WISCONSIN SERVING VICTIMS OF CRIME CONFERENCE

Aug 16-18, 2017 | Wisconsin Dells, WI

Law Enforcement Working with the Transgender Community

Thursday, August 17th, 10:15a & 1:00P

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Sociology/Criminal Justice – Law Enforcement Program

LEARNING OBJECTIVES

- Who Are the Transgender Community?
  - Mental Illness or Genetic Reality?
- Legal Issues
  - From The Transgender Perspective
    - Discrimination
    - Abuse
    - Hate Crimes
    - Passing and Existing
  - From the Police Perspective
    - Searches
    - Incarceration
  - From the Courts Perspective
    - Representation in Discrimination, Bullying, Divorce, Child Custody Cases

WHO ARE TRANSGENDER PERSONS

- Are Recognized Throughout History
- Culture: Previously and Currently Accepted
- Western Societal Classification
  - **Diagnostic and Statistical Manual of Mental Disorders (DSM, Pub. by the** American Psychiatric Association (APA)**)**
    - gender identity disorder (GID) verses gender dysphoria (DSM-V, May 18, 2013)
- Sex Education
  - What we were not told
  - What we have recently 'discovered' and 'see' from a Scientific basis

ARE TRANSGENDER PERSONS NATURAL VARIATIONS?

Nature has always shown us the potential for variations:

This mother Black Bear and her Albino cub were seen along a highway near Chapleau Ontario. Aboriginal people feel an Albino Black Bear is a powerful omen of good luck. An albino bear is sometimes called the Spirit Bear or Ghost Bear but in the Cree language they are called the Kermode Bear. They are most common on the west coast of British Columbia but have been found in Ontario and Manitoba.

A view of a very rare bird. This Northern Cardinal has female plumage on its right and male plumage on its left. A condition known as bilateral gynandromorph. This condition occurs in a variety of bird species with the most frequently reported species being the Evening Grosbeak.

http://www.chicagotribune.com/news/local/ct-half-and-half-cardinal-folk-0212-20150211-story.html

NATURES VARIATION

- https://www.youtube.com/watch?v=1CESEbTFvRg

MORE NATURAL GENETIC VARIATIONS

a 22 point doe shot by Curtis Russell in Missouri

Erythristic Badger Erythrism: a genetic condition that results in unusual reddish pigmentation of the animal's fur.

Chimera cat. Chimeric animals have a mixture of genetically distinct tissues that arise from two or more fertilized eggs that fused together in the womb – which means they are essentially two twins that fused together into a single creature.

ARE TRANSGENDER PERSONS NATURAL?

- Common Questions:
  - There are only two types (XX and XY) of humans, right?
  - When a Child is born it is classified as either female -XX or Male - XY by the Dr.'s observation of the genitalia only, right?
    - What else can there be?
  - Is it possible to have a Female (XX)Brain but a Male (XY) Body or Male (XY)Brain but Female (XX) Body?

ARE TRANSGENDER PERSONS NATURAL?

- Gregor Mendel (1822-84) Father of Genetics
- Mendel's Laws of Heredity :
- The Law of Segregation: a gene pair defines each inherited trait. Parental genes are randomly separated to the sex cells so that sex cells contain only one gene of the pair.
- Offspring therefore inherit one genetic allele from each parent when sex cells unite in fertilization.
- -genes come in pairs and are inherited as distinct units, one from each parent.
- -that there are mathematical patterns of inheritance from one generation to the next.

HOW CAN HUMAN GENES BE CHANGED? EXTERNALLY INDUCED GENETIC CHANGES

- Herman Muller(1890-1967) showed that x-rays induce genetic mutations –
- but despite his warnings, some physicians even prescribed X-rays to stimulate ovulation in sterile women. His warnings angered many doctors and were largely ignored.
- Also through Natural Variation and Adaptation, Environmental Influences

ADDITIONAL HISTORY OF DNA

- Miescher and Altmann – 1869 Identify substance now known as DNA
- Griffith – 1928 Identified DNA as the molecule of inheritance
- Levene – 1929 Identifies the components of DNA (A,C,G,T) sugar and Phosphate
- Franklin and Wilkins - (1951-53) first X-ray showing rungs and ladder like structure
- Watson and Crick -(1953) First model of the double helix of DNA structure
- Jeffreys - 1984 First used DNA for profiling (1st Criminal case:1988 Pitchfork Murders; http://www.exploreforensics.co.uk/forenisc-cases-colin-pitchfork-first-exoneration-through-dna.html)

HOW CAN HUMAN GENES BE CHANGED?

