#### **REVIEW ARTICLE**

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# Adolescent Pregnancies Are Not Only a Significant Medical Problem

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#### ABSTRACT

According to the World Health Organization, about 16 million girls aged 15 to 19 years and two million girls under the age of 15 give birth every year. Worldwide, one in five girls has given birth by the age of 18. In the poorest regions of the world, this figure rises to over one in three girls. Almost all adolescent births about 95% occur in low and middle income countries. Within countries, adolescent births are more likely to occur among poor, less educated and rural populations. The term "adolescent" is often used synonymously with "teenager". In this sense "adolescent pregnancy" means pregnancy in a woman aged 10-19 years. In most statistics the age of the woman is defined as her age at the time the baby is born. Because a considerable difference exists between a 12 or 13 year old girl, and a young woman of say 19, authors sometimes distinguish between adolescents aged 15-19 years, and younger adolescents aged 10-14 years. Birth rates and pregnancy rates are counted per 1000 of a specific population. Statistics comparing the incidence between countries often give rates per 1000 adolescents aged 15-19 years. Sometimes statistical data on pregnancies and births among younger adolescents are also available. The pregnancy rate includes pregnancies ending in births and also pregnancies ending in abortion; the abortion rate is the number of (induced) abortions per 1000 women of a specific age. The abortion ratio is the percentage of pregnancies ending in (induced) abortion.

#### Introduction

The adolescent patient poses special problems in the delivery of health services to women [1]. These problems are attitudinal on the part of the practicing physician, the feelings of the adolescent herself, and the environment in which the program of health care is delivered. Most offices are not set up or designed for the adolescent patient. If possible, special hours should be set aside for the management of the adolescent female. It is not conducive to a comfortable relationship if the youngster must wait her turn in a reception room crowded with older women many of whom may be pregnant. Much of the conversation which occurs in this setting is inappropriate and sometimes distressing. Although it is not always advisable, it is helpful if she be accompanied by a parent, preferably the mother or a close relative.

The typical adolescent is understandably anxious and concerned regarding any examination, particularly a gynecologic exam. She fears the possible discovery of an abnormality or serious illness. She expresses concern over the interview and the vaginal examination, considering it an invasion of privacy. In many instances, she has not been properly prepared for the examination and is anxious about the possibility of having to pay for the office visit. The physician's intelligent and empathetic approach to this patient is most important in providing care appropriate to the specific problem.

#### **Maternal Age**

Maternal age is considered to be a risk factor for poor perinatal outcomes at either end of the childbearing age spectrum [2]. The maternal childbearing age range has widened over the past decade partially due to advances in assisted reproductive technology (ART) that have made it possible for women to achieve pregnancy, even into the fifth or sixth decade of life, if desired. Worldwide, the maternal age at the time of the birth of the first child ranges from a mean of 18.1 in less developed populations to a mean of 28.5 years in more industrialized nations.

There is conflicting evidence that adolescent preg-

#### ARTICLE HISTORY Received August 18, 2021

Diseases; Pregnancy

Accepted September 01, 2021 Published September 08, 2021 **KEYWORDS** Maternal age; Sex; Contraception;



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nancy increases the risk of adverse outcomes. Some adverse outcomes could be due to societal socioeconomic conditions. Younger adolescent mothers (15.9 years of age or younger) have demonstrated increased risk for complications of anemia, preterm delivery, postpartum hemorrhage, and preeclampsia. Older adolescents (16-19.9 years of age) have presented a higher risk for needing blood transfusions in addition to increased risk for anemia and preterm delivery. Adolescent mothers younger than age 20 are considered to be especially high risk because they are biologically immature and have not had the chance to complete their own physical growth and reproductive development. Reproductive immaturity can increase risks of a fetal loss, PTB, or infant death.

#### Sex

Gender role behavior refers to those behaviors that encompass a whole spectrum of roles for a particular sex, male or female, in a particular cultural system [3]. The culture has orientations as to, for example, whether that sex should place primary emphasis on an occupational career or on a family or should develop attributes of aggressiveness or of nurturance. The culture defines in sometimes clear and sometimes not so clear terms the expectations of society for males and females and the expectations of the males and females in each institution in society. There is a reciprocal relationship between gender identity and gender role behavior. How one feels about oneself as either masculine or feminine affects one's behavior in institutional settings; conversely, one's behavior affects the way one feels about one's sex.

