



The Accessibility to Reproductive Healthcare Services for Teenagers in Bangkok's Urban Community

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Abstract

The purpose of this study was to examine the accessibility of reproductive health services for teenagers and identify the factors influencing teenagers' satisfaction with these services in urban communities within Bangkok. The study samples were 346 teenagers recruited by using multistage sampling technique. Data were collected using interviewed questionnaire. Descriptive and inferential statistics such as Multiple Logistic Regression analysis were applied for data analysis.

The results showed that the sample had a mean age. It was found that the access of teenagers to reproductive health services are moderate level. Factors predicting satisfaction with accessing to reproductive health services statistically significant ($p < 0.05$); Appropriateness, Acceptance and Accessibility of health care services. Appropriateness of health services had the highest predictive weight (beta = .444), followed by acceptance of health services (beta = .218) and accessibility of health services (beta = .152). So that the level of satisfaction of teenagers accessing to reproductive health services is 48.40 percent, significantly ($p < 0.05$). The multiple correlation coefficient (R) is 6.96, and a standard error mean of prediction (S.E.) is 0.20.

In conclusion, teenagers in Bangkok's urban communities require more approachable health providing services such as more appropriate, more accessible services which would help teenagers accessing to health services better.

Keywords: Access to reproductive health services, Teenagers, Bangkok's urban community

What was Known

- The problem of accessibility to reproductive healthcare services of Thai teenagers.

What's New and Next

- Developing channels for urban and rural teenagers to access health services.
- To study the education of preventing dangerous health behaviors among teenagers and the development guidelines for preventing dangerous health behaviors in urban and rural areas.

Introduction

Reproductive health is a kind of health condition related to reproductive system, and its function requires physical, mental, and social integrity at all stages of life, to live a happy life in society¹. Thailand's current public health action framework is under the goal of sustainable development about to ensure the quality of life, promote the well-being of all ages, and comprehensively solve the problem of access to public health services, which is an important goal of the 20-year National Strategic Plan (paragraph 3). From 2018 to 2080, which was associated with the public health reform plan stipulated in the Twelfth National Economic and Social Development Plan of Thailand 4.0 The current national reproductive health strategy includes four priority areas, namely: 1) Prevention and Promotion Excellence.; 2) Service Excellence; 3) People Excellence; 4) Governance Excellence². Reproductive Health Bureau, Ministry of Public Health is responsible for supervising the implementation of national reproductive health development policies and strategies (The second plan 2017-2026) which is about promoting fertility and high-quality growth, the main goal is to promote voluntary fertility, so that the population replacement is sufficient, and all fertility needs to be planned, willing and prepared in all aspects, leading to safe delivery, healthy babies and high-quality growth³ through the cooperation between the government and non-governmental organization. The policy is to develop and promote the reproductive health of the population; reduce early marriage and teenage pregnancy; strengthen the promotion of semi-permanent contraceptives to prevent pregnancy and re-pregnancy; encourage pregnant teenagers to receive appropriate education; encourage continuing to go to school to raise themselves; promote the popularization of contraceptive knowledge³. The results of the policy implementation of the Department of Health show that the implementation of the plan has not reached the expected goal, because: there are still limitations in manpower; frequent rotation effect; lack of work ability development in budget, location and system; Lack of promoting cross-sectoral integration. There are difficulties in the

supervision system. Data collection, access to policies, transfer of employees and sensitivity to epidemics. In terms of communicating policies to employees and the impact of the COVID-19, some service agencies had to close³. The above impacts result in fewer opportunities for the target group to access medical services, leading to a lack of knowledge among the target group; Increase incorrect beliefs and understanding. Therefore, Thailand's reproductive health issues also exceed the standards set by the Ministry of Public Health. Regardless of the postpartum mortality rate, 29.8% of women over 15 years old of childbearing age turn pale due to iron deficiency. The infant mortality rate caused by congenital disabilities and postpartum complications is 18.2% or one-fifth. The rate of breastfeeding alone for at least 6 months is still very low, which is only 23.9%.

