

CICRED'S SEMINAR

**Reproductive health education for floating
adolescents : unmet needs of poverty, and
corresponding strategies, measures and social
supports**

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Reproductive Health Education for Floating Adolescents: Unmet needs of Poverty, and Corresponding Strategies, Measures and Social Supports

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1. Extremely increasing of floating adolescents and youths: a big challenge China is facing in new century

1.1 The hurricane-liked floating waves in recent 20 years in China

Accompanying with the rapid progress of economic development, and the quick changes of industrialization and urbanization, a large number of rural labor force, just like the huge waves, surged into China's relative coastal prosperous areas, especially the big cities, since the end of 1980s. During the recent 20 years, the total number of them has already exceeded one hundred and twenty millions, equal to about one of ten of the total population in China's mainland. Now the number is still increasing rapidly, with an average speed of 11.8% a year. The far-reaching influence of this change, whatever positive or negative, and where on China's economic development, the improving of people's living condition, or on the social steady, has already induced the high attention, not only from Chinese, but also from the world.

What's need to mention here, is the word "population immigration" here, has different meaning with the phenomenon of "immigration wave" that already occurred in many developing countries. In China, these peasants are surplus labor force liberated from the countryside. They come to the relative developed areas and big cities for exploring new works, modern and prosperous life. Usually, the young man or lady leaves his/her hometown alone.

They don't need to change their residence registration, nor should they transfer their domicile. They stay in the city, but leave the "heart" in hometown. Spring festival, the Chinese traditional holiday, is the most important event for them in a year. They will rashly go home for spend these holidays with parents and the family, and come back city soon after the festival. Because of this reason, the immigration wave mentioned above is more like a "migratory bird" phenomenon, and the population is called "floating population", rather than the "immigrant population".

1.2 The regularities of China's floating wave

The tendency of the floating wave in China has two significant regularities. Firstly, this wave has a very clear direction, that is, from the inner agricultural provinces in the western and middle China, to the industrial coastal eastern areas, and from the poverty countryside, to the prosperous metropolises. At present, three floating wave regions, which centered by Beijing (based on the Beijing-Tianjin plain), Shanghai (based on the Yangji river plain) and Guangdong (based on the Zhujiang alluvial plain), respectively, has already formed. Table 1 focuses on describing the changing tendency. The provinces listed in the right column are traditional agricultural provinces where a large amount of population has emigrated, whereas the provinces

listed in the left column belong to the developed areas. These advanced provinces are actually with low birth rate in recent years.

However, excluding the natural increasing factors, the more rapid economic and industrialized progress, the higher increasing rate of the population is. In another word, the metropolises, such as Shanghai and Beijing, and the developed area, such as Guangdong, whether the amount of floating number, or the strength and effectiveness of floating wave, are very strong. According to the forecast of specialists, this tendency will postponed for at least 20 years, and result in much more stronger influence upon the society than present.

Table 1: Inflating and changes of population in 18 Chinese provinces from 1999 to 2000

Province	Population changing		Province	Population changing	
	net immigrants *	rate (%) **		net emigrants*	rate (%) **
	(10 thousands)	(excluding nature increasing factors)		(10 thousands)	(excluding nature increasing factors)
Shanghai	368	2.25	Guizhou	>190	0.19
Beijing	285	2.11	Guangxi	>135	0.07
Guangdong	1135	1.87	Anhui	>280	-0.33
zhejiang	410	1.14	Heilongjiang	>220	-0.45
Jiangsu	376	1.22	Jiangxi	>310	-0.66
Tianjin	147	0.91	Sichuan	>460	-0.53
Fujian	225	1.37	Henan	>320	0.24
Xinjiang	89	0.75	Hunan	>140	0.17
Hainan	113	0.51	Hebei	>260	0.19

Because no information of the whole 31 provinces in Chinese mainland is available, this table only collect the population survey data among the 18 provinces and then calculate and estimate.

* Calculated by comparing the net immigrants and emigrants listed in the registration system by the end of 1999 and by the the end of 2000.

** The estimated population changing rates are estimated after excluding the nature increasing factors in these provinces.

Secondly, The main body of the floating population is the adolescents, youths and robust aged 15 through 49 years who are suitable for doing physical labors (see table 2). The males and females aged 15 through 29 years are the principal part of them, which account for 30.7% and 39.2% of the total population, respectively.

Table 2: Age distribution of China's floating population

Age (Years)	male (%)	female (%)
0-4	2.5	2.4
5-14	3.6	3.3
15-29	30.7	39.2
30-49	40.3	35.5
50-65	18.6	12.9
>=66	4.3	6.7
total	100	100

Managing from the "China's Women and Children Health Association's Report, 2001. "The social progress of China: the development of Chinese women and children in 1990s". Beijing: Population Publishing Company

1.3 The characteristics of the floating population and its poverty background

This floating population itself, has the following four evident characteristics:

- a) Most of them are during the sex-active period. They should have to be the main objective persons of the reproductive health education.
- b) Most of them come from the poverty rural areas. Because of the absence of nutrition, medical and social welfare supports, many of them have several physical and mental concealed defects.
- c) The general cultural level of this population is very low, if compare with those who have stable working positions in their hometowns.

From Table 3, we can find that more than 19.7% and 55.7% of the males only have primary and junior high school cultural levels, whereas only 20.6% of them have the senior high schools and college education background. The cultural level of the female floating population is even much lower than the males.

Among them, only 9.9% and 1.15% have the junior and senior high school backgrounds, and as high as 72.3% of them only have the primary level of cultivation. Besides, more than 16.7% of the total number are illiterate and half-illiterate persons. Several reports have also analyzed their family economic backgrounds, and showed that poverty and low socioeconomic situations are the main motive power for them to go to the cities for beginning their new life. The shortcomings of their social and cultural background also are the important affecting factors that these floating female adolescents will have more unsuitable situation, whatever in the selected profession, or in the income and social positions, than that of the male floating adolescents.

It should be mentioned here, that there are several new and big modern cities, such as Shenzhen city and Zhuhai city in the Guangdong province near Hongkong, there are many young people with high cultural level and technical skills. However, because these young people have already immigrated into the cities and become the essential part of the main body of the residual population, they are not be accounted as floating population. Actually, they belong to the real immigration population.

