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Human Growth and Development

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Unit 1-Prenatal Birth and Infancy Essay Questions

Required Question

Infant development is most often divided into the following areas: cognitive, language, physical and social. An infant's physical development begins at the head and then moves to other parts of the body. For example, sucking comes before sitting, which comes before walking.

The stages of a newborn to 2 month old include: being able to lift and turn their head when lying on their back, hands are fisted, the arms are flexed, their neck is unable to support the head when the infant is pulled to a sitting position. As the baby reaches 3 months they have better eye-muscle control which allows them to track objects, they are able to begin to control hand and feet action. The infant may begin to use both hands, working together, to accomplish tasks. Also at this stage, their neck muscles are developed enough to allow them to sit with support, and keep their head up. At 5 months, the baby is able to sit alone without support for up to 30 seconds and is able to grasp on to certain objects but unable to use their thumb. The infant can now roll from back to stomach. When on the tummy, the infant can push up with arms to raise the shoulders and head and look around or reach for objects. When the baby reaches 6 to 9 months, crawling may begin. This is a significant milestone. The infant can walk while holding an adult's hand and is able to sit steadily without support for long periods of time. They learn

how to sit down from a standing position and may even be able to pull into and keep a standing position while holding on to furniture. Between 9 and 12 months the infant begins to balance while standing alone and might also be able to take a few steps as well. This is the timeline for an average baby but every infant is different.

Aswell as physical changes, a baby will undergo sensory development whilst in infancy. These processes include hearing which begins before birth, and is mature at birth. The infant prefers the human voice. Touch, taste, and smell, mature at birth with the infant preferring a sweet taste. Vision will adapt as the newborn infant can see within a range of 8 to 12 inches. Color vision develops between 4 to 6 months. By 2 months the baby can track moving objects up to 180 degrees, and prefers faces.

In terms of language development crying is a very important way to communicate. By the baby's third day of life, mothers can tell their own baby's cry from that of other babies. By the first month of life, most parents can tell if their baby's cry means **hunger**, pain, or anger. Crying also causes a nursing mother's milk to fill the breast.

The behavior of a baby will change as the infant gets older. Newborn behavior is based on six states of consciousness: active crying, active sleep, drowsy waking, fussing, quiet alert, quiet sleep. Each will occur at different times throughout the day.

Overall, a baby goes through lots of different changes both physically and physiologically during the first year of life.

Chapter 2

Question 4

Genetic disorders fall into three main categories. These categories are single-gene defects, chromosomal abnormalities and multifactorial conditions. A chromosomal abnormality is a disorder characterized by a numerical alteration in single or multiple chromosomes. This can affect autosomes, sex chromosomes or both.

Down syndrome is probably the most well-known example of a chromosomal aneuploidy. An aneuploidy is an abnormal chromosome number due to an extra or missing chromosome. Down syndrome is caused by a process called non-disjunction, the two copies of chromosome 21 fail to separate during formation of the egg, resulting in an egg with two copies of the chromosome. When this egg is fertilized, the resulting baby ends up with three copies of chromosome 21 in each of its cells. Down syndrome is the most frequently occurring chromosomal disorder and the leading cause of intellectual and developmental delay in the U.S. and in the world.

Genetic abnormalities are conditions caused by changes to the genes or chromosomes. Inherited disorders are caused by gene mutations. These include disorders such as cystic fibrosis, sickle cell disease, and Tay-Sachs disease.

Cystic fibrosis is an inherited, chronic disease that interferes with the respiratory, digestive and reproductive systems. Mutations of a specific gene (the CFTR) affect the cells that line the organs of these three systems. Due to medical advancements it is easier to live with Cystic Fibrosis however the medication can be rather expensive. Symptoms of Cystic Fibrosis can

include persistent coughing, frequent lung infections, poor growth or weight gain and many more.

Another inherited blood disorder caused by a gene mutation is Sickle cell disease. This disease is marked by defective hemoglobin. It inhibits the ability of hemoglobin in red blood cells to carry oxygen. Sickle cells tend to stick together, blocking small blood vessels causing painful and damaging complications. This lack of oxygen-rich blood can damage nerves and organs, including kidneys and liver and can be fatal.

