ABSTRACT

TITLE: Study of some socio-cultural & biological factors related to teenage pregnancy.

This retrospective study with case control study design has been carried out in Sassoon General Hospitals, Pune. The general objective of the study is to understand some socio-economic, cultural & biological factors related to teenage pregnancy & assess the effect of these factors on outcome of teenage pregnancy. The study population consists of 500 mothers of age less than 20 years as cases & equal number of mothers 20 years or more as controls, who have delivered during the study period. In addition to this, 42 adolescents who have undergone MTP during the same period are also included in the present study.

Some of the social factors like illiteracy, high school dropout, lower SE status are found to be closely related to the teenage pregnancy. Family background from which they come is also similar. As most of the adolescent pregnancies are within the system of marriage, early marriage is related to the pregnancy at an earlier age. Causes of early marriage are related to the discriminatory attitude of the parents towards girl child & lower status of women in the society.

The young adolescents have a poor nutritional intake, as not a single mother is having caloric & protein intake as per ICMR guidelines. Many of them have not achieved even optimum height of 145 cm. Anemia is observed to be widely prevalent among them.

After marriage, within a very short interval adolescents remain pregnant as their reproduction related knowledge is very poor. In addition to this, they do not have any voice in deciding how many children they will have, at what age they will have their first child etc. Therefore proportion of unwanted/unplanned pregnancies is found to be very high.
When pregnancy is unwanted, they are less likely to avail antenatal care. Unmet need for FP is also very high in these young mothers, because proportion of unwanted pregnancies is high & contraceptive use rate is very low. Antenatal care seems to be lacking or inadequate in adolescent mothers & chances of presence of one or more risk factors are significantly more. Preterm labor, PIH are the most prevalent risk factors, followed by CPD, malpresentation, eclampsia etc.

Higher number of mothers have delivered before 37 weeks of gestation & a significant number have delivered even before 32 weeks of gestation i.e. very preterm. Proportion of normal deliveries is observed to be lower in the young mothers. Similarly postnatal complications like postnatal eclampsia, PPH are also more in them.

Newborns of the adolescent mothers also face more complications. Majority of them have one or the other risk factor. Proportion of LBW & VLBW babies is significantly high. They are likely to have a lower Apgar score. Fetal distress & IUGR are very prevalent. Congenital anomalies are significantly more in the newborns of the young mothers. Perinatal mortality rate is 128.8/1000 in the adolescent mothers & 14.1/1000 livebirths in the non-adolescent mothers.

All these factors are compared between the adolescent & the non-adolescent mothers & also within different age groups of the adolescent mothers. Youngest adolescent mothers (15 years or less) are having highest risk. Mean values for height, antenatal visits & Hb are lowest in them & they increase with increasing age in the adolescent group itself. Incidence of CPD & anemia has shown a significant declining trend with increasing age. Among fetal factors, MBW is lowest in the youngest mothers, which has increased gradually with increasing age. Proportion of VLBW babies, newborns with fetal anomalies & PNMR have shown a significant declining trend with increase in age.
Higher SE status, adequate nutritional intake & antenatal care help to improve outcome in the young mothers which is reflected in higher MBW & lower proportion of LBW babies. However when the cases & the controls are matched for SE status, antenatal care & nutritional intake, MBW is more & proportion of LBW babies is lower in the newborns of the non-adolescent mothers. This indicates that, although these social factors are helpful for improving outcome in the young mothers, outcome is not as good as the non-adolescent mothers. Thus biological immaturity plays a dominant role over social factors in the adverse outcome of pregnancy in the young mothers.

It has been further observed that, when pregnancy occurs at an earlier age, chances of subsequent birth with shorter interpregnancy interval are more. For these subsequent births also risk due to biological immaturity still persists. 'Lower gynecologic age', seems to be related to LBW babies as is the age of the young mothers. Gynecologic age is found to be a better indicator for prediction of LBW babies than chronologic age. If gynecologic age is 2 or less, proportion of LBW babies is more. Thus gynecologic age can be used to identify at risk mothers for intervention.

Awareness of adolescent mothers about various childrearing practices, immunisation, breastfeeding, management of diarrhea & HIV/AIDS seems to be very poor. This ignorance further increases the risk, which the child already has due to the younger age of the mother. This reflects the need for strengthening IEC activities.

Forty-two adolescents undergoing MTP are also included in the present study. Most of them have socially disadvantaged family background. Majority of them are unmarried. In all of them partner is same & in many of them premarital sexual involvement is by willingness. Majority of unmarried adolescents are unaware of the fact that, sexual act leads to pregnancy & even higher percentage do not know that, pregnancy can be prevented by use of contraceptives.
By using factors, which have influence on outcome of pregnancy, a ‘high risk score’ of ‘15’ points has been developed. Both modifiable & non-modifiable factors are used for the same. This score is likely to be useful for health care workers to identify ‘at risk’ mothers earlier during antenatal period & intervene them accordingly. In this risk screening scale, score ‘7’ & score ‘9’ are used as the cut off points for prediction of LBW & VLBW babies respectively among antenatal mothers. This will be useful for reducing the morbidity & mortality in newborns of young mothers by prompt management & referral.

Primary, secondary & tertiary preventive measures are important while considering the problem of teenage pregnancy. In primary preventive measures, prevention of early marriage is one of the important measures, because majority of teenage pregnancies are within the system of marriage. Creating awareness about legal age at marriage & biological predispositions of early marriage & early pregnancy is warranted. As early marriage is related to status of women in the society, improving the status by actions to support enrollment of girls in the school & an employment policy for women will be helpful.

Taking into account the nutritional requirements of adolescents, a special programme of supplementary nutrition & Iron folic acid supplementation is a need of the day. Ignorance about various health aspects among adolescents is very high. Therefore family life education needs to be given formally as well as non-formally to schoolgoing & non-school going girls. and Boys?

All these are the most important primary preventive measures. However these are long term interventions requiring a social change, which is likely to take a considerable period of time. Till that time encouraging contraception & improving availability & accessibility of contraceptive services will be helpful for preventing teenage pregnancies, in situations where early marriage can not be postponed.

Secondary preventive measures suggested, may be helpful to lessen the adverse outcome of pregnancy in adolescent mothers when primary measures fail.
At this second step, if the failure occurs to prevent the teenage pregnancy, adequate antenatal, intranatal & postnatal care should be ensured to these adolescents to take care of morbidity in young mothers & their fetuses. As these mothers are more likely to be 'at risk' mothers, identification of risk & timely referral is essential. A scoring system developed in the present study for early identification of these 'at risk' mothers during antenatal period may be helpful. Adequate protein & energy intake & reduction in physical activity during antenatal period may further improve the outcome in young mothers.

Inspite of a good antenatal care, young mothers are likely to have LBW or VLBW babies or babies with some risk factors. For such LBW babies, domiciliary care & referral service for VLBW & other high risk babies are important tertiary preventive measures.
ADOLESCENT MOTHERHOOD: ROAD OF MISSED OPPORTUNITIES

Poor SE status, educational & occupational opportunities, Discriminatory attitude.

Early marriage

Raising status of women, Improving enrollment, Employment policy, Nutrition during early ages, Raising age at marriage, Decision making.

Early pregnancy

Family life and Sex education, Availability of FP services.

High risk pregnancy

Adequate antenatal care, Energy & IFA supplementation, Reduction in physical activity.

Life threatening complications in mothers, Birth of LBW, VLBW & high risk babies.

Early identification of high risk mother.

Emergency obstetric care, Domililiary care of LBW, Referral of VLBW & other high risk babies.

MORTALITY IN NEWBORN & YOUNG MOTHER