

KNOWLEDGE AND EXPERIENCES OF ABORTION AMONG ADOLESCENT GIRLS IN ASIA: A SCOPING REVIEW FROM 2010 TO 2020

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It has been estimated that 5.6 million abortions occur each year among adolescent girls aged 15 - 19 years, of which 3.9 million are unsafe. The situation in Asia is particularly complicated compared to other regions due to the distinction in socio-cultural characteristics. This study aimed to describe abortion knowledge and experiences of adolescent girls in Asian countries in the period 2010 - 2020. Among 22 included publications, 41% of the studies were conducted in South-East Asia. The percentage of girls lacked knowledge and had improper perceptions of abortion could be as high as 95.7%. Common reasons for abortion were health conditions and socio-economic pressures, such as poverty and the need to maintain social self-sufficiency. Medical and surgical abortion was common, and while many girls went to hospitals and legitimate health providers, some did it themselves or went to clandestine abortion. Physical complications included menstrual disorders, pain, fever, vaginal bleeding or even septic shock, while feeling guilty and stressed was flagged as emotional consequences. To improve the situation of teenage abortion in Asia, adolescents should be provided with adequate knowledge on abortion laws and care, parents should be more open to this issue and governments should consider permitting legal abortion among adolescents.

Keywords: adolescent girls, abortion, Asia, knowledge, attitude.

I. INTRODUCTION

Adolescents are not a homogenous population. The shift from childhood to adulthood leads to dramatic physical, sexual, psychological and social changes, particularly in adolescent girls. At this stage in their lives, girls are particularly sensitive and vulnerable physically as well as mentally. In addition to development opportunities, there are health and wellness risks associated with this transition.¹

Every year, an estimated 21 million girls aged 15 - 19 years in developing regions become pregnant. Meanwhile, it has been estimated that

5.6 million abortions occur each year among adolescent girls aged 15 - 19 years, of which 3.9 million are unsafe, contributing to maternal mortality, morbidity and lasting health problems. This number accounts for almost 18% of the total global incidence of unsafe abortion (22 million), and abortion-related mortality among young girls and women accounts for nearly one-third of abortion-related deaths worldwide.²

The situation of abortion Asia is particularly complicated compared to other parts of the world due to the distinction in socio-cultural characteristics. In such oriental culture as the majority of Asian countries, there is a high level of stigmatization associated with out-of-wedlock pregnancies and this accounts for the most common reasons of terminating a pregnancy in Asia. In addition, abortion, especially for adolescents or unmarried young

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women, are illegal in many nations in Asia.¹ As a result, young girls and especially those who are unmarried, seek abortions in clandestine and unsafe conditions fearing being turned away for menstrual regulation.¹ Having an abortion at a very young age with an immature body, along with the risk of exposure to unsafe abortion, those adolescent girls are likely to suffer from medical complications, as well as psychosocial consequences such as depression and suicidal ideation, or worst, mortality.^{3,4}

There have been previous studies reviewing the abortion-related issues among teenagers around the world. In 2015, Wellisch and Chor conducted a study to review statistics about teenagers and abortion, explain the different types of abortion available to teenagers, and discuss aspects of abortion unique to the adolescent population in the United States.⁵ Meanwhile, abortion practices in Africa, its consequences, and control strategies among adolescents were described in a review published in 2019.⁶ On the other hand, a scoping review by Zulu et al. presented the understanding about the ethics context of post abortion care research with adolescents.⁷

Therefore, it is necessary to tackle abortion among adolescents as well as improve the quality of abortion care for this population. A summary of understanding and updates on the current situation of teenage abortion in the Asian societies are critical for rational and prompt decision-making of the health sector. This study thus aimed to describe abortion knowledge and experiences of adolescent girls in Asian countries in the period 2010 - 2020.

II. METHODS

1. Study design

This study is a scoping review.

2. Search methods for identification of studies

The search strategy was performed on

PubMed/Medline and ProQuest with the restriction for year of publication from 2010 to 2020. Search strategy was conducted by combining different terms for “adolescent girls”, “abortions” and name of Asian countries. In order to form a complete search strategy, the terms were combined using Boolean operators (AND, OR and NOT). A limit for year of publication from 2010 to 2020 was also applied.

