

Sexual and Reproductive Health
of Adolescents and Youths
in the REPUBLIC of KOREA

*A Review of Literature and Projects
1990 - 2003*



World Health
Organization

Western Pacific Region

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Acronyms

ARH	adolescent reproductive health
GDP	gross domestic product
OECD	Organization for Economic Cooperation and Development
NGO	nongovernmental organization
NHIC	National Health Insurance Cooperation
STI	sexually transmitted infection
WHO	World Health Organization

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WHO is grateful to the Government and Ministry of Health of the Republic of Korea, to all those who provided information and contributed their time to this document. We hope that sharing the country's experiences in implementing specific programmes and activities to address adolescent sexual and reproductive health issues will be of use to others both within and outside the Western Pacific Region.

This is one of the reviews on the literature and projects of sexual and reproductive health of adolescents and youths in eight Asian countries.*

Adolescents and youth make up one-fourth of the population in the Western Pacific Region. At least 17 out of 37 countries and areas in the Region have a median age below 25 years. The health of adolescents is, therefore, a key element and an investment for social and economic progress in the Region. Many of the problems adolescents experience are inter-related and should be regarded in a comprehensive manner. However, adjusting to sexual development and protecting their reproductive health are the major challenges for adolescents.

Adolescents are vulnerable because they lack knowledge and skills to avoid risky behaviour and lack access to acceptable, affordable and appropriate reproductive health information and services. This is often compounded with environmental disadvantages such as poverty and unemployment. Social



norms of sexuality have also changed in the past two decades and puberty comes 2-3 years earlier over one century, but the environment to support adolescents has not changed. There is still much to be desired in terms of governments' institutionalization and allocation of funds. Also families and communities are still unprepared to

* *Cambodia, China, Lao People's Democratic Republic, Malaysia, Mongolia, Philippines, Republic of Korea, Viet Nam*

provide accurate reproductive health information and services necessary for adolescents. Risks of unwanted pregnancies, unsafe abortions, pregnancy-related complications, sexually transmitted infections and HIV/AIDS, all of which are important elements of Millennium Development Goals (MDG), continue to threaten adolescents.

Since the International Conference on Population and Development (ICPD) in Cairo in 1994, where the importance of adolescent reproductive health was acknowledged, many studies and programmes have been carried out by various national and international agencies and nongovernmental organizations. In order to assist governments to achieve the objectives

of ICPD and MDG, the WHO Western Pacific Regional Office provided technical and financial support to several countries to conduct literature and programme reviews.

As a result of these reviews, countries now have evidence-based information for the development of national policies and strategies for adolescent sexual and reproductive health. I appreciate the practical and cost-effective use of existing information for increasing awareness of adolescent reproductive health and for improving our work. Here, I also would like to express my thanks to the governments, the reviewers and researchers for your contributions to improving the reproductive health of adolescents and youths.

Shigeru Omi, MD, Ph.D.
Regional Director

Executive Summary

This report encompasses materials and literatures published by the Government, nongovernmental organizations (NGOs), and academic researchers. Demographic data, policies and laws were also gathered from governmental websites related to adolescent health and education.

This literature review found that less than 6% of adolescents have engaged in sexual intercourse. But despite the fact that the proportion of sexually active adolescents is not as high as in western countries, obstetricians and gynaecologists point out that the number of pregnancies is on the rise.

Studies have shown that many adolescents do not use contraceptives when having sex. These results suggest that adolescents who are engaged in sex are exposed to risks, such as unwanted pregnancy or STI, including HIV/AIDS.

Adolescents do not have enough knowledge about sex. Their most common sources of information about sex were the Internet, friends, and school. Parents' roles in sex education were minimal. The quality of information from the Internet or friends, however, cannot usually be

verified. Therefore, adolescents may be misinformed or misled about issues surrounding sex.

The Government continues to stress the importance of sex education. However, most adolescents did not think that the sex education they received was very effective or useful. Most adolescents said that they already knew all the information presented to them in school.

Adolescent attitudes towards sex have become more liberal. Many adolescents agreed to sex before marriage and believed dating among adolescents should become more natural.

The following recommendations surfaced from the report:

- Formulate more enabling policies on adolescent reproductive health.
- Provide effective sex education to adolescents.
- Strengthen parental and societal roles.
- Conduct further studies on ARH.

1. Introduction

1.1 Background information about the Republic of Korea

The Republic of Korea is located in the northeastern part of the Asian continent, encompassing a total area of 99 538.00 km². The population of the Republic of Korea was 47 343 000 in 2001 (Korean National Statistical Office 2002). The aged-child ratio has increased from 20.0% in 1990 to 38.5% in 2002, which means that the percentage of the elderly is increasing. The rate of population increase shows the tendency of decrease from 1.04 in 1991 to 0.60 in 2002 over the last decade (Korean National Statistical Office 2001). The gross domestic product (GDP) was \$422.2 billion, which ranked 12th in the world and GDP per person was \$8918 in 2001 (Korean National Statistical Office 2002).

The average life span has increased from 71.72 years in 1991 to 75.55 years in 1999. In 1999, the average life span for males and females was 71.71 and 79.22, respectively (Korean National Statistical Office n.d.). Infant mortality rate has decreased from 45 per 1000 live

births in 1970 to 7.7 per 1000 live births in 1996 (Organization for Economic Cooperation and Development 2000).

The health insurance system covers the entire population and is divided into two parts, a national health insurance system and medical aid. National health insurance supports people who are working as civil servants or working for companies while medical aid provides medical support for the poor. Approximately 97% of the population belongs to the national health insurance system and 3% receive medical aid (National Health Insurance Cooperation 2003).

The educational system consists of six years of elementary school, three years of middle school, and a three-year high school education. After graduating from high school, students may attend a two-year or four-year college. Since 1953, the Government has provided elementary education for free. Since 1995, nearly 100% (99.9%) of the students who graduated from elementary school have gone on to middle school (Korea Scope n.d.).

2. The objectives of this research

Adolescence is a transitional period from childhood to adulthood. Adolescents experience a physical growth spurt and form their identities during this period. Also, adolescents learn to have sound relationships with other people, learn social roles, prepare for marriage, and form a value system (Ha 1990).

In the process of achieving these goals, adolescents may suffer emotional conflicts (Kim and Roh 1990). Sexual matters, such as curiosity about sex and sexual impulses, may be the cause. Sufficient understanding of sexuality can play a pivotal role in becoming healthy adults (Hong 2000). Experiencing unsuitable sexual relationships or violence can have a very negative impact on adolescent life and development.

To help young people go through this transition period smoothly, it is important to prevent potential problems from happening. This review will analyze adolescent reproductive health literature and offer suggestions to resolve problems that are identified. The specific questions to be answered in the review are: (1) What are the trends and extent of adolescent reproductive health problems?; (2) What are the protective factors and how can they be strengthened?; (3) What are the recommendations to resolve adolescent reproductive health problems?; and (4) What should the role of WHO be and what should its regional strategies be to reduce problems in adolescent reproductive health?

3. Methodology

Studies published by the Government, nongovernmental organizations (NGOs), and academic researchers were selected for this review. Demographic data, policies and laws were gathered from governmental websites related to adolescent health and education. These included websites of the Ministry of Education and Human Resources Development, the Ministry of Health and Welfare, the Korean National Statistical Office, and the Commission

on Youth Protection. Studies regarding adolescent sexual behaviours were found by using health-related search websites: “Research Information Centre for Health (www.richis.org)” and “Koreamed (www.koreamed.org)”. Key words used were “adolescent” and the period was limited to 1990 to the present [check title page]. Articles related to adolescent reproductive health were sampled among total 571 articles.

4. Definition of adolescents in the laws of the Republic of Korea

In the Juvenile Sex Protection Act, adolescents include individuals under 19 years old. In the Framework Act on Juveniles, however, adolescents are defined as people from nine to 24 years of age. The definition of adolescents in laws is totally different from the theoretical definition. Ha’s study (1990) suggests that

adolescents are usually between the ages of 11 and 20. According to Freud’s theory, those who are in the reproductive age and are going through puberty are referred to as adolescents and fall between the ages of 13 to 18 (Kim 1990). The term, adolescent, is used more broadly in laws than in theory or research.

5. Demographic profiles

5.1 Census population in 2000

Using the definition from the Juvenile Sex Protection Act and Youth Protection Law, data was gathered from people between the ages of zero and 18. Adolescents ranging from zero to 18 years old accounted for

27.2% of the population. The overall gender ratio was 100.66 or 100.66 males per 100 females. The adolescent gender ratio was 110.88, indicating that males outnumber females among adolescents.

Table 1. Population of people from zero to 18 years old

Unit: Person

Age	Population	Male	Female	Sex Ratio (%)
Total population	45 985 289	23 068 181	22 917 108	100.66
0	599 073	315 765	283 308	111.46
1	589 431	307 738	281 693	109.25
2	627 019	327 973	299 046	109.67
3	647 695	337 686	310 009	108.93
4	667 040	352 004	315 036	111.73
5	686 220	364 263	321 957	113.14
6	690 082	369 301	320 781	115.13
7	697 324	371 804	325 520	114.22
8	704 815	373 690	331 125	112.85
9	665 615	352 388	313 227	112.50
10	635 058	338 272	296 786	113.98
11	609 729	322 993	286 736	112.64
12	602 762	317 863	284 899	111.57
13	601 647	312 843	288 804	108.32
14	615 246	323 042	292 204	110.55
15	626 549	327 213	299 336	109.31
16	678 573	354 377	324 196	109.31
17	742 472	384 101	358 371	107.18
18	799 214	411 643	387 571	106.21
Sum	12 485 564	6 564 959	5 920 606	110.88

(Source: Korea National Statistical Office)

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Table 2. Population among people 10 to 18 years old over the last two decades

Unit: Person

Year Age	1980	1985	1990	1995	2000
Total population	37 406 815	40 419 652	43 390 374	44 553 710	45 985 289
+10-14 Years old	4 440 137	4 475 985	3 991 917	3 711 980	3 064 442
+15-18 Years old	3 408 642	3 548 257	3 537 436	3 115 945	2 846 808
Percentage of people at the age of 10 and 19	20.98%	19.85%	17.35%	15.33%	12.85%

(Source: Korea National Statistical Office)

The portion of the population from 10 to 18 years old has decreased from 20.98% in 1980 to 12.85% in 2000. At the same time, the elderly population is increasing, signifying that the society is becoming older.