Table 3: Distribution of cultural levels of Chinese floating population

Cultural level	male (%)	female (%)
illiterate person	0.44	0.85
Hadn't finished primary school education	3.56	15.8
Graduated from junior primary school	19.7	72.3
Graduated from junior high school	55.7	9.9
Graduated from senior high school	17.5	0.94
Graduated from collage and above	3.1	0.21
total	100	100

the same notices as Table 3.

- d) At present, most of the floating adolescents are doing physical labors in the urban areas, such as the factory workers, the building and construction workers, the family and household working, the business and retail sailing, the food and entertainment services, and the municipal keep-cleaning works, etc Most of these works are hard physical labors, with low-paying, low technical and professional level, and should work under the relative bad condition (see Table 4). Almost 95% of the living situation of the floating adolescents and youths

are bad, such like the shabby room, the simple and crude equipments. Because of that, the floating adolescents and youths are easy to be the vulnerability groups of various infectious diseases. Besides, because of the characteristics of crowding living and working condition, the person-to-person and person-to-society influences of the floating adolescents are much stronger than that of the school students in the same ages.

Table 4: The professional workers of floating adolescents/youths in Beijing, Tianjin, Hebei and Jiangsu provinces

Profession	Beijing	Tianjin	Hebei	Jiangsu
factory workers	20.31	24.84	86.76	66.39
Building and construction worker	3.68	32.76	0.59	3.26
Household work	3.77	2.43	0.29	5.55
business and retail service	30.22	22.07	6.19	17.93
food and entertainment service	31.28	13.69	2.35	0.84
municipal cleaning	0	0	0.29	0
are finding work now	0.97	1.28	0	0.42
Others	9.77	2.93	3.53	5.61
Total	100	100	100	100

No data of the whole country is available. Estimated from Beijing, Tianjin, Hebei and Jiangsu provinces.

1.4 Analyses on the reflection and influence of the floating wave

The reflection and influence of China's floating wave are quite different with that of many other developing countries. This wave is supported by the government policies. The local authorities in the local areas, wherever in the emigrate or immigrate places, have taken many management measures to lead the wave as regular as possible.

Besides, the hard physical labor and long-term services, such as working in the food and entertainment services, are not interested by most of the long-lived residuals in the city under the registry system (in China, every city has its own registry system for managing the residents). Because of this fact, the large amount of the floating wave hasn't make big destroyed affections on the employment obtaining of the city residents. Totally to say, most of the floating persons still maintain the good personalities of Chinese traditional peasants. They are industry and enduring for hard labors, diligent, assiduous and dependable, steadfast in duty works, skimp and save, and obey the laws and the regularities of the employers. One statistic report of the Guangdong province has shown that in a population of floating female youths working in the factories try their best to save their money on food and expenses, and post 75% of their payment to their parents living in their hometowns. All the facts mentioned above clearly show that the floating population in China doesn't make the confusion and unsteady of society. On the contrast, they have contributed a lot for the rapid economic progress, the arise of people's living condition in China's recent history.

However, some passive affection, especially the long-term negative passive effects of the floating wave, have to be paid more attention. We should objectively appraise affections, and make policies, strategies and measures to over come them, in order to make the industrialization and urbanization in China progressed smoothly. Among all the passive effects, in my opinion, is the absence of reproductive health education of this population. China is the largest developing country, and more than 70% of its population are living in the countryside. Only when the cultural levels and health condition of tem have improved, then can say the

national power and people's health status have actually improved. However, at present, the floating adolescents are actually in a significant unequal position, whatever in the chance of education, nor in the living background and low social situation, with the city residuals. In another word, it's the poverty that make the floating adolescent can not enjoy the benefits of the social progress and the distribution of national and local resources.

Besides, the low social situation and the absence of education also make great challenges for China's educational policy. The traditional education, including the adolescent health education and population-based reproductive health education in China all focus on the schools. The early school leaving of them means they have lost the chance to take basic health knowledge. Furthermore, because they leave home to society in a young age, they lose the protection of tradition environment, and they themselves are absent of self-conciseness and self-protecting skills, they are easy to become vulnerable objects of the risky reproductive behaviors. If they have already suffered from the risky behaviors, they are difficult to explore the support of society, too. The harmful affections of it will not only be harmful to their development and health, but also will be harmful for the steady and progress of the society. By these reasons, the most important tasks we have to do now is change our traditional education school-based model, and expanse our education system to these floating adolescents and youths.

2. The existing reproductive problems of the floating adolescents and their unmet needs of health education

2.1 Floating adolescents are a susceptible population of reproductive health risky behaviors

As mentioned above, the floating population, especially the adolescents and youths, are quite vulnerable of suffering from reproductive health problems. My analyses show that there are four factors for resulting this situation.

The first is the poverty background. As mentioned above, most of them come from the rural areas. For the floating girls, may be their parents and family numbers are living in a level 10 times lower than the city residents.

For the floating boys, may be the most important thing to do is earning money for their future marriage. Thus, most of the floating youths hope to get more money and get money as quick as possible. However, because of their low cultural and social background, no suitable way will be found by them to reach their own purpose.

The second is the seriously mental imbalanced resulted from the huge urban-rural differences. The dazzling human world they face in the cities make them conflict, either by the low socioeconomic situation of themselves, or by the life styles some city residents spend the money with myriad temptations.

The third is the absence of life skills and suitable exchanging methods of the floating adolescents. They are not only absence of life experiences, nor do they identify the truth and lie, and use suitable strategies to protect themselves out of dangers. For this fact, if they are under the lure and seduce of bad people, many of them will easy to occur health risky behaviors.

Many surveys and investigations from various cities and areas have already demonstrated that the prevalence of many risky and harmful reproductive problems, such as the early and irregular sexual intercourse, offense of bigamy, illegal cohabit, concubine, prostitution and man whoring, adolescent pregnancy, and unexpected pregnancy, etc., more frequently occurred among the floating adolescents, especially among the girls. The occurring of reproductive infections, HIV/AIDS and various other kinds of

sexual transferring diseases are more evident among the floating youths, too.

All these examples have clearly show that the floating adolescents and youths are an unmet susceptible group of reproductive health risks, and they are certainly to be the key group of receiving reproductive education and health care. It's also necessary to know that when the corresponding policies, strategies and measures are made, the factor of their poverty background should not to be ignored.

2.2 Eager to know adolescent physiological knowledge and master basic health skills – the first unmet need of China's floating adolescents and youths

In order to know the actual need of reproductive health education, I and my colleagues in the Institute of Child and Adolescent Health, Peking University Health Sciences Center had a survey in Beijing and Guangdong province.