2. Selection of studies and management

All studies downloaded from databases were extracted in a two-stage process. In the first stage, titles and abstracts of all search results were screened. Papers were excluded if they 1) had no specific data for adolescent girls, 2) had no specific data for Asian countries, 3) did not cover our outcomes of interest (knowledge and experience of abortion), 4) was not written in English, and 5) were not original research. The studies that met selection criteria in the first stage were then be downloaded in full text and moved forward to the second stage. In the second stage, all content of the selected studies in step one was scanned. Peer-reviewed publications in English published between 2010 - 2020 with the outcomes of interest include the abortion knowledge or experiences of adolescents aged 10 - 19 in Asia and related social factors were selected. Study design of the selected studies were cross-sectional study, qualitative study and case reports.

3. Data extraction and analysis

A data extraction form was conducted and applied to the selected studies. Data that were extracted included (1) publication details (authors, title, year of publication, etc.); (2) country of study setting; (3) purpose; (4) study design and sample size; (5) description of participants; (6) methods and main findings. The articles were categorized into thematic areas based on the main findings found from initial reading and organization of the articles.

4. Ethical consideration

This study utilized secondary data from public databases. Therefore, ethical consideration is not applicable.

III. RESULTS

Figure 1 presents the process of selecting papers as well as the number of studies included and excluded of each step. The primary literature search on the databases identified 586 papers. A total of 564 publications were excluded due to duplication, being reviews/protocols for clinical trials/book chapters/conference abstracts, not focusing on adolescent girls, outcome of interest not related to abortion and not being written in English.

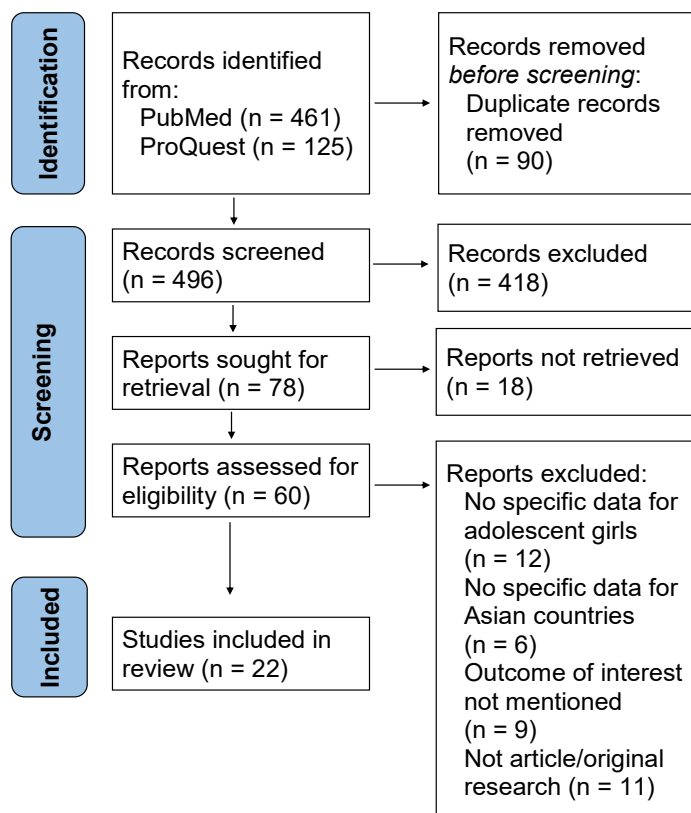


Figure 1. Selection of studies

The included studies were conducted mainly in South-East Asia, India and China. The majority of participants were unmarried schoolgirls. Among the included studies, there were 6 studies involved research on abortion knowledge of adolescent girls and one third of them came from Malaysia (Table 1). Results from the publications showed that while a large number of adolescents were aware of complications and legality of abortion, many had minimum knowledge and inappropriate perception about abortion.⁸⁻¹²

