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PSYCHOSOCIAL IMPLICATIONS AND OBSTETRIC COMPLICATIONS OF PREGNANCY IN ADOLESCENTS

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Background: Since teenage pregnancy is one of the major challenges for healthcare systems worldwide and can pose risks to the health of young mothers and their infants, the present study was conducted to identify the Identifying the psihosocial and obstetrical causes and consequences of adolescent pregnancies in Eastern Romanian Region, Moldova, Iași. Material and methods- a 5 year old study was conducted,analysing the psihosocial effects and obstetrical outcomes in minore,adolescent teenagers that gave birth In "Cuza Vodă", Obstetrics and Gynecology Hospital, Iași, Romania. Results: After the data analysis we discovered that pregnancy in this category of patients was the result of predisposing conditions like sociocultural factors, causal conditions such as individual factors like lack of knowledge on how to prevent pregnancy, lak of use of contraceptives, inadequate knowledge about the risks of pregnancy in adolescence, fear of the side effects of using contraceptives, filling the vacuum of loneliness, family factors: better care of herself and her child, and wanting a father figure in a new familly.Conclusion: Pregnancy in adolescence is influenced by socio-cultural, family, personal, and structural factors that can have important consequences for the future obstewomen, which in most cases make the lives and health of them and their children difficult. The findings of the study can be used in the areas of health and social policy, program planning, and designing interventions and educational programs aimed at changing beliefs and cultural attitudes related to pregnancy under the age of 18 at the individual, family, and societal levels.

Keywords: adolescents, pregnancy, natural birth, cesarean section.

INTRODUCTION

Pregnancy, but especially parenthood during adolescence, has high social and economic costs, health-related costs, social benefits or even crime. Early school leaving, due to pregnancy and childbirth, prevents the completion of some education cycles for acquiring a profession, making it more difficult to find a job later. Unemployment and, implicitly, poverty will consequently affect this category of people and their children.

Pregnancy and childbirth among adolescents are a widespread phenomenon both globally and nationally, and single parenthood is increasingly common. They continue to represent a real public health problem and have significant medical, emotional and social consequences for the adolescent mother, the child and the entire family[1–3]. In studies on single-parent families, a special emphasis is placed on the consequences on the development of children, such as health status and associated complications, school success or failure, school dropout, and family stability. Although society generally disapproves of single-parent families, highlighting them through stigmatization and labeling, some sociologists consider them a special family, increasingly accepted today among adults. Adolescents, in general, are not a priority in strategic documents regarding reproductive health. The monitoring and evaluation policy of the strategy for women's and children's health and the family planning program does not include indicators regarding adolescent reproductive health. There is currently no clear delimitation of the role of the various authorities and a correlation of their attributions, nor standards for counseling adolescents in general and the socially disadvantaged in particular. Responsibilities in the field of preventing

unwanted pregnancies are imprecisely attributed to a large number of categories of professionals: community workers, social workers, health mediators, family doctors, gynecologists, doctors with family planning expertise. Minor mothers do not represent a compact group, with the same characteristics and needs, and the health education policy in schools is currently optional and has deficiencies in terms of providing information to ensure safe sexual behavior and prevent teenage pregnancy[4–7].

