

Gender and sexuality:

Prof. Riyadh Al_Azzawi

F.R.C.Psych

Gender and sexuality:

- Like thirst and hunger ;sex desire is a powerful motivation.
- These are some differences :
 - sex is a social motives (involve another person) where as the survival motives concern only the individual.
 - sex does not involve an internal deficit that needs to be regulated for the organism to survive.

Gender and sexuality:

- Regarding sex two critical distinctions should be kept in mind;
 - first although we begin to mature sexually at puberty the basis for our sexual identity is established in the womb ; so we distinguish between adult sexuality and early sexual development.
 - The second distinction is between the biological and environmental determinants of sexual behavior and feelings. Sexual behavior and feeling is it biological? Or environmental or interaction between biological and environmental factors.

Gender and sexuality:

- Early sexual development:
 - to have gratifying social and sexual experiences as adults we need to develop an appropriate gender identity (males think of themselves as males and females think of themselves as females).....
 - This development is quite complex and actually begins before birth.
 - for the 1st two months only the chromosomes indicate the development of a male or female ;in this period both sexes are identical and have tissues that will develop into testes or ovaries;a penis or a clitoris.
 - Between 2 and 3 months gonads develop ; they produce the sex hormones which then control the development of the internal reproductive structures and the external genitals.
 - The sex hormones are even more important for prenatal development than they will be for the expression of adult sexuality.

Gender and sexuality:

- The critical hormone in the genital development is androgen.
- If the embryonic sex glands produce enough androgen; the new born will have male genitals;
- if there is insufficient androgen; the newborn will have female genitals even if it is genetically male.
- The presence of Y chromosome determine whether the embryo will secrete androgen.
- The development of female genitals does not require female hormones ;only the absence of male hormones .
- in short nature will produce a female unless androgen intervenes.

Gender and sexuality:

- The influence of androgen called androgenization ; it extends far beyond anatomy .
- after it has molded the genitals ;androgen begins to operate on the brain cells.
- Studies with rats provide evidence that prenatal androgen changes the volume and detailed structures of cells in the fetus hypothalamus (it regulate motivation) it masculinize the brain and may be responsible for masculinizing the behavior such as aggression.

Gender and sexuality:

- Studies in monkeys injected with androgen during pregnancy and their female offspring are observed .
- these showed anatomical changes (penises instead of clitoris) and acted differently than normal females (more aggressive in play; more masculine in sexual play less initiated by approaching peers).
- This may indicate some gender behavior as aggression are partly hormonally determined in animals.
- Rats subjected to stress during pregnancy leads to less androgen secretion of their male embryos and later show less male sexual behavior and may even show female patterns of copulation when mounted by another male.
- It is not known whether similar effects on brain development or behavior occur in human..

Hormones vs. environment:

- In human ;much of what is known about the effects of prenatal hormones and early environment has been uncovered by studies of individuals who for various reasons were exposed to the prenatal hormones that would ordinary typify the opposite sex .
- In most such cases the assigned label and the sex role in which the individual is raised have a much greater influence on gender identity than the individual's genes and hormones.e.g. thousands of women born in 1950's and 60's were exposed to antimiscarriage drug diethylstilbestrol that had unexpected hormone like effects on brain development.
- for male fetuses it would have a little effect but female fetuses were exposed to an opposite male like chemical stimulation for the period mothers taking the drug ;

Hormones vs. environment:

- The overwhelming majority of females exposed had no detectable effect .
- Social environment has much more effect on sexual and gender development of these women than prenatal hormones but this is not to say that it has absolutely no effect;
- a slightly higher proportion of them appears to be homosexual or bisexual than ordinarily expected; show less maternal interest such as finding infants attractive.
- Although they are not different from other women regarding sexual ;parental; social behavior and attitudes.

