

# Pregnancy The classification

Pre-embryonic Period	The first 3 weeks from fertilization	Morul (cells) Blastocyst (Cavity)
Embryo Period	Beginning of the 4th week to the end of the 8th week	All body organs are constituted
Fetal Period	From 9 week to delivery of fetus	
Perinatal Period	From late fetal gestation (28 weeks) to the early neonatal period (7 days)	
Neonatal Period	Live newborn to 27 days	
Infant Period	Live newborn to One year	Include the Neonatal Period

Pre-embryonic Period?

### **Presentation Domains**

- 1. Domestic violence during pregnancy
- 2. Consequences of Sexual Violence on Reproductive Health.
- 3. Drug and Substance Abuse
- 4. Fatal Assault Abortion
- 5. Neonaticide
- 6. Denial of Health Care
- 7. Newborn Kidnapping
- 8. Abandoned Newborns

### Introduction

- For a pregnancy to have the best outcome it should be
  - 1) Planned.
  - 2) Parents should be healthy and mutually supportive.
  - 3) Mother's diet should be good.
- All mothers and babies need to receive good obstetric and neonatal care.
- If the above conditions are not achieved than fetus or neonate life is jeopardized.
- The threats could be by acts of omission or commission (neglect or violence)

## Principal Adverse Factors

#### The principal adverse factors affecting the fetus are

- Mother's abuse of drugs (non-therapeutic)
- Mother's abuse of alcohol
- Mother's abuse of tobacco
- Physical abuse (1) directed at mother (2) directed at fetus
- Father's neglect of mother's needs
- Mother's non-attendance at antenatal clinic
- Medically unattended deliveries.
- Mother's age (teenager) and unmarried status
- Poverty, poor housing, poor nutrition of mother
- Unwanted, unplanned, uncared-for pregnancy
- Lack of social support.



### Domestic violence during pregnancy

- Physical, sexual or emotional abusive acts and controlling behaviors.
- Mainly physical violence, although sexual and emotional to a lesser extent.
- Concerning form of physical violence is when abusive partners target a woman's gravid abdomen.
- Prevalence of DV during Pregnancy is 1% to 28% in different countries.

# Health Outcomes of Domestic Violence during Pregnancy

#### Fatal Outcomes

- 1) Homicide
- 2) Suicide

#### Negative Health Behavior

- 1) Alcohol and drug abuse during pregnancy
- 2) Smoking during pregnancy
- 3) Delayed prenatal care

#### Reproductive Health

- 1) Low birth weight
- 2) Pre-term delivery
- 3) Less weight gain
- 4) Obstetric complications
- 5) STIs/HIV
- 6) Miscarriage
- 7) Unsafe abortion

# Physical and Mental Health

1) Injury

Non Fatal Outcomes

- 2) Physical impairment
- 3) Physical symptoms
- 4) Depression
- 5) Difficulties or lack of attachment to the child
- 6) Effects on the child

## **Fatal Outcomes**

- Five percent of the femicide victims were murdered while pregnant.
- Abuse during pregnancy was reported by 25.8% of the attempted femicides, and 22.7% of the completed femicides.
- The risk of becoming an attempted or completed femicide victim was three-fold higher for women abused during pregnancy.

## Reproductive Health

- Women who reported stress because of abuse had the mean birthweight of their infants 236 g lower.
- LBW infants were born to battered women (12.5%) than to non-battered women (6.6%). Battered women did smoke more than the non-battered.
- 22% of the mothers of LBW infants had experienced physical abuse during pregnancy. In normal BW the controlled percentage is 5%
- 1.70 times higher chance of spontaneous abortion
- 1.25 times higher chance of reporting an unintended pregnancy.
- Physical violence was associated with an increased risk of antepartum hemorrhage 3.79 times. intrauterine growth restriction 3.06 times, and perinatal death 8.06 times.

## Physical Health

- A study on women hospitalized during pregnancy after sustaining an assault.
- Women delivering at the assault hospitalization had high rates of prematurity: 24%, fetal death: 9.3%, Uterine rapture 1%.
- Women discharged after an assault, delivering at a subsequent hospitalization, had increased risks of abruption: 2%, hemorrhage: 3.2%, prematurity: 15%, and low birth weight: 13.4%.

