

# HSS 2121 - History of Health Care

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## Lecture 1 - History of Healthcare

### **Concepts**

- What a Historian does
- What kind of effects a historian has on healthcare

### **Themes**

1. Historians and healers using similar paradigms
2. a good healer is a good historian
3. a knowledge of history can be healing/ helpful in healing
4. historians and healers need knowledge on past time periods because populations are aging
  - consumption vs. tuberculosis vs phthisis - ever-changing terminology

### **History of Medicine**

- growing field with many resources
- networks of scholars focused on the history of medicine
  - **why study it?**
    - an interest in health/disease + an interest in birth/death/ and the lifespan z

### **Questions**

- how have these experiences been experienced over time
- how/why/when have these changes occurred to these experiences over time
- what is the role of disease in society
- what is the relationship between the sick and mental institutions
- what health and welfare practices have been accepted/refuted over time
- how did healthcare become professionalized and institutionalized
- how was medical authority established
- how has medical knowledge been created and disseminated

### **Answers:**

- reveal a wide context of moral, cultural, and societal values
- the history of medicine is not necessarily about healthcare and medicine
- because medicine is such a necessity in society and engages many people, it can be used as an indicator of how society functions. it can be seen as a microcosm of a society.

### Who's Involved

- historians and literature theorists
- anthropologists and art historians
- cultural studies / women's studies scholars
- philosophers
- environmental historians
- legal scholars
- physiology scholars

### History of History of Medicine

- history of medicine was a separate field for physicians
  - people interested in the medicine of ancient rome for example
- **1600's - 1800's (17-19th C):** history of medicine was focused on the history of ideas
- **in the 1800's (19th C):** the history of medicine was very interested on this **Notion of Progress**; the idea that society was constantly moving forward and getting better over time compared to the past.
- **1900's (20th C):** major shift due to the foundation of many journals / societies.
- **1960's :** development of the **Civil Rights Movement** in the USA
  - brutal struggle for equal rights for blacks, natives, women, gays
  - Vietnam war and **Counter Culture Movements** such as the hippy movement - people were beginning to reject the rigid structure of society and live by their own definitions, for example people would grow their hair and dress funny so spite society.
  - Vietnam war leading to Shellshocked (PTSD) victims and drugs habits
  - disrobing of colonial powers

### New History

- the 60's turned medicine into a **cultural topic** for PhD historians, people paid for doing history
- status quo being shot to hell after the 60's
- new history is about a social turn, people and journalists begin to write about the common people; writing with a strong focus on social justice.
  - example; people began to analyze the link between poverty and illness and ask why?
- this starts influencing medical history putting focus on the sick person and the power relationships and the bias in medicine as well as **medicalization**.
- late 70's and 80'z resulted in new journals to accommodate their work because older periodicals shunned them due to their hostility towards doctors and medicine, and for lack of science.

**Presentism:** tendency to judge the past with the standards of the present

**Whiggism:** portraying the past as a series of events progressing to a better present

## **Medicalization**

- turning normal behaviours into illnesses; socially constructing illnesses
  - for example; hyperactive kids become lab labelled as ADHD cases; medicalized via Ritalin. or, homosexual behaviour in the DSM as an illness.
- in medicalization:
  1. patterns of social control are imposed on the individual
  2. clientele/market for certain treatments grew, making industry wealthy
  3. influence and status of medicine grows
  4. daily life becomes more medicalized
  5. many other sectors of societies become included: pharma, law, ads, politics
- can be considered **disease mongering:**
  - selling made up disease to create a market for profit

## **Examples of Medicalization**

- Seasonal Affective Disorder, Erectile Dysfunction, Social Anxiety disorder (formerly kids being shy or introverts), Premenstrual Syndrome, ADHD

## **Primary Sources**

- primary: document produced by the person in question/pertaining to the time period (context)
  - ex. an original document (letter, diary, journal, recording, creative production, novels, poems, songs, art, artifacts
  - **artifacts:** an object owned by a person in question; they tell a story when nothing is written, for example furniture, clothing, statues, art.
- in search for primary sources, libraries are the best choice. the bigger, the better - McGill's Osler Library.
- primary sources must be evaluated, how real/reliable are they? and how useful
- a great primary source is letters (a disappearing art)

## **Secondary Sources**

- written text interpreting or analyzing or critiquing or helping to understand the primary source
- helps us evaluate the primary source
- usually time distance between primary and secondary source
- housed in archives, libraries, and museums accessible by the public
  - rules: material may not be open to the public for a time period; because of liability issues, for example you may incriminate someone
- who made the material? how is it catalogued? who is included/not included in the archive? libraries and archives and museums are targeted during war to make a culture forget about its history.. to create amnesia in a society to weaken it and be able to take it over.
- assume someones already asked and answered the same question. exploit footnotes.
- you do not have to agree with your predecessors, only believe things with reference to primary sources. believe nothing you read if you don't know why it was written.

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## Lecture 2 - Pathology

### **Reading Review**

- Duffin writes put he history of pathology
  - notions of illness and disease changing over time
  - disease causation; inside and outside of the body
  - distinction between illness and suffering
- **Pathology** = greek, 'path' - suffering + 'ology' = theory of

### **5 Functions of Pathology**

1. **Explain Suffering:** suffering is the result of sin/moral disorder/ supernatural causes/ bodily imbalance such as the humours/ heredity/ bacteria and viruses / etc.
  - the humours of the body was a balance of the four elements
2. **Define and Diagnose an Illness:** name/ diagnosis / definition changes / discovery and losses of information. Definitions of illness change. ex; the female orgasm was once a form of hysteria. the subjective symptom of squeezing chest pain becomes the objective sign of heart disease with the addition of medical knowledge. in identifying what was abnormal, this condition of pathology also determine what was 'normal', an ideal conditioned by each society in question.
3. **Predict Outcomes:** pathology could help give the prognosis, e.g risk factors, 50% survival..
4. **Justify Treatments:** give reason to perform certain surgery
5. **Prove a cause of Actions:** e.x. autopsy to prove prognosis, post-mortem examinations; was the diagnosis correct? could any more have been done?

### **Organismic Theory**

- diseases are bad and should be removed
  - contrasts from new age medicine where some disease are viewed as lessons
- basis of theory is the medical model. doctor tells patient what the illness is, doctor key role.
  - Problems of the medical model:
    - doctor might not be right
    - focus on reactive medicine, not enough preventative
    - paternalism limits patient autonomy
    - power imbalance: unhealthy HCP - patient relationship, no communication
    - doctor doesn't look at patients whole context

### **Ontological Theory of Disease (Outside)**

- diseases come from outside of the patient = disease vs. patient, separate entities
  - ex. an infection invades the body via bacteria or virus; or a person is possessed and crazy
- stems from **greek 'to be'**, emphasizing the disease as a separate being or entity

### Physiological Theory of Disease (Inside)

- a disease developing from inside the patient - disease patient aren't separate
  - ex. genetic disease such as **downs syndrome**
- over time, studying pathology moves more into the laboratory
- we need to look at the interaction between ontological and physiological and environment.