Proception is followed by acception, the phase of bodily interaction and potential genital union. This phase subdivides into stages of excitement, plateau, orgasm, and resolution. Excitement involves a subjective sense of sexual pleasure accompanying physiologic changes, primarily those of vasocongestion. Plateau consists of sustained sexual excitement and progressive physiologic changes. Orgasm consists of a subjective sense of ecstatic peaking of sexual pleasure with which sexual tension is resolved. In both sexes, orgasm involves spasmodic contractions, in the male the prostate, seminal vesicles, and urethra, and in the female the outer third of the vaginal vault. Usually orgasm is also accompanied by general muscular contractions, including involuntary pelvic thrusting. Resolution consists of general muscular relaxation and a sense of wellbeing and of contentment.

#### Diseases

Adolescent venereal disease currently is gaining acceptance as a significant topic of concern among public health officials, physicians, and even the public at large [4]. The proper management of the adolescent patient with venereal disease requires consideration of the medical, epidemiologic, and behavioral aspects of venereal disease control.

The young female progresses from the initial appearance of secondary sex characteristics to early sexual maturity. The child's body undergoes complex changes necessary for adult sexual functioning, and the sex drive becomes awakened. Consequences of adolescent sexuality and sexual activity are the increases in teenage pregnancies and teenage sexually transmitted diseases. Premarital intercourse is beginning at younger ages and that the extent of premarital intercourse is probably on the increase.

Adolescents are particularly at high risk of venereal disease because they are sexually active and are often late in seeking medical attention. They are also less likely than older persons to form a monogomous relationship, and they are also less likely to take appropriate protective measures before engaging in sexual activity. Also, when they become infected, young persons may delay seeking the proper medical attention. This is secondary to their lack of accurate information concerning symptoms, consequences, and the appropriate treatment of sexually transmitted diseases. They also have a mistrust of medical personnel for fear their confidentiality could be violated. Also, the inadequate financial resources they possess often inhibit them from seeking private medical care. Because of the extensive venereal disease epidemic among adolescents, physicians whose practices include this age group should expect to see more venereal diseases.

### Contraception

Successful contraceptive use among adolescents depends upon many factors [5]. Medical, social, psychological, and economic issues all may exert independent effects on the young patient. Medical concerns are important in the choice of any therapeutic regimen, but they may be secondary or of minor importance in selection of a contraceptive method that an adolescent will utilize successfully. Successful contraceptive use depends upon resolution of both medical and nonmedical concerns of the patient.

With the adolescent, as opposed to the older patient, parental and family involvement must be considered. Parental counseling and understanding may playa most supportive and beneficial role in the decisions to begin or delay sexual activity. A well informed parent may be the adolescent's best counselor when problems with a contraceptive method arise.

Unfortunately, many adolescents do not receive sexual counseling or education in the home. They are afraid and unable to discuss their questions, feelings, or fears with parents. They may not receive sex education in church or school either and therefore must obtain sexual and contraceptive information from informal and often misinformed sources, such as their peers.

#### **Risk of Pregnancy**

The greatest risk for an adolescent mother and her child is the mother's age, delaying or failing to receive prenatal care, and the social and political response to her pregnancy [6]. These are critical issues in all countries, even in developed countries. Albeit, the reasons differ across countries as to why an adolescent was too young at her first birth and why she did not receive prenatal care; the negative birth outcomes are similar. In developed countries such as the United States, when pregnant teens are not using prenatal care, the reasons are not related to the lack of available prenatal services; the reasons are more associated with the adolescent's lack of knowledge, and the humiliation girls must deal with before receiving prenatal care. The numbers in the United States are astonishing. Some 85% of US teen pregnancies are unplanned and 72% receive no prenatal care at all. This is an irrefutable crisis among US teen moms and their children; a crisis that everyone acknowledges and agrees is a crisis. A crisis that everyone agrees requires a public response. There is also concurrence that the medical costs related to mothers who do not receive prenatal care far exceed the cost of providing prenatal care.

