서부터 시작되어야 한다고 하였다. 셋째, 보건교육의 적정시간에 대해 82.4%가 1주일 또는 1달에 1-2시간이라고 하였으며, 넷째, 보건교육 담당교사에 대해서는 63.2%가 보건교육 전문가가 담당하여야 한다고 응답하였다. 다섯째, 보건교육 내용에 대한 선호도 순위는 구급처치, 안전교육, 영양, 환경, 음주와 흡연 및 약물남용, 구강보건, 개인위생, 식품위생, 전염병관리, 성교육, 건강과 운동, 정신건강, 비전염성질환 관리, 공중보건, 의료기관의 기능 순이었다.

3. 현재 알고 있는 보건지식에 대한 만족도에 영향을 미치는 변수로는 성($p<0.01$), 형제순위($p<0.05$), 아버지의 학력($p<0.01$), 어머니의 학력($p<0.01$), 학업성적($p<0.05$)이었으며, 보건교육 필요도에 영향을 미치는 변수는 성($p<0.05$), 어머니의 학력($p<0.05$), 학업성적($p<0.01$)이었다.

4. 현재 알고 있는 보건지식에 대한 만족도에 따라 보건교육에 대한 요구도에 차이가 나타났다. 보건지식에 대해 만족하고 있지 못한 비만족군의 경우 보건교과의 설정에 대해 만족군보다 더 적극적으로 찬성하

였고($p<0.05$), 보건교육의 실시 시기에 대해서는 유치원 시기부터가 적절하다고 응답하였다($p>0.01$).

보건교육의 내용선정에 있어서도 만족군과 비만족군간의 차이가 나타났는데, 만족군의 경우는 안전교육, 건강과 운동, 공중보건, 비만족군의 경우는 성교육을 요구하였다($p<0.05$).

5. 보건교육에 대한 필요도에 따라 보건교육에 대한 요구도에 차이가 나타났다. 보건교육이 필요하다고 응답한 필요군의 경우 보건교과의 설정에 대해 적극적으로 찬성하였다($p<0.01$). 또한 필요군은 보건교육의 실시 시기에 대해 유치원 시기부터가 적절하다고 응답한 반면, 보건교육이 필요하지 않다고 한 비필요군의 경우는 중학교 이후부터 적절하다고 응답하였다($p<0.01$).

보건교육의 내용선정에 있어서도 음주와 흡연 및 약물남용, 식품위생, 건강과 운동, 비전염성질환 예방을 제외한 내용에서 필요군과 비필요군간의 차이가 나타났다($p<0.05$).