5.2 Census population by administrative district in 2000

Eup, *Myeon*, and *Dong* are terms used to express administrative districts. *Eup* and *Myeon* refer to rural areas and *Dong* refers to urban areas. The adolescent population was 1 054 642 (28.2%) in *Eups*, and 1 197 969 (21.4%) in *Myeons*,

and 10 232 953 (27.9%) in *Dongs*. There was no big difference in the proportion of the adolescent population in each *Eup*, *Myeon*, and *Dong*.

The gender ratio in the three administrative districts ranged from 108.80 to 111.34. In urban areas, the proportion of male adolescents outnumbered that of female adolescents. The number of people between the ages of zero and 18 who resided in rural areas was 2 253 611 (18.05%) and the percentage of people under 19 years old living in urban areas was 81.95%.

Table 3. Population among people from zero to 18 years old between rural and urban areas

Unit: Person

Age group	Total population	Rural area	Urban area
Whole country	45 985 289	9 342 841	36 642 448
+0-4 Years old	3 130 258	582 110	2 548 148
+5-9 Years old	3 444 056	614 516	2 829 540
+10-14 Years old	3 064 442	545 025	2 519 417
+15-18 Years old	2 846 808	510 960	2 335 848
Sum	12 485 564	2 253 611	10 232 953

(Source: Korea National Statistical Office)

5.3 Adolescent marriage

The number of bridegrooms and brides under age 19 was 757 (0.25%) and 2873 (0.94%), respectively. These figures show that adolescents rarely get married.

There are two possible reasons for the low number of marriages among adolescents. First, according to the Familial Law, males over 18 years old and females over 16 years old are allowed by law to get engaged with their parents' permission. People over 20 years of age can marry without parental permission (Familial Law 2001). Second, adolescents graduate from high school at the age of 18 and are not financially independent at this period. It is assumed that the lack of financial independence is the cause of few adolescents getting married.

5.4 Economically active adolescents

The research data was obtained for people older than 15 years. From the total population of adolescents, the number of economically active people between the ages of 15 and 19 was 266 000 (8.4%). Among the 266 000 people who make money, the unemployment rate was 9.0%. This statistic shows that most adolescents do not earn money.

Table 4. Population of married people under 19 years old

Unit: Case

Age	Bridegroom	Bride
Total	306 573	306 573
Under 15	1	28
15	10	124
16	52	347
17	160	711
18	534	1,663
Sum	757 (0.25%)	2873 (0.94%)

(Source: Korea National Statistical Office 2002)

6. Reproductive health status of adolescents

In this section, two major studies as well as other academic research will be used to provide an overview of adolescent reproductive health in the Republic of Korea.

The first study was conducted among 3600 middle school students. The sample in this study accounted for 0.2% of the total middle school students in the country (Korea National Statistical Office 2000). Gender, location, and grade levels were considered for representative sampling among students. Out of 3600 students, the majority or 2,824 students completed the questionnaires. The respondents included 1288 males (45.6%) and 1536 females (54.3%). The number of first-year middle school students that responded was 740 (26.2%). There were 1130 second-year students who responded (40.0%) and 854 third-year students (33.7%) (Kim and Lee 2000).

The second study was conducted among 12 733 female teenagers who were attending middle school or high school in 2000. The respondents ranged from 13 to 20 years of age, and consisted of third-year middle school students as well as first-year and second-year high school

students (Jang et al. 2000). The other research that was analyzed came from medical journals and nursing journals.

6.1 Sexual intercourse

In the 1990s, middle and high school students had less sexual intercourse than their peers in developed countries. The proportion of students who had experienced sexual intercourse was 6.3% of middle and high school respondents in 1991 and 4.5% in 1996 (Gwak 2000).

In 2000, Kim and Lee found that 5.8% of middle school students had had sexual intercourse. This figure included 7.55% of the male students and 4.4% of the female students. As the grade levels went up, sexual experience increased. In addition, students in rural areas (6.8%) experienced sexual intercourse more than those in urban areas (4.9%), representing a statistical significance ($p < 0.01$).

Among female teenagers, 95.1% of the respondents had not experienced sex. Among those that had sexual intercourse, 2.9% were third-year middle school students, 6% were first-year

Table 5. Experience of sexual intercourse among female teenagers

Unit: Person (%)

Grade Sexual intercourse	3rd year in Middle School		1st year in High School		2nd year in High School		Total	
None	3673	(97.1)	3004	(94.0)	4457	(94.3)	11134	(95.1)
Experienced	110	(2.9)	191	(6.0)	270	(5.7)	571	(4.9)
Total	3783	(100.0)	3195	(100.0)	4727	(100.0)	11705	(100.0)

high school students, and 5.7% were second-year high school students (Jang et al. 2000).

Almost 3% (2.8%) of the subjects attending general high school and 10.5% of students attending vocational school were sexually active. Approximately four times as many students from vocational school had experienced sexual intercourse compared to those students in general high school.

There was no significant difference in the percentage of sexual intercourse among teenagers between urban and rural areas (see Table 8). The percentage of sexual intercourse was about the same, 4.6% and 4.8%.

6.2 Initiation of sexual intercourse

Among middle school students (ages 12-14) who experienced sexual intercourse, most subjects became sexually active as second-year students (13 yrs old) of middle school, followed by first-year (12 yrs old) and third-year (14 yrs old) students in middle school. The majority of middle school students who had experienced sexual intercourse did so while attending middle school (Kim and Lee 2000).

Table 6. Experience of sexual intercourse among female teenagers by school types

Unit: Person (%)

School Type Sexual intercourse	General High School		Vocational School		Total	
None	4706	(97.2)	2707	(89.5)	7413	(94.2)
Experienced	138	(2.8)	319	(10.5)	457	(5.8)
Total	4844	(100.0)	3026	(100.0)	7870	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

The older the female teenagers are, the greater the frequency of sexual activity. More than half of the sexually experienced participants started having sex after 16 years of age (Jang et al. 2000).

6.3 Pregnancy

Yang et al. (1998) reported that the proportion of birth to teenagers increased from 1.08% of all births delivered at one hospital in 1992 to 2.11% in 1996.

In Kim and Lee's study (2000), 0.8 % of the female middle school students became pregnant. Female juniors and seniors in middle school who experienced pregnancy were 0.9% and 0.4% respectively. There were no cases of pregnancy among first-year middle school students. Female students in urban areas showed a higher pregnancy rate than those in rural areas (0.8% versus 0.1%).

Female teenagers in each grade who experienced pregnancy accounted for

Table 7. Experience of sexual intercourse among female teenagers by area

Unit: Person (%)

Area Sexual Intercourse	Urban		Rural		Total	
None	4916	(95.4)	5489	(95.2)	10405	(95.3)
Experienced	238	(4.6)	278	(4.8)	516	(4.7)
Total	5154	(100.0)	5767	(100.0)	10921	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Table 8. Initial experience of sexual intercourse among female teenagers

Unit: Person (%)

Grade Level Initiation of Sex	3rd year of Middle School		1st year of High School		2nd year of High School		Total	
Under 10	1	(1.1)	1	(0.6)	1	(0.4)	3	(0.6)
10-15 years old	48	(55.0)	54	(30.8)	36	(14.8)	138	(27.3)
16-20 years old	38	(43.6)	121	(68.7)	206	(84.7)	365	(72.1)
Total	87	(100.0)	176	(100.0)	243	(100.0)	506	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

less than 1% of the total subjects (Jang et al. 2000). Of the respondents who were pregnant, 70% of them conceived once and 10% of them became pregnant more than four times.

Among 41 respondents who were pregnant, 34 (83%) of them attended vocational schools and seven (17%) were general high school students. Twelve students from vocational school (35.3%) experienced pregnancy more than two times. In contrast, only one student (14.3%) from general high school became pregnant two times. This result is not surprising

given that students from vocational schools were more sexually active and less likely to use contraceptives than general high school students.

The pregnancy rates of students from rural and urban areas were 0.6% and 0.4%, respectively. There was no noticeable difference in the adolescent pregnancy rate between the two areas. However, the results indicate that students from rural areas experienced multiple pregnancies more often than students from urban areas.

Table 9. Incidence of pregnancy among female teenagers

Unit: Person (%)

Grade Level Pregnancy	3rd year of Middle School	1st year of High School	2nd year of High School	Total
None	3967 (99.7)	3316 (99.2)	4900 (99.5)	12 183 (99.5)
Experienced	11 (0.3)	27 (0.8)	27 (0.5)	65 (0.5)
Total	3978 (100.0)	3343 (100.0)	4927 (100.0)	12248 (100.0)
Once	8 (80.0)	9 (52.9)	18 (78.3)	35 (70.0)
Two or three times	2 (20.0)	3 (17.6)	5 (21.7)	10 (20.0)
More than four times	0 (0.0)	5 (29.4)	0 (0.0)	5 (10.0)
Total	10 (100.0)	17 (100.0)	23 (100.0)	50 (100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

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Table 10. Incidence of pregnancy among female teenagers by school type

Unit: Person (%)

School Type Pregnancy	General High School	Vocational School	Total
None	5027 (99.6)	3139 (98.9)	8166 (99.3)
Experienced	19 (0.4)	35 (1.1)	54 (0.7)
Total	5046 (100.0)	3174 (100.0)	8220 (100.0)
Once	6 (85.7)	22 (64.7)	28 (68.3)
Two or three times	1 (14.3)	7 (20.6)	8 (19.5)
More than four times	0 (0.0)	5 (14.7)	5 (12.2)
Total	7 (100.0)	34 (100.0)	41 (100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Table 11. Incidence of pregnancy among female teenagers by area

Unit: Person (%)

Area Pregnancy	Urban	Rural	Total
None	5318 (99.6)	6031 (99.4)	11 349 (99.5)
Experienced	21 (0.4)	38 (0.6)	59 (0.5)
Total	5339 (100.0)	6069 (100.0)	11 408 (100.0)
One time	11 (64.7)	21 (70.0)	32 (68.1)
Two or three times	6 (35.3)	3 (10.0)	9 (19.1)
More than four times	0 (0.0)	6 (20.0)	6 (12.8)
Total	17 (100.0)	30 (100.0)	47 (100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

6.4 Contraceptive use

In the study by Kim and Lee (2000), 23.2% of the middle school participants used contraceptives. There were no statistically significant differences in the use of contraceptives between grade levels and gender but students in urban areas showed significantly higher contraceptive use than those in rural areas ($p < 0.01$).