### What is Health

- according to the WHO
  - "attainment of all peoples of highest possible levels of health"
  - **Health**: state of completely physical/mental/social wellbeing, not merely absence of disease

### Medical Model Critique

#### Alternatives

#### 1. Holistic:

- perspective on illness such that physical/mental/spiritual aspects need balance. recognizes the **spiritual component**, another dimension in thinking about patient and health

#### 2. Social Model:

- recognize the extent of environmental role in making someone more disabled. understanding disability depends on external environment. for example, higher light switches would disable short people from proper functioning. apartheid made race a disabling factor.
- the definition of disability can extent to anything that disadvantages you, be they legitimate physical problems or circumstances

### Inequality Movie

- US spends most on health but their health is sub-par. why?
- excess death in poor areas. is this because of inequality? Socioeconomic roots?
  - **affluence = better health.**
- Lower employment grade = worse health
- if you're poor and you smoke you will be less healthy than a rich smoker
- wealth health gradient in america, richer = healthier
  - **low income = 2X rate of diabetes, stroke, heart disease, etc.**
  - education moves you UP the gradient. education = more money = health
- man made inequities aren't natural, policies and zoning are making people poor
- **poverty = stress, stress = cortisol, excess cortisol = low health**
- even being rich black you aren't healthy as rich white because discrimination leads to stress leading to poor health. more chronic illness in blacks throughout gradient.

**Social Determinants of Health**

- conditions influencing the health of individuals/ populations/ communities as a whole
- determine whether pop/indv/comm stay healthy or become ill
- determine whether pop/indv/comm has physical, social, economic resources to achieve personal aspirations, satisfy needs, or cope with the environment
  - resources = food, housing, income, etc.
- According to Canada, there are 12 Social Determinants (no order)

<ol style="list-style-type: none"> <li>1. Income / Social Status</li> <li>2. Social Support Networks</li> <li>3. Education and Literacy</li> <li>4. Employment and Work Conditions</li> <li>5. Social Environment</li> <li>6. Physical Environment</li> </ol>	<ol style="list-style-type: none"> <li>7. Personal Health Practices / Coping</li> <li>8. Healthy Child Development</li> <li>9. Biology and Genetics</li> <li>10. Health Services</li> <li>11. Gender</li> <li>12. Culture</li> </ol>
<ol style="list-style-type: none"> <li>1. Aboriginal Status</li> <li>2. Early Life</li> <li>3. Education</li> <li>4. Employment + Work Conditions</li> <li>5. Food Security</li> <li>6. Healthcare Services</li> </ol>	<ol style="list-style-type: none"> <li>7. Housing (Location, Cleanliness, Quality)</li> <li>8. Income - Distribution</li> <li>9. Social Safety Net</li> <li>10. Social Inclusion/ Exclusion</li> <li>11. Employment/Unemployment security</li> </ol>

- According on the York 2002 Conference List
- Aboriginal Women: mistreatment of women rooted in Canadian Legislation
  - consequences; health, social status, economic status

**Healthism: Petr Skrabarek + Nicholas Rox**

- important contemporary health concept
- **healthism refers to propagandizing health norms by government, human behaviors / thoughts are either categorized as healthy/ unhealthy**
- individuals are seen as responsible for illness/ to blame
- has strong morality attached, **healthy people = morally pure and vice versa**
- experts bombard us with optimal health behaviours
  - ex. eat right, wear this, drink this
    - if you get sick because you didn't do those things its your fault, as we warned you.
- link between **healthism and capitalism**: buy this! its healthy!
- criticism: healthism is the way for governments to put the onus on US to be healthy, and to do so means capitalists can get their money
- **result**: people have to take care of yourself, so the government doesn't have to take responsibility. even if your ailments is the governments fault; e.g. poisoned tap water..

## Textbook Highlights

### Illness vs. Disease

- **illness**: real suffering felt by an individual - subjective and personal
- **disease**: theory created to explain the illness: presumed cause + target, encompasses cultural and medical vantage points
- **Hippocratic Triangle**: Medical Model: Physician, Disease, Patient. the patient must cooperate with the physician in combatting the disease.

### Supernatural Cause of Disease

- conforming to organismic and ontological views; disease is bad and it comes externally
- not understanding a disease, attribute it to a higher power
- **Job's** boils, Apollo's Pestilence in the Illiad; diseases considered as punishments
- diseases in modern times are still viewed as punishments, e.g AIDS as sign from god on gays

### Greco Roman: Disease = Natural Imbalance

- refute supernatural origins of disease - four humours
  - **Hippocrates; The Sacred Disease** on epilepsy, has a natural cause, men were fooled
- **aphorisms**: sentences that summarize knowledge, usually for the elaboration of signs, e.g. :
  - e.g old men endure fasting more easily than young boys,
- **Aretaeus of Cappadocia in 100 A.D**, vivid accounts of liver, kidney disease in this manner
- **Galen in second century A.D**: eclectic pathology, but it adhered to the Medieval philosophy advocating complete submission to God's Will; remedies attempted, but cure is up to God.

### Patterns of Suffering = Nosology

- 'theory about' + 'disease', distinguish disease based on symptoms
- 9th century **Rhazes** - Continents - distinguishes rashes, measles, small pox
- **Renaissance, Galenism** waned. iatrochemistry rose, e.g. uroscopy which showed symptoms but nothing else explaining the disease.
- **Thomas Sydenham** explained **chorea in 1686**, and then gout's rich description.

### Altered Anatomy

- relevance wasn't proven
  - anatomical changes were hidden until after patient died, alteration at autopsy might have resulted from death and not the disease in question, and internal changes could not be fixed
- **Benivieni, 1507** relating diseases to physical changes
- **Bonet** - 3000 observations - Anatomical Graveyard; head - thorax - abdomen - systemic conditions, its title's paramedical nature emphasized the marginality of anatomy
- **Morgani** emphasized the importance of autopsies to clinical med, founder of modern path.
- **Louis of Paris** is said to have founded numerical medicine
- **Virchow** bringing anatomical Cell Pathology, treatise on leukaemia

### Invasion by Living Organisms

- **Germ Theory**, Ontological View strengthened
- **Robert Koch** - Mycobacterium Tuberculosis - 4 postulates
- **Pasteur** - link between bacteria and diseases, demonstrated in rabies vaccine
- **Joseph Lister** - 1865 wound dressing with carbolic acid
- **William Osler** - principles and practice of medicine, pathology and case descriptions and Osler society. was fascinated by the potential of lab science in diagnosis
- **bacteriology**, putting medicine into the spotlight and making the microscope a doctors tool. when pathology of such nature was intro'd to the public, they loved it.

### Heredity - Molecules

- Mendel's model showing heritability of traits in pea plants
- **1902 Garrod** showing inheritable alcaptonuria following Mendelian laws
- 1889 microscopes showing chromosomes, and affects of colchicine
- **Thomas Hunt 1890**, emphasizing hereditary info resided in chromosomal 'genes'
- **1944 Oswald Avery**; giving attention to Nucleic Acid
- **Watson and Crick** crystallography to discover the double helix structure
- **Chargaff** discovering the four bases

**Phrenology**: study of character, intelligence, and disease by reading head shape

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## Lecture 3 - Anatomy

### Periodization

- **Middle Ages:** 5-15 C
- **Renaissance:** 14-16 C
- **Age of Enlightenment:** 17-18C
- **Industrial Rev.:** 18-19C
- **Victorian Era:** 1830-1901
- **Edwardian Period:** 1901-1910
- **WW1:** 1914-1918
- **Interwar:** 1918-1939
- **WW2:** 1939-1945
- **Postwar/Coldwar:** 1945-1989
- **Age of Info.:** 1970-?