According to official data of World Health Organization, every year, an estimated 21 million girls aged 15 to 19 years, and 2 million girls aged less than 15 years become pregnant in developing regions [7]. Approximately 16 million girls aged 15 to 19 years and 2.5 million girls under 16 years give birth each year in developing regions. Complications during pregnancy and childbirth are the leading cause of death for 15 to 19 year old girls globally. Every year, some 3.9 million girls aged 15 to 19 years undergo unsafe abortions. Adolescent mothers (ages 10 to 19 years) face higher risks of eclampsia, puerperal endometritis, and systemic infections than women aged 20 to 24 years, and babies born to adolescent mothers face higher risks of low birth weight, preterm delivery, and severe neonatal conditions than those born to women aged 20 to 24 years.

Teen mothers and their infants have increased perinatal risks including higher risk of dying during childbirth compared with 20 year old women [2]. Infants of teen mothers have an increased risk of dying within the first year of life. There are also lifelong disadvantages for younger teen mothers who have less years of formal education. Education is known to be a factor related to promotion of positive pregnancy behaviors. Pregnant adolescents who are less educated most likely will not use contraception, may not recognize danger signs in pregnancy that something is wrong, or may not even seek prenatal care. In the United States, many programs directed at preventing teen pregnancy focus on education in general and are specifically related to attitudes, prevention, and community support. Unmarried teen mothers require financial support for the pregnancy from parents or social agencies. Many teen mothers find it difficult to remain in school while pregnant or return to school full time following delivery. The parenting role is difficult without financial support or help with day care from their parents. Dropping out of school during pregnancy can make it difficult to return and complete their education, limiting employment opportunities in the future. Some teen girls drop out of school or leave home due to poor family relationships even before getting pregnant. Globally, the acceptance of adolescent pregnancy by families and communities differs sometimes, resulting in fear of stigmatization, family shame, and additional stress. Preexisting maternal disadvantages, not young maternal age, are more likely to account for negative outcomes of teen parenting for mothers and infants. A need has been identified for improved parenting information for teens, as well as improved medical knowledge and continued healthcare access. Teen mothers are also more likely to have a repeat teen pregnancy.

Statistical trends play a vital role in attracting public attention to social problems [8]. When they rise, we become concerned. When they go down, as is the case with adolescent pregnancy and childbirth, we move on to another problem that is rising. In so doing, social problems seldom are effectively addressed. A more realistic approach is to attend to all of our social problems, especially those that affect family relationships, and use rates to assess progress.

#### Pregnancy

The young women, who tend to be dependent, passive, inarticulate, low in self-esteem, and communicate poorly with parents or not at all, especially regarding sex, are often exposed to sex early and are at risk of pregnancy [9]. They often lack success in school especially when they have no goals to further their education. Such young women may lack self-confidence and want more kindness and reassurance from physicians, other professionals, and volunteers. The adolescent can be led to clarify her own values and goals

through self-confidence.

Some girls become pregnant because they do not foresee other opportunities in their lives and do not have high aspirations for school or careers. Pregnancy can be a way of "dropping out" of the maturation process of adolescence. Some adolescent mothers drop out of school even when the schools allow them to remain. The new mother receives attention from her family for her pregnancy and the arrival of the newborn. In her family, she is elevated in status from a "child" (or adolescent) to "child mother" and is expected to be more responsible.

Peer pressure to begin a sexual relationship and, in some groups, to have a baby can be related to early sexual activity. Girls can feel that to be popular they must engage in sexual intercourse. The sexual environment has opened earlier exposure to sexual behavior. Early onset of dating, limited parental control, open contact with the opposite sex, and dress, advertising, movies, literature, music, and language have become apparent to all. The social message delivered is that sex is good, fun, free, and the best "high" of all who could possibly resist?

There are those who do resist and are not pregnant because they choose not to be sexually active. Some adolescent pregnancies are the result of rape or incest. Incest is the result of a relationship with a father, brother, grandfather, or uncle. These relationships tend to be hidden, and the teen will report that her partner is not available. Incest is not reported immediately and is hidden in the family throughout the pregnancy and may not be discovered for years, if at all.

There are still a large number of adolescents in our society who abstain, delaying sex for education, economic stability, and other goals. These adolescents also deserve better health facility support and education support. The non-pregnant sister may feel that the pregnant sister gets all of the attention and support and is at a higher risk of pregnancy than the girls in the general population.