In terms of contraceptive use among female teenagers, 343 of 611 (56%) female teenage respondents used contraceptives during sexual intercourse (Jang et al. 2000).

Table 12. Contraceptive use among middle school students

Unit: Person (%)

Grade Level Person using Contraceptive	3rd year of Middle School		1st year of High School		2nd year of High School		Total	
Self	27	(0.8)	38	(1.4)	61	(1.6)	126	(1.3)
Partner	29	(0.9)	26	(1.0)	45	(1.2)	100	(1.0)
Both	19	(0.6)	44	(1.6)	54	(1.4)	117	(1.2)
Never had sex	3095	(95.9)	2509	(92.4)	3619	(93.0)	9223	(93.8)
Had sex without contraceptives	58	(1.8)	98	(3.6)	112	(2.9)	268	(2.7)
Total	3228	(100.0)	2715	(100.0)	3891	(100.0)	9834	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Fifty-four out of 62 (87%) general high school students used contraceptives during sexual intercourse compared to 173 out of 321 (54%) vocational school students who used contraceptives during sex. These statistics show that the sexual behaviour of vocational school students is riskier than that of general high school students.

6.5 Abortion

From one sample of pregnant middle school students, 71.4% of the pregnant teens got an abortion and 28.6% gave birth but gave up the child for adoption (Kim and Lee 2000).

In the study by Jang et al., 0.4% of

Table 13. Contraceptive use among female teenagers in school types

Unit: Person (%)

School type Person using Contraceptives	General high school		Vocational school		Total	
Self	32	(0.8)	63	(2.5)	95	(1.4)
Partner	19	(0.5)	52	(2.1)	71	(1.1)
Both	38	(0.9)	58	(2.3)	96	(1.5)
Never had sex	3886	(96.3)	2203	(87.3)	6089	(92.8)
Had sex without contraceptives	62	(1.5)	148	(5.9)	210	(3.2)
Total	4037	(100.0)	2524	(100.0)	6561	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

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Table 14. Abortion among female teenagers

Unit: Person (%)

Grade Level Abortion	3rd year of Middle School		1st year of High School		2nd year of High School		Total	
None	3628	(99.8)	3055	(99.5)	4531	(99.6)	11 214	(99.6)
Experienced	8	(0.2)	15	(0.5)	19	(0.4)	42	(0.4)
Total	3636	(100.0)	3070	(100.0)	4550	(100.0)	11 256	(100.0)
One time	4	(100.0)	7	(70.0)	12	(80.0)	23	(79.3)
Two times	0	(0.0)	1	(10.0)	3	(20.0)	4	(13.8)
Three times	0	(0.0)	1	(10.0)	0	(0.0)	1	(10.0)
More than four times	0	(0.0)	1	(10.0)	0	(0.0)	1	(10.0)
Total	4	(100.0)	10	(100.0)	15	(100.0)	29	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

11 214 teenagers had an abortion. Among the respondents who had an abortion, approximately 80% aborted one time and two teenagers answered that they had an abortion more than three times.

The abortion rate was approximately three times higher for students in vocational school than in those from general high school. Most of them experienced abortion once. Among the subjects who had an abortion, each of

the general high school students aborted once but five of the vocational school students (25%) had an abortion more than two times.

6.6 Sexually transmitted infections (STI)

The overall percentage of adolescents who had STI was less than 7% (the National Health Insurance Statistics 2001).

Table 15. Abortion among female teenagers by school types

Unit: Person (%)

School Type Abortion	General High School		Vocational School		Total	
None	4711	(99.8)	225	(99.1)	7536	(99.5)
Experienced	8	(0.2)	27	(0.9)	35	(0.5)
Total	4719	(100.0)	2852	(100.0)	7571	(100.0)
One time	5	(100.0)	15	(75.0)	20	(80.0)
Two times	0	(0.0)	4	(20.0)	4	(16.0)
More than four times	0	(0.0)	1	(5.0)	1	(4.0)
Total	5	(100.0)	20	(100.0)	25	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Table 16. Statistics of Sexually Transmitted Infections

Unit: Person

Diseases Age	Acquired Syphilis		Gonorrhea		Chlamydia		Other STI	
	Inpatient	Outpatient	Inpatient	Outpatient	Inpatient	Outpatient	Inpatient	Outpatient
Total	235	14 252	55	82 490	15	23 973	632	246 639
0 years old	4	35	1	22	-	7	2	85
1-4 years old	-	72	2	94	1	52	18	557
5-9 years old	1	71	1	139	-	106	3	980
10-14 years old	-	88	-	66	-	32	4	777
15-19 years old	9	278	8	4611	-	740	38	4381
Sum (%)	14(6%)	544(3.8%)	12(2.2%)	4932(6%)	1(6.7%)	937(3.9%)	65(2.7%)	6780(2.7%)

(Source: 2001 National Health Insurance Statistical Yearbook)

The study of middle school students found that 0.7% of the respondents had STI (Kim and Lee 2000). Also, 13 of the 1515 females said that they had acquired a STI, accounting for approximately 1% of the total subjects (Jang et al. 2000).

Most students who had a STI attended vocational school. Only one out of 491 general high school students and seven out of 600 students from vocational school had acquired a STI.

Table 17. Statistics of STI among female teenagers

Unit: Person (%)

Grade Level Have STI	3rd year of Middle School		1st year of High School		2nd year of High School		Total	
None	437	(98.9)	458	(99.8)	620	(98.9)	1515	(99.1)
Experienced	5	(1.1)	1	(0.2)	7	(1.1)	13	(0.9)
Total	442	(100.0)	459	(100.0)	627	(100.0)	1528	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Table 18. Statistics of STI among female teenagers by school types

Unit: Person (%)

School type Have STI	General High School		Vocational School		Total	
None	491	(99.8)	593	(98.8)	1084	(99.3)
Experienced	1	(0.2)	7	(1.2)	8	(0.7)
Total	492	(100.0)	600	(100.0)	1092	(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

6.7 Menstrual disorder and genital anomalies

One study compared differences in menstrual disorders of adolescents between 1988 and 1998 through the survey for 5000 middle and high school girls (Cho et al. 1999). The incidence of irregular cycle (28.2% versus 58.2%), dysmenorrheal (73.9% versus 77.8%), and secondary amenorrhea (16.7% versus 27.2%) decreased in 1998 than in 1988.

Based on health service utilization data, female adolescent menstrual disorder accounted for about 10% of inpatients and about 5% of outpatients. The category “genital anomalies” includes female patients as well as male patients. Examples of these are penile agenesis or the absence of penis, and penile duplication or having two penises. Incidences of adolescent genital

anomalies were reported in 65.5% of inpatients and 42.1% of outpatients.

6.8 Delinquent behaviour

Two studies were used to examine adolescents’ delinquent behaviour in more detail. One was a study of female teenagers (Jang et al. 2000) and the other was a study that investigated the harmful environments surrounding adolescents (The Commission on Youth Protection 2002).

This data from the first study was obtained from a sample of female teenagers ranging in age from 13 to 20 years. Findings included the following:

Drinking: Nearly half (48.9%) of third-year middle school students, 64.2% of first-year high school students, and 72.7% of second-year high school students had participated in drinking. As

Table 19. Menstrual disorder and genital anomalies

Unit: Person

Diseases Age	Menstrual disorder		Genital anomalies	
	Inpatient	Outpatient	Inpatient	Outpatient
Total	492	237 318	2411	8781
0 years old	-	-	461	746
1-4 years old	-	-	657	1516
5-9 years old	-	-	254	677
10-14 years old	12	1914	201	537
15-19 years old	35	10 589	7	222
Sum (%)	47 (9.6%)	12 503 (5.3%)	1580 (65.5%)	3698 (42.1%)

(Source: 2001 National Health Insurance Statistical Yearbook)

the grade levels went up, the students drank more. Approximately 55% of the students drank alcohol one to three times. It was assumed that most students do not drink habitually.

Viewing pornography: Roughly 30% of the total of teenagers had been exposed to pornography. Among the teenagers who viewed pornography, 77.5% viewed it one to three times and 22.5% viewed pornography more than four times.

Inhalation of an adhesive agent: Only 0.4% of the respondents inhaled an adhesive agent to feel a high. Nine (29%) female students repeated this behaviour more than four times.

Running away from home: About 8% of the subjects had run away from home and among them, 82.4% ran away

from home one to three times and 17.5% left home more than four times.

Cyber sex: About 3% of the subjects answered that they had participated in cyber sex. More than 80% of them had participated fewer than four times.

Smoking: Approximately 20% of the respondents had smoked before. Of the smokers, 41.8% smoked one to three times and 47.7% smoked seven to nine times. Of various delinquent behaviours, smoking has by far the greatest involvement among teenagers in Korea.

Phone sex: More than 2% of the subjects had had phone sex. Almost 80% had phone sex one to three times and 20.4% of them had engaged in phone sex more than four times.