Table 1. Findings of studies on knowledge of abortion among adolescent girls in Asia

| Study | Description of participants | Knowledge |
|-------|---|--|
| 11 | Unmarried subjects requesting termination of pregnancy and having abortion | Approximately half the adolescents had no knowledge of the stage in pregnancy up to which termination was possible. |
| 23 | Adolescents aged 13 - 18 years from selected East Malaysian secondary schools, had no abortion | 7.5% of female respondents had correct responses for knowledge on Malaysian abortion law |
| 12 | Adolescent girls who were still in school, had no abortion had no abortion | 95.7% of respondents had minimum knowledge about the concept of abortion, shown by inappropriate perception such as abortion could be done on an unmarried couple, or for those who were at school and unable to rear a child. Another misconception was indicated through the statement that abortion could be performed by non-health workers. |
| 8 | 29 young women in their teenage years from deprived backgrounds in Hong Kong, had at least one abortion | All participants said they had heard of experiencing complications, including serious pain, heavy bleeding, the uterus not being "cleaned out" and the threat of infertility, though they had never attempted to verify the information. Risks to physical health and post-abortion stress from illegal abortions were either due to their own experiences or picked up from media reports and the experiences of peers. |
| 10 | Pregnant adolescents aged between 12 and 18 in a government shelter home, had no abortion | Most of the adolescents (84.6%, 22) knew abortion is illegal in Malaysia. |

| Study | Description of participants | Knowledge |
|-------|---|---|
| 9 | In- and out-of-school female adolescents, had no abortion | <p>31.5% of respondents were aware of induced abortion. Most of these participants (78.6%) agreed a person should have an abortion where to continue the pregnancy would endanger a woman's life, or in the case of rape (62.3%); where there was a fetal abnormality (74.6%); the women was single (57.9%) or to continue her study (62.7%).</p> <p>Of participants who had heard of abortion, 47.6% had a high level of knowledge, with females having a higher knowledge scores than males</p> <p>Only a few participants (12.5%) knew medical abortion or substances that could be taken to induce abortion, although females knew more than males (18.6% vs. 10.6%, respectively). Those aware of medical abortion methods cited tablets inserted vaginally (43.2%), boiled roots (29.7%), beverages (27%), painkillers/antibiotics (Cafenol, Panadol, ampicillin, aspirin, Anadin) (16.2%), Misoprostol/Cytotec (10.2%), and physical removal (8.1%).</p> |

Table 2. Findings of studies on abortion experiences of adolescent girls in Asia

| Study | Description of participants | Reasons for abortion | Time point of abortion | Sources + Methods of abortion | Post-abortion Emotional / Physical consequences |
|-------|--|---|--|--|--|
| 15 | Unmarried subjects requesting termination of pregnancy (> 1) | | 72% reported for termination in the second trimester. | For first and manual vacuum aspiration. For subjects reported in the second trimester: Prostaglandins Hysterotomy: when all methods failed | |
| 11 | Unmarried subjects requesting termination of pregnancy (> 1) | The abortion protected their future and made it possible to maintain their social standing. | 8 adolescents who came for a termination in the first trimester had no delay at any stage, 2 in the second trimester | Tertiary care hospital | Because of the conflict between wanting to have sex and feeling guilty about it, these young people experienced terrible distress Guilty due to the belief that abortion was a sin |

| Study | Description of participants | Reasons for abortion | Time point of abortion | Sources + Methods of abortion | Post-abortion Emotional / Physical consequences |
|-------|-------------------------------|----------------------|---|---|---|
| 16 | Experienced unsafe abortion | | | <p>Vaginal misoprostol suppository was the most common method.</p> <p>Surgical procedure for attempted unsafe abortion more frequenty induced severe complications through the vagina and uterine evacuation method were the most common method used to induce severe complications</p> | <p>Bleeding (48.7%) and pain (36.9%) were the common symptoms in all methods, the majority of women who had fevers used the intrauterine chemical injection Retained conceptive product was the most common complication in women with unsafe abortions (74.7%), 68 cases had pelvic infection, 18 cases received blood transfusions, six cases had acute renal failure, 10 cases had hypovolemic shock, seven cases had septic shock, and two cases had sepsis with disseminated intravascular coagulopathy.</p> |
| 24 | Adolescent girls <15, 15 - 19 | | Timing of abortion for < 15 is at a much later stage than that for older women. | | |

| Study | Description of participants | Reasons for abortion | Time point of abortion | Sources + Methods of abortion | Post-abortion Emotional / Physical consequences |
|-------|--|--|------------------------|--|---|
| 13 | Pregnant teenager mothers having abortion requests to the Legal Medicine Organization of Fars province, Shiraz | Thalassemia of the fetus (78.6%) Maternal cause (22.4%): thalassemia, Chronic disease, Depression, hypertension | | | |
| 8 | 29 young women in their teenage years from deprived backgrounds in Hong Kong | Poverty was one of the primary reasons for the young women's decisions to abort | | 3 used illegal abortion services in Hong Kong, 4 used services in mainland China, 2 used herbal medicines prescribed by Chinese medical doctors in Hong Kong and had successfully aborted. 17 abortions took place in public hospitals while 5 were in private hospitals, 2 at a non-profit youth health clinic. The proportion of illegal abortions among the 29 women was 27.3%. | They also associated post-abortion feelings of stress with illegal services that had poor facilities and poor hygiene |