Adolescents need a great deal of health teaching during pregnancy because they do not know many common measures of care that an older woman has learned from experience [10]. They are also often unwilling to follow health care advice that makes them different in any way from their peers. On the other hand, adolescents often do not have well established health practices, so they are adaptable.

Adolescents also need instructions about possible discomforts and changes associated with pregnancy, and measures to relieve them. Many adolescents develop hemorrhoids during pregnancy because the disproportion of their body size to a fetus puts extra pressure on pelvic vessels, causing blood to pool in rectal veins. Assure girls that this is a pregnancy related phenomenon that will resolve when the pregnancy is over.

Adolescents may also develop many striae across the sides of their abdomens because so much stretching of the abdominal skin occurs. Assure them again that, because of skin elasticity, these marks will probably fade after pregnancy. Chloasma, excess pigment deposition on the face and neck, appears at the same rate in adolescents as in older women. Adolescents, however, may be more conscious of this pigment because overall they are more conscious and concerned about their facial appearance. Suggesting a cover makeup and offering reassurance the pigmentation will fade after pregnancy can help.

# **Childbirth Education**

The nurse educator's goal is to clearly define to the adolescent the physical and emotional process she is experiencing during her pregnancy and prepare her for her labor and delivery experience, early parenting, and for future prevention of unwanted pregnancies [9]. A series of eight classes are conducted for teens during their last 2 months of pregnancy. Partners or support partners are encouraged to attend. Antepartum care, fetal growth and development, labor and delivery (including a tour of the labor floor), anesthesia, caesarean section births, postpartum, family planning, and infant care and feeding are discussed. A pretest posttest questionnaire is given so the teen staff and teens can assess their attitude and knowledge change at the end of their pregnancies.

Each girl is counseled individually on hospital precedures (being on time for the clinic, what to do when appointments are missed, and where to come for emergency care). She is also counseled on ways to alleviate minor discomforts of pregnancy, sexual problems arising during pregnancy, sleep habits, weight gain, exercise, old wives tales, bowel problems, intake of vitamins and iron, travel, her right to a support person or partner during labor, and her right to "room-in" (have the baby in the room with her in the postpartum area) if she so chooses. Like all other members of the teen staff, the nurse educator makes clear to the adolescent that she is available for consultation any time the teen needs her.

## Baby

It may be important to remember that babies and children have a long period of dependency [11]. They don't struggle to their feet and run with the herd like little deer. They need complete looking after for weeks and months, even years, and only gradually as time passes do they become able to look after themselves. This is true not only physically but also mentally. They are not able to comprehend and manage their own experiences for years to come. Infants need the accompaniment of psychologically mature minds to enable them to think about what's happening to them. Two categories of things happen: events take place inside them, both in their bodies and in their minds, and events take place outside them in the dimension of external reality. These two categories, inner and outer, impinge upon each other and influence each other in a constant system of mutual interaction; and the whole experience of getting to know these worlds needs to be presided over by adults who are reasonably benign and stable. A baby is born relationship seeking, and within the setting of helpful human relations can grow into a person able to develop optimism and perseverance and to tackle obstacles which involve bearing anxiety and trouble.

### Discussion

This is how the ordinary baby grows up. It may help to trace the process back to the moment of birth. Being born is a taxing process in itself, hard work for the mother and hard work for the baby, and some babies need to recoup as from trauma and exhaustion, their powers of endurance already tested. But even for the baby who arrives bright eyed and calm, a great change has occurred. From being entirely dependent on someone else's system, plugged in to its mother, living her life with her, the infant has to face a challenge. He or she has to make an independent step and take a breath. This is the very first move towards a separate life. But though literally vital for survival, it is only one step. For everything else, the baby is dependent on other people.

## Conclusion

Adolescent pregnancies are not only a significant medical problem because it is a meaningful problem of sexual education of young people. They are associated with insufficient knowledge about contraception, easy availability of alcohol for juveniles, embarking on various adventures that leave a mark on underage parents and their children. Sexually responsible behavior is one of the most important determinants of sexual health. By sexually responsible behavior we mean conscious and responsible sexual intercourse, the use of contraception during sexual intercourse to prevent unwanted pregnancies and sexually transmitted diseases. Given the availability of contraceptives, the number of young people who continue to engage in risky sexual behaviors remains high.

#### Acknowledgement

None

### **Conflict of Interest**

None

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