Table 20. Delinquent behaviour among female teenagers

Unit: Person (%)

Grade Level Delinquency	3rd year of Middle School		1st year of High School		2nd year of High School		Total	
Drinking								
None	2057	(51.1)	1226	(35.8)	1371	(27.3)	4654	(37.3)
Experienced	1969	(48.9)	2196	(64.2)	3659	(72.7)	7824	(62.7)
Total	4026	(100.0)	3422	(100.0)	5030	(100.0)	12 478	(100.0)
1-3 times	948	(63.0)	794	(53.8)	1163	(50.0)	2905	(54.7)
4-6 times	252	(16.7)	283	(19.2)	478	(19.0)	1013	(19.0)
7-9 times	306	(20.3)	398	(26.9)	683	(29.4)	1387	(26.1)
Total	1506	(100.0)	1475	(100.0)	2324	(100.0)	5305	(100.0)

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Table 20. Delinquent behaviour among female teenagers (continued)

Grade Level	3rd year of		1st year of		2nd year of		Total	
Delinquency	Middle School		High School		High School			
Viewing pornography								
None	2973	(74.5)	2339	(68.9)	3311	(66.4)	8623	(69.7)
Experienced	1018	(25.5)	1057	(31.1)	1677	(33.6)	3752	(30.3)
Total	3991	(100.0)	3396	(100.0)	4988	(100.0)	12 375	(100.0)
1-3 times	607	(77.6)	557	(77.9)	828	(77.2)	1992	(77.5)
4-6 times	105	(13.5)	90	(12.7)	139	(12.9)	334	(13.0)
7-9 times	71	(9.1)	68	(9.5)	106	(9.9)	245	(9.6)
Total	783	(100.0)	715	(100.0)	1073	(100.0)	2571	(100.0)
Inhalation of an adhesive agent								
None	3971	(99.7)	3371	(99.5)	4955	(99.5)	12 297	(99.6)
Experienced	10	(0.3)	18	(0.5)	27	(0.5)	55	(0.4)
Total	3981	(100.0)	3389	(100.0)	4982	(100.0)	12 352	(100.0)
1-3 times	7	(87.5)	8	(80.0)	7	(53.9)	22	(71.1)
4-6 times	1	(12.5)	0	(0.0)	2	(15.4)	3	(9.7)
7-9 times	0	(0.0)	2	(20.0)	4	(30.8)	6	(19.3)
Total	8	(100.0)	10	(100.0)	13	(100.0)	31	(100.0)
Running away from home								
None	3749	(93.8)	3067	(90.3)	4533	(90.9)	11 349	(91.7)
Experienced	247	(6.2)	330	(9.7)	455	(9.1)	1032	(8.3)
Total	3996	(100.0)	3397	(100.0)	4988	(100.0)	12 381	(100.0)
1-3 times	155	(82.0)	185	(79.7)	246	(84.8)	586	(82.4)
4-6 times	24	(12.6)	30	(12.9)	31	(10.6)	85	(11.9)
7-9 times	10	(5.3)	17	(7.3)	13	(4.5)	40	(5.6)
Total	189	(100.0)	232	(100.0)	290	(100.0)	711	(100.0)
Cyber sex								
None	3833	(96.2)	3293	(97.1)	4841	(97.3)	11 967	(96.9)
Experienced	153	(3.8)	97	(2.9)	135	(2.7)	385	(3.1)
Total	3986	(100.0)	3390	(100.0)	4976	(100.0)	12 352	(100.0)
1-3 times	90	(81.8)	53	(79.2)	79	(83.1)	222	(81.6)
4-6 times	9	(8.1)	7	(10.5)	10	(10.6)	26	(9.5)
7-9 times	11	(10.0)	7	(10.5)	6	(6.3)	24	(8.8)
Total	110	(100.0)	67	(100.0)	95	(100.0)	272	(100.0)
Smoking								
None	3320	(83.0)	2668	(78.4)	4004	(80.3)	9992	(80.7)
Experienced	679	(17.0)	735	(21.6)	982	(19.7)	2396	(19.3)
Total	3999	(100.0)	3403	(100.0)	4986	(100.0)	12 388	(100.0)
1-3 times	191	(42.8)	150	(40.2)	193	(42.1)	534	(41.8)
4-6 times	63	(14.1)	34	(9.1)	38	(8.3)	135	(10.6)
7-9 times	192	(43.0)	189	(50.6)	227	(49.6)	608	(47.7)
Total	446	(100.0)	373	(100.0)	458	(100.0)	1277	(100.0)

Table 20. Delinquent behaviour among female teenagers (continued)

Grade Level Delinquency	3rd year of Middle School	1st year of High School	2nd year of High School	Total
Phone Sex				
None	3870 (97.2)	3306 (97.7)	4870 (97.9)	12 046 (97.6)
Experienced	112 (2.8)	78 (2.3)	103 (2.1)	293 (2.4)
Total	3982 (100.0)	3384 (100.0)	4973 (100.0)	12 339 (100.0)
1-3 times	65 (82.2)	44 (73.3)	58 (81.7)	167 (79.5)
4-6 times	8 (10.1)	10 (16.7)	5 (7.0)	23 (10.9)
7-9 times	6 (7.7)	6 (10.0)	8 (11.3)	20 (9.5)
Total	79 (100.0)	60 (100.0)	71 (100.0)	210 (100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

This data from the second study was collected from a survey of 13 051 middle school and high school students (general group) and 1406 special adolescents (a group who had dropped out of school or exhibited previous delinquent behaviour) who had participated in delinquent behaviour in 2002 (The Commission on Youth Protection 2002).

6.9 Access to pornographic websites in 2002

More than half (52.4%) of adolescents from the general group had logged on to a pornographic website, approximately twice the number that was reported in 1999. Among the special group of adolescents, 70.2% had access to pornographic websites. This statistic

Table 21. Access to pornographic websites among the general and special groups

Unit: Percentage

Group	General group*		Special group*	
	1999	2002	1999	2002
Access to pornographic websites	27.3%	52.4%	30.7%	70.2%

* General group: students attending middle and high school

* Special group: adolescents who have dropped out of school or exhibited previous delinquent behaviour

(Source: Adolescents' realities of uses of harmful environments in 2002)

was also two times more than the figure in 1999. This statistic suggests that some adolescents are exposed to an inappropriate sexual environment and have relatively easy access to pornographic websites.

6.10 Prostitution in 2002

The survey found that 13.5% of adolescents from the general group and 23.3% of adolescents from the special group had been propositioned, that is offered money to perform a sexual act. Most of the subjects received this proposition for prostitution through on-line chatting (80.5%).

The most common reason that adolescents gave for engaging in prostitution was to make money to buy goods for themselves. Approximately 55% of the subjects were engaged in prostitution for the purpose of money, followed by curiosity about sex, which accounted for about 30% of the general group and 22% of the special group.

6.11 Sexual behaviour

Nearly 16% of the general group had experienced kissing and caressing with a heterosexual friend. Most sexual activity was heterosexual in nature (4%). Each of the following types of

behaviour (e.g. kissing and caressing a homosexual friend, sex with a homosexual friend, adolescent prostitution, victim of sexual violence, and assaulter) was reported by less than 2% of the general group. In contrast, the teens in the special group were more experienced in terms of sexual behaviour. More than half of the special group members had kissed and been caressed by a member of the opposite sex. Approximately 50% of them had sex with a heterosexual friend, which is twelve times higher than the general group.

The percentage of each type of sexual behaviour was less than 5% of a total of the special group. However, when compared to the general group, these figures are relatively high. The number of adolescents who exhibit homosexual tendencies in the special group is roughly two times that of adolescents in the general group. The number of teens who engaged in prostitution from the special group was twelve times higher than the general group. In terms of sexual violence, the number of victims in the special group was five times higher than that the number in the general group.

Sexual violence has been on the rise for the past decade. The number of crimes, including rape and sexual harassment,

was 9501 in 2001, which is approximately 2.5 times the number in 1992 (the statistic of sexual violence, n.d.). General group and special group members accounted for 1% and 2.6%, respectively, as the perpetrators of sexual violence. These figures may not be that high, but all sexual assaults should be noted to help prevent more crimes against adolescents.

In the psychiatric perspectives, Kim (2002) reported that powerful contributory variables on delinquent behaviour were antisocial personality tendency, drug abuse, smoking, psychosomatic symptoms, and parent-child relationship.

Table 22. Reasons for engaging in prostitution

Unit: Percentage

Group Reasons	General group	Special group
Friends' suggestion	2.6	6.0
Money to purchase what they want to have	57.3	55.7
Curiosity about sex	29.5	21.7
Money for basic necessities (Food, clothing, and shelter)	3.7	6.4
Liberal spirit regarding sex	3.5	3.7
Other reasons	3.4	6.4

(Source: Adolescent realities of uses of harmful environments in 2002)

Table 23. Sexual behaviour

Unit: Percentage

Group Sexual behaviour	General group	Special group
Kissing and caressing a heterosexual friend	15.7	58.9
Sex with a heterosexual friend	4.0	49.5
Kissing and caressing a homosexual friend	1.6	2.9
Sex with a homosexual friend	0.7	1.5
Adolescent prostitution	0.7	8.2
Victims of sexual violence	0.8	4.3
Assaulter of sexual violence	1.0	2.6

(Source: Adolescent realities of uses of harmful environments in 2002)

7. ARH - concerns and needs

7.1 As perceived by adolescents

Nearly all female students had suggestions for a sex education programme. They wanted information about desirable sexual culture, sexual values and pregnancy. They also felt that males should receive sex education as well. However, single teenage mothers thought that teaching sex education to males, developing the idea that sex is not negative or dirty, and discussing the importance of not engaging in

pre-marital sex were important issues to be addressed in a sex education programme.

Approximately 90% of the female students and single teenage mothers suggested that information about pregnancy and contraceptive use should be given to young people.

More than 60% of the adolescents preferred to learn about sex from professionals in the field, followed by parents (9.7%), friends (8.9%), and teachers (8.4%).

