

Babylon University – College Of Medicine
Department of Community Medicine

*Lectures in Community Medicine
For 4th Stage Students
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Lecture 14

MCH: Maternal & Child Health care

MCH: is that aspect of health which is concerned with the special needs and problems of mothers and children and more specially the needs & problems arising from the process of human reproduction, growth and development.

MCH services:

Concerned with welfare of mothers, infants & preschool children & designed for the protection & supervision of the health of children from the time of concept to the time they enter the school.

They also include the care of mother from the time of conception to ensure that they have a normal pregnancy, normal delivery and proper care in the post-natal period.

Objectives of MCH services

1. Health promotion of children.
2. Prevention and control of hazards to children.
3. Treatment of common childhood diseases.
4. Rehabilitation of handicapped children.
5. Ensuring of favorable outcome of pregnancy & puerperium & dealing with factors leading to unfavorable outcomes (risk factors).
6. Ensuring secure relationship between parents themselves & parents & their children.

Why are MCH services needed?

Annually more than 200 million women become pregnant all over the world if there needs are not recognized many of these pregnancies may end in disability or death of the mother or infant or both.

At least 15% of all pregnant women need skilled obstetric care some time during pregnancy, delivery or puerperium.

For 580`000 women complication of pregnancy, child birth or the puerperium are fatal.

Of the infant born alive nearly 8.1 million die during the first year of their lives. One half of those (4 million) die during the first month of their lives. Of those 2.8 million die during the first week of their lives.

An equal number to the above die in utero and are still born.

Phases of maternity care

1. Premarital care:

This part is an essential part of adolescent health care which is given to girls and boys before they get married

It includes:

- a- promotive health services such as health education regarding proper nutrition, life style, STD, and in some countries education on method of contraception
- b- Preventive health services which include the following:
 1. *History taking regarding past medical history (hereditary diseases).*
 2. *Medical examination including the evaluation of nutritional status of the female.*
 3. *Investigations including blood group & Rh, VDRL, khan test testing HIV, AIDS, CXR for TB.*
 4. *Counseling for family planning if requested.*
 5. *Counseling for immunization.*

2. Prenatal care or Ante Natal Care (ANC):

It is defined as a complete health supervision of the pregnant women in order to protect, maintain, and promote the health and well-being of the mother, the fetus and the newborn infant.

The main reasons for attending (ANC) services:

- 1- To build a trusting relationship between mothers and health care providers.
- 2- To achieve the best possible health status of mother and fetus.
- 3- To establish baseline recording data for the new pregnancy.
- 4- To recognize and manage high risk pregnancies.
- 5- To provide health education to pregnant women in relevant topics.
- 6- To minimize maternal and fetal morbidity and mortality rates.

ANC services must be adequate in quality and quantity:

Schedule of ANC visits

| | |
|---|---------------|
| First 28 th weeks of gestation | Every 4 weeks |
| 28 th - 36 th weeks | Every 2 weeks |
| 36 th weeks to term | Every week |

** At Any Time When Medical Care is Needed.*

FIRST VISIT: (Registration)

This visit is the most important ANC visit. During this visit we will have to make sure that the women is actually pregnant, this can be done through a pregnancy test, this test becomes positive 2-3 weeks after the date of the first missed period.

If gestational age is beyond 13 weeks the gravid uterus can be felt by abdominal examination or visualized with a sonogram. When pregnancy confirmed a file is opened for pregnant mother in the ANC clinic.

Registration procedures in the first visit:

A/ History taking:

- 1- Personal: name, age, address, occupation, education level of both partners, consanguinity, potentially harmful habits.
- 2- Complaints: details and duration
- 3- Menstrual history
- 4- Obstetric history
- 5- Present obstetric history.
- 6- Family history
- 7- Medical history.
- 8- Surgical history.
- 9- Family planning history.
- 10- Immunization history.
- 11- Breast feeding history.

B/ Examinations:

- 1- General (systematic): Weight (to be monitored), Height, physical signs, etc...
- 2- Local (obstetric):
 - a- Inspection
 - b- Palpation

- c- Auscultation
- d- Investigations such as GUE and blood test as ABO and Hb level. The pregnant women should be supplied with card containing full information to be used by the maternity hospital during delivery.

Alarming Symptoms and Signs:

- 1- Vaginal bleeding.
- 2- Symptoms of pre-eclampsia.
- 3- Abdominal pain.
- 4- Persistent vomiting.
- 5- Dysuria.
- 6- Chills or fever
- 7- Escape of fluid from vagina.
- 8- Abdominal size too big or too small for gestational age

Periodic visits

- 1- Record any new complaint
- 2- Perform examination at each visit (both general and local examinations such as weight, BP, or fundal level, fetal lie, and fetal heart sound).
- 3- Investigations: some investigations should be repeated such as GUE, Hb in the second and third trimesters. Rh antibodies in Rh negative mothers should be determined.
- 4- Asses fetal well-being by maternal weight gain, fetal size, fetal kick count, fetal movements, fetal heart sound and ultrasonography.

Basic Health Education Plan for Pregnant Woman

- 1. Educate about nutrition; calories, protein, calcium, Iron and folic acid.
- 2. Breast care
- 3. Dental care
- 4. Clothing
- 5. Exercises
- 6- Weight gain
- 7- Smoking
- 8- Traveling
- 9- Rest and sleep
- 10- Tetanus toxoid immunization schedule.

The risk approach:

This approach provides care for the community as well as for individuals, some care will be provided for all, but more skilled care is given to those at higher risk.

High risk pregnancy:

Is one in which the fetus and or the mother has a significantly increased chance of morbidity and mortality.

Pregnant women at such risk must be identified during ANC according to the presence of certain risk factors.