### Reading Review

- on-off relationship with dissection, use of anatomy in medicine
- how cadavers were sources and how they changed sources over time
- art was a huge factor in the development of anatomy

### Themes

- anatomy is the study of the structure of the body. “anatomy” = dissection in greek
  - structure/ shape/ size of the body, parts and their relationship to each other
- 1. Approach Avoidance
  - off/on relationship, issue with cutting up dead bc of religion etc. then science
- 2. Interrelationship of Art and Anatomy
  - artist crucial in documenting surgery and discovery
- 3. Low status of Anatomy in Medicine
  - in general, its relationship isn't high in status
- 4. Anatomy where body is Socially Constructed
  - we read into the body what we know culturally, for example in dissection of women their features were exaggerated to show the child bearer stereotype

## Mary Shelley

- **Frankenstein 1818**, a period in time where english medical science is fascinated by anatomy an dissection and to learn about the body and individuals
- british parliament passes **Murder Act 1753**: only murdered bodies could be dissected for study
  - dissect to try and understand what makes a murderer
- bodies dissected at the **Royal College of Surgeons**, but demand > supply
  - this lead to increases in grave robbing
- **Luis Galvani** - Italian Physician/Anatomist who was interest in reanimation; Galvanizing. Interested in electricity. experiments with dissected criminal bodies applying electricity tot hem, causing limbs to jolt. this made him think he could reanimate dead body.

## Frankenstein

- background: anatomy, electricity, grave robbing
- **Victor Frankenstein** builds creature out of slain body parts, brings it to life with electrical currents
- Frankenstein monster commits all sorts of crimes, and the explanation for that was he was made from criminal body parts, therefore he is a criminal in nature
- republished in 1832 at the time where **William Burke and William Hare** were robbing many graves delivering corpuses to **Dr. Robert Knox of University of Edinburg**.
- Knox buys bodies, more demand = killing people via asphyxiation to not harm the bodies, 13-30 people ere killed int total.
- Hare snitches on Burke, Burke goes to the gallows and is publicly dissected
  - brings about the anatomy act in 1832, anatomists had to be government licences. also installed inspectors of anatomy, also doctors gain legal access to unclaimed bodies to deter grave robbers.

## Link Between Organ Sales and Grave Robbers

- middle men: Burke and Hare vs. the organ brokers of Pakistan
- Physicians turning a blind eye to ethical issues in organ sales OR in corpse source
- Commodification of the body, cadavers being robbed and kidneys being sold
- Who's organs/ who's body are we dissecting?
- Health Inequities connection to body/organ sales

## Medical Tourism

- rich flying to poor counties to acquire medical procedures otherwise unavailable. kidney transplants and cosmetics for the low

## Summary of Chapter

### Antiquity:

- Ancient Greek sculpture reflects a preoccupation with the surface structures, with much attention paid in detail to muscles and bones.
- greek doctors were not especially interested in Anatomy, dissecting human bodies was forbidden, but animas were accepted and Aristotle engaged in those, with drawings.
- **300 B.C, criminal bodies in Alexandria** dissected alive or dead; to horrify and instruct. **Herophilis and Erasistratus** described structures such as vessels and meninges.

### Galen:

- born in **129 A.D**, deplored laws forbidding human dissection
- extrapolated from animals to humans, source of his errors: **five lobed liver** and vascular network in the brain he called the **rete mirabile**.
- physician to gladiators, became fascinated in peering into their wounds
- his anatomy thought was accepted by the church because it kind of adhered to their standards. he said all structures were created for a purpose. it lasted and wasn't questioned for 1000 years.

### Persian/Arab Scholars

- the first animators and illustrators of anatomy, basically had front and back poses with the person in kind of a squatting position, this set the tone for later illustrators.

### 13/14th Centuries

- growing interest in art and anatomy; dissection suggested to understand disease. legislative changes, rise of universities help consolidate anatomical information. dissection was allowed on criminals, including vivisection which is live dissection
- pope granted certain schools such as **Montpellier** permissions on criminal dissection. demonstrations were done with a professor sitting high reading from galen, as illiterate barber-surgeons practices letting Galen going unchanged
- anatomist who broke the tradition was **Mondino dei Luzzi**, said anatomists should do their own dissections. his 1316 treatise **Anothomia Mondini** became the standard reference for 150 years
- artistic awakening of Middle Ages applied to anatomy. Surgery by **Henri de Mondeville**.

### Church Against Dissection

- body is the temple of the soul, if you tamper with the soul you cannot go to heaven.
- barber surgeons dissection under Galen's instruction. Galen's anatomy practice was unchallenged, any abnormalities would be attributed to the imperfection of the subject.

## 14 - 16 Centuries : Renaissance

- plague kills 1/3 of Europe, creates skepticism towards god because it killed good and bad people the same and this also creates an openness towards dead bodies
- prominent figures in society had their images placed on gravestones in a rotting corpse facade, called **momento mori**. people thought if the outside of the body could be glorified, the insides should be able to also.
- rise of art: **Davinci** most famous artists- **vitruvian man**. . **Andreas Vosalius** becomes the most famous anatomist; six tables and **Fabrica**.
- **Vosalius** was taught by a professor teacher Galenic anatomy. He befriended artists in Paris and began working on anatomy books with high quality images. kept Galenic errors.
- **Vosalius** creates **Fabrica in 1543**, an anatomy book. he studies criminal bodies. then he creates the six tables which document muscles, bones, veins, and etc. separately. also shows homologous genitals, women and men because of similar ancestry.
- many accomplishments and discoveries were attributed to anatomy, but it continued to have little to do with bedside medicine. physiology adapted anatomy.
- **sensualism**: all wisdom comes from observation

## 18th century:

- cell theory with advent of microscope; **Hooke, Schwan, Virchow, Schleiden**
- Aversion to bodies and the difficulty of how to apply anatomy kept it from medicine.

## Acceptance into Medicine

- anatomy, becomes more respected in understanding disease and spread of disease. now seen as essential to medical training. demand > supply. again, grave robbing goes up even in Canada. Wealthy start protecting graves, grave scholars become medical students and anyone looking for a quick buck.
- **John Rolph** had a student in Toronto ship bodies across lake ontario in whiskey barrels.
- Dissection becomes publicly acceptable, preservation and blood vessel injection enhance it.

## Anatomy Today

- **Londa Shiebinger** pointed out shapes in anatomist drawings exaggerated women's childbearing features.
- some anatomist showed anti-semitism in the deviant shapes of jew heads.
- anatomy is no longer an active field of research, why?

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## Lecture 4 - Psychiatry

### Reading Review

#### The Yellow Wall

- **Charlotte Perkin Gilman** is kind of loosely describing what happened to her
- a woman is chronicling her descent into madness
- she knows she could feel better if she goes and does the things she enjoys doing, such as going outside, talking to people, writing and working. but instead, her husband the doctor is prescribing her the “**rest treatment**”.
- she knows how women are kind of patronized and made to feel like they can't waste their energy etc. the story kind of presents a feminist critique of medicine at the time where it portrayed woman as incapable.
- in the story she just had a baby, so perhaps she is suffering from **post partum depression** but instead they treat her as if she is suffering from hysteria, as all women do.

#### Treatment of Homosexuality in Britain

- details how gays were treated in the past, the medical world would try and cure them of their homosexuality, which was considered an ailment at the time.
- treated with electroshock therapy, estrogen therapy, films of the opposite sex with positive reinforcement and vice versa. as well as psychotherapy such as talking and drug therapy from which some people would die.