Table 24. Educational content to avoid sex

Unit: Person (%)

Group Contents	Female students	Single teenage mothers
Providing education regarding desirable sexual culture, sexual values and pregnancy	1203(78.0)	2(9.5)
Education on abortion and pregnancy in an effective way		
Teaching sex education to males	326(21.1)	14(66.7)
Developing the notion that sex is not dirty		3(14.2)
Introducing strategies to prevent sexual violence	6(0.4) 7(0.5)	
Lessons on how to date and show adolescent assertion		
Discussing the importance of not having sex until marriage		2(9.5)
Total	1542(100.0)	21(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Table 25. Educational content to avoid unwanted pregnancy

Unit: Person (%)

Group Contents	Female students	Teenagers who are single mothers
Information regarding the prevention of pregnancy and contraceptive use	1313(91.2)	16(88.9)
Watching video tapes to show the importance of life, in terms of abortion	56(3.9)	1(5.5)
Teaching sex education to males	27(1.9)	1(5.5)
Providing awareness to the consequences of pregnancy	20(1.4)	
Developing an adolescent value system and the sense of responsibility	24(1.7)	
Total	1440(100.0)	18(100.0)

(Source: 2000 Teenagers' pregnancy and its prevention in South Korea)

Table 26. Preferred educators

Unit: Person (%)

Educator type	Total	Sex	
		Male	Female
Parents	274 (9.7)	98(7.6)	176(11.5)
School teachers	238(8.4)	148(11.5)	90(5.9)
Professions in sex education	1702(60.3)	692(53.7)	1010(65.8)
Friends	250(8.9)	142(11.0)	108(7.0)
Others	360(12.7)	208(16.1)	152(9.9)
Total	2824(100)	1288(100)	1536(100)

(Source: Sexuality in middle school students and development of sexuality education)

In an evaluation, 20% of the subjects said that they learned something new from sex education, but 70% to 80% had negative opinions about sex education. Most adolescents indicated that sex education was boring and they learned nothing new.

Adolescents said the main reason for adolescent prostitution was adults' lack

of ethics regarding sexuality; 37.9% of the general group and 34.0% of the special group believed this was the main reason. The second largest cause was the abundance of lustful information and ease of access to the Internet. In addition to the above reasons, adolescents said the lack of sex education was a cause.

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Table 27. Adolescent perceptions of sex education

Unit: Percentage

Group Reasons	General group	Special group
Nothing new in sex education	48.4	52.2
Learned something new	24.1	22.3
Only focused on an ethical perspective	14.9	10.5
Difficult to understand	7.7	6.6
No opinions	1.3	4.0
Others	3.6	4.3

(Source: Adolescents' realities of uses of harmful environments in 2002)

Table 28. Causes of adolescent prostitution

Unit: Percentage

Group Causes	General group*	Special group*
Lack of sex education at home, school, and society	10.1	15.3
Lack of ethics in sexuality	18.0	15.2
Lots of lustful information and easy access via the Internet	31.2	30.0
Lack of adults' ethics in regards to sex	37.9	34.0
Others	2.8	5.5

(Source: Adolescents' realities of uses of harmful environments in 2002)

7.2 As perceived by obstetricians and gynaecologists

This data was obtained by a survey distributed to obstetricians and gynecologists nationwide. Of the 2800 questionnaires sent to doctors, 349 were completed and returned.

Except for 27 irrelevant data for analysis, data was analyzed from the 349 questionnaires.

Approximately 80% of the 346 doctors who participated in this survey said the rate of teenagers' pregnancy was on the rise. Only 11% of them thought the pregnancy rate was decreasing.

Table 29. Teenage pregnancy from doctors' perspective

Trends of teenage pregnancy	Frequency	Percentage (%)
Increasing a lot	82	23.7
Increasing a little	192	55.5
No change	61	17.6
Decreasing	11	3.2
Total	346	100

(Source: Realities of teenagers' pregnancy and strategies for its prevention by doctors)

In response to the question about the timing of a pregnant teen's first visit to the hospital, the doctors answered that most of the young women visited the hospital during the early period of pregnancy.

Partners or parents, followed by the pregnant teenagers themselves, made most decisions in regards to an abortion. Medical needs ranked third and the doctor's opinion was the least influential on the decision. The primary reason why teenagers delivered a baby was that the young woman missed the right time to have an abortion.

Among the potential problems during pregnancy, doctors pointed out carelessness (27.1%) as the biggest problem during pregnancy. They also suggested that malnutrition (15.1%), smoking (14.2%), and drinking (12.5%) were possible problems linked to teenage pregnancy.

Of the potential problems during delivery, premature birth (47.3%) ranked first, followed by a difficult delivery (33%). In terms of problems for newborns related to teenage pregnancy, doctors suggested that low birth weight (48.2%), premature birth (40.3%), and deformity (8.4%) were the most common problems.

Table 30. Teenage pregnant women's first visit to the hospital

First visit to a hospital	Mean Rank	Sample size	Kendall's W test
Early stage of pregnancy	1.71	347	0.572
Middle stage of pregnancy	1.73		
Ending stage of pregnancy	2.84		
Right before delivery	3.73		

(Source: Realities of teenagers' pregnancy and strategies for its prevention by doctors)

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Table 31. Decision on delivery and abortion

Determinants for an abortion	Mean Rank	Sample size	Kendall's W test
Parents' or partners' opinion	1.67	346	0.582
Pregnant teenager's decision	1.73		
Medical needs	2.89		
Doctor's opinion	3.71		
Reasons for choosing to deliver	Mean Rank	Sample size	Kendall's W test
Missing the appropriate time for an abortion	1.28	344	0.594
Pregnant teenager's decision	2.27		
Partner's opinion	2.81		
Both female and male wanted to have a baby	3.65		

(Source: Realities of teenagers' pregnancy and strategies for its prevention by doctors)

Table 32. Problems linked to teenage pregnancy, delivery, and newborns

Problems during pregnancy	Frequency (%)	Problems during delivery	Frequency (%)
Hypertension	10(0.8)	Caesarean Section	49(13.8)
Anemia	112(9.2)	Premature birth	268(47.3)
Carelessness during pregnancy	328(27.1)	Excessive bleeding	21(5.9)
Sexually Transmitted Infections	99(8.2)	Difficult delivery	117(33.0)
Drug abuse	90(7.4)	Total	355(100)
Malnutrition	182(15.1)	Newborns' problems	Frequency (%)
Drinking	152(12.5)	Premature baby	153(40.3)
Incomplete development of uterus	22(1.8)	Low birth weight	183(48.2)
Small pelvis	44(3.6)	Deformity	32(8.4)
Smoking	172(14.2)	Death	12(3.2)
Total	1212(100)	Total	380(100)

(Source: Realities of teenagers' pregnancy and strategies for its prevention by doctors)

Most doctors (87%) thought that pregnant teenage women did not have enough knowledge of sex and sexuality, and 54.5% said they had taken care of victims of sexual violence.

Out of 346 doctors, 181 (52.3%) indicated that they believed there were no human resources for counseling and

165 (47.7%) responded that counseling for pregnant teenagers was possible.

Among the 165 doctors who answered that they had human resources for counseling, most doctors referred the teenage women to social welfare organization (65.7%) and 21.1% believed that they were involved

Table 33. Doctors perspectives toward teenage pregnant women

Teenagers' lack of sexual knowledge	Frequency	Percentage (%)
Very often seen	170	49.3
Often seen	130	37.7
Rare	37	10.7
Not experienced	8	2.3
Total	345	100
Victims of sexual violence	Frequency	Percentage (%)
Very often seen	28	8.1
Often seen	160	46.4
Rare	140	40.6
Not experienced	17	4.9
Total	345	100

(Source: Realities of teenagers' pregnancy and strategies for its prevention by doctors)

in counseling the patient by recommending either abortion or delivery as part of their counseling.

Out of 346 doctors, 181 (52.3%) indicated that they believed there were no human resources for counseling and 165 (47.7%) responded that counseling for pregnant teenagers was possible.

Among the 165 doctors who answered that they had human resources for counseling, most doctors referred the teenage women to social welfare organization (65.7%) and 21.1% believed that they were involved in counseling the patient by recommending either abortion or delivery as part of their counseling.

Doctors were asked to list as many strategies as they could for the

prevention of teenagers' pregnancy. According to the doctors, the necessary steps to prevent teenage pregnancy were: (1) sex education should be done properly, and include information on contraceptive use and provide free condoms (275 cases); (2) parents' interest and educational reformation at school (66 cases); (3) reformation of sexual culture in and abolishment of adults' decadent culture (29 cases); (4) education on teenage pregnancy (18 cases); (5) sound places and cultures for adolescents (13 cases); (6) counseling systems (13 cases); (7) regulation of harmful mass media that are geared toward adolescents; and (8) follow-up care of pregnant teenagers (Realities of teenagers' pregnancy and strategies for its prevention by doctors).

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Table 34. Counseling regarding teenage pregnancy

Human power for counseling	Frequency	Percentage (%)
None	181	52.3
Available	165	47.7
Total	346	100
Counseling contents	Frequency	Percentage (%)
Collecting information regarding patients' physical aspects	8	4.8
Emotional support	14	8.4
Involved with an abortion or a delivery	35	21.1
Referring to a social welfare organization	109	65.7
Total	166	100

(Source: Realities of teenagers' pregnancy and strategies for its prevention by doctors)

8. Adolescents' sexual knowledge and attitudes towards sex

8.1 Information sources

The primary sources of information about sex were the Internet, friends, and school. These made up 70% to 80% of all responses. Among adolescents attending school, the Internet (29.3%) was the most common source for information about sex. For adolescents not in school, friends (37.3%) were the main source of information. More than 16% of adolescents from the special group said that videotapes or pornography were sources of sex education.

symptoms of pregnancy?; (5) When is the sex of the fetus determined?; (6) Which of the following is not the right way to prevent conception?; (7) What is the best way to avoid the infection of Sexually Transmitted Diseases?; and (8) Which is not a cause of AIDS infection?.

The mean score of sexual knowledge for middle school students was 46.6. This finding suggests that middle school students do not have adequate information about sex and reproductive health.

Table 35. Sources for information

Unit: Percentage

Source Group	The Internet	Friends	School	Other organization	Video or pornography	Parents	Mass media	Others
General group	29.3	28.0	27.9	0.8	4.0	1.3	6.3	2.4
Special group	20.8	37.3	13.7	2.1	16.2	0.4	4.5	5.1

(Source: *Adolescents' realities of uses of harmful environments in 2002*)

8.2 Knowledge

Middle school students' knowledge of sex was measured by asking them to respond to eight questions: (1) Can the virginal membrane be ruptured during exercise?; (2) What are the roles of the testicles?; (3) Can women get pregnant as a result of a kiss?; (4) What are the

8.3 Attitudes

To investigate the attitudes of middle school students towards sex and sexuality, researchers asked the subjects to answer 11 questions and choose one of three options: no (1 point), yes (2 points), and in-between (0 point). Homogeneity was examined by using the Cronbach á, which was 0.7235,

Table 36. Sexual knowledge of middle school students

Unit: Score

	Total	Sex*		Grade Level in middle school**			Areas***	
		Male	Female	1	2	3	Urban	Rural
Mean	46.6	45.5	47.5	40	43.2	55.8	48.2	44.8
Standard deviation	25.2	24.7	25.6	20.6	25.5	25.5	25.4	24.9

* F = 4.84 P < .05 ** F = 106.43 P < .01 *** F = 12.45 P < .01

(Source: *Sexuality in middle school students and development of sexuality education*)

which indicates that the level of homogeneity is quite high. Forty-four percent of middle school students thought that dating in middle school was needed. Sixty percent thought that repression of sexual impulses was possible but 338 (12.0%) students said that repressing sexual impulses was impossible. In terms of sex before marriage, 608 (21.5%) students were in favor of premarital sex and 1564 (55.4%) students were against it. Most adolescents had negative thoughts about adultery.