In total 4518 floating adolescents and youths aged 17 through 24 received the questionnaire. In Beijing, the male subjects were selected from those worked in the building and construction sites and females were selected from the food and entertainment services. In Guangdong province, the subjects were selected from the business and retailing for males and factory workers for females. We designed 40 questions, and each 4 questions reflected one aspect of the adolescent health knowledge. In total there are 10 aspects (see Table 5), focused on three fields, the anatomic and physiological knowledge of sex reproductive organs, the process of sex development, and the basic skills of health care. The assessment was based on the correct or error answers of the subjects. For example, if 3-4 questions were correctly answered, he/she was "well known" in this aspect, if only 2 questions were correctly answered, he/she would be the "roughly known", whereas if less than one question were correctly answered, he/she would be "unknown" in this aspect. The subjects' cultural level were carefully noticed. We try to use simple questions, and described the meaning with figures, if necessary. The subjects were also allowed to have free questions, and we try our best to give our explanations.

We are quite surprise by the extremely absence of these youths when saw the statistics in Table 5. Although most of them have already pass their adolescent growth, they doesn't master the basic knowledge of adolescent growth.

Maybe because of the traditional education in families, many floating youths, especially the girls, know how to take suitable measures for maintain the clearness of extra organs, to care the developing breast, and take suitable measures for menstruation health. However, more than half of the subjects don't know the basic automatic and physiological traits of the sex organs, nor can't they answer the knowledge of secondary sex characteristics.

Comparing with them, more than 90% of the students in the senior high school and college can correctly answer these questions. Most of the floating adolescents don't have the delivering and contraception knowledge. More than 60% of the males have evident misleading of boy's emission and masturbation. Furthermore, above 70% of the boys and girls don't know how to exchange information and have friends by using the suitable skills. Our analyses also show that the absence of their knowledge only have weak negative correlations with the age, but have very stronger negative correlations with their cultural levels.

Table 5: A survey on the physiological knowledge and health skills in the floating adolescents (2074 males and 2244 females , aged 17 through 24 years)

Knowledge and skills (appraised by the answers in the questionnaires)	Well known (%)	roughly known (%)	unknown (%)
Know the main adolescent developmental changes	10.1	33.7	43.8
Understand the phenomena of secondary sex Characteristics	25.2	30.4	55.6
master the correct cleaning skills of extra sex organs	34.7	40.2	25.1
master the basic knowledge of child bear	18.7	25.5	55.8
Know methods of contraception	25.2	20.2	54.6
know boy's emission is physiological phenomenon	17.8	20.5	61.7
know masturbation is suitable self-consolation method	11	22.4	66.6
Master the developmental and health of breast	25.2	47.9	26.9
master girl's menstruation is physiological phenomenon	22.7	45	22.3
know adolescent mental traits and interpersonal skills	7.7	20.3	72

The above analyses strongly suggest that the main factor for causing absence of reproductive health knowledge is the early discontinuing of school education, and lost the channel for getting regular and complete adolescent health education. This absence is not a small problem, because it will let adolescents to misleading in their life, especially for the floating boys living in a unfamiliar and no support environment. In this condition, the floating boys usually have two phenomena. Some one will fall into mental confusion and puzzle, because he don't know what occurs in his own body is a norm event, and what is not. More than 2/3 of the boys who received our interview told us that they once or frequently have masturbation. More than half of the subjects thought this is an illegal or crime behavior, and they are compunction and self-repent and redress of this "error". The other aspects listed in Table 5 are also the common causes for inducing their puzzle and anxiety. They usually solve these puzzle by "be patient", "have a sleep", "search for looking the pornographic photos", and "find a friend to talk with anything". A few of them will take the fighting, thief, destroy other's materials and other method for expressing their grievances. Some other boys will try to explore the chance to near the females. They said "I am too lonesome and senseless to eager to find a girl friend", and "I will try to de sex for trying my sex ability". Some of them make harassing and invasion behaviors in the working places or public environment. These kinds of sex stress, sex puzzle and sex anxiety, are important factors not only resulting many reproductive risky behaviors, such as illegal sexual problems, drug abuse, and go whoring, but also are one of the main cause for inducing HIV/AIDS and other sexual transferring diseases.

2.3 The floating adolescent girls need to master necessary skills of contraception and birth control

My colleagues and I had another survey on the sex knowledge, attitude and behavior of the floating girls in 2001. The subjects are floating girls aged 16 through 20 from Beijing and other two big cities in the coastal areas.

We lay our key points on the contents of contraception and birth control. In total there are 3024 subjects. All of them are unmarried and are doing the food and entertainment services. Among all the effective questionnaires, about 11.4% admired that they have once or frequent sex intercourse. Among them, 74% have

the fixed boy friend. It was surprise that whatever the girls have sex behavior or not, many of them really didn't have enough knowledge and skills of contraception and birth control. For example, more than 80% of the subjects didn't know there was a contraception method of using the safe-stage calculation. 1/3 of them said they know the method, but the dates they pointed out are actually error (see Table 6).

The more harmful effects of the absence of knowledge are that many girls were misled by the error information from friends, sex partners and society. The error knowledge is focused on the contraception drags, intrauterine device, and induced abortion. For example, about 40.1% and 24.6% of the subjects heard that use oral drags for birth control will be harmful on physical health, and result in the failure of delivery. More than 50% of them think that take the intrauterine device will have harmful affection on regular menstruation and health. Another 30.8% of the subjects express their worries of if they go to the hospitals for induced abortion, the doctors there will punish them, or ask them to show their marriage certification.

