PREVENTIVE MEDICINE IN OBSTETRICS,PAEDIATRICS AND GERIATICS

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- MOTHER AND CHILDREN NOT ONLY CONSITUATE A LARGE GROUP OF POPULATION BUT THEY ALSO CONSTITUATE A SPECIAL RISK GROUP.
- IN DEVELOPING COUNTRES THEY COMPRISE ALMOST 71 % OF POPULATION
- IN PAKISTAN

  CHILDREN 0- 14 YRS ------35 %

  WOMEN OF REPR. AGE ------25%

Mother and child----1 unit

Mother and children must be considered 1 health unit because :

- During antenatal period fetus is part of mother
- Child health is closely related to maternal health
- Certain maternal disease will have their impact on fetus
- After birth child is completely dependent on mother at least 6 to 9 months.
- Mother is also the first teacher of child.

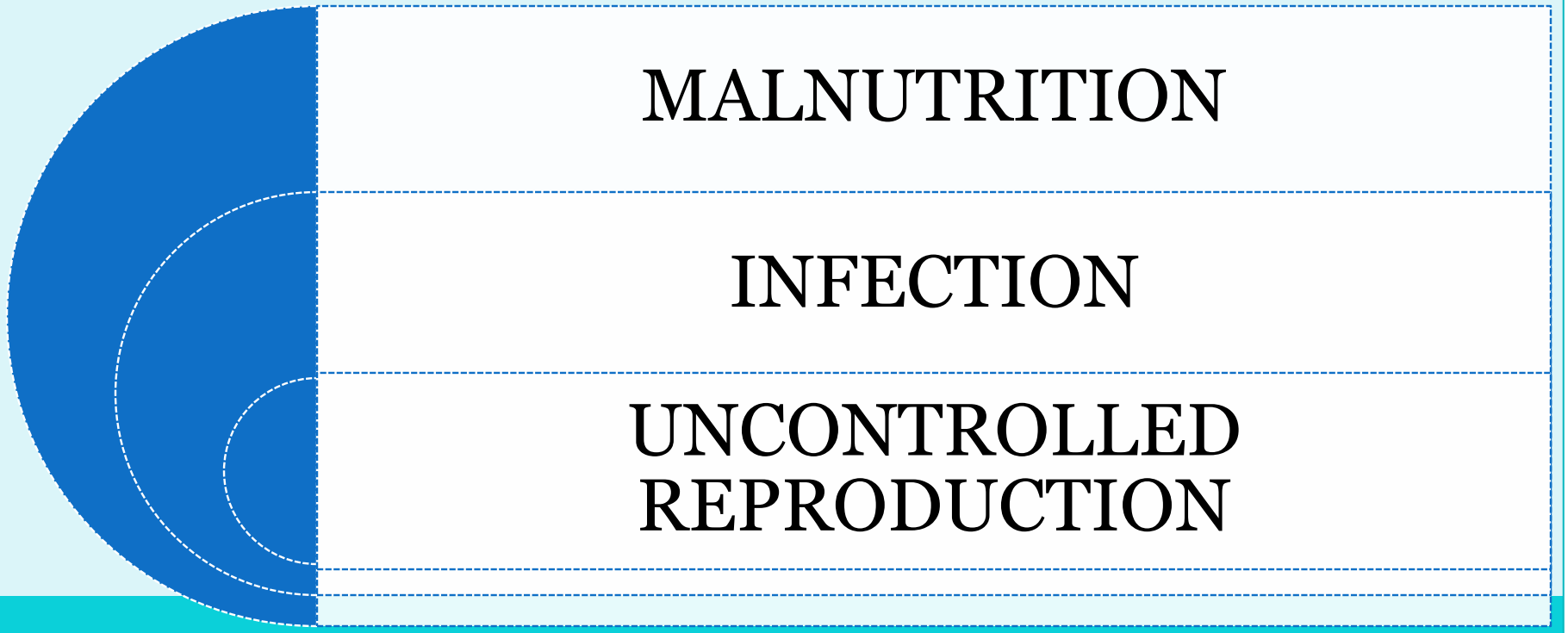
The term ***MOTHER AND CHILD HEALTH*** refers to promotive , preventive , curative and rehabilitative healthcare for mothers and children.