#### Timeless Desperation

- Joel's father was a surgeon who performed **lobotomies**; an operation which damages or removes tissues from the frontal lobes to calm someone's behavior
- trying to determine how morally/medically responsible he is for one of his patients suicides.
- his mother's **mis-diagnosis** of schizophrenia, even when the doctors didn't really think she had it and it was an arbitrary decision as a way to classify her behaviour. this classification had affects on her life because she became the stigma of her label - she became “a schizophrenic”

## Themes

- the **social construct of mental illness** - e.g how islamic people saw the insane as '**divinely inspired**' who needed care vs. how the western insane were considered demonic or gravely ill. this shows how society treated the mentally ill as well as the definition of health
- the tension between the physical causes of mental illness and the psychological causes of mental illness
- the profession of the '**destigmatization**' of mental care facilities, e.g from the "mental asylum" becoming the continuing care facility.
- because of the stigma of mental illness, the individual is seen as responsible for his/her illness because of their alleged "lack of willpower", lack of moral ability, etc. people also have a weird inkling that some mental patients choose to act that way.

## Ideas

- **psychiatry - healing of the soul**
  - coined by Johann Cristian Reil
  - implies mental illness is more than physical
  - arrogant in the assumption that the soul can be healed
- madness has been recognized forever, not understood by the physical illness but by the behaviours associated with it: violence, crying, screaming, convulsions, hallucinations, and anything that is considered abnormal by society.
- in antiquity; mentally ill people were often seen as prophets; e.g. **John the Baptist**
- early assumptions was that there was some underlying physical cause,
  - **Hippocratic** theory that **epilepsy** was an ailment of accumulated phlegm in the brain (humours).
  - **melancholia** - accumulation of black bile in the liver leading to depression
  - **hysteria** - in women, **wandering womb**
- psychiatric disorders are ailments that are 'left over'; they cannot be sorted into an anatomical or physiological realm of classification
- because people believed in physical reasoning, physical treatments to mental illnesses became widespread; diets, hydrotherapy, ointments, rest-care, drugs like **valium and Zoloft**.

## Mental Institutions

- arose in Islamic cities like Cairo, Damascus; they believed that the mental ill were divine and needed to be treated properly and with care.
- arose in Spain because of the islamic influence, the emphasis here again was on CARE
- hospitals were founded to provide humane care became places of incarceration; ex. The **Charité des Senils**. during the Renaissance, **social control of mental illness** because a major concern, here people are believed to be possessed by demons so they are treated in a manner as to 'beat the demons out of people' with whips and such, in jail like institutions

## **Witches**

- wise woman of villages, single woman or widows were for some reason possessed by the devil. they kept pets and those pets were known as the devils familiars.
- in the **1300s-1500's (14th-16thC)**, they were killed, burned at the stake, during witch hunts which was ironic because that was also the same time all sorts of arts and stuff were emerging.
- "**Malleus Maleficarum**" - the witches hammer, a witch hunting guide released by the church who had once said women are the instruments of satan by nature.

## **Mental Institutions Later**

- become places of punishment, incarceration maltreatment and bedlam.
- became places where marginalized people are held; criminals, prostitutes, poor people, etc.
- in London, **St Marie's of Bethlehem becomes Beldam**, a place of uproar, confusion, violence.
- 18th C -Enlightenment; **Age of Classification**
  - religion, which was responsible for explaining all at the time, is being refuted and replaced by science.
  - capacity to reason is seen as the most valuable possession, it is what separates us from animals
  - because mental ill people cannot reason, they are seen as sub-human and therefore may be treated like animals
  - **Michael Foucault**; illustrated this in his text Madness in Civilization, he theorizes that before the age of Enlightenment, lots of attention was paid to Leprosy as the gross disease and God's Punishment. that fear shifted to mental illness, the mental ill were treated as the lepers were once treated; ostracized, sinful, sexual deviants.

## **Mental Asylums**

- Asylum reform spread in the end of the 18th C. **Benjamin Rush and William Tuke**.
  - These institutions kept careful records, they revealed much about society and medicine.
- **Phillipe Pinel** curated the metaphoric unchaining, began citing emotional and moral causes for mental illness, therefore such treatments should be pursued.
- These Asylums were meant to protect, console, and classify, which became a focus.
- William Cullen: Neurosis -highly sensitive reaction to outside stimuli facilitated by nerves
- 1850, **999 Queen Street West Toronto** was the first in Canada.

## 19th Century

- some physical causes are explained for ailments that were once considered to be mental
- psychiatry was losing credibility, had no significant advancements that could explain, cure, predict, or prevent.
  - epilepsy no longer considered a mental illness
  - mental institutions are still used to hold people
  - psychiatry diverges into 3 directions
    - **psychoanalysis, psychosomatics, and psychobiology**

## Psychoanalytics

- 1885 **Sigmund Freud** began working in the field, treatment by talking. It was developed through use on rich upper class white men, and critiques focus around that fact.
- **Adolf Myers** brought it to the US, he insisted on careful record keeping.

## Psychosomatics

- flourished in the 30's, **Pioneer Harold G Wolfe author of Stress and Disease.**
- **Hans Selye**, working in endocrinology and adrenal hormones began to focus on responses to stress, examining the physical products of prolonged stress.

## Psychobiology

- radical treatment of a physical nature for a mental illness,
  - **Julius Wagner** using Malaria as a curative fever for patients with **tertiary syphilis in 1917.**
  - **Alfred Hegar; Ovariectomy**, removal of normal ovaries to cure hysteria
  - **Sakel**: insulin shock therapy improving mental disturbances in addicts
  - **Bini and Cerletti**: **ECT, electroshock** for treating schizophrenia
  - **Moniz and Lima**: lobotomies in **1935**; created more peaceful apes
  - **Freeman**: **1940** lobotomies with ice pick through orbits; created some zombies

## Rest-Care: form of Psychobiology

- sleep well, eat well, don't do regular activities
  - **Dr. Weir Mitchell** coined the term and propagated rest care
    - **Gilman** had Post-partum depression, was placed in a mental institution ran by Weir Mitchell who was the head of many Associations in America at the time. She was diagnosed with **Neurasthenia**; with symptoms like fatigue, tiredness, anxiety, muscle aches, fatigue. she was prescribed rest care.
  - **George Beard**: came up with **Neurasthenia**; he believed that urban society and civilization weekend the nervous system of men and women in the US.
    - believed neurasthenia was prominent in soldiers and business men, but eventually became a **disease of american Woman in 1880s.**
      - used to halt women's movement; stop exerting yourself you need rest
      - voting would "physically harm" woman, women were too weak for politics

### Neurasthenia

- also used as a means to deny women of their rights, from pursuing higher education because that was said to deplete their energy which they had very little of.
- **Vitalism - life force in blood and semen**
  - life force is finite, some actions deplete it. women have less than men, men have semen and women lose life force during menstruation.
  - life force is necessary for physical, mental and moral health
  - women should not go into education because there isn't enough blood to supply menstruation and brain.
  - masturbation: losing semen - losing life force = turns you crazy

### Feeble-Mindedness

- marginalized version of neurasthenia.