El Kady D, Gilbert WM, Xing G, Smith LH. Maternal and neonatal outcomes of assaults during pregnancy. Obstetrics and Gynecology, 2005, 105(2):357-363

### Mental Health

- Physical, sexual and psychological intimate partner violence during pregnancy are associated with higher levels of depression, anxiety and stress, suicide attempts, lack of attachment to the child and lower rates of breastfeeding
- Increased levels of anxiety among babies whose mothers experienced partner violence during pregnancy.
- Behavioral and emotional problems up to four years later due to the effect of maternal mood on the fetal brain development.



# Consequences of Sexual Violence on Reproductive Health

- Unintended pregnancy
- Sexually transmitted infections
- Unsafe abortion
- Neonaticide



## **Definitions**

- Abortion: termination of pregnancy before the fetus is viable (capable of survival outside the uterus).
- The term abortion is more commonly used as a synonym for <u>medically induced abortion</u> (the deliberate, medically indicated, interruption of pregnancy).
- Miscarriage: refer to spontaneous or natural loss of the fetus.
- Criminal abortion: termination of pregnancy by illegal intervention, undertaken when legal induced abortion is unavailable.
- Neonaticide: intentional killing a newborn in the first
   24 hours of its life
- Infanticide: intentional killing of a child under the age of 12 months

## **Basic Principles**

- Main Basic Principle: The right of embryo and fetus or to live normally in the uterus.
- Assaulting fetus is destruction of a human being and consequently it is:
  - Criminalized in the penal code (Basic Law)
  - Forbidden in Islamic Sharia law
- It is a crime and that why abortion is performed in the medical practice as an <u>exemption</u> on legal and medical foundations.
  - Permissible by a special law.
  - Medically indicated in accordance with the law (not based on <u>literature</u>, <u>previous training</u>, <u>professional</u> <u>opinion</u>, <u>personal opinion</u>, <u>psychosocial reasons</u>)

# Basic Principles Medical

- The followings <u>are not</u> accepted medical indications of terminating Pregnancy:
  - Moral reasons i.e. pregnancy result of rape or adultery
  - 2) Economical reasons i.e. poverty
  - 3) Contraception and family planning
  - 4) Diagnosed congenital anomalies of fetus
  - 5) Risk of congenital anomalies i.e. exposure to x-ray or drugs.
- Induction of labor is not an abortion because it is medically indicated to preserver fetus life

### Assault on Fetus

- Systemic Abortifacient Drugs: (1) Ecbolic Drugs: Have a direct stimulating action on the uterine muscle. Examples would be ergot, quinine, and oxytocin (2) Essential oils and purgatives:
- Local Abortifacient chemicals: intra-vaginally or in the cervix. Potassium permanganate. (1) Douching: a stream of water, hot or cold, with or without an irritant soap or antiseptic solution (Lysol®), was injected forcefully into the vagina at the external cervical os. (2) Syringing.
- Non Professional Direct Instrumentation: were able to do so using knitting needles and coat hangers
- Professional direct Instrumentation: this method is a variation on dilatation and uterine curettage.
- Violence .... Next slide

# Assault on Fetus Violence

#### Local Violence:

 Beating or applying pressure locally in the lower abdomen, wearing tight clothes and belts, and electrocution.

#### **General Violence:**

Jumping, excessive exercise or dancing, pushing heavy objects.

#### Psychological Violence:

- Terrorizing the pregnant woman
- Threatening
- Intimidating
- Yelling on her
- Exposure to stressful situations.



