CHARACTERISTICS AND OUTCOMES OF MEDICAL ABORTION IN ADOLESCENT PREGNANCY WOMEN: A CASE SERIES REPORT

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ABSTRACT

Background: Nowadays, early sexual intercourse and abortion at a young age in many countries are increasing at an alarming rate, especially in developing countries. Pregnancy at a young age greatly affects girls: it affects their health (physical and mental), pregnancy often causes children to miss school, affecting their education and opportunities for personal development, Unplanned pregnancy can lead to stigma, discrimination, and social isolation [1]. Currently, there are very few studies on the social characteristics of these subjects to find out the reasons why girls get pregnant at an early and unwanted age and the factors that affect the child's psychology so that we can put them into practice. Make appropriate recommendations to reduce pregnancy rates in young girls. **Objective:** To examine sociodemographic characteristics, contraceptive methods used and the ratio of success of medical abortion in the group of adolescent pregnancy. **Materials and methods**: Report on a series of cases including 65 adolescent pregnancy, who came to Can Tho City Obstetrics Hospital for examination and selected medical abortion method. **Results**: the average age of the study group was 17,2 +/- 1.2 years. The group of pregnant women ≤ 15-17 years old accounts for a higher proportion than the group of pregnant women 18-19 years old. The oldest pregnant woman is 19 years old and the youngest is 15 years old. The majority reside in urban areas (36 cases, accounting for 55.4%.). The proportion of unmarried pregnant women is high (89.2%), and the proportion of married pregnant women is 10.8%. Most pregnant women are living with their families. The rate of using contraception when having sex is 3 times higher than those who do not use it (75.4% compared to 24.6%). There are 69.4% using highly effective contraceptive methods (2 commonly used contraceptive methods are condoms and emergency contraceptive pills. The success rate of medical abortion is 86%. **Conclusion:** The rate of applying medical abortion method in adolescent pregnancy is 12,3%

Keywords: medical abortion, contraceptive method, teenagers pregnancy / adolescent pregnancy

I. INTRODUCTION:

Nowadays, early sexual activity and teenage abortion are increasing at an alarming rate in many countries, especially in developing nations. Adolescent sexual activity is occurring earlier and more frequently than before, varying by country and cultural context. In developed countries, for instance, 49% of adolescents (aged 15-19) in New Zealand engage in premarital sex, compared to 46% in the United States and 54.2% in Sweden [2]. In Vietnam, two National Surveys on Adolescents and Youth (SAVY) [3][4] conducted five years apart (2003 and 2008) revealed an increasing trend in the proportion of females engaging in premarital sex, rising from 4% in 2003 to 5.2% in 2008.

Teenage pregnancy significantly impacts young girls: it affects their physical and mental health, often forces them to drop out of school, limiting their educational and personal development opportunities. Unplanned pregnancies can lead to stigma, discrimination, and social isolation, putting significant pressure on adolescents' relationships with friends and family. These consequences can trigger a series of negative events, not only affecting the young mother (pressure, mental health) but also impacting the child, the family, and the community as a whole.

Numerous studies have focused on medical abortion among adolescents. While current medical abortion methods are highly effective, most studies emphasize clinical and subclinical characteristics, effectiveness, and side effects of medication. Very few studies explore the social characteristics of these individuals to identify the reasons behind early unintended pregnancies and the psychological factors affecting these adolescents. Such insights are crucial for proposing appropriate measures to reduce teenage pregnancy rates. Therefore, we have undertaken the study titled **"*Characteristics and outcomes of medical abortion in adolescent pregnant women: a case series report*"** with the objective of examining the sociological characteristics, contraceptive methods used by this group and the ratio of success of medical abortion.

II. SUBJECTS AND RESEARCH METHODS

2.1. Research Subjects

- Adolescent pregnant women visiting the Obstetrics and Gynecology Hospital for prenatal check-ups and requesting medical abortion.

Inclusion criteria:

- Intrauterine pregnancy, single fetus, gestational age ≤ 7 weeks.
- Willingness to participate in the study.

Exclusion criteria:

- The patient has an allergy to mifepristone and misoprostol.
- Having underlying medical conditions.