Teenagers are people between the ages of 10 and 19⁴. In the process of transition to adulthood, teenagers have undergone tremendous changes both physically and psychologically. At the present, the problem of teenagers is a global problem. Whether it is early pregnancy, stress, mental health, drug abuse, sexually transmitted diseases, and other health problems⁵, it is getting more and more serious and complicated. The changes of social, economic environment family, epidemics and technological development have led to behaviors that are susceptible to health problems, such as sexual behavior without condoms, drug abuse, alcohol consumption, smoking, media use and, mental health problems. According to the situation in Thailand, the incidence of teenagers' sexual behavior is relatively high, rising from 68.5.0% and 54.6% in 2014 to 84.6% and 69.2% in 2019 respectively. The rate of sexually transmitted diseases among teenagers aged 15 - 24 years tends to increase from 80.8 per 100,000 people in 2010 to 175.3 per 100,000 people in 2019⁶. Meanwhile, the situation of the birth rate for women aged 15-19 years still exceeds the target of the Department of Health, Ministry of Public Health, which stipulates those teenage pregnancies should not exceed 25 per 1,000 people⁷. In addition, the abortion rate was found to be as high as 20.3⁶ percent. These problems affect individuals, families, economy, society, and the country. In addition, teenagers who are pregnant and giving birth have inappropriate parenting tendencies, which leads to malnutrition of infants and serious problems of children⁸, and social conditions must be in a state of caring for children. It inevitably leads to the low quality of life of teenagers and their families, although the Reproductive Health Bureau has adopted the theme policy of reducing teenagers health problems, the Ministry of Health encourages actions to enable adolescents and young people to obtain standardized, high-quality information about reproductive health services, which are called Youth-friendly

health services (YFHS) with the aim of developing the public health service system, standardizing and ensuring equal access to health services but It was also discovered that there was a problem, which was that teenagers and young people came to use the service in small numbers. So when teenagers and young people still do not have access to reproductive health services, the problems that occur in teenagers remain.

Accessing to health services is the ability to enter the appropriate health care system according to basic needs about rights in Health promotion, Disease control and prevention, Diagnosis, Medical treatment, Disability prevention and Rehabilitation along with Receiving care according to each individual's health status⁹. Research has found that most reasons indicate that teenagers have problems accessing reproductive health services, with poor services, unclear sources of services, poverty, and lack of Medical Insurance¹⁰. In the 20 Year National Strategic Plan (2018-2040) Section 55 of the 12th National Economic and Social Development Plan, the state must ensure that people receive efficient public health services thoroughly. In this regard, the Department of Health the Ministry of Public Health has taken steps to help provide access to youth friendly health services (Youth Friendly Health Service: YFHS), which from past operations have found that there are obstacles in personnel lack of knowledge or practice skills in consulting and services, lack of participation¹¹. Through literature review about teenagers accessing healthcare services, it was found that some teenagers still lacking of access to healthcare services, lacking of sexual knowledge and lacking of skills in using information accurately.¹⁸ Therefore, researchers are interested in studying and surveying the problems of teenagers accessing healthcare services in Bangkok urban areas and to use the obtained information to create and develop models for teenagers accessing health care service, following the guidelines of the Ottawa Charter¹², which is suitable for providing convenient, fast, and thorough health services for teenagers, and obtaining good health services.

It can be seen that if teenagers can get reproductive health services, it will help to improve their ability to prevent and develop sexual health and encourage them to take responsibility for their own health, thus effectively reducing the risky behavior of teenagers.

Materials and Methods

1. Study design

Descriptive research method and cross-sectional study were used to study the situation of teenager's access to reproductive health services in urban community within Bangkok.

2. Population and Sample

The population of the study consisted of teenagers in urban community area, both female and male. Aged from 13–18 years. The total teenagers population is 7,022 people

The sample size was calculated using the formula of Taro Yamane¹³. The calculated sample size was 346. Inclusion Criteria were teenagers who live in Lak Si area, aged from 13–18 years, both male and female; be able to read and understand Thai; Willing to participate in the research project.

Sample selection uses a simple random method. In order to achieve equality of the sample groups, simple random sampling was used to sampling teenagers from 7 schools around the area: 1. preparing a letter of explanation to the school director requesting access to collect student data in the target age range. 2. use the total number of students from the population to draw lots to select grade levels and classrooms. 3. after achieving the grade levels and classroom already, then randomly sampling from student number in the class 4. meet the sample group to clarify objectives and clarify permission to collect information of teenagers from their parents. 5. process of information collecting

3. Research tool

1) The tool that was used to collect quantitative data is a questionnaire which is divided into 3 parts as follows.

Part 1 General demographic information includes gender, age, perception of service news, medical rights.

