

Maret essay questions, Chapters 9 & 10

1. Select and discuss one general type of teratogen. What are the mechanisms and factors which make this teratogen problematic?

The first type of general teratogen is Medications, there are thousands of legal drugs that are used in the United States, with many of these having an increased risk in pregnancy issues. Some medications that pose little to no risk to the mothers can have devastating effects on the baby and slow the development of fetal organs. One of the medications to focus on are anti-depressants, anti-depressants are most commonly used and called SSRI, paroxetine, sertraline and fluoxetine, these medications are used to treat depression, anxiety, obsessive compulsive, PTSD and eating disorders. Around 2% of pregnant women took some type of anti-depressant in the first trimester, while the risk of doing so is relatively low, several studies have found potential problems such as increased risks of heart defects and risk of miscarriage.

2. Select and discuss another general type of teratogen. What are the mechanisms and factors which make this teratogen problematic?

Another type of teratogen would be substance abuse drugs, many of these substance abuse drugs are actually legal and some such as alcohol are used commonly. Others are illegally produced and used, the distinctions however are meaningless as they almost all have negative effects on babies as many of these drugs have addictive qualities, these all can cause birth defects even before the women know that they are pregnant. I will be discussing alcohol as I believe that this is the most commonly used and also the most preventable. The negative effects mostly have an effect in the first few weeks of pregnancy when many women are not even aware that they are pregnant, 30% of women will still drink during pregnancy. Although alcohol will affect pregnancies in a number of different ways, some more severe than others,

almost always there will be negative effects, some of these risks including things such as miscarriage and other structural and behavioural defects.

3. Select and discuss third general type of teratogen. What are the mechanisms and factors which make this teratogen problematic?

Various disease infections in a mother are commonly known to cause birth defects and can even be associated with miscarriage and long term problems. Some can be passed to the child in a variety of ways, for example HIV and rubella can be passed through the placenta and gonorrhoea and syphilis can be passed through the amniotic fluid.

Luckily, the placenta barrier blocks many of these, particularly bacterial infections.

The consequence for the fetus often depends on the timing of the infection with the first trimester usually being the bigger consequence. One of the infections that can be

harmful to the fetus is STIs, Over 15 million people in the united states have

contracted a STI which makes this very common and many of these being pregnant women. These infections can be associated with issues such as miscarriage,

prematurity, birth defects and neonatal death, the biggest risk is the chance of infection at the birthing process.

Chapter 10

4. Discuss prenatal capacities for learning.

I found this section very interesting, there are a variety of stimuli that can be sensed by the fetus and therefore can be responded to, since learning requires rehearsal of what has been learned we can also assume elements of memory too. It has been said that although there is learning, it does not necessarily mean that there will be a ever increasing straight line of accumulative skill. Studies have shown us that pre natal bonding is done through a increased verbal communication from the mother to the fetus and this found greater effects of alertness and control at birth, earlier talking,

independence and better concentration after birth and further research has indicated the positive effect of extra stimulation and attention in preterms up to one year later. There is a study of habituation which is defined as a decrease in response due to the repeated presentation of a specific stimulation in new-borns in which this has found neonatal habituation in response to auditory stimuli, this is a fetal heartrate and body movements in response to a vibration and auditory stimuli.

5. Discuss prenatal emotional capabilities.

I think that this is interesting as we can see that there is in fact emotion shown in prenatals. For instance we can look at crying that has been connected to the internal states of pain, anger and rage. Audible fetal crying is very rare as it requires the presence of air in the fetal trachea but there is evidence to suggest that there has been fetal crying in response to rupture of membrane, manual displacement of the head or the attachment of electrodes for internal monitoring. A study with older infants aged 2-10 months was able to distinguish various degrees of pleasure and displeasure by showing emotional expression from extreme pleasure to extreme displeasure. Also, smiling has often been observed at birth, research has been able to identify neonatal smiling in a response to certain tasks and also a wide variation in the frequency in which they smile.

6. Given your reading in this section, comment on how this information relates to the practice of abortion. Do you see it as relevant or not? Does it modify in any way your previous view of abortion?

I do in fact think that this information relates to abortion and can definitely make people reconsider or change their views on abortion after reading this. In this chapter we learn about the difference senses that the prenatals have that really reminds us that they are human and developing, I think the thing that we could most relate in this

chapter to the practice of abortion would be the emotion section, there is proof that prenatals feel pain and show emotion which I think could have a big moral change or effect for people reading this chapter that are considering abortion and can even change their mind. The element of emotion I think for me adds the sense of humanity, after reading that the prenatals have these emotions and show them, it definitely changes my way in which they are perceived and I think that we can link this to abortion and add this to the list of factors in why we shouldn't go through with it.

Video – Bodies, brains, and emotions in infant development

I found this video very interesting and definitely gained a lot of knowledge and it changed a lot of my perspective. In the video we learnt about social emotional learning in infancy, he spoke about how communication prenatally effects the emotions and development postnatally. He then spoke about the impact of social learning and how postnatally we look at the ways in which others act and we often replicate these actions and he referred to this as us being role models for our children. The thing in which I found particularly interesting is when he spoke about how we are born rather immaturely into a social environment so how we act prenatally and postnatally really does effect our child. He looks at the neural mechanisms and uses the example of a babies favourite object being a phone and looking at this as, their favourite object in not a phone because they are materialistic but that their favourite object is a phone because it is the mothers favourite object and as babies we look to duplicate this behaviour.