Question 6

Infertility is defined as the inability to conceive children. This means that a couple cannot have children together and are unable to get pregnant despite having frequent unprotected sex for at least a year. In The United States 10% to 15% of couples are infertile.

The causes of infertility vary between men and women. Causes of male infertility include: abnormal sperm production, problems with the delivery of sperm, overexposure to certain environmental factors such as marijuana or damage related to cancer and its treatment. Causes of female infertility include: ovulation disorders, uterine or cervical abnormalities, fallopian tube damage or blockage, endometriosis, primary ovarian insufficiency (early menopause), pelvic adhesions or cancer and its treatment.

However, there are many different ways in which infertile couples can go about starting a family with children. They could adopt a child. This is when a parent brings a child they are not genetically related to into their family. They could take fertility drugs to help increase their

chances of getting pregnant. They could have medical procedures carried out on them or they could have IVF. In Vitro Fertilization (IVF), sometimes referred to as Assisted Reproductive Technology (ART) is where you can undergo the most successful fertility treatment to conceive successfully. It can be accomplished using your own eggs and partner's sperm. Alternatively, it can also be performed with donor eggs and/or donor sperm.

Question 9

Prenatal and perinatal psychology explores the psychological and psychophysiological effects and implications of the earliest experiences of the individual, before birth (prenatal) as well as during and immediately after childbirth (perinatal). Becoming a mother is a huge change for a woman so is often accompanied with fear and stress. There are so many different things which could go wrong such as a preterm birth or problems breastfeeding. Prenatal psychology can give you psychological resources for whatever you might have to face. Examples could include grief after a miscarriage or complicated parenting issues. For me personally I think this role is key as women can often feel lonely and upset during this really hard time in their lives and simply just need a bit of comfort, support and someone to talk to.

When researching Fetal psychology I came across a study written by Janet Hopsom. She had found that behaviourally speaking there's little difference between a new born baby and a 32 week old fetus. This is very interesting to me as I would have initially thought that a 32 week old baby would be more advanced. This further adds a lot to the abortion debate.

Chapter 3

Question 16

Sleep is very important at every age but especially in the first year of life. Plenty of shut-eye helps maintain healthy growth and optimum development. Your baby's sleep is closely related to your own health and wellbeing as when your little one is sleeping, you can too. The amount of time your baby spends sleeping will vary from day to day and will change as s/he gets older.

Newborns should be asleep for at least half and up to almost three quarters of their first year. This means that typically they should sleep up to about 17 hours per day. The hours are equally divided between day and night. The sleep should occur in about 2-3 hour blocks for breastfed babies and 2 to 4 hour blocks for bottle fed babies.

Babies aged between 3 and 6 months should be sleeping around 14 hours a day with around 8 to 9 of those hours being at night with interruption only for feeding. The day time naps should be 3 naps lasting about 2 hours each. Similar to 3-6 month babies, 6-12 month babies should sleep 14 hours a day with 8 to 9 hours being at night. However, these night hours should be without interruption if the baby is well fed. The naps will also start to vary at this age averaging around 2 or 3 lasting between 30 minutes and 2 hours each. At around 7-9 months, a baby will start to develop a regular sleep schedule. However, there can be periods of irregularity, especially when they start experiencing growth spurts.

When a baby reaches one year old their sleeping levels will gradually start to decrease. They will sleep around 12 hours a day with 10 hours being at night. They will only nap once or twice

totalling 2 to 3 hours. Every baby is very unique and some will sleep for longer than others. The changes in sleeping patterns as the baby gets older may be earlier for some and later for others.

Question 17

Along with most debates, there are advantages and disadvantages for both: breastfeeding and bottle feeding. In America, the USDA and WIC programs state that ‘mothers are strongly encouraged to breastfeed their infants unless there is a medical reason not to.’

In terms of nutrition, breastfeeding contains a high level and a perfect balance of nutrients. It is able to be easily digested and absorbed and the content varies according to the milk production stage, which meets the changing nutritional requirements. Also with breastfeeding, the infant determines the amount consumed. With bottle feeding, it is not as efficiently utilized and the nutritional content depends on proper preparation which could be down to human error. Some babies have difficulty tolerating certain nutrients and with this technique the caregiver determines the amount consumed. For the cost argument obviously breastfeeding wins as it is free. Formula for the bottles can range from \$54 to \$198 per month depending on the brand!

