

Lecture # **6** Date:

Doctor: Dr. Samar Done By: Hadeel Abu Saa



# Maternal child health

In the last lecture the doctor asked the students to do homework about the premarital health services:

# -What are the premarital health services?

The answer is : counseling in general, they have to be educated about marriage and getting pregnant later and taking care of the baby and that what it is called (family health education) that we don't have it here in Jordan.

- So usually there are counselors specialized in this and specialists that give the right information because always in education the **first purpose** is to deliver the message and the **second purpose** is to insure if the information is right or wrong. There are sometimes information traditionally transmitted from one place to another and people believe it even if it was wrong. -

- So counseling is very important to let you know the right information. counseling not only important in premarital health services it's also important in primary health services weather it is premarital, preconceptional or conceptional, postpartum, support, psychological and at the same time health education and also it's important in well baby clinic .

# -what does well baby clinic mean?

The clinic that monitor the baby from **birth until he reaches 5 years old** (his growth and development), and the mother has to be educated about how to take care of her baby.

Page | 1

Written by

Hadeel Abu Saa



Community Medicine Dr. Samar



-community nurses in countries who can afford this, go home and teach new mothers how to take care of their babies, bathing, putting them to sleep in the right position, breast feeding (even though it is normal but there are some complications, breast feeding must be in a way that comfort the baby during breast feeding or after (This is under well baby clinic).

\*\* The education is very important in all aspects (family health education)  $\rightarrow$  sexual life, how to prevent sexual transmitted diseases, the early symptoms of sexual transmitted diseases, not all sexual transmitted diseases cause discharge and problems some of them are asymptomatic so they have to be educated about that ( modes of transitions, how to prevent it), in outside countries in developed worlds, they start this (family health education) with teens not only before marriage, they start it when they become 15 or 16 years old because in this age in the some developed worlds they start their sexual lives and they are educated in these aspects.

Sexuality and puberty, marriage and parenthood (becoming a father or a mother). They are counseled as a couple to know their responsibilities which considered very important in premarital health services.

# What do we do in Jordan in this aspect?

\*we don't have education, but it doesn't mean that we're doing the right thing; we believe that we must take it through **community**, **media**...etc.

Education it is the skeleton of the primary health care and it comes in all these services. and what do we mean about skeleton is that it's the base of the primary health care and if there is no education we can't even offer it because no one will come so education is very important.



-Nutrition and weight monitoring is important in premarital; weight monitoring is it to be looking fine and pretty or for what? What is the problem in overweight in marriage and pregnancy?

\*\* There is a big problem in overweight in getting pregnant also in ovulation they are not infertile but they take a longer time than the normal and average weight women.

-So if they are overweight or underweight they both have problems in ovulation. All obese people have problems in ovulation, and severely underweight people (Normal body mass index -27, 25 for females 26, 27 for males) if they are under 18 body mass index they have problems in their sexual life and ovulation which is important in pregnancy. So monitoring weight is very important! And nutrition also accordingly, if she is underweight why she is underweight and we have to improve her nutrition, and if she is overweight why she is overweight and we have to advise her to go into diet and prepare her for this age of life (marriage and pregnancy), if she has social problems; she is alcoholic for example or she is a drug addict or smoking, we have to prepare herself premarital and preconceptional .

# **\*\*Immunization**.

Are there vaccines given before marriage (before pregnancy)? Yes, for **rubella**, if the woman is not pregnant rubella won't affect her but if she is pregnant there will be a risk on the embryo (causes lots of abnormalities).

-rubella and many other viruses like toxoplasmosis causes a risk on the embryo (abnormalities) but the difference between rubella and other viruses is that rubella has a vaccine.

-So we do the simple test by checking the rubella titer, after that we ask ourselves. Is she immune? Is she got this infection before or she is not immune at all?





••If she is not immune at all we have to give her the vaccine but we make sure for the coming three months not to get pregnant.

-If she come before marriage in a long period it's fine, but if she come directly before marriage and she is not covering herself by contraception we have to convert her by contraception and usually it's injectable contraception.

-Sometimes they do it premarital and sometimes pre-conceptional because they don't come before marriage.

-In community like Jordan when they made a study for vaccination of rubella to calculate how many of the ladies are immune in Jordan (maybe in America and England numbers are different) they found 80% got the infection during puberty and while they are young and they are immune, they don't have to get the vaccine. While non-immune which represent 20% from Jordanian society (girls at the age of marriage) in this situation they need to get the vaccine.