### Eugenics Movement - Francis Galton

- '**well born**', how people inherit their abilities
- improve the human race similar to how farmers improve their crops through selective breeding
- positive and negative
  - positive: measure taken to promote selective breeding, highly educated rich whites breed with highly educated rich whites.
  - negative: kill babies from the bad stock, infanticide, sterilization, all the way to Nazi concentration camps.

### Psychopharmacology

- certain drugs were effective in caring for psychic conditions
- **Bromides** used in 1928 as sedatives becoming immensely popular
- **Deniker and Delay; phenothiazines** reduced freq. of hallucinations
- MOA inhibitors in the late 50's for treating depression
- **Cade**: success with lithium with manics
- the advent of the drugs led to a decarceration; emptying of asylums in the 60's and 70's
- **Carlsson**: SSRI's; Zoloft, prozac, raise the mood of people in general.
- drugs are now a first treatment for many psychological problems.

### Anti-psychiatry

- **Szasz** - does not fit the medical model, therefore it is a myth
- **Cameron**, McGill brainwash scandal ruining people's lives - **psychic driving**

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## Lecture 5 - Epidemics

### **Epidemic:**

- widely prevalent, rapidly and extensively spreading infection sometimes known as a sudden outbreak of infection

### **Pandemic**

- epidemic that becomes widespread, affecting a region/community or a continent e.g. AIDS

### **Endemic**

- low grade infection that is always present in a population e.g. cold

### **Themes**

- epidemics and plagues result in a breakdown of social order
- understanding of plagues are socially constructed; we as a society determine the meaning of these phenomenon
- strong association between plague and scapegoats; the 'usual suspects' e.g. feeble minded people or immigrants are those who are usually seen as the cause for plagues; marginalized.
- use of medical, moral, legal controls placed on these scapegoats
  - quarantine, controlling people, shutting down borders, ostracizing people.
  - attribute a kind of morality to these people, why are they infected?
- innocent victims: e.g. someone who contracts AIDS when donating blood
- social conditions exacerbate the spread of diseases.

## Reading Review

### Sanitized for your Protection

- physicians uncovered evidence that white middle and upper class men were transmitting the disease gonorrhoea to their daughters by incestual sexual abuse. there is no other way to get this disease other than sexual transmission, so when both a father and a daughter are infected it means that the daughter was sexually abused
- the physicians could not fathom that respectable white men were doing this, they deemed incest as a notion limited to immigrants such as asians and blacks.
- therefore they changed the way **gonorrhoea** could be transmitted. they then blamed physical contact with dirty bed linens, then on mothers, then on other children, and finally on toilet seats at schools even though they knew that the time a bacteria of gonorrhoea could survive in the air was too short for any of those options and the only way to contract it was vaginal penetration or oral penetration with an infected sexual organ.
- this proves knowledge is never value neutral, and that this **disease was socially constructed**.
- the blame was shifted to accommodate the views of the physicians at the time.

### Finding a Scapegoat When Epidemics Strike

- when outbreaks strike, the need to understand why is very powerful, and unfortunately, the identification of a scapegoat is inevitable.
- everybody blames eachother, e.g. the jews are blamed, then the mexicans, then any other marginalized person.
- even different communities within a country blame eachother, e.g. rural Argentineans blaming city dwellers for the spread of polio (because it is enteric: poor sewage systems in the city)
- “we try to avoid demonizing anyone by keeping the focus on the virus to reduce the level of panic and aggression”
- **Pope Clement IV** was blamed something particularly hard to take revenge upon for the outbreak of the plague: the misalignment of the planets.

## Book Review

### Plague of Athens

- panic and breakdown of social order typify human reactions to epidemic illness.
- **Thucydides** told how a lethal contagion disease killed many athenians with no treatment
- there is a possibility that he invented the tale as there is no proof it existed, however, his story exemplifies the timeless extra corporal side effects of any epidemic. Social structure decayed, crime was rampant, codes of behaviour were abandoned

### Great Dying: Bubonic Plague

- documented by **Giovanni Boccaccio**, in a serial form called '**Decameron**'
- **Plague Tractate**- literature stemming from witnessing the plague
- Traveled from Asian ships and arrived at European ports, spread North into Europe and as far into the eastern front as Moscow. **Yersinia pestis**.
- social order crumbled, people left their homes to wander in the rural areas, sick family members were abandoned and left to die
- people walked around with masks with long noses filled with fragrant flowers to hide the stench of the decaying bodies in the street
- the plague remained in Europe and returned in successive waves
- the paris faculty of medicine attributed plague to atmospheric alterations misaligning the planets and starts forming **Aquarius**.
- others blame foreigners, minorities and travellers
- people were quarantined, their boats held at bay for forty days to deter disease spread.
- people such as village idiots, beggars, prostitutes, and jews were tortured or driven away for being suspected as the cause for the disease.
- **1/3 people in Europe died (25 million)** during its 5 year peak, and because of the fallout economic conditions were horrid, mass famines due to grains not being tended to, etc.
- Education strayed from the church because it could not help with the disease, Galen's writings were abandoned because it could not foresee it. Lead into Renaissance?

### Social Constructions

- social position of sufferers entered into the medical concept of the disease.

### Cholera and Typhus

- **William Farr and Edwin Chadwick** found correlations between poverty, class and disease. some people then held the poor responsible, others tried to help them. blaming was more popular.
- in early 1830s, Cholera spread across Europe then to North America. Newcomers were conifer to sheds without fresh water or sewage facilities
- John Snow tracked the outbreak to London Sewage pump, **Robert Koch** i.d. **Virbrio Chloreae**
- To keep typhus away from established communities, quarantine was put in place at **Grose Ile**. Immigrants are housed in the islands inadequate buildings, without fresh water or clothing. the barriers did not work in the end, and the disease spread.

### Smallpox

- families would feed the scabs of the lesions to their children to provoke immunity, then **variolization** was made and the pus was put under the skin.
- cowpox made people immune to smallpox, **Edward Jenner** made this discovery on little boy.
- Smallpox was the first human disease to be fully eradicated.

### Tuberculosis

- late 19th C, tuberculosis was the leading cause of death. **Robert Koch** identified the bacteria and then use the to establish Germ Theory.
- Sufferers were quarantined in sanatoriums. Vaccines with BCG were given.
- **Norman Bethune** gave himself artificial lung collapse to see if anoxic conditions helped
- **Selman Waksman** used the streptomycin anti TB drug, TB began to decline steadily

### New Age Viruses

- influenza vaccine developed but the virus changes often. Molecular typing helps.
- **Poliomyelitis** is infection of nervous tissue, **Salk and Sabin** fixed it. Global Eradication plan is currently underway but not entirely successful
- AIDS is the next big thing up, used to be scapegoated to gays and such. people in Cuba were confined.
- **Susan Sontag** describes AIDS and its metaphors, people becoming responsible for their sickness depending on their perceived moral fortitude
- entrenched attitudes of the sins of homosexuals and IV drugs users explain why AIDS is a taboo subject to approach.
- **Mirko Grmek** suggested at a window of opportunity for the disease came when all those other diseases were eradicated, another suggestion was the monkeys and polio treatments.
- Mad cow disease due to malpractice in farms in England.
- Malaria was planned to be eradicated but now will just be controlled.