# Classification of Sudden Unexpected Infant Death (SUID)

- Sudden infant death syndrome (SIDS) is one of several causes of SUID, but it is the most frequently reported. It is a diagnosis of exclusion, through a careful case investigation, which includes a thorough examination of the <u>death scene</u>, a <u>complete autopsy</u>, and a review of the infant's <u>medical records</u>. SIDS currently accounts (50%) of SUID yields.
- Unknown Cause: The sudden death of an infant less than 1 year of age that cannot be explained because a thorough investigation was not conducted and cause of death could not be determined. (26%)
- Sleep-related infant deaths: accidental suffocation and strangulation in Bed. Suffocation by soft bedding such as a pillow or waterbed mattress. Overlay when another person rolls on top of or against the infant while sleeping. Wedging or entrapment when an infant is wedged between two objects such as a mattress and wall, bed frame, or furniture. Strangulation such as when an infant's head and neck become caught between crib railings. (18%)
- In approximately (10%-20%) of cases of SUID a specific cause of death is identified
  - Accidental versus Neglect (hyperthermia, hypothermia, carbon monoxide poisoning, drowning...) 3%
  - Homicide: Infanticide and intentional suffocation (1%-4%)
  - Natural Diseases: Infections 5%. Congenital anomalies 7%. Metabolic disorders
     1%

### Perinatal and Neonatal Mortality and Morbidity

The majority of deaths in children younger than one year occur in the <u>perinatal and neonatal stages</u> with the major causes identified within 7 categories:

- Pregnancy-related complications (placenta and in uterus)
- 2) Delivery-related complications (Birth trauma, iatrogenic, asphyxia abnormal fetal presentation (breech, footling) and umbilical cord accidents).
- 3) Infectious diseases
- 4) Congenital malformations or disorders
- 5) Maternal disorders (Diabetes and hypertension)
- 6) Other specific system disorders
- 7) Trauma (accidental and abusive injuries)

# What are the factors which lead parents to kill their children?

- 1. Unwanted child: usually involve the mother. The child was unplanned or unwanted from conception.
- 2. Handicapped children.
- 3. Altruistic (noble killings): of children who are suffering, or with parents who have distorted perceptions of themselves.
- 4. Retaliation: displaced anger on to the child often meant for the person's partner. These killings occurred in cases of severe marital conflict including domestic violence.
- 5. Jealousy of the child. Men usually committed these killings.
- 6. Factitious illness by proxy.
- 7. Ritual or organized abuse.
- 8. Psychotic parents..... Next Slide

# What are the factors which lead parents to kill their children?

- 8. Psychotic parents....
  - a) Evidence of psychiatric illness in the killing parent or in their partner was found in 32% (25% perpetrators, 10% partners).
  - b) The majority in both groups were mothers.
  - c) Four out of five of these 'psychiatric' cases had preexisting child protection concerns.
  - d) The primary psychiatric diagnosis:
    - 1. Psychosis (40%)
    - 2. Depression (20%)
    - 3. Personality disorder (20%)
    - 4. Factitious illness by proxy (8%).
    - 5. Addiction (5%)



# **Drug and Substance Abuse**

- The effects of substance abuse, often compounded by cigarette smoking and adverse lifestyle include:
  - increased mortality, prenatally and postnatally
  - 2. pre-term birth
  - 3. teratogenicity
  - 4. growth retardation
  - 5. short- and long-term neuro-behavioral problems.

Table II.I Intrauterine effects of drug and substance abuse

Drug	Congenital malform- ation	Impaired intra- uterine growth		Neonatal withdrawal symptoms		
Alcohol	+	+	+	+		
Cigarettes	_	+	+	-		
Cannabis	_	+	-	+		
Opiates	_	+	+	+		
Cocaine	+	+	+	+		
Amphetamine	_	_	_	+		
Benzodiazepine	_	+	+	+		
Barbiturates	_	-	+	+		
Phencyclidine	+	+	-	+		
Heroin	+	+	+	+		
Methadone	_	_		±		

+, Present; -, absent.