| Study | Description of participants | Reasons for abortion | Time point of abortion | Sources + Methods of abortion | Post-abortion Emotional / Physical consequences |
|-------|---|---|--|---|---|
| 14 | Women who underwent induced abortions | Mainly socio-economical (86.8%); being single, financial issues, and not ready to start a family. | | | |
| 25 | Adolescent female sex workers | | | Half (50%) of induced abortions were performed at a public hospital; the remainder were private hospitals/clinics (30%), family planning clinics (17%), or using take-home medication (3%). | Among 136 had abortions, 74 (54%) reported ever experiencing complications, including menstrual disturbances (39; 29%), discharge (32; 24%), pain (29; 21%), fever and vaginal bleeding (5; 4%) and uterine perforations (1; 0.7%). |
| 18 | Girls of the age group of 10 - 19 years residing in urban slums | | 74.7% in the first trimester and 25.3% in the second trimester | 83.1% abortion done in hospital by registered medical practitioner and 16.9% were done locally by local person and no clear data regarding incidental abortion | |

| Study | Description of participants | Reasons for abortion | Time point of abortion | Sources + Methods of abortion | Post-abortion Emotional / Physical consequences |
|-------|---|----------------------|------------------------|---|--|
| 17 | (1) an out-of-school urban adolescent sample; (2) a vocational school student sample; and (3) a general school and university student sample. | | | Around 1/3 of respondents went to a private clinic or hospital for their most recent abortion. About 1/4 had a friend help by buying illegal abortifacients, and almost 1/5 had induced the abortion themselves, mostly after buying illegal abortifacients. Less than 1/10 had sought help by going to public health organizations, which normally did not provide abortion services unless there were strong medical reasons that threatened the pregnant woman's life. Only a few reported visiting traditional healers for abortions. | 5.3% reported minor complications with no need for medication, 14.5% reported minor complications with medication obtained from a pharmacy, and 9.0% reported severe complications requiring treatment at a clinic or hospital. Those who had been associated with self-induced abortions, however, were more likely to report minor complications treated with pharmacy medications, or severe complications requiring clinic or hospital treatment, while those who had gone to private clinics or hospitals for (illegal) abortions tended to report no complications at all, or only minor complications with no need for any advanced treatment |

Table 2 shows 11 studies examining abortion experiences of adolescent girls who had at least one abortion. The studies presented some aspects of abortion experiences, including reasons for abortion, time point of abortion, sources and methods of abortion, and post-abortion consequences. Common reasons reported were health conditions and socio-economic pressure, such as poverty and the need for social standing maintenance.^{8,13,14} In the 9 studies that examined sources and methods of abortion, the use of medical and surgical abortion was common, and while many girls went to hospitals and legitimate health providers, some carried it out by themselves.^{8,11,15-17} In terms of consequences, the complications range from menstrual disturbances, pain, fever, vaginal bleeding to as severe as septic shock, and feeling guilty and stressed was reported as emotional consequences.^{11,16-18}

IV. DISCUSSION

This review sheds light on knowledge and experiences of abortion among adolescent girls in Asian countries from 2010 to 2020. Our findings show that many young girls lacked knowledge and had inappropriate perceptions about abortion. Common reasons reported were health conditions and socio-economic pressure, such as poverty and the need for social standing maintenance. Medical and surgical abortion was common, and while many girls went to hospitals and legitimate health providers, some carried it out by themselves. Physical complications range from menstrual disturbances, pain, fever, vaginal bleeding to as severe as septic shock, while feeling guilty and stressed was reported as emotional consequences.