Hormones vs. environment:

- The studies suggest that although prenatal hormonal events may have some subtle consequences for later sexual and social development ; other effect is much weaker in humans than in animals .
- for human social and cultural factors appear to be dominant.
- Some other studies give opposite conclusion ; a famous study several years ago in a remote village in the Dominican republic ; it involved 18 genetic males who have androgen insensitivity born with clitoris like organs but their gonads develop normal testes and secrete androgen but the target tissue are not sensitive to it ;all of them been reared as girls ; at puberty they show the usual male body changes; and their clitoris like organs change into penis like organs and they rapidly change into males and they take male gender identity and they work as miners and woodsmen and some found female partners. In this case biology take over environment.

Hormones vs. environment:

- A dramatic example identical twin boys one of them at 8 month had his penis completely severed so 10 months later been changed to a female and given female sex hormones and raised as a girl in few years the child have assumed a female gender ; in this case social environment has won out ; but at puberty the picture was more complex she was unhappy and confused about her sexuality ;her body movement and posture are masculine.
- on follow up of this person found that she eventually rejected the female gender identity and she successfully lived as a male.
- The explanations include the possibility that his early brain development as a male placed constraints on his later ability to adapt to a female gender identity.
- conclusion: clearly prenatal hormones and environment are both major determinants of gender identity and typically work in harmony.
- When they clash most experts believe that environment will dominate but this is controversial.

Adult sexuality:

- Changes in body hormone systems occur at puberty which usually begins around 12 yrs. The hypothalamus begins to secrete gonadotrophin releasing factors which stimulate the pituitary gland to secrete sex hormones (gonadotrophins) into the blood stream which activate the gonads to secrete sex hormone.
- In women it is in the monthly cycle rising and falling every 28 days the pituitary secretes 2 gonadotrophins F.S.H and L.H. F.S.H. stimulates the ovaries to generate follicles and follicles secrete female hormones estrogen which affect the body's sexual development and in animals activate sex motivation in the brain.

Adult sexuality:

- L.H. released from pituitary slightly after F.S.H. ;L.H. causes ovulation when follicles release egg it secretes another female hormone progesterone preparing the uterus for conception.
- In men the hypothalamus secretes gonadotrophin releasing factor in a constant fashion so pituitary release gonadotrophin in a constant fashion. the interstitial cell stimulating hormone ICSH causes male androgen especially testosterone which stimulate the development of male sexual physical characteristics and in animal act on the brain to activate sex desire

Effects of hormones on desire and arousal:

- In animals sexual arousal is closely tied to hormonal levels. In humans however hormones play less of a role.
- In animals castration results in rapid decline and eventual disappearance of sexual activity.
- In human castration cause some men lose interest in sex while other continue living normal sexual life.
- So androgen contribute to sexual desire only in some people not all. the major determinant of sexual desire in men however seem to be emotional factors thus for males as well as females.
- Sexual desire is even less dependant on hormones in women.
- In animals a castrated female ceases to be receptive to the male and usually resist sexual advances.
- The major exception in the human found following menopause most women do not experience diminished sexual desire some women show increased interest in sex.

Neural control:

- The primary sex organ is the brain; where the sexual desire originates and sexual behavior is controlled.
- In humans the function of the brain extends to the control of sexual thoughts; images and fantasies.
- The nervous system is affected by sexual hormones at many levels.
- in the spinal cord neural circuits control the movement of copulation.
- In males these include erection of the penis as well as pelvic movement and ejaculation so as in females the vaginal secretion and pelvic movements are controlled at this level.
- at higher levels the hypothalamus contain the neural systems that are important to more complex aspects of sexual behavior.

Early experiences:

- Human infants develop their first feelings of trust and affection through a warm and loving relationship with the mother or caregiver.
- This is a prerequisite for satisfactory interactions with peers.
- Affectionate relationships to other youngsters of both sexes lay the groundwork for the intimacy required for sexual relationship among adults.
- Cultural influences: permissive or restrictive.
- Sex differences: females are sensitive to emotional infidelity ; males are sensitive to sexual infidelity.

THANK YOU...