Table 6: The error knowledge of unmarried floating girls who work as food and entertainment services

kind of error knowledge	effective number	numbers of error answer	error rate (%)
unknown there has a safe-period contraception method	3014	2453	81.4
can't list any contraception method	3009	701	23.3
don't know where can buy contraception drags and tools	2998	744	24.8
think oral contraception drags will be harmful for health	3009	1207	40.1
Think oral contraception drags will result in sterility	3010	740	24.6
Think only married women can use intrauterine device	2998	1196	39.9
Think intrauterine device will be harmful to health	2786	1396	50.1
Think should bring marriage certification for induced abortion in hospital	2564	790	30.8

The surveys and interview of Mr. Zheng LX upon the floating female workers in Guangzhou (one of the biggest city in Guangdong province and have more than 2.3 million floating youths) have quite similar results with our survey. For example, about one third of the girls working as entertainment service knew that there was a safe-stage method for birth control. However, most of them will use the method in a error way because the safe dates which they estimated had mistakes. Almost all the floating girls who have sex experience hope to use condom and drags for birth controlling. The problems of them were how to get the condoms. The complains of them are:

- (1) "I don't know where I can buy the drags or condoms;
- (2) "I will not go to the shops to buy it because I fell ashamed";
- (3) "I am dare of buying it because I really don't know how to use it correctly";
- (4) "Why can I buy condoms in the hospital? I go the hospitals only for cure diseases";
- (5) "I am afraid if my boy friend will not love me because he find me use the condom";
- (6) I hope to use the condom to avoid pregnancy, but I will give it up if my boy friend refuse to use it".

According to the estimation of Mr. Zheng, the use rate of condom in the factory working girls is almost 90%, whereas in the girls working as entertainment service, the use rate of condom are near 20-30%. However, only a few in the latter group will always use condoms during the sex intercourse, and the longest time who use the condom is only three months.

The reports from other Chinese scholars, which upon other groups of the floating youths, including the high risky groups, such as drug abuse and prostitution, have clearly suggested that the unfortunate combine of poverty and knowledge absence, is the most important factors for resulting the reproductive high-risky behavior of the floating adolescents and youths, especially among the girls. This is an urging task for all corresponding professional workers, whatever he/she is engaging in the health education and health promoting, or is a clinic medical worker, a technician for diseases control, or is a social worker, have to rise up, to perform scientific education on the floating adolescents and youths. The teaching of knowledge and skills should be the key points of strengthen.

2.4 Some floating girls belong to the high-risky population of reproductive diseases.

2.4.1 Unexpected pregnancy

Almost of the reports, though they surveyed or investigated from various areas and upon different groups, have the same conclusion, that is, the floating girls come from the poverty countryside, not only have the high rate of unexpected pregnancy, but also they have much more frequency of induced abortion than the long-lived residuals of the cities. Scholars in Tianjin reported that the numbers of floating girls who come to the hospitals for induced abortion were 4 times higher than the long-lived women, and were about 10-20 times higher than the unmarried girls of the latter. Scholars from Guangdong, Zhejiang and Jiangsu provinces also reported that especially in the urban-rural combining areas, the department of gynecology and obstetrics of the hospitals are crowded by the floating women who wanted to have induced abortion everyday. Among them, the most frequently to be seen were younger than 20 years of age. Besides, the more younger the girl was, the bigger inborn she would had. Many of these young ladies delayed their abortion until the inborn was older than 5 months and above. For this reason, they had to do induced labor which have the more harmful affection on their health. Because of the fact most of the floating girls have a bad living and growth history in their poverty home environment, many of them have the signs and symptoms of irregular menstruation cycles. Combining with the absence of physiological knowledge and life experience, many of them don't pay attention to some of the pregnancy signs, such as vomiting and throw up, result in the delay of abortion.

2.4.2 The induced abortion and its harmful affection

If a floating girl finds she has already pregnancy, 95% of the selection is to do induced abortion. According to the analyses of scholars, there are three main reasons. The first is from the traditional sense that it's ashamed to be pregnancy for a unmarried girl. However, accompanying with time changes, this sense is becoming more and more by the youngsters. The second is, the girl actually have no conditions to rear a baby, because of the relative bad environment when she is living in a unfamiliar environment with out any possible support. The third is almost all the employers of them have strict limitation, that is, if the employer knows the pregnant, she will soon lose her job.

According to the reports from Beijing, Shanghai and Guangzhou, the phenomenon that a girl has 2-3 times of induced abortion is quite popular among the floating population. A few of them even continually have 4-5 times.

What about the harmful affections of the induced abortion? A large amount of academic studies have already give the certain answers. Many floating girls are suffered from anemia, protein-energy malnutrition and other remaining signs and syndromes resulted from the induced abortion and labor.

Why the harmful remaining signs are more frequently occurred in the floating girls? My colleagues and

I have a detail investigation on this topic in our 2001 survey. The answers of them are grieved: (1) “My parents in the countryside needs money. I have to work hard”. (2) “I am young, and will pass this difficult time and recover soon”. (3) “I feel sick before and after the abortion, and even lose appetite for every food. How can I adding the nutrients now? ” (4) “I am a poor girl from poverty countryside. I can’t compare with the city residents who have so much nutrients to eat”. (5) “I work hard everyday. I come back to the assembly line soon after the abortion. I was so happy the boss didn’t pay attention to me. Where have time for me to pay attention to the rest time and nutrients?”. (6) “I can’t pay too much money for nutrients. What I only think is to keep my job”.

Do those girls know the harmful affections of induced abortion? Some of them know, but a little, whereas some others really don’t know any of the affection. The latter will usually have the following answers: (1) I heard from many sisters, that the pain of the induced abortion is temporary. It have no harmful affection on my future health”. (2) “People said the harmful affections only occur in those old ages, not me”. (3) “I look the small advisements (notice: these advisements are all posted by persons who are performing illegal operations) everywhere. All of them say that people will have induced abortion without any harm and pain. It seems to me that abortion is a very simple and relax operation”.

Another factor which caused more harmful affections of induced abortion is that the floating girls are actually stand in an unequal position with the long-living city residuals. The latter usually go to the hospitals with advanced techniques and modern equipments. They also have strong self-protecting consciousness, that is, if they have some sick felling, they will complain to the doctors. However, the floating girls would rather go to the privacy clinics for induced abortion. They said, “the hospitals are always crowded by peoples. I am afraid to meet some familiars there”. “Many doctors in the hospitals look down us poorer. Sometimes they talk us using unpleasant tones, and let me feel ashamed”. The doctors in the privacy clinic have kindly words and good attitude, but they usually have simply equipments and low skills. The floating girls usually pay much more money there, and will face dangerous if some unexpected events occur. Besides, they are absence of self-protecting consciousness and skills, and will suffer from all the harmful affections upon them.

Many scholars are surprised by a phenomenon, that is, contrast to the unwilling of floating girls to have contraception and birth control measures, they are not hesitate to use the drag for induced abortion. Actually the use of these drags is not mature, at least in China. The Ministry of Health in China have strictly limitations for using these drags: (1) They should be used in the regular hospitals with advanced techniques and equipments. (2) The use of these drags have serious time-limitation. (3) After taking the drag, the pregnant woman should be monitoring by the doctors for enough time. (4) Any clinics and pharmacy departments cannot sell these drags without permission.