-As the doctor mentioned before contraception (11:10). Usually this is the only vaccine that we cover just before pregnancy. Is there examination before marriage in Jordan?

**Yes**, but it's limited in genetic diseases specially thalassemia trait for each partner to make sure if they got thalaseemia genes or not in order to predict if the disease is going to occur or not .

-The severity of thalassemia disease if each one carries a gene the mother carries a gene and the father also carries a gene, the risk is 25% to get the disease and the rest will be carriers of the disease.

\*\*That doesn't mean that one child got the disease the others don't, it means there is a risk of 25% to have the disease at each time of pregnancy.

Page | 4





-Many families have three children and the three of them have thalassemia and this is a community problem.

-Thalassemia is not the only genetic disease, long time ago when endogamy was very common, genetic counseling tend to see what diseases are common in both families.

# Medical history, past medical history .

It is very important to see what old diseases she has, because we have to prepare here for a new stage (marriage and then conception).

If she has any disease we have to control them, path of medications mustn't have them during pregnancy.

#### **STD**: (SEXUAL TRANSMITTED DISEASES)

Societies like Jordan their sexual life usually start by marriage but some societies as young as 15 or 16 at puberty so they may carry the sexual diseases. \*\*It is a cause to transfer the disease from the husband to the wife and vice versa.

## Past menstrual history.

Is important for women, before marriage we ask her how is the menstrual cycle? What are we looking for when we ask her about her menstrual cycle? (For hormonal balance), always when there is a regular period there is a regular ovulation and most hormones are probably there. If there is irregular period, she has problems in hormones and why we are doing this before marriage not after? If the woman is infertile the husband must know, before marriage the problem is smaller but after marriage the problem will be bigger and most likely (90%) will end up with other marriage or divorce (this is a social problem that we have ).





-Health is physically normal and good quality and social living, when she is divorced there is no social health so this examination to prevent social problems.

<u>Physical examination</u>: diagnoses maybe before pregnancy or during pregnancy. <u>Genetic counseling</u> is an important aim.

**Fertility investigation**  $\rightarrow$  to see if there is infertility problems or not, and to see fertility we have two important tests (for women other than history, doing **blood test** and **hormonal ovulation** and for male {the main partner} just by doing **semen analysis**). And semen analysis is very straight forward count motility and tells how much problems are there in his fertility.

-Is this acceptable before marriage in Jordan? No, because of unawareness.

# -Pre conception.

Now, they are married, what doesn't appear before marriage will appear (usually not always) before pregnancy.

Especially if pregnancy is late for any reason and sometimes they appear when the woman is pregnant (to come to check herself while she's pregnant is not pre-conceptional).

But if it appears before pregnancy, there are things we must make sure of them, first if you have past medical history, you have to control diseases before getting pregnant because there are some disease that increase their severity during pregnancy (like diabetes, epilepsy, asthma) all of these diseases must be controlled during pregnancy with certain drugs (not all drugs are safe to use during pregnancy).

-If the woman has any history of any disease (for example neurologic disease like NS, depression, psychosis) all of these we have to control them before she get pregnant and during pregnancy.





- \*\* social history:
- 1. Smoking.
- 2. Drug addiction.
- 3. Social problems with the wife and her husband.

For example, before she gets pregnant is she fine with her relationship with her husband! It is very important because of their relationship wasn't good then what is it for to get pregnant!

-So we have to make sure of their social relations and their social standards (can they afford to have a baby?), not all two married couple can afford having a baby.

\*\*Controlling **risk factors** (risk factors of pregnancy)  $\rightarrow$  some of them you have to deal with before you get pregnant like:

1. Getting rid of smoking before getting pregnant.

2. Diabetes (diabetic women have difficulty in getting pregnant and during pregnancy).

3. Hypertension (The first sign (number one cause) for eclampsia).

4. Hormonal problems (endocrine metabolic problems) like hyperthyroidism and hypothyroidism they are very important and to control them is easy (by giving her thyroxin in hypothyroidism and iodinein hyperthyroidism.

\*\*We must control the case before pregnancy because during pregnancy there is a mess. Even thyroxin is given in different doses in different ways. (All these diseases are pre conceptional that we have to control them before pregnancy).

\*\*Psychological and social counseling  $\rightarrow$  are they ready for pregnancy!