### Syphilis - Treponema Pallidum

- was called the french, english, or spanish disease depending on who was blaming who.
- **Giulamo Fracastoro** said the entity causing the illness must be alive, he called it the **contagion vivium**. he also knew the disease was spread via sexual contact
- this led to the alteration of sexual practices, the closure of public baths, and measures taken against presumed carriers such as foreigners and prostitutes.
- **1st Stage**: wounds on genitals, chancre on mucus membranes
- **2nd Stage**: a rash on the palms, soles of feet. fever, muscle aches
- **3rd Stage**: damage to the brain, nerves, eyes, joints, paralysis
- **Latent Stage**: dormant form that can last before 3rd stage for years.
- **Congenital Syphilis**: can be passed in-utero, kill child, blind them, developmental delays.

### Gonorrhoea

- white/yellow pus/discharge from the genitals + burning sensation, gonorrhoea sores
- leading to infertility sometimes
- if eyes of babies touch the pus they will become blind, **silver nitrate** to prevent this.

### Chancroid

- attacks **mucous membranes**, person develops sore on genitals
- lymph nodes become swollen and rupture and exude pus
- not very prevalent in this part of the world, can be easily cured/treated

### Leprosy

- legislative measures can incorporate social prejudices.
- Leprosy is less infective than the measures taken against it would imply. it is only mildly contagious, yet sufferers were controlled by putting them in colonies and forcing them to wear special clothes and such, e.g. in the Lazaretto they were shunned.

### Venereal Diseases

- labeled according to who had it and who didn't i.e. spanish pox etc.
- associated most often with prostitutes, immigrants, and minorities
- **mediate contagion**: objects transferring the disease. (rare)
- all bacteria need is a **portal**: slight cut on genitals
- notion of **innocent infection** via **mediate contagion**, i.e. toilet seat
- sexual contact leading to disease = **guilty infection**

## **Effects of VD on White Race**

- solutions to the disease in history

### **1. Legal:**

- outlaw or regulate prostitution
- **Contagious Disease Act:** passed in the 1860's Britain, based on preventing the spread of disease in cattle, translated to whores. police had the right to arrest any woman the suspected of being a prostitute no matter where they found them, forced quarantine and treatment on them in the hospital

### **2. Medical:**

- use of condoms
- first made of sheepskin, then made of rubbers/linnens in the 1800's
- 1920s were made into latex, develop bad reputation because association with hoes
- widespread health campaign,
- **Treatments**
  - swallow/apply mercury ointment
  - cauterize sores on genitals
  - **Salvarsan** developed but **Penicillin** takes control, discovered on soldiers accidentally
- war strategists were terrified of STD's because they would create a sick soldier, which is even worse than a dead soldier.

### **3. Moral**

- position taken by teachers/preachers: abstinence. sex education in schools and churches.
- feminist saw abstinence was a good thing, but there was a double standard, men weren't being abstinent

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## Lecture 6 - Doctor Education, Licensing, Payment, & Bioethics

### **Reading Review**

#### Nazi Science

- **Nuremberg Trial:** Nazi doctors turned Germany into a lunatic asylum
- people argue that good science travels with good ethics therefore the Nazi science wasn't really science because it was devoid of good ethics.. this de-legitimizes the problem.
- Nazi Germany had some scientific triumphs, and left politics that we love and did not compromise ethics in those aspects.
- for example Nazi Germany had significant advances in terms of tobacco research and its correlation with lung cancer, **Franz Muller** pioneering experimental tobacco epidemiology
- **Schairer and Schoniger**, tobacco questionnaires to families of lung cancer victims
- people suggest these pockets of innovation were resistant to ideological influence but that isn't true, these were Nazi studies funded by Hitler.
- People suggest Nazis were devoid of ethics but they weren't, they even passed legislation to stop testing on animals and humans. **Herman Goring** threatened to throw vivisectionists into concentration camps.
- Nazi ethics had some norms based on Hitler's ideology though, such as the Jews and Gypsies being wastes in the German population. There were guidelines, healthy Germans were never experimented on, only the peoples deemed inferior.

#### Medical Workers Role in Torture

- CIA funding medical personal to aid in torture in Guantanamo Bay.
- Red Cross accidentally leaked information about these people and the funding by the government

#### Animals in the Classrooms

- courses relating people to the animal experience,
- help people develop tools of language, learning, and morality
- give us a scope that we are also animals, we like them
- become to appreciate the emotional side of animals, thanks to Jane Goodall.

## Book Review

### **Doctor Patient Contract**

- doctors can only be doctors when someone else agrees
- the contract assumes that doctor's expert knowledge will fill the patients expectations
- when doctors fail to meet expectations, solutions are determined by rules

### **Fildes Doctor**

- **Sir Luke Fildes** painting '**The Doctor**' shows a physician caring for an ill child
- the caring physician sits beside a suffering child who's parents cry in the background
- he comforts with his presence, even if he appear to offer little in way of medicine
- values symbolized: patience, tenderness, wisdom, even courage
- parents are displaced by his authority. they will owe him money in the end, but whether or not he accepts it is another matter entirely
- failure is unlikely to bring a subpoena for malpractice
- "**keep politics out of this picture**" / "**doctor or jobholder?**"

### **Fleeting History of Medical Education**

- education of doctors began in clustered apprenticeships loosely called schools, dating back to ancient **Egyptian scrolls and mesopotamian tablets** in 3000 BC.
- **5th C, schools in Persia** such as the one in **Jondishpaur** were centred around hospitals.
- Earliest European school was founded in 10th C, in the Southern Italian City of **Salerno** and it had **four traditions; Greek, Roman, Islamic, and Jewish.**
- Another first school was **Montpellier in Southern France**
- until the 18th C, surgeons and medical schools were separate
- First school for colonial American opened in Philadelphia in 1765, Canada in Montreal 1822.
- late 19th C with the advent of Germ theory and bacteriology, lab science became more important and **John Hopkins University** was molded as such. Medical training was divided into two years of basic science and two years of clinical medicine.
- **Flexner report** closed inadequate schools, the ones kept open were like **John Hopkins.**
- Another boom for medical Schools took place in 1960. **McMaster** coined problem based and small group learning which proved to be effective. Remote apprenticeships.
- Segregated Schools existed in the states such as **Howard, Meharry, and Shaw.**

### **Controlling Practice**

- doctors have always been subject to sanctions if they do not perform properly, the **Code of Hammurabi** recommends amputation of both hands of a bad doctor.

## Credentials

- shift from pluralistic healthcare to a monopoly of power orthodoxy advanced by claims for the power of medical knowledge
- 16th C scientific revolution. Doctors scientificized illness and touted their superior abilities as healers.
- asked for the right to decide who was acceptable; **Protomedicato committee**
- in Canada, before any medical schools were founded a degree from an elite school in Europe would have sufficed as a license. American and other graduates were subject to examination. later, everyone was subject to examination.

## Professional Associations

- membership to these associations allowed practitioners to participate in negotiating rules that governed them, to protect and advance the standards of medical knowledge. and to lobby for the interest of doctors
- 19th C, doctors resented the threat and personal success of their unorthodox colleagues such as homeopathic and eclectics. **AMA** lobbied to protect market share of doctors. **CMA** follows.