However, the clinic and pharmacy department doesn’t obey these policies. They still sell these drags in under- ground channels for money. Several illegal medical doctors take part in this activity. They specially focused on the floating girls, and post the small advisements everywhere around the places where the floating population living.

Many floating pregnancy girls don’t know the limitations of these drags anymore, and just thinking it’s the best way to have induced abortion sorrowfully. The most harmful affections are unfortunately upon them. Many reports have described this phenomenon, and several death cases are reported. Among the deaths, many were the floating women who died of uterus perforation, placenta retention, serious bleeding and other remainder syndromes such like infectious diseases.

2.4.3 Infections of reproductive ducts: a most common syndrome of floating girls

Many surveys from Beijing, Tianjin, Guangdong, Shandong and Zhejiang have documented that the infections of reproductive ducts, such as the purities vulva, large amount of leucorrhoea with bad smell, irregularity of menstruation, bacteria and other kinds of virginites, cervical erosion, and etc, are quite popular among the floating females. A report from Guangdong showed that some floating girls have suffered from trichomonas and bacteria virginites since the early adolescent period. Two reports from Heping showed that there were about 30% of the floating girls who came to the hospitals for induced abortion were suffering from virginites, and more than 1/3 of them were accompanying with cervical erosion. Comparing with them, the patients of the unmarried city long-living resident girls of the same ages were less than 1% suffering from virginites, and almost no patients could be found accompanying with cervical erosion. Even in the married city resident women, only less than 8% were suffering from virginites, and less than 10% of them accompanying with cervical erosion. Report from Shanghai also described that several kinds of reproductive infectious diseases of the floating girls, such as the trichomonas vaginitis, were already rare in the city residents, Why so many floating girls, including those non or occasionally have sex, are suffering from the reproductive infections. According to our deep analyses, there are three main reasons. The first is, many floating girls, especially those comes from the poverty countryside in northwest China, don't master the skills of cleaning the extra sex organs everyday. Most of the girls come from the south pay attention to daily cleaning, but many of them only buy the low-quality toilet necessities because they want to save money. This is a quite popular factor for resulting reproductive infections. However, they usually don't pay attention to the infectious signs, and think that's result from the phenomenon that they themselves are not unaccustomed to the climate and environment of a new place. The second is that many of the floating girls, especially those work as the entertainment service, and infected by the illegal sex activities. The third and the most important factor is the crude living environment of them. The employers give them very simply and shabby housing conditions in order to save producing expenses. We have many times to have surveys and interviews with the floating girls in their room. Usually 8-12 girls are crudely living in a small room of 12-16 m². We also found that in a urban-rural combing zone, more than 30 female workers crudely lived in a small room smaller than 20 m². Dr Xing, one of my colleagues, had a survey on the housing and sanitary health of the floating girls. She investigated more than 250 living rooms of the floating girls, and found the following phenomenon: (1) only less than 2% of the housing had independent washing room. That means that more than 98% of the floating working and servicing girls use the grouping washing room. (2) In many of these washing rooms, people use the same equipment for washing faces, hands and feet, and for personal cleaning. Some of the young girls use the same towels together. (3) The worst condition of the floating girls' housing will be seen in the central areas of metropolises, Some housing rooms there are basements under the ground with bad smell, and some others are once used to be closet without windows. The hot, humidity and unclean housing give a transferring and spreading ground of the bacteria infectious diseases. (4) Many girls can't use the one-time necessities, because they want to save their money. They have to use the menstruation supplements for many months, and cleaning them carefully. However, they can't make these supplements to dry under the sunshine, and usually hang them beside their bed, and rashly to collect them when these supplements are still wet. (5) The nearer the distance between girls' housing and the factory, the more crowding situation the housing condition will be.

2.5 The floating adolescents and youths is a suspicious population of HIV/AIDS/STD infections, and some fo the groups of them have become the high-risky population

2.5.1 The serious situation of HIV/AIDS/STD spreading in China

The spreading of HIV/AIDS and STD in China has enter the rapid increasing stage since the end of 1990s. By the end of 2001, more than one million patients of HIV patients had been found in China, and more than 1/10 of them have already died with AIDS. More than 80% of the HIV patients are the adolescents, youths and young-middle aged people aged 15-49 years. At present, about 67% of them are caused by drag abuse. However, the tendency of the increasing rate which infected by sex behaviors is more and more stronger. Besides, more than 15 million persons have been found to be infected by STD, and more than 75% belongs to the 15-49 age groups. Unfortunately, because of the absence of data specially come from the floating population, we don't whether the positions of the prevalence of these diseases in the floating adolescents and youths. However, many reports have already clearly shown that the floating adolescents and youths is a suspicious population of HIV/AIDS/STD, and some groups of them have become the high-risky population. According to the incomplete estimation from Yunan, Sichuan, Xinjiang, and Guangdong provinces, the main causes for resulting HIV/AIDS are drag abuse (about 72% of the males), sex behaviors (about 35% are directly from prostitution, and 61% are indirectly from the male sex partners in the females). Whereas the main causes for resulting STD are both 70%-75% directly or indirectly from the prostitution (female) and go whoring (male) for the floating adolescents and youths.

Table 7 describes the constitution ratio of different infectious diseases in the Zhejiang province during 1997-1998, which authority show that the prevalence of HIV/AIDS and STD of the floating adolescents and youths were 5-6 times and 25%, respectively, higher than the city long-living population. Among them (the results doesn't show in the table), the patients who have already died of AIDS accounted for 7.14% and 1.20% for the floating and resident population, respectively.

Table 7: The constitution ratio of different infectious diseases in Zhejiang province in 1997-1998

Infectious diseases	Prevalence (%)	
	floating population	long-living residents
Cholera	0.88	0.23
A-type and B-type hepatitis	30.06	36.01
dysentery	20.51	18.72
Lymphoid fever	3.24	3.08
HIV/AIDS	0.02	0.0035
Syphilis	3.15	2.54
Other sexual transferring diseases	18.37	15.18
Measles	3.18	1.82
Epidemic cerebrospinal meningitis	0.14	0.06
Scarlet fever	0.2	0.09
Hemorrhage fever	1.2	2.06
B-type cerebra meningitis	0.14	0.06
Malaria	1.8	0.7
New born tetanus	0.74	0.03
Pulmonary tuberculosis	12.26	16.63
Others	4.11	2.79
Total	100.0	100.0

Induced from Mrs. Xie SY, 2000. The epidemical traits of infectious diseases in floating populations in Zhejiang provinces in 1997-1998. Zhejiang Preventive Medicine, 12(6):11-13

From the comprehensive analysis upon all the references we can collected, we can conclude that during the recent five years, there are three main factors for causing the floating adolescents and youths to be susceptible and high-risky objects of the HIV/AIDS/STD.