The middle school students picked one out of several options in attitudes toward sexuality: i.e. liberal (2 points), conservative (1 point), and in-between (0 point). The overall score of adolescent sexuality was 1.15, which means that most adolescents have fairly conservative attitudes toward sexuality. Male students, younger students, and students from urban areas proved to be more liberal than female students, older students, and students from rural areas in regard to sexual attitudes.

Table 37. Sexual attitudes of middle school students

Unit: Frequency (%)

Items	Agreement	Disagreement	In-between	Total
1. Dating among students in middle school is desirable.	1244 (44.1)	686 (24.9)	894 (31.7)	2824 (100)
2. Repression of sexual impulses is possible.	1714 (60.7)	338 (12.0)	772 (27.3)	
3. Masturbation is a natural way to eliminate sexual desire.	828 (29.3)	782 (27.7)	1214 (43.0)	
4. Showing affection in public is okay (e.g. kissing or caressing)	976 (34.6)	1134 (40.2)	714 (25.9)	
5. Sex is possible before marriage, if two people love each other.	608 (21.5)	1564 (55.4)	652 (23.1)	
6. Sex is possible with another person after marriage	196 (6.9)	2248 (79.6)	380 (13.5)	
7. Sexual violence should be reported to the police.	2226 (78.8)	196 (6.9)	402 (14.2)	
8. Female victims of sexual violence should be blamed.	986 (34.9)	1228 (43.5)	610 (21.6)	
9. If somebody is pregnant before marriage, an abortion should be performed even if the two are planning on getting married.	234 (8.3)	1456 (51.6)	1134 (40.2)	
10. People who have the AIDS virus should be isolated from the rest of society.	510 (18.1)	1172 (41.5)	1142 (40.4)	
11. Homosexuality is one of the natural ways to show sexuality.	604 (21.4)	1320 (46.7)	900 (31.9)	

* Cronbach's $\alpha = .7235$ (Source: Sexuality in middle school students and development of sexuality education)

Table 38. Sexual attitudes according to gender, grade level, and area

Classification		Mean score of attitude in sex (Mean \pm S.D.*)	F	p-value
Gender	Male	1.79 \pm .21	27.93	P < .01
	Female	1.03 \pm .23		
Grade Level	1	1.66 \pm .25	15.62	p < .01
	2	1.43 \pm .20		
	3	1.18 \pm .27		
Area	Urban	1.60 \pm .24	28.10	p < .01
	Rural	1.38 \pm .21		
Total	-	1.15 \pm .20	-	-

S.D.*: standard deviation

(Source: Sexuality in middle school students and development of sexuality education)

9. Sexual culture

9.1 Changes in the sexual culture

Before the Chosun Dynasty (1392-1926), men and women expressed their sexual desire in a liberal and frank way, according to books written during that period. However, in the middle of the Chosun Dynasty, Confucianism was introduced to the Republic of Korea. Confucianism placed a high priority on a woman's fidelity to her husband. According to the ideals of Confucianism, women should not get married again even if their husband dies and once women are married, they should not return to their parents' house. Based on these guidelines, women's sexuality was under very strict control. Sex was considered a shameful act and considered taboo. Double standards of sexuality, however, allowed men to pursue sexual pleasures and indulge in sex.

With the influx of Western culture, society is becoming more liberal with regards to sexuality. In particular, engaging in reckless sexual intercourse, having a baby, and getting an abortion are becoming hot issues among the younger generations (Sexuality culture in the Republic of Korea n.d.).

9.2 Dual aspects of sexuality

In the Republic of Korea, men have access to both the formal (marriage) and informal aspects of sex (extramarital intercourse and pornography) without difficulty, but women do not have the same access. This dual system of sexuality forces men and women to follow different norms of sexuality. These dual aspects of sexuality have created an inequality between men and women (Kim 1998; Park 2000).

The dual system of sexuality includes the dual perspectives of women; that is, good women and bad women. Many people believe that bad women are good at seducing men and want to have sex with anybody. Therefore, men can treat these women recklessly (Kim 1998).

Behaving in a masculine manner is a top priority for men. This includes having a strong sexual desire, an aggressive sexual behaviour, and many sexual partners (Kim 1998).

9.3 Determinants of sexual behaviour in female high school students

Research was done in 2002 to create a model to predict female adolescent sexual behaviour and related factors (Son 2002). A sample of 633 female second-year high school students were obtained through a strata sampling method.

The factors linked to female adolescent sexual behaviour were: (1) family; (2) school; (3) self-esteem; (4) sexual identity; (5) tendency to be adventurous and impulsive; (6) sexual attitude; (7) dating; (8) self-control; and (9) self-efficacy. Among these factors, dating and self-efficacy were directly related to female adolescent sexual behaviour. The family factor and tendency for being adventurous and

impulsive were indirectly related. The probability of engaging in sex was linked to frequent dating, low self-efficacy, weak relationships among family members, and the strong tendency of being adventurous and impulsive (Son 2002).

9.4 Gender inequality in education

Three beliefs that promote gender inequality are found in the education system. The appropriate place for women is the home whereas men should participate in social activities and lead society and the country. Men are superior to women in regard to physical, emotional, and intellectual aspects. Women and men foster their traditional roles (Teachers contribute to gender equality 1999).

10. Existing national adolescent health policies

Eight laws linked to adolescent health will be reviewed briefly and the key features of each law are presented below.

Framework Act on Women's Development

Although constitutional law states that human beings are equal regardless of sex, the rights between men and women in the Republic of Korea are not equal. Compared to men, women have faced an inordinate amount of discrimination. To achieve gender equality and enhance women's rights, a law was put into effect on 30 December 1995. The main features of this law are to provide opportunities to learn gender equality through education at school, eliminate gender inequality at school and prevent sexual violence.

Juvenile Sex Protection Act

The purpose of this act is to guarantee the human rights of juveniles and facilitate their growth as sound members of society by protecting them from sexual violence, such as having sex with juveniles, and making or distributing obscene materials that include juveniles. This law, effective from January 2000,

has three important points. First, the law points out that strategies to reduce adolescent prostitution must be changed. In the past, the Government punished the adolescents engaged in prostitution. Under the Juvenile Sex Protection Act, these adolescents are considered the victims. Therefore, the exploiters of the adolescents, such as the masters of brothels and people who pay money for sexual intercourse, are severely punished instead. Secondly, according to this law, people who make pornographic movies featuring adolescents or who sexually assault a juvenile receive a stiff penalty and their identity is revealed to the public.

Youth Protection Law

This law has been in effect since 7 March 1997. Its aims are to regulate the distribution of harmful media materials and drugs to juveniles, reduce their access to harmful entertainment, and to protect and rescue them from potentially dangerous environments, including sexual abuse and violence. There are five crucial features in this law. First, this law seeks to keep adolescents away from harmful materials (e.g. media materials that the Juvenile Protection

Committee decides and confirms as injurious to juveniles). Second, this law makes attempts to steer adolescents away from harmful drugs. Third, this law tries to prevent adolescents from being exposed to sex-related materials. Fourth, a system will be implemented that restricts adolescents from entering harmful places (e.g. song-practice and video-show establishments, dance-teaching establishments and dance establishments). Fifth, adolescents will be protected from juvenile violence, which encompasses physical and mental violence.

Act on the Punishment of Sexual Crimes and Protection of Victims Thereof

This law took effect on 5 January 1994. Its purpose is to prevent sexual violence and protect the victims. Enacting this law will help expand human rights and establish sound social orders. Three notable aspects of the act are to provide adolescents adequate education to set up desirable standards for sexuality, take action to prevent sexual violence, and state the regulations regarding crimes of sexual violence and rape.

Mother and Child Health Act

On 10 May 1986 this law was put into force to enhance the health of the mother and child and to help new mothers to raise their babies in a healthy way. This law states that the providers of contraceptives (doctors, nurses or midwives) must be qualified and receive special training. The other important feature of this act concerns the legality of abortion. There are only five cases in which a woman is legally permitted to opt for abortion: (1) the fetus is diagnosed with a genetic, mental, or physical problem as stated in the law; (2) the pregnant woman or her spouse has an infectious disease; (3) the woman became pregnant through sexual intercourse with a relative; (4) the woman became impregnated due to rape; and (5) the pregnancy threatens the pregnant woman's life.

Mother and Fatherless Child Welfare Act

This law was enforced on 1 April 1989, and its aim is to enhance the welfare of the mother and child. The crucial point of this law is the protection of single

mothers before and after delivery by providing a place to stay as well as providing physical and emotional care.