Breastfeeding has many different advantages. These include: the milk is always the perfect temperature, there is no preparation time required, milk is readily available at any time and any place, Mother’s milk contains Immunoglobulins, providing passive immunity for the baby and Skin-to-skin and breastfeeding latch releases bond-supporting the hormone in mom (oxytocin). With advantages also comes disadvantages. These include: the mother must be available for

feeding or must provide pumped milk if she is absent, the mother must pump if feeding is missed, early breastfeeding may be uncomfortable and certain medications can interrupt breastfeeding.

There aren't really many advantages to bottle feeding other than the fact that anyone can feed the baby. There are lots of disadvantages though. These include: having to warm the formula to the proper temperature, preparation time varies, the baby may not tolerate formula well leading to diarrhea, you always have to carry bottles and formula/mixing items with you and the formula does not contain immunoglobulins so there is no passive immunity.

Overall there are more reasons as to why you should breastfeed than bottle feed and there are more reasons as to why you shouldn't bottle feed over breast feed. In my opinion, I think that all babies should be breastfed (unless the mother physically can't) to give them the best possible start to their life.

Chapter 4

Question 46

Reciprocal socialization is defined as 'when both the parent and child socialize each other through their interactions.' It is a process which is bidirectional and tends to start early on in the child's development. One example is parents start acting more responsibly, for instance taking the child's welfare into consideration by becoming a more cautious driver when the child is in the car. A negative example could be if a parent is hostile. Hostile parenting is associated with

negative outcomes for adolescents such as being defiant. This further shows that children learn behavior through the attitudes and actions of their parents.

As well as being socialized by their parents, children are also the socializers of their parents. A study found that adolescents influence their fathers with respect to values relating to the enjoyment of life. This means that the father may copy certain ways in which his son or daughter has found to have a 'good time'. This could be different ways to hang out with friends or even just how frequently they are interacting socially with other people. Another example is children are found to have influence over their parents work ethos. It is mainly boys that exert this influence however girls can also. If parents see their children working hard at school and constantly studying it makes them work harder in their profession. Dedication and hard work from their children can lead to parents wanting to push themselves further, therefore making them attempt to get a better job or a promotion.

Question 49

This is a very big decision that every parent, usually mother, has to make. There are many different factors that go into their decision making. I think the main factor is cost. Putting a child in a nursery is expensive especially if you go on to have more than one. You have to make the decision as to whether it is worth the majority of your salary being placed on your child's schooling. If you are a stay at home parent, yes you are saving lots of money as you don't have to pay for nursery but you also aren't earning any money. You might be able to earn a bit for the first part due to maternity leave but after then ,so the majority of time, you won't be. It is very

much decided on your household income as a whole as to whether or not you can afford to be living solely off one person's income.

Staying at home with your child will allow you to focus 100% on your family. This will therefore allow you to reduce your stress which work may be putting on you. This would only be a temporary measure as it is a gap in your career rather than your career coming to a halt. Parents would have more flexibility in their schedules and can adjust their routines to meet the needs of their children. However, without the structure of a day care center, stay at home parents may struggle to maintain a consistent routine for their children but this isn't necessarily a bad thing. You would be the primary teacher of your child and the first influence before they head off to school. This would therefore mean you would have no regrets as you were the one in charge of the primary socialization of your child. Also, something to remember is that you can't get this time back. Your child will never be this age again so you should capture on to the precious moments. It can also be rather rewarding to see the progress that your child has made.

On the other hand, by sending your child to daycare, they have the opportunity to interact with others. They are able to receive educational activities and programs to help them learn and grow. They may not receive this in a lot of households. Day care centers also offer flexible scheduling options for working parents. However, not all daycare centers are created equal and it can be difficult to find one that meets the needs of and expectations of a family. In addition, children may feel anxious or upset when they are separated from their parents for extended periods.

Overall, in my opinion in an ideal world I would rather be a stay at home mom for my child to give them the best opportunities to succeed. However , I know I am not a very career driven person so stopping work wouldn't be an issue for me. I understand others are more focused on their work so wouldn't want such a big gap in their career and I am also very aware some people can't afford to stay at home with their child.