2.2. Research Methods

- **Study design:** Case series report.
- **Sampling method:** Convenience sampling from May 2019 to February 2021. All cases meeting the inclusion criteria were selected.

Study content:

- Age characteristics.
- Place of residence.
- Marital status.
- Living with family.
- Use of contraceptive methods during sexual activity.
- Sources of information about contraceptive methods.
- Levels of anxiety related to abortion.

III. RESULT:
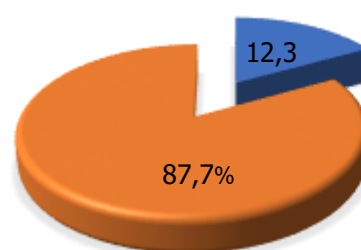
Chart 1. *Medical abortion rates among adolescent pregnant women*

The rate of medical abortion among adolescent pregnant women is approximately 12.3%.

Table 1. *Age Characteristics of pregnant women*

Age Group (years)	Frequency (n)	Percentage (%)
15 - 17	37	56.9
18 - 19	28	43.1
Average: 17.2 ± 1.2 Oldest: 19, Youngest:15		
Total	65	100%

The average age of the study group is 17.2 ± 1.2 years. Pregnant women aged 15-17 account for a higher proportion compared to those aged 18-19. The oldest participant is 19 years old, and the youngest is 15 years old.

Table 2. *Residence characteristics, Marital status and Current number of children*

Residence	Frequency (n)	Percentage (%)
Urban	36	55.4
Rural	29	44.6
Marital status		
Single	58	89.2
Married	7	10.8
Average: 10 months; Shortest: 1 month; Longest: 24 months		
Number of children		
0	63	96.9
1	2	3.1
Total	65	100

The majority of participants reside in urban areas (36 cases, 55.4%). The majority of pregnant women are single (89.2%), while married women account for 10.8%. The average marriage duration is 10 months, with a maximum of 24 months and a minimum of 1 month. The majority of participants (96.9%) have no children. Only 3.1% (2 cases) have one child.

**Table 3.** *Use of contraceptive methods during sexual activity*

Use of Contraceptives	Frequency (n)	Percentage (%)
Not Used	16	24.6
Used	49	75.4
- Low Effectiveness	15	
- High Effectiveness	34	
Total	65	100

The rate of contraceptive use during sexual activity is three times higher than non-use (75.4% vs. 24.6%). However, only 60.6% of those using contraceptives employed highly effective methods (mainly condoms and emergency contraception), while the rest used less effective methods, primarily withdrawal and rhythm methods.

Table 4. *Sources of information about contraceptive methods*

Source of Information	Frequency (n)	Percentage (%)
- No Information	3	3.3
- Sought Information	62	96.7
+ Friends	10	
+ Social Media	39	
+ Other Sources	13	
Total	65	100

Most participants (96.7%) sought information on contraceptive methods, with social media being the primary source (60%), followed by friends, books, and family members.
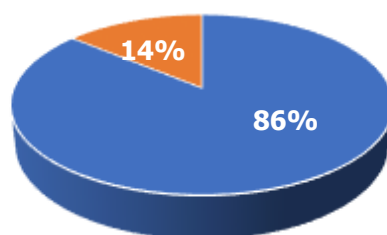
Chart 2. *Medical abortion success rate*

The success rate of medical abortion is 86%

IV. DISCUSSION

4.1. Age Characteristics

Our findings differ from those of Jatlaoui et al. [5]. In our study, there were no pregnant women under the age of 15, while Jatlaoui et al. reported a 0.04% rate of pregnancies in girls under 15. This difference may stem from our smaller sample size (restricted to a single hospital and a short time frame), whereas Jatlaoui et al.'s data spanned the U.S. over an extended period. Another contributing factor may be differences in attitudes towards sexual activity among adolescents in the U.S. and Vietnam.

Identifying the age at which pregnancy occurs is crucial for policymakers to develop targeted proposals: appropriate contraceptive methods for each age group (methods for ages 15–17 may differ from those for 18–19), counselling content tailored to each group (simpler and more memorable content for ages 15–17), and determining who should provide contraceptive counselling for these age groups.