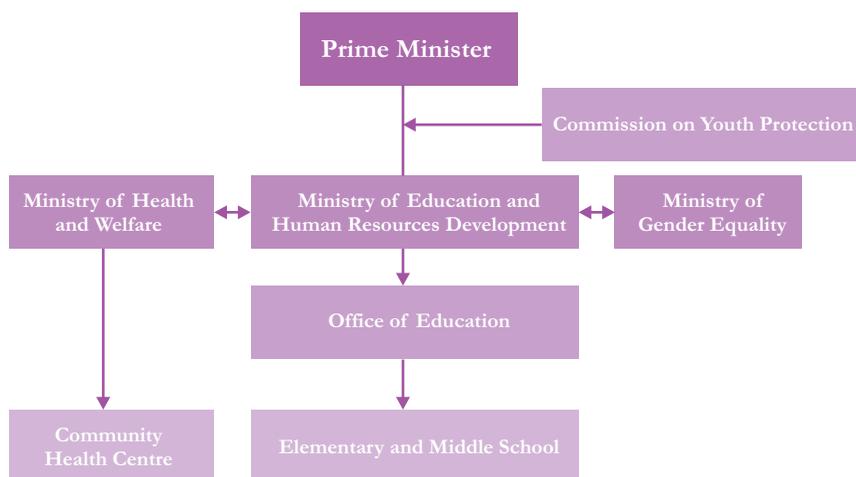
The Gender Discrimination Prevention Act

This law, which took effect on 1 July 1999, is aimed at achieving gender equality in society. The first key feature is to prohibit gender discrimination in employment, education, the use or provision of goods and facilities, the execution of laws and policies, and the inhibition of sexual harassment. The second important aspect is the formation of a commission for the purpose of developing the reformation of sexual discrimination.

School Health Act

This law was put into force on 30 March 1967. This law is aimed to protect and enhance the health of teachers and students by regulating harmful environments around the school and stating necessary matters for school health. This law calls for a clean environment at schools, defines the roles of the school nurse, requires that students have an annual physical examination, and incorporates management of the students' safety and health. According to the School Health Act, one school nurse at each grade level should be available for the students. The main roles of a school nurse are to deal with health emergencies and to focus on the health of students and teachers.

Figure 1. Diagram of governmental organizations



11. Education interventions

11.1 Education at the governmental level

11.1.1 Education at the central government level

The Ministry of Education and Human Resources Development and the Ministry of Gender Equality play important roles in sex education in schools. The primary responsibilities of the Ministry of Education and Human Resources Development are to construct the guidelines for sex education, provide information about sex to teachers and students through a website, and distribute educational materials to each school.

The Ministry of Gender Equality focuses on achieving gender equality and preventing sexual harassment through sex education. It does so by: (1) disseminating information about available educators in the area for the prevention of sexual harassment; (2) providing information regarding the laws, as well as medical assistance, counseling, and places to rest for prostitutes and battered women;

(3) preventing sexual violence; (4) changing school curriculum or educational contents to promote gender equality; and (5) inspecting the execution of the education for the prevention of sexual harassment and giving proper direction.

11.1.2 Education of governmental organizations at the city and province levels

Based on central governmental policies regarding sex education, the offices of education at each district develop specific plans for sex education, based on the needs of each district. The Offices of Education share common roles: (1) creating and distributing materials regarding sex education to each school (e.g. videotapes or teaching plans); (2) organizing or providing opportunities to enhance the quality of teachers who teach sex education at the schools; and (3) auditing the sex education programme at every school and advising them accordingly (The Guidelines for Sexuality Education in 2003, 2003).

11.1.3 Education at the school level

According to the policies of governmental organizations at the city and province levels, every school (elementary, middle, and high school) should make plans to carry out a sex education programme. There are three policies for schools to follow: (1) each school must designate one teacher in charge of the sex education

programme; (2) at least 10 sessions of sex education per year should be given to the students at school; and (3) the overall content of the sex education classes is flexible according to each school. The respective offices of education provide teaching plans for sex education. However, the constitution of the educational curriculum is flexible so the teachers in charge of sex education at their schools have the discretion to develop their own teaching plans.

Table 39. Recommended contents for sex education

Topic
Physical Development
- Physical growth and sexual maturation during adolescence
- Human beings' body structure and reproductive organs
- Hygiene during adolescence
Psychology in Sexuality
- Relationships between human beings
- Sexual desires and responses
- Masturbation
Sex - Pregnancy and contraceptive use
- Sexually transmitted diseases
- AIDS
- Abnormal sexual behaviours
Dating and Love
Marriage and Family
Sexuality and Social Environments
- Sexual violence
- Mass media and sexuality: pornography
- Adolescent prostitution
Sexual Differences and Sexual Roles
Gender Equality

(Source: Teaching materials for sex education)

11.1.4 Education at community health centres

The roles of public health centres regarding sex education are: (1) to provide sex education to students and community members; (2) to give information about sex by making videotapes available to the community; and (3) to counsel people on sex and sexuality (The Ministry of Health and Welfare 2001).

11.2 Education at the non-governmental level

Recently, non-governmental organizations (NGO) have become

active in the field of sex education. Their activities can be categorized into two groups: off-line activities and on-line activities. The main objectives of off-line and on-line activities are to provide educational opportunities for students and teachers, to counsel over the phone or through the Internet, and to offer sex education. Several organizations operate exhibit halls focusing on sexuality to provide information about sex more effectively. People who are interested can visit these exhibit halls and get an explanation from a guide (Park, Park, and Suh 2001).

Table 40. Organizations for youth's sexuality education as suggested by the Commission on Youth Protection

Organization	Website address
Korean Youth World Association	http://www.youth.co.kr/index.shtml
Safe School Association	http://www.safeschool.or.kr/safe.htm
Counseling Centre for Sexual Violence Victims	http://www.forwoman.busan.kr/
Women' Right Association	http://www.womenlink.or.kr/
YMCA Youth Counseling Centre	http://aha.ymca.or.kr/
Korea Sexual Violence Relief Centre	http://www.sisters.or.kr/
Planned Parents Federation of Korea	http://www.ppfk.or.kr/

(Source: The Commission of Youth Protection)

12. Service interventions

12.1 Services for the vulnerable

Assistance for the vulnerable (e.g. single mothers, victims of sexual violence, and prostitutes) has been sought from the Government. However, less than 1% of

the total GNP has been used in the social welfare sector. Money allotted for the well-being of women accounts for the smallest portion of the entire fund in terms of the social welfare sector (Kim and Lee 2002).

Table 41. Protective places for the purpose of adolescent protection

Type Items	Places for a single mother	Places for protection and guidance to adolescents	Places for victims of sexual violence
Related law	Law regarding welfare for mothers and their children	Law regarding the prohibition of prostitution	Law regarding punishment for a sexual violent crime and the victim's protection
Number of Places	8	22, including 11 places to stay temporarily	7
Qualification(s)	<ul style="list-style-type: none"> - A pregnant woman or woman who gave birth within six days - A single mother - A woman who needs a place to stay and care for a delivery 	A person who exhibits the potential for prostitution	A victim of sexual violence
Protection period	Less than 6 months (Possible to extend the period up to 6 months)	<ul style="list-style-type: none"> - Less than 6 months (Possible to extend the period up to 6 months) - In case of temporary places, 2 – 3 months 	Less than 6 months (Possible to extend the period within 1 month)
Provided care	<ul style="list-style-type: none"> - Free lodging and food - Delivery care - Medical insurance - Education for financial independence 	<ul style="list-style-type: none"> - Free lodging and food - Vocational education - Medical insurance - Counseling and vocational arrangement - Education for a desirable life 	<ul style="list-style-type: none"> - Free lodging and food - Support for physical and mental recovery - Help victims go back to society

(Source: The Commission of Youth Protection)

12.2 Services for students at school

Based on the School Health Act, the Government has made efforts to protect students from potentially harmful environments and enhance their health. The School Health Act states that each school is to have a school nurse, a doctor, and a pharmacist. Among the health professionals, the school nurse plays a pivotal role in the students' health at school. Including the elementary, middle, and high school levels, 1128 out of 1181 schools (95.5%) had a school nurse in 2002. The number of schools that did not have a school nurse was eight (0.7%) because four schools had a

temporary school nurse and 41 schools received help from a school nurse in another school.

According to the guidelines for school health, the functions of the school nurse are to provide: (1) care for sick students and teachers by administering over-the-counter drugs and other associated medical care; (2) education for health; and (3) counseling. Education is being emphasized more and more. The Government recommends that school nurses educate students at least six hours per week in terms of various health-related topics, such as HIV/AIDS, communicable diseases, smoking, drug abuse, and sexuality (Dongbu District Office of Education 2003).

Table 42. Number of schools with a school nurse

As of April 1, 2002

Level of School	Total Number of Schools	Number of Schools No. of schools With a school nurse	No. of schools Without a school nurse
Elementary	542	535	7
Middle	357	328	29
High	282	265	17
Total	1181	1128 (95.5%)	53 (4.5%)

(Source: The guidelines for management of school health in 2003)

13. Conclusions

13.1 What are the trends and extent of adolescent reproductive health problems?

13.1.1 Sexual intercourse and pregnancy

This literature review found that less than 6% of adolescents have engaged in sexual intercourse. There are notable differences in the sexual intercourse rate depending on the type of school that adolescents attend. Students in vocational school are about four times more sexually active than those attending college. Despite the fact that the proportion of sexually active adolescents is not as high as in western countries, obstetricians and gynecologists point out that the number of pregnancies is on the rise.

13.1.2 Contraceptive use

Of all sexually active middle school adolescents, 23.2% used contraceptives when they had sex (Kim and Lee 2000). Also, 268 of the 611 female teenagers (44%) in the study did not use contraceptives (Jang et al. 2000). These

results suggest that adolescents who are engaged in sex are exposed to risks, such as unwanted pregnancy or STI, including HIV/AIDS.

13.1.3 Abortion

In a study of middle school adolescents, 71.4% of pregnant adolescents had had an abortion (Kim and Lee 2000). In a survey of doctors, they said the reasons why adolescents chose to have an abortion were the recommendations of parents, partners, or pregnant women themselves (Commission on Youth Protection 2000). Inevitable abortion, such as a medical emergency, ranked third. The main reason why pregnant teens delivered was because they had missed the proper time to have an abortion. This statistic shows that most pregnant adolescents do not want to give birth when they conceive a child. Pregnant adolescents may suffer harmful effects, both mentally and physically, as a result of having an abortion.

13.1.4 Lack of knowledge about sex

Most (87%) doctors surveyed believed that the pregnant teenagers they treated did not have enough knowledge about sex (The Commission on Youth Protection 2000). In a study to investigate middle school students' sexual knowledge, the average score obtained by the subjects was 46.6 on a scale of 100 points. There were statistically significant differences in the scores between students from rural and urban areas. The score of students from urban areas (48.2 points) was higher than that of students from rural areas (44.8 points). These findings suggest that adolescents do not have enough knowledge about sex and are at risk of STI, sexual abuse, and unwanted pregnancy.