Risk factors for evaluation:

A/ Personal factors (already present):

- 1- Less than 18 years old.
- 2- More than 35 years old.
- 3- Live far from health facilities.
- 4- Consanguinity
- 5- Smoking habit
- 6- Infertility

B/ obstetrical history

- 1- Primigravida in > 30 years
- 2- Parity > 5
- 3- No spacing
- 4- Previous intra-uterine death
- 5- Rh iso immunization
- 6- Retained placenta or post partum hemorrhage
- 7- Previous instrument delivery

C/ Past history:

- 1- Hypertension
- 2- Chronic illnesses
- 3- Uterine anomalies including fibroid
- 4- Previous myocotomy
- 5- Anti-epileptics and or anti tuberculosis drug.
- 6- Previous blood transfusion.

D/ Family history:

- 1- Fetal abnormality
- 2- Multiple pregnancies of mother or sister
- 3- Hypertension
- 4- Diabetes

Current situations affecting obstetric outcome:

HISTORY:

- 1- Unknown date of LMP
- 2- Hyperemesis gravidarum.
- 3- absent fetal movement.
- 4- Vaginal bleeding.
- 5- Premature uterine contractions
- 6- Sudden gush of vaginal watery fluid
- 7- Rubella exposure

EXAMINATION:

Gait, color, weight > 90Kg or <45kg, maternal height <150cm, Excessive weight gain or poor weight gain < 8Kg, Smaller or larger uterine size for gestational age.

BP > 140/80

Abnormal fetal heart

Malpresentation

INVESTIGATIONS:

- 1- Excess amniotic fluid
- 2- Diminished amniotic fluid
- 3- Hb < 11gm
- 4- Proteinuria
- 5- Glucoseuria
- 6- Bacteriuria

3. Natal Care:

This phase is short (hours), but if not handled properly it will be very dangerous for both mothers and infants.

The mother might develop complications such as:

- 1- Bleeding
- 2- May be exposed to surgical interventions.
- 3- Risk of infections
- 4- Risk of trauma.

The infant may be exposed to:

1. Asphyxia
2. Birth trauma

3. Hypothermia
4. Infections

Good natal care will reduce the number of deaths and disabilities resulting from such conditions.

Training of birth attendants (doctors and midwives) is very important for the reduction of these conditions.

Only 50% of deliveries occur in hospitals or health institutes.

On discharge A CARD containing full birth information should be given to the mother to be used by the PHCC for completing child care

Types of birth attendants

- Physician
- Midwives

Level of midwives:

1. Professional midwives
 2. Intermediate or auxillary nurse
 3. Non professional or traditional midwives (TBA)
- } *skilled
birth attendants*

Traditional birth attendants (TBA):

According to WHO a person usually women who assist the mother during child birth and who initially acquired her skills by herself or by working with other TBAs, they usually work outside health centers or hospitals.

SBAs (WHO) trained midwives nurses or doctors who have completed courses of training and are registered and legally licensed to practice.

The role of TBAs is essential in our country for safe motherhood and delivery we need to:

Educate, monitor, and training them to avoid fatal complications by:

1. Strengthen their knowledge and skills.
2. Provision simple tools such as dressing, basic equipment, (special safe bag for safe delivery).

Delivery care

Every pregnant woman should have safe delivery to reduce maternal & fetal loss due to delivery trauma & asphyxia.

Place of delivery:

Delivery is normal physiological process but sometimes need skilled care especially during risk pregnancies.

Hospital delivery:

It is the ideal environment for proper natal care. It has disadvantages:

Disadvantages of hospital delivery:

- Psychological distress.
- Nosocomial infections.
- High cost.

Hospital delivery advantages:

- Dealing properly with emergency and sudden unexpected problems during normal pregnancy.
- In developing countries normal delivery usually managed by birth attendants, SBAs and PHC centers or at home by TBAs.

4. Postnatal Care:

The period starts one hour after delivery of the placenta.

During this period two medical examinations should be carried out with aim of detecting and curing ailments resulting from birth.

The first examination is carried out within two weeks after delivery.

The second between 4 and 6 weeks after delivery.

We must check the size and position of the uterus, cervix and perineum.

BP must be checked.

The GUE and Hb should be tested again.

Care of the mother and the newborn after delivery is known as post natal care; unfortunately this care is not paid enough attention in our country which leads to increase number of morbidity and mortality of mothers and infants.

Components of post-natal care:

1. Prevention of complications:
 - A. Puerperal sepsis
 - B. Thrombophlebitis
 - C. Hemorrhage
 - D. UTI and mastitis
2. To provide care for rapid restoration of the mother to optimum health through :
 1. Physical: post natal examination and proper treatment, proper nutrition and post natal excises which are necessary to bring the stretched abdominal and pelvic muscle back to normal.
 2. Psychological: common psychological conditions such as fear, insecurity and rarely psychosis which can be eliminated by

proper instructions and support and companionship of her husband and her family.

3. Social: mothers should be encouraged to raise her child in a welcome family atmosphere.

To check adequacy of breast feeding:

Mothers are advised to breast feed exclusively for 4-5 months followed by supplementary food.

Family planning:

During post natal visits mothers are motivated to adopt a suitable contraceptive method for spacing the next birth or for limiting the family size.

During the post partum period lactation offers some protection against conception.

During the first 6 months IUD and non hormonal contraceptive are ideal choices and hormonal contraceptives are avoided as they suppress lactation.

To provide basic health education to mother/ family:

In postnatal period mothers and families are educated in regard to:

1. Hygiene (personal and environmental)
2. Feeding for mothers and infants
3. Pregnancy spacing.
4. Importance of health check up and vaccinations
5. Birth registrations.

** Home visits should be paid to women who are discharged early by a home visitor or a public health nurse.*