Part 2 The survey questionnaire on teenagers' access to reproductive health services in urban community in Bangkok was divided into 5 parts as follows: Accessibility of services, Acceptance of services, The presence or adequacy of health services, Abilities to support the services' costs and Appropriateness of providing health services. Adapted from Thattawan Dechmala (2016)¹⁴, results of finding the reliability of the questionnaire (Reliability) in the study has a value of 0.84.

In order to understand the five aspects of teenagers access to reproductive health services, rating scales were used as a measurement standard. The mean score of the sample from data collection and frequency distribution will be used to classify health accessibility data into five levels. The level of the mean score was determined to indicate the level of teenagers access to reproductive health services in community areas in Bangkok, by assigning numbers to

each measurement level from the highest 5 to the lowest 1. Data were analyzed using mean values and interpret the meaning back to the original sequence of measurements, by referring to the lower limit and upper limit of each number as follows: 4.21 – 5.00 gives the highest value, 3.41 – 4.20 gives a high value, 2.61 – 3.40 gives a medium value, 1.81 – 2.60 gives a low value, and 1.00–1.80 gives a lowest value.

Part 3 Questionnaire on satisfaction with the quality of reproductive health services of teenagers in urban community in Bangkok, adapted from Thattawan Dechmala (2016)¹⁴, 10 items.

Inspection of tool quality and determining the quality of research tools Finding content validity (Content Validity Index: CVI), Instruments used in the experiment were adjusted according to the recommendations and had 3 experts check the validity of the content

Verify Content Validity Index in all aspects of service access, the following value is : Accessibility of services is 0.81 (CVI .81), Acceptance of services is 0.74 (CVI .74), The presence or adequacy of services is 0.68(CVI .68), Abilities to support the services' costs is 0.91 (CVI .91) and Appropriateness in providing services is 0.89 (CVI .89) and the mean value of accessing service questionnaire is 0.80.

Reliability: The survey questionnaire on teenagers' access to reproductive health services in urban community within Bangkok, adapted from Thattawan Dechmala (2016) based on the alpha coefficient calculation of Kleanbach. The service visit questionnaire was found to be at a very good level with a score of. 833 .

The research was approved by Chulabhorn Institute Human Research Ethics Committee, the research project code is 112/2563, which includes a program for protecting rights and providing explanatory documents to parents, as well as having them sign a consent form to participate in the study. For participants, there is clarification and consent to participate in the study.

4. Data analysis

1. The analysis uses a ready-made program to find the average frequency percentage to describe the individual characteristics and the perception of health information.
2. Multiple correlation coefficient analysis was used to analyze the predictive factors of teenagers reproductive health service satisfaction in urban community in Bangkok.

Assumptions were met including normality, independence, linearly, no multicollinearity, no autocorrelation, and homoscedasticity.

Results

1. The personal data of the sample is 346 people, with 178 women, accounting for 51.4 %, and 210 people aged between 15 and 18, accounting for 60.7%. Most of them are studying in middle school, 239 people, accounting for 69.1 %. Buddhists, 333 people, accounting for 96.2 %. Most do not know about their medical rights, 121 people, accounting for 35 %. Followed by people who have their Universal Coverage Scheme, 23.7 %. Most residents live with their parents, 203 people, accounting for 58.7 %.

2. The health information questionnaire investigated the cognition of health information, the use of health services and the acquisition of health information. The results showed that among 90 subjects, accounting for 26%, 34 people have a history of drinking alcohol and smoking, accounting for 9.8%. In addition, Kratom, Marijuana, and other addictive substances were used by 5.2%, 3.8%, and 0.9%, respectively. When having illness problems, 83 people will buy medicine to take on their own, accounting for 23.9 %, 50 people will go to the clinic to see the doctor, accounting for 14.5%, Some go for health services at service centers near their homes, 3.5%, And some go to hospital near their homes, 2.9%. Most of their knowledge of health information came from the internet (google, You tube, and Face book) accounting for 60.71 %, followed by teachers in schools, 26.38%, from friends 8.79 %, and from educational pamphlets 1.84 %. When the sample has health problems, most of the information is sought from Internet (google, You tube and face book) accounted for 55.44 %, followed by teachers in schools, 23.49 %, from friends 14.50 %, and from educational pamphlets, 1.34 %. When samples want to obtain information about sex education, they sought answers on the internet (Google, YouTube, and Facebook), 56.81%, followed by schoolteachers, 24.47% , from friends 10.34%, from parents, 7.39% ,and from relatives 0.98%. If the sample wants to know how to take birth control pills/wear condoms, they will sought for knowledge from the internet (Google, You tube and Face book), accounting for 58.79 %, followed by teachers in schools, for 26.24 %, from friends, 7.69 %, from billboards 3.71%, from leaflets 2.34%.