Drug	Respiratory distress	Jittery, hyperactive	Lethargic	Poor feeding	Irritable	GI upset	Fits	Congenital malformation	Behavioural abnormality	Developmental abnormality	SIDS	Failure to thrive	HIV
Alcohol	+	+	_	+	++	-	+	+	+	+	+	+ ,	-
Cigarettes	_	-	-	-	-	- 5		-	-		+	_	_
Cannabis	-	+	-	_	- /	-	-		_	-	_	-	_
Opiates	+	+	_	+	+	_	+	-	+	+	+	+	+
Cocaine	+	+	+	+	++	-	+	+	+	+	+	+	+
Amphetamine		+	+	_	_	_	-	-	-	+	-	-	-
Benzodiazepine	+	_	+	+	-			_	+	-	-		-
Barbiturates	+	+	_	+	+	-	+	_	_	-	-	-	-
Phencyclidine	_	+	+	_	- 1	+	+	+	-	-	-	+	-
Heroin	+	+	-1-1	+	+	+	+	+	+	+	+	+	+
Methadone	+	_	_	_	_	_	+	_	+	-	+	2	_

+, Present; -, absent.

## **Smoking**

- 1. Only 18% to 25% quit smoking once they become pregnant.
- 2. Nicotine causes constrictions in the blood vessels of the umbilical cord and uterus, thereby decreasing the amount of oxygen available to the fetus and reduces the amount of blood in the fetal cardiovascular system.
- 3. Preterm delivery which is a primary cause of death, disability, and disease among newborns.
- 4. Low birth weight (one out of five) includes secondary smoking.
- 5. Increases the risks of miscarriage and stillbirth.
- 6. More likely to die from sudden infant death syndrome (SIDS) rate 3 times more.
- 7. Încrease the risks of respiratory problems.
- 8. Twice as likely to experience complications such as placenta previa, and placental abruption, and premature rupture of membranes.

## **Smoking**

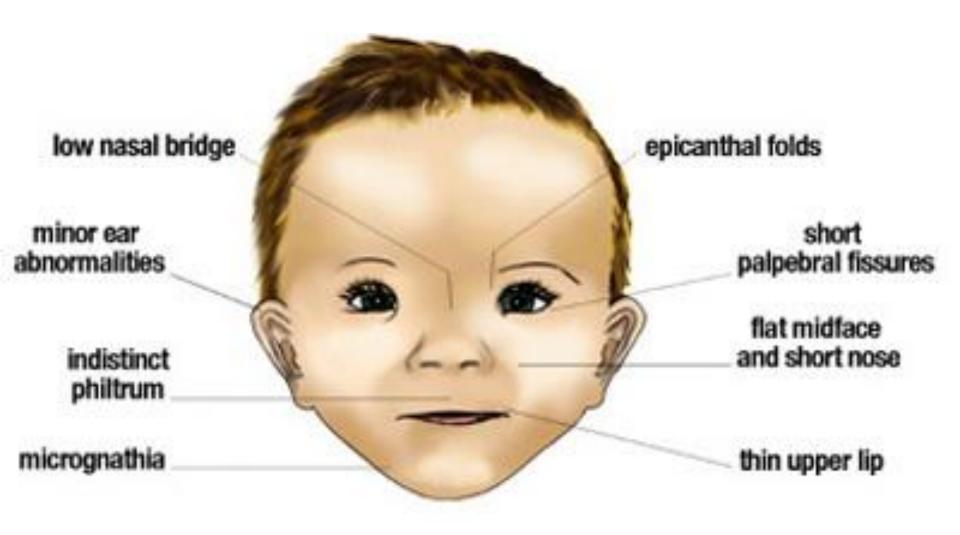
#### Premature babies can have:

- 1. Low birth weight
- 2. Feeding difficulties
- 3. Breathing problems immediate and that might last into childhood
- 4. Cerebral palsy (movement and muscle tone)
- 5. Developmental delays (language, thinking, or movement skills)
- 6. Problems with hearing or vision

## Fetal Alcohol Syndrome

- 1. The incidence of fetal alcohol syndrome is 1.9 births per 1000.
- 2. Is the only non- genetic Mental Disability that is 100% avoidable. It is caused by a mother-to-be ingesting alcohol whilst pregnant and the condition is irreversible.
- 3. Neurological development, abnormal growth, and have characteristic facial features.
- 4. Characteristic facial features: small and narrow eyes, a small head, a smooth area between the nose and the lips and a thin upper lip

## Fetal Alcohol Syndrome



## **Cocaine**

Cocaine is a street drug that usually white powder. It is inhaled or mixed with water and then injected with a needle. When cocaine is made into small white rocks, called crack, it can be smoked. No matter how cocaine is used, it's dangerous.