MATERIALS AND METHODS

The analysis of the social situations described in our hospital shows that the interventions of child protection services are usually oriented towards granting financial rights or services/benefits to these girls as mothers, which, however, do not prevent the repetition of these unforeseen situations. Most underage mothers have dropped out or drop out of school when they become mothers. In our country, one in eight women at their first birth is a teenager, compared to the European Union average: one in 28. Due to the lack of knowledge about contraception, most girls are not even aware of the onset of pregnancy, except when it is advanced, putting their health and that of the fetus at risk. We are ranked first in Europe from this point of view. Annually, in Romania, out of almost 200,000 births per year, approximately 18,000 are to teenage girls between 15 and 18 years old. In addition, approximately 750 births occur to minors under 15 years old. The average age of a minor mother in Romania reached 15.4 years in 2020, down about two years from 2018. There are minor mothers who even have three children, and their average age is only 17.6 years. We are in second place in terms of the number of minor mothers in the European Union, although in terms of birth rate we are at 4% share. According to the study conducted by World Vision Romania, a quarter of correspondents aged between 12 and 18 do not know any way to prevent unwanted pregnancies and sexually transmitted infections. On this dimension, Eurostat data (2020) show that the share of minor mothers in Romania remains at alarming values: 4.7% in 2015, 4.7% in 2016, 4.5% in 2017 and 4.3% in 2018, being among the highest in the European Union[8–10]. According to the Romanian Institute of Public Health, February 2021: 749 mothers under 15 years of age, 720 are at their first birth, and 29 girls under 15 years of age are at their second birth. Out of 17,933 mothers aged 15–19, 13,291 are at their first birth, 3,851 are at their second birth, respectively 710 at their third birth, 70 at their fourth birth, and 11 adolescent girls under 19 years of age are at their fifth birth. It seems that prenatal care cannot always compensate for the biological disadvantage of being born to a growing girl, whose body may be competing for vital nutrients with the developing fetus[10–12].

The Psychological Impact of Pregnancy

There comes a time when the peace and harmony in many families' lives simply disappear. Adolescence is a testing time for both parents and children. Visits to a specialist are recommended during adolescence. Teenage pregnancy can be one of the most difficult experiences a young woman can face and can have a profound impact on her life. Teenage pregnancies often have negative consequences. Many mothers are poor and poorly educated, and some are drug users. Many eat poorly, do not gain enough weight, and receive inadequate or no prenatal care. Children of wealthier teenage mothers may also be at risk. Among more than 134,000 girls and women, those aged 13 to 19 were more likely than those aged 20 to 24 to have low birth weight babies, even when the mother was married, well-educated, and had received adequate prenatal care. Unmarried teenage mothers and their families are often likely to suffer financially[13]. Child support laws are sporadically enforced, court-ordered amounts are often insufficient, and many young fathers cannot afford to pay them. Unmarried parents under 18 are eligible for public assistance only if they live together with their parents and go to school. Teenage mothers are more likely to drop out of school and have multiple pregnancies. They and their partners may lack the maturity, skills, and social support needed to be good parents. In turn, children of these parents are more likely to have developmental and academic problems, suffer from depression, engage in substance abuse, start sexual activity early, and become parents themselves during adolescence. The adverse outcomes of teenage pregnancy are not inevitable. Long-term studies have shown that two decades after giving birth, few teenage mothers are living on welfare[12]. Teenage pregnancies are accompanied by an increased incidence of preeclampsia, premature labor, and anemia, which often lead to fetal growth restriction. Preeclampsia can also damage the kidneys and be fatal for the mother or baby.

Pregnant teens may also experience anemia – a reduced number of red blood cells. This will make the pregnant woman feel weak and tired and can affect the baby's development. Even though hospital birth is considered safer today than in the past, it is more dangerous for a teenager than for a woman over 20. This can lead to problems at home and at school. Many pregnant teenagers drop out of school, and some will never complete their education, especially in rural areas, in conditions of poverty. A physiological pregnancy at term lasts 40 +/– 2 weeks. A baby that that is born before 37 weeks of pregnancy is considered premature. Teenage mothers are more likely to give birth to premature babies.

Sometimes, these babies do not have the full development of their body, lungs and brain, which can lead to developmental problems in childhood and health problems throughout their lives. Premature newborns tend to be underweight, with breathing and feeding problems as infants. As adults, underweight children are prone to diseases such as diabetes and heart disease. Infants born to mothers under 20 years of age have a higher risk of suffering a serious health problem in their first year, compared to children born to mothers over 20 years of age14,15.

RESULTS

Where can adolescents get information about sex education?

In a two-year longitudinal study of young people between the ages of 12 and 14, exposure to a consistent amount of media materials with sexual content accelerated the likelihood of early sexual intercourse. Teenage pregnancy can have a decisive psychological impact on the development of a young girl's life, who feels that life has stopped and will initially hide this, will try to find a solution on her own.

On the other hand, abandonment at birth is one of the methods used by young women, especially those who come from a very promiscuous family environment and lack financial possibilities. Trauma is felt in adult life[7].

