Bioethics: A Beginning

David R. Gater, Jr., MD, PhD, MS
Hunter Holmes McGuire VAMC
Chief, SCI&D Service
Virginia Commonwealth University
Professor, Department of PM&R

Mixing Science & Ethics

You teach best what you most need to learn

Wisdom

- Proverbs 3:5-8
  5 Trust in the LORD with all your heart and lean not on your own understanding; 6 in all your ways submit to him, and he will make your paths straight. 7 Do not be wise in your own eyes; fear the LORD and shun evil. 8 This will bring health to your body and nourishment to your bones.

Rehabilitation Medicine

- Process of helping a person optimize abilities:
  - Physical Potential
  - Psychological Potential
  - Social Potential
  - Spiritual
  - Vocational Potential
  - Avocational Potential
  - Educational Potential
  - Advocates for life
  - Live life abundantly

Joni Eareckson Tada

- CS AIS A Tetraplegia s/p 1967 Diving Accident
- 35 Book Titles including:
  - “Joni” and “A Step Further”
  - “Tell ME the Truth”
  - “Heaven...Your Real Home”
  - “Life and Death Dilemma”
  - “When is it right to die? Suicide, Euthanasia, Suffering, Mercy.”
- When God Weeps (Gold Medallion Award)
- “God permits what he hates to accomplish things that he loves.”
- Awards
  - The Am Acad of Achievement’s Golden Plate Award
  - Gold Medalion Lifetime Achievement Award
  - Honorary Co-Chair of Presidential Prayer Team
  - Extensively Travelled: 41 Countries

Definitions

- Ethics: the process of determining right & wrong
  - Deontological: Authoritative
    - God / Natural Law
  - Teleological: End justifies means
    - Utilitarianism: Greatest good for the greatest number
  - Relativistic: Cultural or Personal
  - Structural

- Bioethics
  - A discipline dealing with the ethical implications of biomedical research and applications especially in medicine
**Research Ethics**

- Tuskegee Syphilis trials (1932-73)
- Penicillin fix for syphilis (1943)
- Untreated black males
- Nuremberg Trials (1940's)
- Crimes against humanity
- Euthanized old & disabled
- "Slated to be destroyed"
- Thalidomide (1950's)
- Sedative teratogen
  - Safe for mothers, but
  - Arrested limb bud development in developing fetus, i.e. autoamputation
- National Research Act (1974)
- Belmont Report (1979)
- Common Rule (1991)

**Belmont Report Basic Principles**

- Respect for Persons
  - Informed Consent
  - Vulnerable Populations
  - Unfair Influence
- Beneficence
  - "First, do no harm"
  - Maximize benefits
  - Minimize Risk
- Justice
  - Fair Inclusion/Exclusion Criteria
  - Equitable Distribution
  - Economically disadvantaged
  - Women & Children

**Stem Cell Therapies**

- Embryo
  - Pluripotent: Multiple Possible
  - Bone Marrow
  - Adipocyte
  - Olfactory Ensheathing Glial Cells (OEGs)
  - Skin Cells

- Adult Stem Cells Sources
  - Placental Tissue
  - Umbilical Cord Blood
  - Bone Marrow
  - Blood
  - Skin
  - Brain/Spinal Cord
  - Fat
  - Germ Cell Carcinoma
  - Ovarian Cancer
  - Testicular Cancer
Stem Cell Rx for Diabetes

Stem Cells: Cardiac Tissue Repair

Parkinson’s Disease
- Clinical Definition
  - Nigrostriatal degeneration
  - Reduction/absence of dopamine
  - Resting tremor, rigidity, bradykinesia, gait disturbance with postural instability
- Stem Cell Therapies
  - CT-guided Stereotactic Neurosurgery
  - Immunosuppression Required
  - Cyclosporin, Azathioprine, Prednisilone
  - Some spontaneously transform into dopamine neurons
  - PET Scan Imaging c/w fluorodopa uptake
  - Modest improvement in motor function offset by dyskinesias

Embryonic Stem Cells Sources
- IVF Clinic Storage
  - 3-10% Success rate
  - Cryopreservation for spares
  - >400,000 embryos in storage
  - Cyclosporin, Azathioprine, Prednisolone
  - Some spontaneously transform into dopamine neurons
  - PET Scan Imaging c/w fluorodopa uptake
  - Modest improvement in motor function offset by dyskinesias
- Embryo Meets Biological Definition of Life
  - Genetically unique human being
  - Full complement of adult chromosomes
  - Highly ordered with genetic roadmap for development prior to 1st cellular division
  - Takes energy from its environment
  - Adapts to its environment
  - Develops complex organs
  - Contains genetic material required for reproduction