## Expectations and the Double Bind

- In antiquity, being a successful doctor meant being able to predict the outcome of an illness.
- In the early modern period, society may have acknowledged the advantages of the new scientific learning, but expectations of what a physician could actually accomplish changed little... drastics that killed as readily as they cured.
- Patient expectations began to rise in the mid-nineteenth century, with the major discoveries of **anesthesia and antiseptics**. Patients now expected a 'technical fix' for every pain.
- Now that a cure was sometimes possible, it quickly became an imperative. The fact that everyone dies sometime faded from medical and cultural view.
- the marked rise in patient expectations turned hope for health into demand
- late 20th C, expectations changed, without relinquishing expectation of cure people simply became more skeptical about medicines ability to provide it
- **reasons why people doubting medicine**
  1. medicine has been proven to have been wrong before, i.e **John R Brinkley's** procedure of translating animal gonads into men.
  2. some claim medical knowledge is increasing, when in reality not knowledge is increasing just the volume of information
  3. medical heroes are no longer fashionable in north america, there is an increased doubt for any authority or anything labeled scientific
  4. western culture now endorses blame, doctors have been sued for not curing incurables
  5. rich doctors going on strike tarnishes their name even further
- these problems have prompted a rise in bioethics, patient centred medicine. 'Demand side education in **Ontario called Educating Future Physicians**.

### **Paying the Doctor: Health-Care Systems**

- 1700's, charity clinics were served by prominent doctors
- Philanthropists sought ways to provide the poor, entrepreneurs perceived a window of opportunity for financial gain
- government healthcare systems have three goals;
  1. **to remove the onus of payment from the sick or the poor**
  2. **to ensure that services are remunerated**
  3. **to prevent disease (often unmet)**
- first compulsory national health insurance plan appeared in Germany in 1883 under statesman **Otto Van Bismarck**.
- **National Health insurance Act of Britain was passed in 1911 by David Lloyd George**
- **William Henry Beveridge** further improved this plan by intending state services to complement but not stifle individual initiative.
- Most European countries adopted state healthcare systems.
- **Sigerist Circle**: uses history as a weapon in the struggle for universal Healthcare
- **CCF's Tommy Douglas** implemented the first hospital medical insurance in Canada. this extended to the whole province. they went on strike in Sas. for 23 days
- **Legislation was passed for Canada wide plan and enacted in 1984**
- Canada has fewer resources than other countries, and is second most expensive
- health care in Canada is a right, doctors are less autonomous than in the past, control no longer belongs entirely to them, but to the third party who pays
- Audits in Canada are a painful process. **Anthony Hsu** killed himself because of stress.

### **Doctors Strikes**

- **25 day strike in Ontario June 1986**, doctors goal of full billing was labeled as extra billing.
- the strike failed in that it didn't achieve the goal, and tarnished doctors names

### **Money/Doctor Quotas**

- Canada and Britain limited the number of medical school & residency positions
- Quebec capped income of general practitioners in the 80's

### **Bioethics and Palliative Care**

- **code of Hammurabi and Oath of Hippocrates** rules were laid down to protect the vulnerable
- founder of modern ethics: **Thomas Percival**
- Chiropractic was created by Canadian born **Daniel David Palmer**

## Lecture Review

### **Germ Theory:**

- notion diseases are caused by living organisms, invisible to the naked eye
- this became widely accepted in the 1880s, by many scientists
- reinforced notion diseases come from outside
- give rise to social hygiene movement, focuses on absolute physical and sexual cleanliness
- gives importance to work done in lab so rise in lab medicine
- **Penicillin is the magic bullet**, the cure all answer
  - discovered by **Alexander Fleming** when he is experimenting with culture growth that becomes contaminated with mold, which is killing the bacteria
  - **Howard Flory and Ernst Chain** extract penicillin and win nobel peace prize
- **Miasma**: the theory that said horrible smells cause disease, this was trumped by germ theory

### **Louis Pasteur**

- he disproved the theory of spontaneous generation because he was able to prove experimentally a bacterial disease link; the bacteria can grow and multiply, the organisms he studied were bacteria known for spoiling food. he found inoculating, putting tiny amount of organism into the body to provoke immune response

### **Joseph Lister**

- uses carbolic acid to kill micro-organism on wounds, then would seal the wounds. helped many peoples wounds recover faster than normal

### **Robert Koch**

- identifies bacteria causing tuberculosis, established the **Koch Postulates**
  1. microorganism must be found in every case
  2. should be able to isolated and grown in a pure culture
  3. in experiments, the same disease should be produced if infected
  4. in all experimental cases, one musty be able to recover the same organism

### **Healthcare**

- open ended concept; alternative healers, midwives, quacks, lying sellers
- ends up as a **conservative monopoly**, license doctors become very powerful, associations created for high status
- power is being shifted with how patients function in the medical system

## Doctors Trials

- **1946-1947; Nuremberg**, world war 2 just ended and the victors are dictating the post-war
- one of the terms was there would be trials held for leaders of nazi regime
- shatters high view of doctors, showing they can be evil
- **USA vs. Karl Bradnt et. al.** he was Hitler's personal physician, he was the head of the medical office of the Nazis. Trial prosecuted doctors and administration, accused of war crimes and crimes against humanity. conspiring to commit those crimes, and membership of criminal org.
- **Geneva Convention** in the 1864 defined what those terms meant/ evidence required
- take place in Nuremberg because it was intact
- journalists from all over the world attended, including **Donald Cameron** from psychic driving.
- 7/23 were hung, some fled.

## Nazis

- Hitler was enforcer of racial hygiene / eugenics
- Hitler writes **Mien Keimph** in jail, it is about the purity of race, no race mixing, people are born unhealthy and we do not want to taint German blood
- Jews, criminals, the insane, homosexuals, VD carriers, are responsible for Germany's problems. he calls **Jews the Vector for infection of Germany**
- comes into power in 1933-1945; the **Shoah (holocaust in Hebrew)**
- main targets: Jews, millions are exterminated (3-5 million)

## Holocaust

- doctors play major role, would have been impossible to kill that many without the cooperation of the medical community
- physicians joined the Nazis early on, in huge proportions. because they believed in racial hygiene, believed in eugenics, and enjoyed the Nazi status.

## Nazi Regime

- 1st act: burn the books written by Jews and gays in Berlin
- 2nd act: forced sterilization laws
- 3rd act: passed the Nuremberg Laws; exclude Jews from German citizenship
  - **Law for protection of German Blood and Honour:**
    - no Jews allowed to marry or have sex with non Jews
  - **Reich (Rule):** attempts to define who is a Jew:
    - a person who comes from Jewish faith, is half, or even a quarter
    - could not hold office or vote
- in 1938 Jewish doctors could no longer treat Jewish patients
- Jews had the letter J stamped on them and wore the Star of David
- Jewish kids couldn't go to public school
- when the Nazis invaded Poland, WW2 starts

### **Action T4**

- euthanasia of adults and children living in care facilities, killed by lethal injection and used for research
- doctors accelerated killing by using poison gas
- would try to govern up the crimes and then send the families letters saying their loved ones died of a burst appendix overnight
- end of 1941, 75-100k people are killed. blueprint for the '**final solution**'

### **Final Solution**

- program of mass murder of european jews
- **Wannsee conference**: develop plan of systematic murder of Jews
- extermination camps set up for 3 purposes; **labour, medical experiment, and extermination**
- nazi's were excellent record keepers, own documents used in trials against them
- evidence of :
  - prisoners freezing to death to discover how cold you need to be to die
  - deliberate infection of deadly diseases like malaria
  - subjected to poison gas
  - forced to drink salt water to see when it would kill you
  - shot and wounded so doctors could perform surgery
  - deliberately burned to see how it would heal
  - repeated genital x-rays to sterilize