- Everyone starts as an Egg or (XX)
- Male Supplies ½ of DNA for fertilization (either an X or Y)
- Paper Project – Example of how reproduction begins
- Alternative Outcomes > Human Variance as seen by DNA – Gene Mapping
- Watch Dr. Robert Sapolsky, a professor of neuroscience at Stanford, why I over simplify genetic-speak
  https://www.youtube.com/watch?v=Erexuu8PTo8&feature=youtu.be

HUMAN DNA VARIATION - WHAT DOES IT SHOW US?

Humans generally have 23 pairs of Chromosomes – 22 autosomes pairs and one sex pair (XX or XY) or gonosomes

Human DNA shows variations of combinations of the X and Y Chromosomes
These can cause genetic disorders and conditions

There can be numerical abnormalities or structural abnormalities when chromosomes 'share' with another set of pairs

Numerical Monosomy (Turners Syndrome, single X female) and Trisomy (Down syndrome, Trisomy 21)
Structural – Deletions, Duplications, Translocations, Inversions, Rings

- Note: There are normally 23 pairs of Chromosomes and The Human Genome Project has estimated that humans have between 20,000 and 25,000 genes.

DNA VARIATION

- We **[all]** have small variations in our genetic code. That is why we are all unique. Even identical twins have some variations in their DNA by the time they are born. Because we inherit our genes from our parents, members of the same family share their DNA including its variations.

- There may be changes in the sequence of letters in the gene message; nucleotide base/s (A, G, T or C) can be missing (called a deletion) or base/s can be added (called an insertion) and these can be of one or many DNA bases.

DNA VARIATION

- Variations in the code can occur during our life for a variety of reasons including exposure to radiation, certain chemicals or by chance. Ageing is a common cause of genetic variation. Throughout our lives, our cells are continually being replaced.
- Some variations in the genetic information do not seem to make any difference to the function of our cells. These types of DNA variations are quite common.
- Other DNA variations can be associated with an increased chance of a health condition, for example diabetes or cancer. --
  www.genetics.edu.au
- Example: Left hand dominant persons

SOME GENETIC VARIATIONS AND RESULTING CONDITIONS

Genetic Disorders

- Achondroplasia
- Alpha-1 Antitrypsin Deficiency
- Antiphospholipid Syndrome
- Autism
- Autosomal Dominant Polycystic Kidney Disease
- Breast cancer
- Charcot-Marie-Tooth
- Colon cancer
- Cri du chat
- Crohn's Disease
- Cystic fibrosis
- Dercum Disease
- Down Syndrome
- Duane Syndrome
- Duchenne Muscular Dystrophy
- Factor V Leiden Thrombophilia
- Familial Hypercholesterolemia
- Familial Mediterranean Fever
- Fragile X Syndrome
- Gaucher Disease
- Hemochromatosis
- Hemophilia
- Holoprosencephaly
- Huntington's disease
- Klinefelter syndrome
- Marfan syndrome
- Myotonic Dystrophy
- Neurofibromatosis
- Noonan Syndrome
- Osteogenesis Imperfecta
- Parkinson's disease
- Phenylketonuria
- Poland Anomaly
- Porphyria
- Progeria
- Prostate Cancer
- Retinitis Pigmentosa
- Severe Combined Immunodeficiency (SCID)
- Sickle cell disease
- Skin Cancer
- Spinal Muscular Atrophy
- Tay-Sachs
- Thalassemia
- Trimethylaminuria
- Turner Syndrome
- Velocardiofacial Syndrome
- WAGR Syndrome
- Wilson Disease

FROM THE HUMAN GENOME INSTITUTE HTTPS://WWW.GENOME.GOV/10001204/