Cocaine affects central nervous system and may change your sense of sight, sound and touch. It can cause stomach pain, nausea; body tremors and headaches. It can make you feel restless, scared or angry.

Using cocaine can cause serious health problems, including:

- Heart attack
- Stroke.
- Respiratory failure.
- Loss of appetite
- Severe weight loss
- Infections like HIV or hepatitis.

## **Cocaine**

Cocaine effect on pregnancy?

- 1) Placental abruption.
- 2) Premature birth.
- 3) Low birth weight.
- 4) Miscarriage.
- 5) Neonatal abstinence syndrome (also called NAS).

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## Neonatal Abstinence Syndrome NAS

- 1) It is a group of problems that occur in a newborn who was exposed to addictive opiate drugs while in the mother's womb.
- 2) Pregnant woman takes opiate or narcotic drugs such as heroin, codeine, oxycodone, methadone or buprenorphine.
- 3) The symptoms of neonatal abstinence syndrome depend on: (1) The type of drug the mother used (2)How much of the drug she was taking (3) How long she used the drug (4) Whether the baby was born full-term or early (premature)
- 4) Symptoms often begin within 1 3 days after birth, but may take up to a week to appear. Symptoms may include:
- 5) Mottling of skin, Diarrhea, Excessive crying or highpitched crying, Excessive sucking, Fever, Hyperactive reflexes, Increased muscle tone, Irritability, Poor feeding, Rapid breathing, Seizures, Sleep problems, Slow weight gain, Stuffy nose, sneezing, Sweating, Tremors, Vomiting.



### Medical Neglect (Newborn Infants)

- 1. The withholding of medically indicated treatment from newborn infants with serious birth defects that are life-threatening is a category of neglect.
- 2. Difficult moral and ethical dilemmas for physicians, hospital personnel, and parents.
- 3. "Baby-Doe" Law, 1982, USA.
  On April 9, 1982, a person who came to be known as Baby Doe was born at Bloomington Hospital in Bloomington, Indiana. He was born with two conditions, Down's syndrome and tracheoesophageal fistula, a birth defect in the throat that makes eating food orally impossible. The law change on 1984 (The Baby Doe Law or Baby Doe Amendment is the name of an amendment to the Child Abuse Law passed in 1984 in the United States that sets forth specific criteria and guidelines for the treatment of seriously ill and/or disabled newborns, regardless of the wishes of the parents)

### Medical Neglect (Failure to Thrive)

- Nonorganic failure to thrive: physical development falls below the third percentile for no known medical reason.
- 2. Immediate improvements with hospitalization.
- 3. Outcomes related to the parents' degree of awareness and cooperation with the treatment.
- 4. Deficits in the attachment process between parent and child are partially responsible.
- 5. Depression and other personality problems in the parents, lack of knowledge about child care, poverty, and social stress have been identified as contributing causes of nonorganic failure to thrive.

# Differential Diagnosis of Non organic FTT

- 1. Genetic variation:
  - a) Familial short stature.
  - b) Constitutional short stature.
- 2. Intra-uterine growth retardation.
- 3. Prematurity



# Newborn Kidnapping

- It may happen in hospitals maternity rooms, nurseries, pediatric words, homes, mark places, from cars.
- Prevalence: very variable depending on cultures issues.
- Risks: low hospital resources, lack of security maintenance.
- Opportunistic kidnaper
- Normal healthy babies, less than 6 moths age, male to female ratio is equal, social and ethnic back ground of child similar to that of offender.
- Offender: one person female most of the time, non-suspicious appearance nice looking, good communicator.
- Infertility, preserve marriage, demand ransom, and trafficking.
- Done in day time, nonviolent, opportunistic of circumstance of mother maternity word and hospital security.
- Consequences on child and mother.
- Media have very important role in finding the baby.