13.1.5 Obtaining inappropriate or distorted information about sex

The most common sources of information about sex were the Internet, friends, and school. Quite a few teenagers — 4.0% attending school and 13.7% not attending school — considered pornography to be educational material about sex (The Commission on Youth Protection 2002).

Parents' roles in sex education were minimal. Only 1.3% of the students and 0.4% of the non-students considered their parents a source for information about sex. The quality of information from the Internet or friends, however, cannot usually be verified. Therefore, adolescents may be misinformed or misled about issues surrounding sex.

13.1.6 Harmful effects of the Internet and pornographic websites

The figures for adolescents' accessing pornographic websites in 2000 doubled from that of 1999. More than half (52.4%) of the adolescents attending school and 70.2% of adolescents not attending school logged on to pornographic websites (The Commission of Youth Protection 2002). This finding suggests that pornographic websites may have big impact on shaping adolescent sexual attitudes.

13.1.7 Ineffective sex education programmes

Currently, 10 hours of sex education per year is provided to adolescents in the primary, middle, and high schools. The Government continues to stress the importance of sex education. However,

most adolescents did not think that the sex education they received was very effective or useful. Approximately, 50% of adolescents said that they already knew all the information presented to them in school. Roughly 24% of the adolescents thought that they learned something new from sex education at school. The remaining participants felt that sex education was difficult to understand or only focused on ethical aspects.

13.1.8 Adolescent prostitution

Less than 1% (0.7 %) of adolescents attending school but 8.2% of adolescents not attending school were involved in prostitution. The notable fact is that 13.5% of the students and 23.3% of the non-students were propositioned, mostly from on-line chatting on the Internet. According to the school type, there was a big difference in the involvement of prostitution (The Commission of Youth Protection 2002).

13.1.9 Ethical standards

Adolescent attitudes towards sex have become more liberal. In one study, 608 subjects (21.5%) agreed to sex before marriage and believed dating among adolescents should become

more natural. The surprising fact was that a large number of adolescents were engaged in prostitution for making money, not for basic needs such as food, but for goods that they wanted to purchase (57.3% of adolescents from the general group and 55.7% of adolescents from the special group) and 29.5% of adolescents from the general group and 21.7% of adolescents from the special group prostituted themselves due to curiosity about sex.

13.1.10 Gender inequality

Due in part to Confucianism, the status of women has traditionally been lower than the status of men. Therefore, women have faced numerous disadvantages in the work place and schools compared to men. For example, only recently were women allowed to enter the Military Academy and colleges to become civil servants. Prohibition from these institutions had been based on the assumption that women were not suitable for these fields. In the educational curriculum, there are tendencies to stick to traditional gender roles, even though the Government recently tried to emphasize teaching students in a gender-neutral way.

13.2 What are protective factors and how can they be strengthened?

In Son's research, dating and self-efficacy were directly related to female adolescent sexual behaviour (2002). Factors such as the family and the tendency for adventure and impulsive actions were indirectly linked to female adolescent sexual behaviour.

Frequent dating is related to being involved in sexual relationships. Preventing dating is probably not a

reasonable strategy to discouraging sexual activity. Instead, giving guidance for sound dating may be more helpful. This could be done through sex education. It could increase self-efficacy and help adolescents control sexual impulses. Another factor related to adolescent sexual relationships is the family. The worse the family relationships, the more likely females are to be engaged in sex. Therefore, making good relationships among family members could be one of the strategies to decrease the number of sexually active female adolescents.

14. Recommendations to resolve ARH problems

14. 1 Policy

Policy to protect single mothers

According to the law regarding the welfare of mothers and their children, there are eight places for single mothers to stay in the country, but only small number could have access to these facilities. Most single mothers leave these facilities within six months, which might be too short a time for them to become financially independent. Less than 1% of the total GNP in South Korea has been invested in a social welfare sector (Kim and Lee 2002). To help single mothers, more economic support should be given to these facilities and to single mothers to become financially and emotionally stable.

Policy of sexual violence

In one study, 986 (34.9%) of middle school students considered victims of sexual violence to be partly responsible for their circumstances (Kim 2000). Due to lack of support, rape victims are reluctant to report what they have suffered to the police. Therefore, a programme to change the negative social atmosphere towards victims of

sexual violence is greatly needed.

Recently, the Government addressed sexual harassment and violence by making laws, educating citizens, and cracking down on these crimes. In spite of these efforts, the data about sexual crimes show that these crime rates are on the rise. Hence, more effective policies to decrease sexual violence should be implemented.

Policy to control inappropriate information on the Internet

It was surprising that 52.4% of adolescents attending school and 70.2% of adolescents not attending school log on to pornographic websites. In 2002, 98.8% of adolescents from the general group and 92.1% of adolescents from the special group could use a computer. In the study, 40.5% of adolescents from the general group and 40.6% of adolescents from the special group accidentally accessed pornographic websites (The Commission of Youth Protection 2002). Youth have numerous opportunities to view pornography. The Youth Protection Law protects adolescents from harmful sex-related materials, but this regulation is not that effective in

safeguarding adolescents from pornographic images on the web. More powerful policies to eradicate the spread of pornographic websites and limit their easy access should be made and enforced.

Policy regarding delinquent adolescents

Adolescents who are not attending school are more likely to be sexually active, engaged in prostitution, victims of sexual violence, and access pornographic websites (The Commission of Youth Protection 2002). Compared to students who are attending school, adolescents who are not attending school are often in higher risk situations. However, most interventions and policies regarding adolescent reproductive health have been for students attending school. There are not enough ways for adolescents who are not attending school to get help or assistance. Hence, policies to help this high-risk group should be strengthened.

Policy to strengthen the roles of school nurses as an educator for sex education

School nurses at each school could be valuable resources for adolescents on sexual education. The majority of

adolescents attend elementary through high school and 95.5% of schools have a nurse available on campus. Therefore, the best human resource to easily assess adolescent sexual problems could be school nurses. There are two factors for the Government to consider so that school nurses can become effective sex educators. First, enough time to teach students should be given to school nurses. Recently, the Government urged school nurses to spend at least six hours a week on health-related education, but the schools are not likely to follow this governmental guideline because there is not enough time available for school nurses to teach adolescents. School nurses should be regularly updated on sex education. Currently, it seems that the quality of sex education given by a school nurse depends on the individual school nurse's interest in sex education.

Cooperation among the governmental organizations

The main governmental organizations in charge of sex education are the Ministry of Health and Welfare, the Ministry of Education and Human Resources Development, and the Ministry of Gender Equality. All of them are concerned about adolescent sexuality and reproductive health. However, the roles of the different departments overlap somewhat.

Stipulating clear roles, developing clear channels of communication, and executing appropriate policies would enable the governmental organizations to better assist adolescents.

14.2 Intervention

Providing effective sex education

Most adolescents think that sex education is boring and contains out-of-date information. Sex education is mostly provided at school, which means that schools play a crucial role in helping adolescents lead healthy sexual and reproductive lives. A large amount of sex education teaching materials have been developed and are available. By using these sources, it is possible for schools to develop an effective and practical curriculum for sex education.

Three important areas are: the use of contraceptives; an appropriate value system for sexuality; and gender equality. Teaching how to use contraceptives and the importance of contraceptives should be taught. The most common reason why adolescents engage in prostitution is to make money. The Government is cracking down on adults who engage in sexual relationships with young adolescents, but adolescents also need to form values to cherish themselves and not engage in risky sex.

The concepts of gender equality should be introduced. It is not easy to change the gender-inequality that has been deeply rooted in society in a short time. However, it can be expected that continuous education may contribute to ultimately achieving gender equality.

Using the Internet as an effective way to give sexuality information

Easy and abundant access to pornography is one of the negative side-effects of Internet use. However, using the Internet as educational materials for adolescents could be an effective tool. For example, Kim et al. developed an on-line sex education programme using interactive human-computer dialogue technology (2002). In addition to this technology, the important facets of utilizing the Internet for educational purposes are the quality of the educational contents and the ease of access to those websites for adolescents.

Strengthening parental and societal roles

Parents and society in general do not play important roles in the sexual education of their children. Currently, only the school system takes the responsibility of educating adolescents about sex and related issues, which is

not adequate. In order to give the proper and necessary amount of sexual information to adolescents, the three sectors — school, family, and society — should work together.

14.3 Research

Research should be carried out on a regular basis that could give insight into adolescent sexual and reproductive health problems. There are, however, two concerns about this research, representative problems and the lack of research high-risk groups.

Representative research

In the mass media, alarming problems such as adolescent abortion rates and prostitution have been reported. The society has started to worry about adolescent reproductive health. However, there is currently not enough research to diagnose ARH problems. Researchers have done studies on adolescent sexual behaviours, but it is not guaranteed that the results actually represent the realities of all ARH issues. Most samples were not obtained in a systematic way across the country or among all adolescents.

Lack of research on high-risk groups

Even though adolescents from high-risk groups are in more dangerous circumstances, most studies related to ARH have been done among adolescents who are attending school. Sexual behaviour and related factors for the high-risk group might be different from the behaviours of adolescents attending school. It is important that new research assess the problems of high-risk groups so that effective strategies can be developed to help them.

14.4 The role and strategies of WHO

The problems, interventions, and policies related to ARH differ among countries. If the WHO were an intermediary, countries could exchange information regarding adolescent sexuality and cooperate to reduce problems in adolescent reproductive health. Countries would have a chance to compare lessons learned and apply successful methods to their own situations.

To become a successful mediator, the WHO should gather information regarding each country's ARH situation. The WHO should compare and analyze the information obtained to determine similarities and differences among countries. Data obtained from countries around the world could be valuable and helpful to other countries. The WHO should provide opportunities to countries or researchers to analyze this data and recommend strategies and effective guidelines for each country. It is anticipated that, through the assistance

of the WHO as a mediator among countries, adolescent sexuality problems could be decreased throughout the world.

It could also be helpful if WHO held conferences or educational workshops on ARH. Through these events, professionals could exchange their thoughts and information regarding ARH and contribute to improving adolescent sexual and reproductive health.

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