The psychological impact of abandoning a child in one form or another can have severe psihological repercusions in the near or far future; a medical termination of pregnancy or abandonment at birth will be extremely strong on the emotional development of the future mother.

Concerns for the Teenage Father

Most responsible fathers may worry about the implications of pursuing an education and earning a living to support their partner and child. Some boys choose not to be concerned at all about the fate of the teenage mother, which further complicates her emotional situation. Often in these situations, the teenage mother abandons the child after birth, if she does not have the financial support of at least one of the parents[2].

Studies in Romania

All mothers aged 18 years or older who gave birth between January 1, 2010 and December 31, 2012 at a hospital in Bucharest. Results show that: 12% of mothers developed complications during the cesarean section and 62.45% of them had associated post-partum complications. Among pregnant women, 14.1% had associated post-partum hemorrhage, 21% had inadequate lactation, 6.3% developed abdominal wound infection, 10.35% had headache after spinal anesthesia and 10.7% had urinary tract infections. The premature birth rate was 8.21% (28/280); Among newborns, 94% of the children were born alive, of these 15% required resuscitation, 10% were stillborn and 5% were stunted.

The one-minute APGAR score ranged between 5 and 7 in 15% of cases and 3% had <5. The conclusions show that: teenage pregnancies are high-risk, with complications resulting from a combination of physiological, anatomical and socio-economic factors. Educating adolescent mothers about the importance of pre- and post-natal care can reduce poor perinatal outcomes for both mother and child15.

Regional case study in Eastern Europe, Iasi,Romania. Medical statistics on births to adolescents from the “Cuza-Vodă” General Clinical Hospital, Iași 2020–2024, show an annual average of between 138 births per year in 2022, at the end of the pandemic period, a number most likely caused by social and school restrictions and implicitly the reduction in time spent unsupervised, to 174 births per year in 2024. Regarding the proportion of natural births versus cesarean sections, natural births were recorded in approximately 54% of cases, while cesarean section births were found in 45.98% of cases.

Table 1

Live births during 2020–2022 pandemic period in adolescent women

AN 2020			Din care		
VARSTA	NATURAL	CEZARIANA	URBAN	RURAL	TOTAL NASTERI
17	58	26	17	67	84
16	35	22	13	44	57
15	24	8	12	20	32
14	5	2	1	6	7
13	3	0	1	2	3
12	0	1	1	0	1
TOTAL					184

AN 2021			Din care		
VARSTA	NATURAL	CEZARIANA	URBAN	RURAL	TOTAL NASTERI
17	60	39	23	76	99
16	32	27	11	48	59
15	20	8	5	23	28
14	4	3	1	6	7
13	1	1	1	1	2
12	0	0	0	0	0
TOTAL					195

AN 2022			Din care		
VARSTA	NATURAL	CEZARIANA	URBAN	RURAL	TOTAL NASTERI
17	41	15	13	43	56
16	27	14	10	31	41
15	19	9	3	25	28
14	8	4	4	8	12
13	0	0	0	0	0
12	1	0	1	0	1
TOTAL					138

Table 2

Live birth registered in 2024 in adolescent pregnant women

AN 2024			Din care		
VARSTA	NATURAL	CEZARIANA	URBAN	RURAL	TOTAL NASTERI
17	47	35	20	62	82
16	24	24	12	36	48
15	11	14	2	23	25
14	10	4	5	9	14
13	2	3	3	3	5
12	0	0	0	0	0
TOTAL					174

54.02% NATURAL

45.98% CEZARIANA

DISCUSSIONS

It is said that giving birth to a child is the most beautiful and fulfilling feeling a woman can experience. The main cause is the lack of education regarding pregnancy and its consequences at an age when the body does not have optimal functional maturity. Pregnancies that occur during adolescence are, most of the time, unforeseen, implicitly, unfortunately unwanted but accepted most of the time, caused by the lack of access to sexual medical information, education and counseling from parents or at school, or the unfavorable environment of origin[7].