OBJECTIVES

1. Reduction of morbidity and mortality rates of mothers and children
2. Promotion of reproductive health
3. Promotion of the physical and psychological development of the child within the family

MCH Problems

The main health problems affecting the health of mother and child in developing countries revolve around the **triad** of



Selected rates by country for crude birth rates, infant mortality rates and under-five mortality rates (2012)

Country	Crude birth rate per 1000 population	IMR per 1000 live births	Under-five mortality rate per 1000 live births
India	21.6	44	56
Pakistan	26	69	86
Bangladesh	20	33	41
Thailand	12	11	13
Sri Lanka	18	8	10
China	13	12	14
Switzerland	10	4	4
UK	12	5	4
USA	13	6	7
Singapore	10	2	3
Japan	8	2	3

OBSTETRICS

Obstetrics is largely preventive medicine. The aim of obstetrics and preventive medicine is same i.e. throughout the pregnancy the mother will have a good health and at the end of every pregnancy we have a healthy mother and baby.

Community Obstetrics:

The old age concept that obstetrics is only antenatal, natal and post natal care, is thus converted mainly with technical skills, and is being replaced by the concept of **"Community obstetrics".**

This combines obstetrical concern with concepts of primary health care.

Social Obstetrics: The study of the interplay of social and environmental factors and human reproduction going back to the pre-conceptional or even to the premarital place.

It is concerned with the delivery of comprehensive maternity and child health care services including family planning so that they can be bought within the reach of the total community.

MATERNITY CYCLE

The stages in maternity cycle are

1. Fertilization
2. Antenatal period
3. Intranatal period
4. Postnatal period
5. Inter conceptional period

FERTILIZATION

It take place in the outer part of fallopian tube. The fertilized ovum reaches the uterus in 8 to 10 days. The period of growth can be divided into;

1. Prenatal period
   A. Ovum---0 to 14 days
   B. Embryo ---14 days to 9 weeks
   C. Fetus----9 weeks to birth
2. 2. Pre mature infant----28 to 37 weeks
3. 3. Birth/Full term ----- Avg. 280 days

ANTENATAL CARE

Antenatal care is the care of the woman during pregnancy

Basic aim is to have healthy mother and healthy baby

OBJECTIVE

- To promote, protect, and maintain the health of mother during pregnancy.
- To detect **"high risk"** cases and give them special attention
- To foresee complications and prevent them
- To remove anxiety and dread associated with delivery
- To reduce maternal and infant mortality and morbidity
- To teach the mothers elements of child care, nutrition, personal hygiene, and environmental sanitation
- To sensitize the mother to the need for family planning, including advice to cases seeking medical termination of pregnancy
- To attend to the under- fives accompanying the mothers

COMPONENTS

1. Antenatal visits
2. Prenatal advice
3. Specific health protection
4. Mental preparation
5. Family planning
6. Pediatric component

1. ANTENATAL VISITS

Ideally the mother should attend the antenatal clinic once a month during the first 7 months, twice a month during the next month and thereafter once a week till delivery of baby if everything is normal.

ANTENATAL VISITS

- 1st Visit – within 12 weeks preferably as soon as pregnancy is suspected
- 2nd Visit – Between 14 and 26 weeks
- 3rd Visit – Between 28 and 34 weeks
- 4th Visit – Between 36 weeks and term.

Components of Antenatal Check Up

1. Take patient history
2. Physical examination
3. Abdominal Palpation for fetal growth
4. Lab Investigations.

FIRST ANTENATAL VISIT - COMPONENTS

- History taking
- Physical examination
- Abdominal examination
- Assessment of gestational age
- Laboratory investigations

History taking:

- Confirm the pregnancy
- Identify the complications in previous pregnancies
- Indentify current medical, surgical or obstetric condition which my complicate the current pregnancy.
- Record the LMP and calculate the EDD
- Record symptoms indicating complications
- History of any current systemic illness.
- History of drug allergies and habit forming drugs