2.5.2 The first factor for causing HIV/AIDS/STD spreading: the absence of preventive knowledge

The first factor is the absence of health knowledge, which we have already talked a lot above. Table 8 shows the HIV/AIDS preventive knowledge of 6302 adolescent floating girls who works as food and entertainment service in 3 southwest provinces. Among them, about 1/3 are males and 2/3 are females. We can concluded from those answers that the adolescents and youths come from the poverty areas are quite absence of the knowledge of HIV/AIDS/STD prevention. If compare with the high school and college students, the % of the floating persons who correctly answered the questions of HIV/AIDS/STD basic knowledge are 66% less than the latter, and the % of their correct answers of the transfer ways are only about 34% for the males and 45.6% for the females lower than the normal students. By this reason, many floating adolescents are afraid of being infected, but don't know how to protect themselves from these diseases. Many other floating adolescents even don't recognize the dangerous of these infections, nor have any knowledge of the transferring ways of them. Thus, many of them are still performing risky behaviors, such as drug abuse and have conflicting sex activities.

Table 8: HIV/AIDS preventive knowledge of 6302 adolescent floating girls who works as food and entertainment service in 3 southwest provinces

Questions	answer correctly (%)
1. Basic knowledge of AIDS/HIV/STD	
AIDS is a dangerous infectious disease	89.9
No drags or injections available for cure and preventing AIDS	24.2
There is a "window period " for HIV infection	4.7
The HIV patients will not have evident clinical signs	23.8
HIV patients have no signs still will transfer disease for others	65.3
2. Transfer ways (can or can not)	
Use the injectors together	67.4
Has sex with the drug-abuser	50
Has sex with many sex partners	65.5
To do business or work in one room with HIV/AIDS patients	44.7
To have meals with HIV/AIDS patients together	19.4
To swim in the pool with HIV/AIDS patients	26.6
Cough and sneeze will not transfer HIV/AIDS	38.8
Use close stool together with HIV/AIDS patients will not infected	40.3
HIV/AIDS virus will not transfer from one to another by mosquitoes bite	33.6
Use razor together with others have dangerous of infecting	50.2
Tattoo in the street is dangerous for HIV/AIDS infection	35.5
3. Preventive methods	
Not have risky sex behavior is a best way to prevent HIV infection	78.9
has fixed sex partner will reduce dangerous of HIV/AIDS infection	68.5
use condom correctly will effective for HIV/AIDS infection	45.4
use strict disincentive tools in beauty parlor and barbershop is important for HIV prevention	58.7
Never drug abuse are helpful for HIV infection	69.9
everybody in the community should have to undertake health education of HIV/AIDS prevention	60.5
Never go to the irregular blood collecting site to sell blood	71
Never receive the blood production which resource is not known	46.9

The fact is that the prevalence of STD is more popular among the floating adolescents and youths, at least at present. However, they have no regular channels to get correct information of STD prevention. Many of them heard the words (only the words) of “genital herpes”, “gonorrhoea” and “syphilis” from the illegal advisements in the streets, but really don’t understand the signs and syndromes of these diseases. Many girls find the signs of leucorrhoea with bad smell, but don’t that is from the sex-intercourse. Some girls have already got diagnoses of genital herpes, gonorrhoea and syphilis, etc, but don’t put them in heart, because they have heard from others that these diseases can be cured by using drugs and injection, not like AIDS which will cause to death. They will still doing prostitution and other risky sex behaviors, and don’t know the recurrence of the STD will result in the health dangerous step by step. Besides, only about 1/3 of the subjects know that most of the STD can spread from one to another without sex activity. More 50% of the persons know that the use of condom is an effective way to prevent the transferring of HIV/AIDS/STD, but they steadily believe that they will not use it because they have fixed boy friends. However, according to our survey, at least 30% of the boy friends who were surely believed by the floating girls had multiple sex relationship with others.

2.5.3 The second factor for causing HIV/AIDS/STD spreading: the changes of sex senses and attitude

According to Chinese traditional senses, it’s not a moral behavior to have sex activity before marriage, and it’s a crime action to do prostitution and go whoring. However, this country is now faced the serious challenge during the great socioeconomic transferring stages in these years. Many of the younger have changed their senses and attitude about sex, especially among the floating population. Actually, the most popular cause for them to change the sex attitude has closed relationship with poverty.

As pointed by Mr. Zheng’s survey on the floating girls in Guangzhou city, prostitution has become a popular phenomenon among the floating girls. This change can be summarized into three phenomena:

Firstly, the ratios of the floating girls who have sex behaviors before marriage are very high. Among the subjects who received his interview, about 40.5% of the girls working in the factories and near 80% of the girls who works as entertainment services admitted that they have sex experience before marriage. In 19 unmarried girls who received the face-to-face interview, 13 told the interviewer that they had their first sex experience before the age of 17 years old.

Secondly, for the question of why doing prostitution, the answers of those girls are: (1) For getting the money quickly. “I work hard everyday in the assembly line, but only can earn 400-500 yuans (about 50-60 US \$) a month. It’s relative easy to get the money soon by prostitution. (2) I am an extremely ordinary girl without any skills and culture; prostitution is the only way for me to get money. (3) I like to work in the barber loon, bar or other entertainment places. I cannot only have some regular pay, but also will easily find the men for going whoring. What I am ashamed is not prostitution, but poverty.

Thirdly, most of the floating girls live in the city alone, plus the very bad living environment. They have nothing to do after coming back from the working places. What can they do is to talk with others, or find a boy friend for expressing the mental stress. Because no one in the city really takes care of her, she will soon fall to the hands of male who expresses a little interesting to her. ”The purpose for me to find a boy friend is very simple. I need a person who will give me economic support, who will companying with me in the rest time, and who will give me help when I face the dangerous of invasion”. As for the question of if they will marry with their boy friends, most of girls answered: “It dependents on the chance. If I can marry with a male who is rich and has house in the city, will be fortunate. If I have no chance to get it, I will go back to my

hometown and marry with anyone. I don't think anymore in the future at present". The changes of sex senses and attitude have made too many pains on these floating girls, but many of them still live with these patterns.