The access of teenagers to reproductive health services in urban areas within Bangkok is at moderate level and when each aspects were analyzed, It was found that the aspect with the highest mean score was acceptance of the service which is about the confidence in service provider, equal and non-discriminatory services ($\bar{x} = 3.1488, SD = 0.7255$) and it was found that

there is no difference in the mean score between the aspect of accessibility of the service, aspect of appropriateness in providing health services, aspect of the abilities to support the services' costs. The aspect with the lowest mean score is the presence or adequacy of healthcare services ($\bar{x} = 2.7375, SD = 0.8465$), which refers to various service channels that can be conveniently accessed and the service can be provided at any time. The results are shown in Table 1.

Table 1 Accessibility to healthcare service

Accessibility to healthcare service	MEAN	Standard deviation
Accessibility to healthcare service	2.8030	0.8112
Acceptance of service	3.1488	0.7255
The presence or adequacy of healthcare service	2.7375	0.8465
Abilities to support services' costs	2.8222	0.8025
Appropriateness in providing services	2.9971	0.7973

The factors predicting satisfaction on accessing to reproductive health services for teenagers in the Laksi District area within Bangkok were studied by analyzing the multiple correlation coefficient (multiple correlation coefficient), it was found that factors predicting satisfaction on accessing to reproductive health services for teenagers in the Laksi District within Bangkok statistically significant at the .05 level which consists of three predictive variables: Appropriateness, Acceptance and Accessibility of health care services. All variables can explain the differences in satisfaction with reproductive health services among teenagers in the Laksi district within Bangkok is 48.0%. And it was found that the abilities to support services' costs ($\beta = .042, p = .430$) and the presence or adequacy of healthcare services. ($\beta = .030, p = .634$) were not able to predict the satisfaction of teenagers in the Laksi district within Bangkok on accessing to reproductive health services. As shown in Table 2 and 3.

Table 2 The Multiple correlation coefficient between the satisfaction on the access to reproductive health service of teenagers in urban community, Bangkok.

Prediction Factor	R	R ²	Adjusted R ²	R ² change	F	p-value
Suitability in providing healthcare service	.654	.428	.426	.428	257.340	<.001
Suitability and acceptability of services	.685	.470	.467	.042	27.093	<.001
Suitability, acceptability, and of services	.696	.484	.480	.014	9.580	.002

Table 3 The multiple correlation coefficient in the form of raw score (b) and the standard score (beta) of the satisfaction prediction factor on the access to reproductive healthcare service of teenagers in urban community, Bangkok

Predicting Factor	B	S.E. _b	Beta	t	p-value
1 Acceptability of Services	.145	.031	.218	4.609	<.001
2 Suitability of Healthcare Services	.091	.011	.444	8.444	<.001
3 Accessibility of Services	.032	.010	.152	3.095	<.002
Constant	.643	.200		3.209	.001

R = .696 Adjusted R² = .484 S.E. = .20

However, the results of the study found that the factors of the abilities to support their services' costs (beta = .042, p = .430) and the presence or adequacy of health services (beta = .030, p = .634) were not able to predict the satisfaction of teenagers in urban community, Bangkok on accessing to reproductive health services.

Discussion

It was found that the access of teenagers to reproductive health services in urban community, Bangkok is at moderate level and when each aspects were analyzed, It was found that the mean score were quite low in 4 aspects : The presence or adequacy of health services ($\bar{x} = 2.7375, SD = 0.8465$), Accessibility to the services ($\bar{x} = 2.7375, SD = 0.8465$), Abilities to support services' costs ($\bar{x} = 2.8222, SD = 0.8025$) and appropriateness in providing health

services ($\bar{x} = 2.9971, SD = 0.7973$) according to Wilawan Chomnirat, et al.'s¹⁷ research which is studying Health Service and Access to Health Service of Teenage in Muang District, Khob Kaen Province, it was found that some of teenagers still cannot access to health services due to service provider unit, unable to respond to the needs of teenagers, lacking of various service channels, lacking of availability of service facilities including staffs, public relations and teenagers themselves still lacking of sexual knowledge and life skills.¹⁸