Embryonic Stem Cells Sources
- IVF Clinic Storage
  - 3-10% Success rate
  - Cryopreservation for spares
  - >400,000 embryos in storage
  - Cyclosporin, Azathioprine, Prednisolone
  - Some spontaneously transform into dopamine neurons
  - PET Scan Imaging c/w fluorodopa uptake
  - Modest improvement in motor function offset by dyskinesias

Abortion
- Definition: Removal of embryo or fetus from uterus in order to end a pregnancy
- Planned Parenthood founded by Margaret Sanger (1921)
  - Coined the term “birth control”
  - Supported eugenics (racial/ethnic cleansing) & culling disabled
  - Grosses $660 Million/yr; Abortions $58.8 Million/yr; Profit $126 Million/yr
- Legal Precedents
  - Roe v. Wade (1973)
  - Norma McCorvey
    - Allegedly raped; Later Recanted & became Pro-Life (2000)
  - Doe v. Bolton (1973)
  - Sandra Cano died; MD & Lawyer sought
    - Abortion legal for physical, emotional psychological, age & familial reasons
Disability by Etiology

- Mobility Impairment: 6%
- Acquired Brain Injury: 8%
- Hearing Impairment: 2%
- Vision Impairment: 10%
- Psychiatric Disability: 12%
- Intellectual Disability: 13%
- Other: 49%

43 Million Americans have a disability

Balancing Life Value & Quality

- Life Value often minimized for the vulnerable in our society (race, gender, age, and disability)
  - Colonial America Emigration
  - "Gain in what & thirst"
  - State Laws in 1800s
  - Involuntary Sterilization for Disabled
  - Compulsory Education Act of 1880
  - Involuntary child sterilization

- Investing in Abilities
  - Soldiers Rehabilitation Act 1918
  - Civilian Rehabilitation Act 1920
  - GI Bill of Rights 1944
  - Vocational Rehabilitation Act 1954
  - Civil Rights Act 1964
  - Rehabilitation Act of 1973
  - Education for All Handicapped Children Act 1975
  - Americans with Disabilities Act 1990

- Champions
  - Helen Keller (Vision & Hearing Impairments)
  - F. Delano Roosevelt (Polio)
  - Stephen Hawking (ALS)
  - Christopher Reeve (SCI)

Life Value?

- Social Ambiguity about life value of the unborn extends to those with disabilities
  - 1995: National Elders (Singer: General)
  - "Human beings to get over to lose their profit with the fetus."

- Peter Singer, PhD (Princeton Bioethicist)
  - "The life of a fetus is of no greater value than the life of a nonhuman animal at a similar level of rationality, self-consciousness, awareness, capacity to feel, etc."
  - "When the life of a disabled infant will lead to the birth of another infant with better prospects of a happy life, the total amount of happiness will be greater if the disabled infant is killed.
  - "Recognize that the worth of human life varies."
  - "Potential for happiness is limited by disability"

- Utilitarianism defines any act that increases the total amount of pleasure or decreases the total amount of suffering in the world as moral

Slippery Slope...

- Societal Ambiguity
  - "We believe that professionals involved in physical medicine and rehabilitation should join people with disabilities in demanding that bioethics incorporate basic recognition of universal human rights into its underlying values."
  - McPherson & Sobse. Rehabilitation: Disability Ethics versus Peter Singer. APM&R 2003; 84:1246-8

- Hollywood Ethics
  - "Coma" 1978
  - "Million Dollar Baby" 2004
  - "The Notebook" 2004
  - "October Baby" 2011

- Life Value:
  - Christopher Reeve's heroics after "Superman"
  - Joni Ercelson-Tada

Euthanasia

- Definition
  - Intentionally ending a life in order to end pain and suffering
  - Most often considered in terminal conditions

- Dilemma
  - Persistent Vegetative State
  - Locked-In Syndrome
  - Depression (?)
  - Preventing death that would otherwise occur for financial gain

- Contrast to "allowing to die"

How to respond to anger

- Healing Anger: Tim Keller
  - Admit your anger
  - Analyze self & self-talk
  - Transform
    - Give-truth gently
    - Absorb other's anger
    - Do not retaliate

  - Luke 23:34 "Father, forgive them – they know not what they do."
Love above Justice

- Gal 6:2 Carry each other’s burdens, and in this way you will fulfill the law of Christ.
- 1 Peter 4:8 Above all, love each other deeply, because love covers a multitude of sins.
- James 2:13 ...because judgment without mercy will be shown to anyone who has not been merciful. Mercy triumphs over judgment.
- Matt 5:7 Blessed are the merciful, for they will be shown mercy.

References

- ProLife Answers to ProChoice Arguments: Expanded & Updated, Randy Alcorn, 2000