3. Corresponding strategies and measures: To bravely accept the challenge

3.1 Strategies for meeting the unmet reproductive health needs of Chinese floating adolescents and youths

According to the serious situation of the reproductive health problems described above and meet the unmet needs of this population, my colleagues and I have designed the following four strategies. a) To expand the school-based education to the floating adolescents and youths effectively. b) Notice the different needs of floating adolescents with school age adolescents, and make suitable changes of the keys of health education upon them. c) To design more clear, object, directly perceived and performable methods for the health education and health promoting works upon the floating adolescents. d) To lay the key points on training the skills to help the floating adolescent use them directly in their life.

3.2 The scientific evidences for making the strategies and the corresponding measures

3.2.1 The traditional health education model have to be changed

In China, there is a rather complete system, especially in the urban areas, for doing health education and health promotion in the different levels of schools. Students received a series of health knowledge, senses and attitude from the education, and set up their health behaviors. However, the situation has changed during these years. An extremely big wave of the population to move from countryside to cities has resulted a large team of floating adolescents. This team are no doubt increase and increase, and many of their problems have occurred. The most urgent needs of them are reproductive health that has already described in detail above. Because of this change, the traditional system of school-based health education should have to be improved. The only way for changing this situation is to expand the existing health contents and training skills to the society, and establish a new community-based health education system.

If we don't make this change, the problems existing in the floating adolescents will rapidly increase soon, and some groups of them have already become the high risky population of reproductive diseases, such as the HIV/AIDS/STD and other reproductive infections. If we make the change, most of them will require the necessary knowledge, changes their attitude, and build the health behaviors step by step. It's worth for us to do so, because the floating adolescents are our children and hope, too. Only when the health and constitution are improved, then the arise of the life quality and living conditions can be raised. Otherwise, the problems of these youths will result the destroyed harmful affections, not only to themselves, but also to the whole society.

3.2.2. The contents of health education and health promoting for the floating adolescents and youths should have to be modified for meet their needs

As mentioned above, the floating adolescents and youths have several characteristics that are quite different with the school-age adolescents. For example, according to their low cultural levels, the contents of the education should be short and succinct. Because most of the floating adolescents have a poverty background, the contents of the education should closely near their practice economic situation. We have to spend more time to have talks and interviews, in order to induce their interesting. Because many of them are during the floating situation, we should always change the training curriculum to suit their needs. We also should pay attention to mobilize their self-consciousness in order to rise their enthusiasm of self-learning.

Thus, three parts should compose the contents of the health education upon the floating adolescents and

youths. The first is to give sex knowledge, both of physiological and mental contents. For the girls, maybe the following topics are important, such as how to clean the extra sex organs daily, how to identify the normal and abnormal leucorrhoea, how to correctly look at the menstruation cycles, and how to manage the health status during the menstruation cycles, etc. For the boys, maybe we should have the topics of how to look at emission and masturbation, etc.

The second is to let the adolescents know mental knowledge during adolescent development. We will emphasis on three topics: (1) how to find help from medicine, administrative and law aspects if meets problems. (2) to master the skills to get along with others, especially the opposite sex.(3) how to rise the self-consciousness of the subjects. For most of the floating adolescent who come from a poverty background, it's very important to help the floating adolescents, especially the girls, to overcome the conscious of feeling inferior and weak, and rise the confidence and self-respect consciousness.

The third is the preventive knowledge of HIV/AIDS and STD, which is the key of key points of health education for the floating adolescents. The topics will be what's about the spreading tendency in the world, in China, and in this area? What serious affections they have already made on the human life? What's the dangerous affection of HIV/AIDS/STD on oneself, his/her family and their children? Which is the spreading ways of spreading HIV/AIDS/STD, and in which way they can not be spread? We should emphasises that STD can also infected by the closed life connection, and what one has to do if he/she has found the suspicious signs, and where to find the help, consultation and services.

The forth is the basic moral education. The topics will be how to take along with the HIV/AIDS patients? Why we don't have to discriminate them? How shall we respect the human rights of others? We should let the floating adolescents to know that his/her poverty background doesn't make him/her to be inferior. They should have their own confidence, and protect he/herself from sex harass and invasion. We also hope to let the adolescents treasure their virginity, and learn to refuse other's invitation with harbor evil designs. We should also help the floating adolescents to look forward the future, and give up the existing reproductive health risky behaviors, if they have.

3.2.3 The teaching methods of health education for floating adolescents and youths

According to the recognizing and cultural traits of the floating adolescents, we suggest that the teachers to use the direct and popular teaching materials, and to use the as popular and easy-understanding languages as possible as they can. Several materials, such as those made in VCD, cinema, photos, and TV are especially welcomed by the floating adolescents We'd better to select many direct cases around the adolescents' daily life, in order to strengthen the educational effects upon them. Certainly we should keep the names of the familiars secretly, in order to protect the privacy of others.

From our experience, "peer education" method is one of the best ways to have health education on the floating adolescents. They live and work together, and have strong interrelationship with each other. If they meet a problem, they would rather ask for help and advice of their peers than the adults. Because of it, we will select the peer leaders at the beginning of the health education program, give them the knowledge and teach them the skills at first. Then we encourage them to transfer these knowledge and skills to their peers, until all the numbers in the group have master the necessary knowledge and skills.

3.2.4 The most important purpose of the education is to give the floating adolescents performable skills

One of the most important traits is that the floating adolescents like to have practical, without high theories divorced from life, skills and methods, to use in the daily life. For this reason, our health education focuses to give the floating adolescents performable and practical skills. For example, the following ten measures can be used by the girls in their every day life: (1) how to use a condom correctly. (2) How to estimate the safe-stage for contraception. (3) How to correctly use the drags for birth control, and use what kind of drags for various purposes. (4) How should one do if he/she find the condom has already broken? (5) What's the signs and fillings of early pregnancy? (6) What's the suitable time for a girl to go to hospital? (7) How to use drags for induced abortion in the early stages of pregnancy? (8) What's the correct cleaning measures during the menstruation cycle? (9) What nutritional, health and resting measures a women should take after the induced abortion? (10)How to find the infections of reproductive system by testing the abnormal secretion from the vagina, and what measures she have to take then?