Physical examination:

- Pallor
- Pulse
- Respiratory Rate
- Oedema
- Blood pressure
- Weight
- Breast Examination

Abdominal Examination:

- Measurement of fundal height
- Fetal Heart Sounds
- Fetal Movements
- Fetal Parts
- Multiple Pregnancy
- Fetal Lie and presentation
- Inspection of abdominal scar or any other relevant abdominal findings

Assessment of gestational age:

- The **"Gold Standard"** for assessment is routine early ultrasound together with fetal measurements ideally in first trimester.
- Gestational age assessment based on the date of last menstrual period (LMP) is done.
- Many countries use the **"Best Obstetric Estimate"**, combining ultrasound and LMP.

Laboratory investigations :

1.Urine pregnancy test
2.CBC
3.Urine for presence of albumin and sugar
4.Blood group with Rh factor
5.Blood sugar
6.Hep B, C screening
7.HIV screening

Interventions and Counseling

- Iron and folic acid supplementation and medication as needed
- Immunization against tetanus
- Group or individual instruction on nutrition, family planning, self care, delivery and parent hood
- Home visiting by a female health worker/ trained dai
- Referral services, where necessary

RISK APPROACH

The RISK APPROACH is a managerial tool for improved MCH care. Its purpose is to provide better services for all, but with special attention to those who need them most.

- Elderly prima (30 years or over)
- Short statured prima (less than 140 cm)
- Malpresentation
- APH,threatened abortion
- Pre eclampsia,eclampsia
- Anemia
- Twins

- Hydramnios
- Previous still birth , IUD
- Manual removal of placenta
- Elderly grand multipara
- Prolonged pregnancy
- H/o previous lSCS or instrumental delivery
- Pregnancy + systemic disorders
- Treatment for infertility
- 3 or more spontaneous consecutive abortions

2.PRENATAL ADVICE

- DIET
- PERSONAL HYGIENE
- DRUGS
- RADIATION
- WARNING SIGNS
- CHILD CARE

PERSONAL HYGIENE

- PERSONAL CLEANLINESS
- REST AND SLEEP
- BOWELS
- EXERCISE
- SMOKING
- ALCOHOL
- DENTAL HYGIENE
- SEXUAL INTERCOURSE

WARNING SIGNS

- SWELLING OF FEET
- FITS
- HEADACHE
- BLURRING OF VISION
- BLEEDING OR DISCHARGE PV
- ANYTHING UNUSUAL

3.SPECIFIC HEALTH PROTECTION

- Anemia

  100 mg elemental iron + 500 mcg Folic Acid for 100 days
- Other nutritional deficiencies

  Vit A & D supplements
- Toxemias of pregnancy
- Tetanus

  1st dose = 16-20 weeks

  2nd dose= 20-24 weeks
- Syphilis
- German measles

Rh Status

It is a routine procedure in antenatal clinics to test blood for Rhesus type in early pregnancy. If the woman is Rh-negative and the husband is Rh-positive, she is kept under surveillance for determination of Rh-antibody levels during antenatal care. The blood should be further examined at 28 weeks and 34–36 weeks of gestation for antibodies. Rh anti-D immunoglobulin should be given at 28 weeks of gestation so that sensitization during the first pregnancy can be prevented. If the baby is Rh-positive, the Rh anti D immunoglobulin is given again within 72 hours of delivery. It should also be given after abortion.

- HIV INFECTION
- HEP B INFECTION
- PRENATAL GENETIC SCREENING

4.MENTAL PREPARATION

Sufficient time and opportunity must be given to expectant mothers to have a free talk on all aspects of pregnancy and delievery.This will help a lot in removing her fears about confinement.

5.FAMILY PLANNING

Family planning is related to every phase of the maternity cycle. The mother is psychologically more receptive to advice on family planning than at other times. Educational and motivational efforts must be initiated during the antenatal period. If the mother have already 2 or more alive children she should be motivate for puerperal sterilization.

5.PEDIATRIC COMPONENT

It is suggested that a pediatrician should be in attendance at all antenatal clinics to pay attention to the under five accompanying the mothers.