Therefore, when they wanted to know or had some curiosities about health problems, whether it's about sex, using condoms and requesting advice on various health matters, they will sought for information from the internet. The information is mostly obtained from Google and YouTube, which is based on information from a survey of the availability and use of information technology in households of the National Statistical Office, it was found that teenagers between the ages of 6-14 years had a high proportion of internet users, with 96.8 % using the internet and in the age group between 15-24 years, there was a higher internet usage rate than other groups, 98.8%. When separated into educational levels, it was found that at the high school level, 97.3 % used the internet, while at the middle school level, 96.3 % used the internet. The use of the internet by teenagers is expected to continue to increase¹⁵. Searching for information on the internet, data users must be able to find reliable sources of information, users must know how to search for the correct sources¹⁶. But it was found that most children between the ages of 13-18 still lacking of good information searching skills. If Internet users are not prepared or mature enough to filter the information and are unable to analyze it separately, it will affect the occurrence of risky sexual behavior. From the study of Nantiwa Singthong et al.¹⁷ which is about Factor related with Health Literacy Scale for Unwanted Pregnancy Prevention of Teens in School Muang District, Nakhon Ratchasima Province, it was found that media and information literacy has a positive relationship with behavior to prevent premature pregnancy. From the study of Jaruwan Sriwiangya et al.¹⁸ which is about Factors related to sexual risk behaviors among grade 2 of secondary school students Bangkok, it was found that using the internet via mobile phones, there is a statistically significant relationship with risky sexual behavior ($P = 0.96$).

When predictive factors about the level of satisfaction of teenagers in urban community, Bangkok on accessing to reproductive health services is studied, it was found that the appropriateness of service provision had a high effect on the level of satisfaction ($\beta = .444$), acceptance of the services ($\beta = .218$) and accessibility of the service ($\beta = .152$) respectively

affect the satisfaction of accessing services which can be explained as teenagers in urban community, Bangkok need a form of reproductive health service that responds as the early response, in case of them needing urgent help, teenagers are able to make decisions about their own reproductive health care including the use of friendly words and friendly demeanor from service providers¹⁹. As for the acceptance of the service, they want service centers in the community to provide services equally without inequality.² When these factors can be improved, teenagers can access to good health services and the reproductive health facilities must be located in a convenient places, and open for 24-hour or readily provide emergency channels. In addition, clear and confidential channels must be provided for teenagers too.

Conclusion

From the study, it was found that problems among teenagers include risky sexual behavior, unplanned pregnancies are caused by a lack of knowledge, advice, and appropriate assistance. Although the Ministry of Public Health has established a policy to promote the development of standards for friendly health services for teenagers (Youth Friendly Health Services - YFHS) to be a standard guideline for providing reproductive health services which has set out the important points regarding “Teenagers have the rights to make their own decisions and have the rights to receive information and knowledge, receive reproductive health services while confidentiality and privacy are maintained, receive equal social welfare, not being discriminated against and receive any other rights that are for their benefit correctly, completely, and adequately. Not the new topic but important and related with to policy of Thai government for promote the RH services but there are some gaps in this policy were identified, such as a lack of access to service information and the dissemination of information to young people but this policy did not achieve the expected success. Therefore, in this research, problems, and satisfaction with access to reproductive health services of adolescents in the Lak Si community area, Bangkok were surveyed. This will reveal the issue of urgent need for help and access to services. To ensure reliability and acceptability, it is still necessary to improve and formulate guidelines to make it more approachable, convenient, and able to truly meet the needs of teenagers which will help teenagers to have access to reproductive health services and gain acceptance of the services.

Ethical Approval Statement

The research was approved by Chulabhorn Institute Human Research Ethics Committee, the research project code is 112/2563, which includes a program for protecting rights and providing explanatory documents to parents, as well as having them sign a consent form to participate in the study. For participants, there is clarification and consent to participate in the study.

Author Contributions

Suwanampa T. designed the study and formulated the content of the intervention tools and knowledge questionnaire and re-analyzed the data and wrote the manuscript. Suwanampa T. produced the original Thai translation of the abstract, and Purksametanan T. helped to revise it. All authors read and approved the manuscript prior to submission for publication.

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Conflicts of Interest

Epidemics SAR-COVID 19 make it difficult to access samples for data collection, requiring a long time for data collection.

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