To avoid pregnancy during adolescence, it is very important for the young woman to have an adult she can rely on, in whom she can trust. At the same time, access to explanations and information about the anatomy of the body, education about one's own sexuality, about the ways in which pregnancy occurs and the consequences of its occurrence for a developing organism is necessary (information that can be available in various forms: internet, magazines, books, discussions, articles, blogs, films, TV shows, health campaigns)2–5. Young people need unconditional love, support, a healthy environment and open communication with parents, which determine appropriate decisions regarding sexual behavior and can prevent unwanted pregnancies in adolescence.

What is aimed at in a preconception consultation?

Quitting smoking, alcohol consumption. Monitoring of pre-existing medical conditions (chronic medical conditions, diabetes, epilepsy, kidney disease, thyroid disease, heart disease, bronchial asthma, psychiatric diseases), because access requires a multidisciplinary approach. Early detection of possible genetic diseases of the parents (thrombophilia, thalassemia, phenylketonuria, Tay-Sachs disease), allows preventive actions in the form of diet and specific treatments. Informing the doctor about the medications and food supplements that the expectant mother uses. Obtaining medical information from the vaccination record - important is immunization against rubella, cytomegalovirus, hepatitis B. It is recommended that vaccination with a vaccine containing a live virus be carried out three months before conception and is prohibited during pregnancy. Babeș-Papanicolau smear testing, testing for the presence/absence of viral hepatitis B and C, HIV1, HIV2 testing, syphilis testing. Warning the young woman about contact with toxic substances, medications prohibited during pregnancy, exposure to radiation and X-rays. The recommendation to administer folic acid to prevent neural tube defects is also part of the first prenatal recommendations[1,5,10].

Causes of teenage pregnancies

Alcohol or drug use is at the top. Excessive alcohol consumption and drug use affect logical thinking, increasing the risk of engaging in unprotected sexual activities, with the consequence of pregnancy. Socio-economic status – there are teenagers, mostly from rural areas, who become pregnant with the intention of dropping out of high school or to receive additional income. Group pressure affects self-confidence.; Sexual abuse is an increasingly common problem. The influence of the media, through unrealistic presentation and hiding the difficulties that a woman experiences during pregnancy. Psychological causes are also a hypothesis, pregnancy occurs with the intention of forcing a partner for a deep attachment or as a way of gaining independence, expressing rebellion, rebellion. A healthy pregnancy depends greatly on the health of the parents before conception. By the time the adolescent realizes that she is pregnant, one or two weeks after her period is due, the fetal spine and fetal heart are already formed[2,6]. In the case of a desired pregnancy, it is important to have a discussion with the gynecologist before conception. The adolescent should consult with her partner before making a decision, as pregnancy is a responsibility for both the mother and the father of the child and affects both equally.

Pregnant adolescents – a group at risk

Pregnant women under the age of 15 constitute a group at high risk for the mother and the child, and monitoring throughout the entire pregnancy is a priority. The differences in approach are reflected in the degree of emotional maturity of the adolescents. The psychological impact of the first gynecological or obstetric examination should not be underestimated. The consequence of this first experience influences the long-term approach to medical care with confidence and consistency[13–15].

CONCLUSIONS

Adolescents obtain their information mainly from friends, parents and the media. Unfortunately, many adolescents obtain a large part of their sexual education from the media, which associates sexual activity with fun, intense emotions, competition, danger or violence and rarely presents the risks of unprotected sex. Socio-economic conditions that can lead to psycho-affective pathologies associated with pregnancy in adolescents: lack of correct information about contraception from social media, from schoolmates, relatives, parents, family upbringing environment; once they become pregnant – an imminent feeling of insecurity, social rejection when the pregnancy is clinically visible and loneliness; the subsequent impact of children born to minor mothers leads to the emergence of single-parent families, children raised by grandparents or institutionalized, attracting high costs of care in these institutions for a large number of abandoned children. Minors who give birth have significant psycho-emotional traumas with short-term and long-term impact on their psycho-neurological desolation.

Childbirth is affected by the insufficiently prepared and developed pelvis, subsequent births by cesarean section, the obstetric future is affected, both by decreasing the number of possible pregnancies in these patients, and by the possibility of giving birth to more children due to successive uterine scars limited in this regard. The possibility of talking to a

specialized psychologist immediately in the hospital, after birth and counseling by a social worker is very important and is a practice that exists in our hospital and that we encourage in other hospitals.