Additionally, we need reproductive health counselling programs for girls aged 13–14 to reduce the risk of pregnancy at ages 15–16. For this demographic, pediatricians might be the most approachable counsellors, given their long-term relationships with patients and families, which build trust and comfort in discussing sensitive topics. Counselling could address contraception within the broader context of child development and health.

4.2. Residence characteristics

Typically, pregnancy rates among adolescents are higher in rural areas than in urban areas due to reasons such as early marriage trends, limited exposure to sex education and reproductive health, reduced access to healthcare services (including contraceptive counselling), privacy concerns preventing the pursuit of reproductive health services, limited employment opportunities encouraging early marriage, and fewer community organizations or support networks.

However, in our study, the rate of young pregnant women was higher in urban areas than in rural ones. This could be attributed to the strong development of primary healthcare systems, which build trust and provide accessible care, as well as the feasibility of medical abortion being performed at primary healthcare facilities for early pregnancies.

4.3. Marital Status

In our study, the majority of pregnant adolescents were unmarried (58 cases,

accounting for 89.2%). Among the 7 married cases, 5 were from rural areas and 2 from urban areas, reflecting a lower marriage rate in urban areas. These findings align with data from the General Statistics Office (2018) [6], which showed that adolescent marriage rates were higher in rural areas, with a significant percentage of girls under 15 in rural areas already married. Similarly, studies by Huỳnh Thanh Hương (2005) [7] and Huỳnh Nguyễn Khánh Trang (2004) [8] found that unmarried pregnant adolescents were more likely to undergo medical abortion than their married counterparts.

Unmarried pregnant adolescents face numerous disadvantages, including social, financial, educational, and health challenges. Teenage pregnancy carries higher health risks (with complications during and after pregnancy) and emotional and social pressures that may lead to depression.

4.4. Number of children

The proportion of pregnant adolescents without children in our study was consistent with that of Nguyễn Cao Lĩnh [9], accounting for the majority. However, our study's rate (96.9%) was higher than Nguyễn Cao Lĩnh's (37.1%). This discrepancy is due to differences in sampling. Our study focused on pregnant adolescents under 19, while Nguyễn Cao Lĩnh's included women of all ages.

4.5. Use of Contraceptive Methods during Sexual Activity

In our study, the rate of contraceptive use among adolescent girls was higher than that in the study by Nguyễn Ngọc Minh et al. (2018) [11] (75.4% compared to 11.3%). The most commonly used contraceptive methods were condoms and emergency contraceptive pills, as they are simple to use and easily accessible without a prescription. Similarly, Nguyễn Ngọc Minh et al. (2018) reported

that condoms (80.3%) and emergency contraceptive pills (78%) were the most well-known methods among students. In the SAVY1 and SAVY2 surveys, these rates were 93% and 42%, respectively [3][4]. Our findings align with Nguyễn Cao Lĩnh's [9], which also identified condoms and emergency contraceptive pills as the most frequently used methods.

However, our results indicate a failure rate for even highly effective contraceptive methods. Policymakers should focus on promoting these methods while discouraging reliance on low-effectiveness methods, such as cycle tracking, especially since adolescents may experience irregular menstrual cycles.

4.6. Sources of contraceptive information

In our study, most young pregnant women obtained information about contraceptives online. Similarly, Nguyễn Đắc Quỳnh Anh et al. [12] found that 62.7% of patients sought information online. While healthcare providers were considered the most reliable source (75.3%), only 47.4% of people accessed this channel. Social media offers a platform for sharing advice and information but lacks verified reliability.

V. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

- The medical abortion rate among adolescent pregnant women is approximately 16.9%.

- The youngest pregnant girl was 15 years old.

- The rate of non-contraceptive use during sexual activity remains high.

- Emergency contraceptive pills and condoms are the most commonly used contraceptive methods.

- The success rate of medical abortion is 86%

5.2. Recommendations

- Integrate basic contraceptive knowledge into adolescent healthcare programs.

- Evaluate the role of pediatricians and teachers in providing contraceptive counselling to adolescents.

- Select appropriate contraceptive methods for this demographic (e.g., emergency contraceptive pills, condoms).

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