Page | 7





-Most important clinic for pregnancy is  $\rightarrow$  (antenatal care/the clinic of pregnant women)

-The clinic decrease the maternal mortality that was a long time ago in the developed world (40-50) like in the developing world but now there is no maternal mortality ( death because of pregnancy or birth or postnatal), but now with antenatal care and monitoring there is no maternal mortality but in developing countries maternal mortality still there.

\*\*In Jordan maternal mortality 19 per 100000 which is very close to the developed world→ averaging from 10-12.
So some countries have zero, some 2, some 4, some 15 or 16 etc.., so when we say 19 it is close to it.

While in the developing countries maternal mortality reaches (350-370) ..etc

# \*\*Objectives of ANC.

1. Promote and maintain the physical, mental and social health of the mother and the baby.

2. Detect and manage complications during pregnancy specially the first time to get pregnant there are more complications we don't know about.

Pregnancy→ Normal process (physiological process)

Complications during pregnancy  $\rightarrow$  the women through her pregnancy differ in reaction than any other normal woman (Type of abnormal reactions differ from one person to another like allergy).

))(



-Pregnant woman for the first time is at high risk more than one is pregnant for the third or fourth time, if sixth of seventh time then no problem and she had ( multiglandular) after the fifth child specially.

Also it is not just only to diagnose, it is also to manage the complications at early stage.

\*\*Complications of pregnancy:

- A. gestational diabetes.
- B .eclampsia.
- C .urine trap infections.
- D .anemia.

These complications are diagnosed during pregnancy at early stages.

3. Develop birth preparedness and complication readiness plan. (Planning for the coming baby).

4. Help prepare mother to breastfeed successfully (prepare her at last months from pregnancy, to encourage her and promote breastfeeding in the last two months of pregnancy).

\*\*In developed countries women there were breastfeed babies were low social class but now with the progress of science women should breastfeed exclusively.
\*\*The duration that is considered the best breastfeeding is six months.
-Some people think two months, some 3, some 4, but the best is 6 months .
-Exclusive breastfeeding→ they don't put anything with it (no juice, egg,....).



\*\* In developed countries like in Europe duration of maternity is 6 months at least to 1 year. But here 40 days – 2 months maximum.

-So we have to prepare health for breastfeeding, for supporting her during pregnancy, hormonal misbalance so her mood become very tense and people who are ready to depression go into severe depression (it stars during pregnancy but specially at postpartum directly) we call it (postpartum plos)  $\rightarrow$  she feels (down, tense not happy, not balanced) for 20-40 days but other than that it is abnormal depression with psychosis. More than 20-40 days they need to be treated just after delivery directly, during pregnancy they fear to treat her with anti-depression drugs.

# \*\*What is antenatal?

It is a systemic supervision of a woman during pregnancy to monitor the progress of fetal growth and to ascertain the well being of the mother and the fetus.

A proper antenatal checkup provides necessary care to mother and to help identify any complications of pregnancy.

To ensure a normal pregnancy (normal baby) with delivery of healthy baby from healthy mother. Abnormal pregnancy (complicated embryo is coming).

## \*\*Why antenatal is important?

1.protection and prevention, treatment, psychological, social, support, education ( first thing, skeleton of primary health care).

-Education not only knowing, education is also to change (Smoking cause cancer) now you know but it is not enough you have to change in behavior and societies. -Sweets increase the problem of diabetes (you know) but you must change and control your diet even if you are taking insulin.

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2. Remove the stress and worries of the mother regarding the delivery process.

- 3. Teach the mother about child care, nutrition, sanitation and hygiene.
- 4. Advice about family planning (prevent pregnancy at least for a year.

\*\*Antenatal checkups contain physical examinations and general examinations.

-Checkups physically.

#### Weight and height checks.

Weight is important because any excessive weight gained it causes eclampsia (causes maternal mortality).

-How much normal increase in weight during pregnancy? (8–11kg). But here the increase is 15, 20, 25 kg.

\*Universally 8–11 \*In Jordan 12–5 More than 15 you have to stop it by force.

#### Blood pressure test.

The one that affect here is high blood pressure not low blood pressure during pregnancy.

Blood test (is she got anemia for example).





\*\* *ultrasound*  $\rightarrow$  super instrument that by using it you can dispense the doctor. It does

very thing (detection of maturation, heart beat, -----)

Women need three times to use the ultrasound during pregnancy:

- 1. Diagnosis of pregnancy.
- 2. Second or third month (after two months)
- 3. before birth in one month.

But if there are complications, we use it more than three times.

Done By: Hadeel Abu saa