Adolescents give some reasons for seeking an abortion, including the willingness to continue their education or to protect their future from

the burden of early motherhood. This especially applies to young teenagers, many of whom are unmarried and still attend school full-time. Poverty, the fear of losing social standing and pressure from families were other common reasons for abortion. For younger adolescents, pregnancy is more likely resulted from rape, incest, or transactional sexual activity, which further stimulates abortion among girls. On the other hand, this review found that adolescents tend to delay an abortion into the second trimester, due to limited knowledge of and access to safe abortion services, delayed recognition of pregnancy status, fear and shame of going to the hospital, scared to tell their parents, and did not know where to go for medical help.^{15,18} The situation also implies a lack of knowledge on recognition of pregnancy among adolescent girls.

However, given the social context in Asian countries, where premarital sex and teenage pregnancy is a taboo, it is such a surprise that we did not find shame and stigmatization as reasons for termination of pregnancy. A research from UNICEF about adolescent pregnancy in Asia-Pacific has indicated that cultural and religious sensitivities were reasoned for the shame and depression of young girls who become pregnant.¹⁹ In terms of cultural prejudgments, communities in many Asian countries harshly criticize unmarried girls who had premarital sex. The stigmatization is more severe for adolescent pregnancy, which can be regarded as a determinant of clandestine abortion among this group. Abortion which is not to save a woman's life is forbidden in Indonesia. Despite the laws, qualitative studies among various groups indicated that abortions before marriage are becoming more prevalent among young adults in this country. According to a consultancy report for the Sustaining

Technical Achievements in Reproductive Health (STARH) Program, there are roughly 2 million abortions conducted in Indonesia yearly, 30% of which are associated with adolescents.²⁰ Vietnamese adolescent girls who get pregnant are often scorned, looked down by society and their families are likely to bear a bad reputation later on. In 2019, according to figures from the Vietnam Family Planning Association, between 20 and 30% of abortions are unmarried women and between 60 and 70% are students, mainly between the ages of 15 and 19. About 20% of these people are teenagers. This number shows that Vietnam is the fifth largest country in the world and the largest country in the South-East Asia region in terms of abortion.²¹

When adolescents end up attempting an abortion, many try to do it themselves by ingesting herbal or chemical preparations, inserting objects into the vagina or seeking traditional healers. Adolescents' resources and access to health care are more limited in comparison with older counterparts, which hinders general healthcare-seeking behavior among adolescents, in particular around sexual and reproductive health needs (such as contraceptives, antenatal care, etc.), and exacerbate delays in seeking abortion care.²² Meanwhile, complications stemming from unsafe abortion are one of the leading causes of death among adolescent girls in LMIC, which may be due to the fact that adolescents tend to delay abortion care until the second trimester.^{15,18}

There are several limitations to this review. First, out of the 586 articles, we were only able to locate 22 full-text versions for review due to resource constraints. Furthermore, this review examines findings from a variety of Asian countries; however, adolescents in each context have unique personal, social or

environmental characteristics that determine their abortion experience. In addition, we only included studies written in English, which cannot cover the entire literature on this topic in Asian settings.

Findings of the current study give rise to some implications for practice, policy and future research. Since abortion knowledge of Asian young girls reported in this study was either insufficient or inaccurate, providing this population with more educational programs on abortion policies and post-abortion care as well as general reproductive health is of great importance. Moreover, in cultures where premarital sex and teenage pregnancy is a taboo such as many Asian countries, parents should be more open-minded and help their children overcome the unwanted situation safely. In terms of policies, laws that prohibit teenage abortion are preventing adolescent girls from accessing safe and qualified healthcare providers, which might in turn result in post-abortion complications and other dangerous health consequences. Therefore, a question is raised that whether it is appropriate or not to retain the policy banning teenage abortion in the current society. Future research should investigate attitudes of parents towards teenage abortion and points of view of parents whose children experiencing abortion during adolescence.

V. CONCLUSION

Findings of this study show that many young girls in Asia lacked knowledge and had inappropriate perceptions about abortion. Common reasons reported were health conditions and socio-economic pressure, such as poverty and the need for social standing maintenance. Medical and surgical abortion was common, and while many girls went to hospitals and legitimate health providers, in countries

where teenage abortion is illegal, some girls carried it out by themselves or went to unqualified clandestine abortion. Physical complications range from menstrual disturbances, pain, fever, vaginal bleeding to as severe as septic shock, while feeling guilty and stressed was reported as emotional consequences. In order to tackle teenage abortion in Asia, not only adolescents should be properly equipped with adequate reproductive health knowledge, but this public health issue also requires effort from families and governments.

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