REFERENCES

1. Todhunter L, Hogan-Roy M, Pressman EK. Complications of Pregnancy in Adolescents. Semin Reprod Med. 2022 Mar;40(1–02):98–106. doi: 10.1055/s-0041-1734020. Epub 2021 Aug 10. PMID: 34375993.
2. Fekadu Dadi A, Miller ER, Mwanri L. Antenatal depression and its association with adverse birth outcomes in low and middle-income countries: A systematic review and meta-analysis. PLoS One. 2020 Jan 10;15(1): e0227323. doi: 10.1371/journal.pone.0227323. PMID: 31923245; PMCID: PMC6953869.
3. World Health Organization. WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Health Outcomes Among Adolescents in Developing Countries. Geneva, Switzerland: World Health Organization; 2011
4. World Health Organization. Core Competencies in Adolescent Health and Development for Primary Care Providers. Geneva, Switzerland: World Health Organization; 2015
5. Hamilton BE, Martin JA, Osterman MJK. Births: Provisional Data for 2020. Vital Statistics Rapid Release; No 12. Hyattsville, MD: National Center for Health Statistics; May 2021
6. United Nations Population Fund. State of World Population 1998: The New Generations. New York, NY: United Nations Population Fund; 1998
7. SmithBattle LI. Reducing the stigmatization of teen mothers. MCN Am J Matern Child Nurs 2013; 38 (04) 235–241 , quiz 242–243
8. Yoosefi Lebni J, Ahmadi A, Irandoost SF, Saki M, Safari H, Mehedi N. Identifying the causes and consequences of pregnancy in Iranian Kurdish women under the age of 18: A grounded theory study. Heliyon. 2025 Jan 24;11(3):e42271. doi: 10.1016/j.heliyon.2025.e42271. PMID: 39931466; PMCID: PMC11808719.
9. Kirbas A, Gulerman HC, Daglar K. Pregnancy in Adolescence: Is It an Obstetrical Risk? J Pediatr Adolesc Gynecol. 2016 Aug;29(4):367–71. doi: 10.1016/j.jpag. 2015.12.010. Epub 2016 Jan 4. PMID: 26762668.
10. Chen XK, Wen SW, Fleming N, Demissie K, Rhoads GG, Walker M. Teenage pregnancy and adverse birth outcomes: a large population based retrospective cohort study. Int J Epidemiol. 2007 Apr;36(2):368–73. doi: 10.1093/ije/dyl284. Epub 2007 Jan 8. PMID: 17213208.
11. Ganchimeg T, Ota E, Morisaki N, Laopaiboon M, Lumbiganon P, Zhang J, Yamdamsuren B, Temmerman M, Say L, Tunçalp Ö, Vogel JP, Souza JP, Mori R; WHO Multicountry Survey on Maternal Newborn Health Research Network. Pregnancy and childbirth outcomes among adolescent mothers: a World Health Organization multicountry study. BJOG. 2014 Mar;121 Suppl 1:40-8. doi: 10.1111/1471-0528.12630. PMID: 24641534.
12. Chandra-Mouli V, Camacho AV, Michaud PA. WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries. J Adolesc Health. 2013 May;52(5):517-22. doi: 10.1016/j.jadohealth.2013.03.002. PMID: 23608717.
13. Ana Penman-Aguilar , Marion Carter, M Christine Snead, Athena P Kourtis .Socioeconomic Disadvantage as a Social Determinant of Teen Childbearing in the U.S., Public Health Reports, Mar-Apr 2013; 128(Suppl 1):5–22., doi: 10.1177/00333549131282S102.
14. Decision-making tool for family planning clients and providers – A resource for high- qualitycounselling, WHO, 2005:http://www.who.int/entity/reproductivehealth/publications/family_planning/9241593229/ en/index.html
15. Stanescu, anca daniela & Ples, Liana & Conea, Ileana-Maria & Olaru, Octavian Gabriel & Anton, Gabriela. (2017). Psihosomatics aspects of teenage pregnancies in "Bucur" Maternity. Ginecologia.ro. 2. 8–14. 10.26416/ Gine.16.2.2017.755.