4. A complete social barrier system for protecting floating adolescent's reproductive health

The floating wave is a phenomenon of the whole society. Thus, for the purpose to protect the reproductive health of the floating adolescents, we should not only dependent on the hard work of the hospital doctors, the health care personals and the family planning workers, but also should mobilize the whole society, and establish a comprehensive community-based barrier system. The social support which we design are composed by the following seven measures.

4.1 Organism

In order to spread the health education and health promoting works to the floating adolescents and youths, we urge to establish some non-government-organizations for running the health protecting works of adolescent's reproductive health.

The first one will be called as "The Association of Floating Population Education" who is in charge of the health education for all the floating population, especially the adolescent, the most vulnerable group of it. Besides the health education specialists, educators, doctors, social workers and community leaders, some of the floating numbers who are engaging in protecting the reproductive health for this population are extremely be welcomed to take part in. This association will also contribute a lot for transferring the teaching experience and skills to the health education of floating adolescents.

The second will be called as "Mass Media Center for Floating Adolescent Education" which mainly composed by the leaders of various kinds of mass media. This organization will engage to collect information, and connect the floating adolescents with the society. They should use their plentiful information resources in performing the works.

The third will be called "Administration Office of Floating Youth Education", which composed by the officers of education, public health, community management and the health education professions. It will play as an macro manage center to coordinate all the social mobilization, economic assessment, surveillance and appraise, as well as the information management, etc, to let the health education in different levels run smoothly.

4.2 education financial support mechanism

Because China is still a developing country, it's difficult to let the government to load all the financial for supporting the health education of adolescents. However, a necessary amount of money from the government is needed to let the beginning of this health activity.

Accompanying with the economic progress, and the complete progress of the market-economic mechanism, the financial support should be given by the units and industries who will get most of the benefits from the health education. We will also mobilize the social organizations and communities to give contribute. The group and privacy donates are also welcomed. We will also suggest the government to use part of the national debt to support the health education works. This education financial support mechanism will finally go forward around the way of regularity and socialization.

4.3 Change the weak social position of the floating population

We should fully utilize the potential of mass media to propagandize the meanings of the present floating wave: It has made great contribution on the industrization and urbanization progress in China. (2) This wave has helped a lot for the socio- economic progress, not only for the coastal developed areas, but also for the people in the poverty countryside to improve their life conditions. Only in 2002 and only from the Guangdong province, more than 8000 million yuan (about 1000 US\$) were post to Sichuan province by the floating adolescents, youths and young adults. This is one of the good examples to reflect the contribution of floating population to the family and society. (3) If the floating wave is going forward smoothly, it will contribute to the national increased GDP from the 4% in 1995 to 9% in 2005.

The weak face of the floating adolescents and youths is specially needs to be changes by the society. They are diligent industrious, brave, assiduous and hard working. They have loaded many important physical labors in which help to improve the life quality of the city residents. The people doing health risky behaviors is only a small part of the total population. These adolescents and youths are also our children and the hope of the country. We have confidence to let them change their bad behaviors from the health education and health promotion works, and let them back to the correct way.

4.4 Health education practice in the resource of the floating wave

Most of the floating adolescents and youths come from the poverty and remote areas in the inner countryside of this country. For this reason, it's very important to have health promoting works in these areas. All the administrative, social organizations and communities should pay more attention to the family and parents of the floating adolescents and youths, help them to overcome difficulties, and encourage them to closely connect with the floating adolescents. The family's support no doubt has strong effects on the floating adolescents live outside alone. They will have more confidence to draw out of the health risky behaviors, if they really have, and study hard, contribute more for the society.

The health education practice in these areas is batter to use the chance of Spring Festival, the most important holiday for the Chinese. Most of the floating adolescents will come back home to spend several days with their parents and family. All the health professions and institution, including the mass media, should have to strengthen the power of education, to spread health knowledge, and get more chance to connect with these adolescents. In the bus station and other traffic points, the health personals will set up health consultation stations, spread health knowledge booklet and photos, especially should lay the key points on spreading the knowledge and skills of metroception and birth control.

4.5 Combing with the profession management, strengthen the cultivation before the start of working

The Chinese government has already receive the suggestion of the social and health specialists, and begin to make a series law and regulations, to put the reproductive health education into the cultivation course before the floating adolescents and youths to begin their new work.

We will lay our key points on monitoring the training course and job-cultivation course for the new workers by the units who employ the floating adolescents and youths, especially those entertainment places, such as the bar, OK centers, hotels, berth a loon, dancing houses and night clubs, etc. The bosses of these places are being examined regularly or irregularly, to find whether they are inducing or urging the floating adolescents to have reproductive health risky behaviors. We also put the contents of reproductive health into the examine items for checking the service equalities of the entertainment places.

4.6 To improve the living conditions of floating adolescents and youths, and clean their living environment

The government has already made several sanitary laws and policies to monitor the health condition, house sanitary situation and equipment, and living environment of the floating population. We should pay further attention to regularize the public orders and social security of the communities, especially in the urban-rural combining zone. The illegal privacy clinics and the pharmacy departments where sell the illegal drags for induced abortion will be strictly punished. In many of the communities, clinics and life-service stations take part in the health promoting activities, and spread booklet and newsletters for propaganda the knowledge of reproductive health. They also help to sell condoms and other drags for birth control.

4.7 To play technical advantages of the public health and health education professional institute and social organizations

Many institutes and organization in China, such as the Institute of Child and Adolescent Health, Peking University Health Sciences center, have performed on the health education and health promoting works for many times. However, the work which we did in the passed years were focused on the school health education. In this important social turnoff stage, we have changes our tradional senses, that is, we should not only pay attention to improving the health status of school age children and adolescents, but also should on the large amount of floating adolescents and youths. We will try our best, to fulfill the following tasks: (1) fully utilize our advantages in the skills of health education, to cultivate more high equality health personals for serve the floating adolescents.

To set up several clinics in the urban-rural combining zone, in order to give the floating adolescents more effective and direct services. (3) To edit a series of textbooks of reproductive health for training the personals, and to edit a series of sex education textbooks, to spread scientific knowledge among the floating adolescents. (4) To establish a network using the Internet techniques, to let more floating adolescents to get knowledge and consoling suggestions from us.

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