### **Joseph Mengele**

- angel of death; loved experimenting on twins
- apply electrical shocks on prisoners to see endurance
- inject dyes to change eye colours
- remove organs to see how long prisoners could survive
- sowed together the veins of twins
- escapes to SA, never caught. 1976 dies in Brazil

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## Lecture 7 - Women in Medicine

### **Women's Bodies**

- birth control; promotes **androcentric model** of sexuality (prepared women for sexual intercourse/male pleasure)
- **female centred model**: protects the omen from fear of pregnancy, helps regulate cycle

### **Deskilling**

- have innovations and the focus of medicalization on women's lives caused women to know less about their bodies and leaving them more dependent to professionals
- women have been giving more control over their bodies with education

### **Birth Control**

- pill, intrauterine device, condoms, sterilization, castration, abortion, diaphragm, coitus interruptus, natural family planning etc.
- most of these are geared towards women
- abortion made a crime in 1860, 1892 dissemination of birth control made a crime
- **Elizabeth Bagshaw and Helen MacMurphy** promoted birth control
- **Henry Morgentaler** was prosecuted and acquitted for establishing abortion clinics

### **History of Women and Medicine**

- have been scrutinized forever, technology have been typically male dominated
- **1960 graph** by **Theodore Cianfranci** portrays their history of obstetrics as an exponentially increasing number of accomplishments; in a whiggish illustration
- Mary Daly says obstetrics has been a patrilineal program of gynocide. she says femininity has been pathologized

### **Birthing as a Women's Domain**

- bleeding could be dangerous therefore menstruation was mystical
- in Orthodox Jewish culture, a postpartum woman is unclean until she takes a ritual bath
- when women were venerated as deities, their tasks were often feminine: agriculture, procreation, birth, rebirth, and healing
- in ancient Egypt, **Hathor** was a cow; the earth mother nourisher of the world
- **Artemis was the inspiration for Virgin Mary**
- 14C **china examination dolls** interposed a modest distance between female patients and male doctors.
- male doctors didn't attend births in the west until 17 and 18 C.

### Obstetricians View: Medicine for Women

- wandering womb; an etiological hypotheses invoked to explain women's symptoms, it was aimed at luring the uterus back into place
- seed of the child came from the father alone as stated by **Aristotle**.
- **Soranus of Ephesus** discovered different positions in which babies emerged
- **vaginal speculum** of 1st century AD was the only ancient contribution, found in Pompeii

### Caesarian Birth

- reserved for when the mother was dying or dead already
- the church wanted to save the infant's soul by baptism
- **Francois Rousset** published 15 cases of abdominal delivery while the mother was still alive
- **Nufer** operated on his wife and she survived allegedly

### Early Modern Midwifery

- **Rosengarten**: 1513 text as a handbook for midwives by **Roslin**
- **Ambroise Pare** innovated by adopting the traditional iras of his patents
- **podalic version** is used when a fetus is lying transversely, he located a foot and turns the baby then extracts it
- 17th C **Leeuwenhoek** announced sperm contains microscopic animalcules, cementing the **Aristotelian** view of generation
- 17th C midwifery begins to be taken over by men. introduction of the modesty blanket
- Prominent female midwives:
  - **Jane Sharp, Anne Hutchison (accused of witchcraft), Mme Victoiria Boivin**

### Forceps

- Chamberlains invented the obstetrical forceps, brought it to delivery in a locked parcel so that the secret wouldn't get out to "avoid temptation of unskilled hands"

### Anatomy of the Uterus and the Fetus

- **William Smellie** taught and practiced in London
- **William Hunter** became famously skilled teacher of anatomy in London
- he and his brother John's anatomical specimens on display in London
- **Hunter's Anatomy of the Gravid Uterus with illustrations by Jan Van Rymsdyk** brought anatomy into obstetrics, but historian **Ludmilla Jordovana** was concerned with its implicit violence
- **Jean Lejumeau** was inspired to listen to the placental belly and describe the fetal heartbeat and the murmur of the placenta; the **souffle**

### Control of Haemorrhage

- haemorrhage and infection were the major killers
- postpartum bleeding responded to **Ergot from the seale fungus** by causing contraction of the smooth muscles in arterioles and the uterus
- **Paulitzky and Stearns** both advocated for its use, but it also caused St. Anthony's fire disease

### Control of Pain

- use of anesthesia on obstetrics
- **James Simpson** advocated chloroform but met resistance from ideological groups/ religion
- until **Queen Victoria** took it under admin from **John Snow**
- women that took chloroform were wives of prominent professionals in ontario
- narcotics for pain were tested on women by **CJ Gauss**
- **Virginia Apgar** devised a quick and reliable method for assessing newborns

### Childbed (Puerperal) Fever

- bacterial **infection of the endometrium** especially by streptococci blamed on **miasma**
- Alexander Gordon and Oliver Wendell Holmes considered it contagious and was transferred patient to patient by doctors and midwives
- **Ignaz Semmelweis** found it less frequent in hospital sections with only midwives
- introduced hand washing in chlorine solution to rid 'morbid substance' off the hands of doctors
  - shows way to deal with problem without understanding germ theory, was ridiculed

### Surgery:

- **ovariotomy was performed in 1809 by Ephraim McDowell**, cleanliness was his only precaution
  - became the common treatment for many ailments including mental illness
- abdominal approach for uterine cancer in 1878 by **W.A Freund**.
- Pap smear was a cytological test for early diagnosis by **George Papinocalaou**
- **J Marion Sims** created the uterine guillotine to amputate cervix, practiced on slaves
- **Howard A Kelly**, improved techniques for vesicovaginal repair, hysterectomy, and oophorectomy

### Physiology of Pregnancy and Delivery

- testicular hormones found way before ovarian ones in 1923 by **E.A Doisy and E. Allen**
- **Zondek** developed pregnancy test, **Canadian Henry Friesen** discovered prolactin in 60's

### Contraception

- **Carl Djerassi** synthesized **norethindrone**, a progesterone analogue, creating the pill

### Women in Healthcare

- **Aetius of Amida** was a women doctor in Athens in the 5th C
- **Dame Trot** was known in Rome as a female doctor
- **Mary Toft** ridiculed male midwives with her rabbit prank

### Nursing

- **Florence Nightingale** improved care given to soldiers and founded the profession on womanly values of cleanliness, patience, order and service
- trained at hospitals until mid 20th C, students endured strict personal discipline, no marriage
- they were also trained in midwifery

### Women Doctors

- **James Miranda Barry** was actually a women army officer dressed up as a man, it was only revealed that she was a man at death, she did the first C-section in the british empire.
- after 1850, women were considered into medicine in schools
- 1849 **Elizabeth Blackwell** first woman to graduate western medical school
- John Hopkins let in 10% woman on order of **Mary Garret, donor.**

### Reading Review

#### Emily Stowe Trial

- first white woman doctor in Canada, she was interested in women's rights and education early in Canadian history
- she decided to become a physician when her husband got TB
- she tried to practice as a regular but was denied so she went to the states and became a homeopath
- when she was told to get regulation or be fined she didn't care
- **Sarah Ann Lovell** went to her for abortion, she didn't give her any abortion meds just a placebo so she would leave and not harm herself
- defeats the trial of **Coroner John McDonnell and Dr. Phil-brick**
- she was crucified because she was a woman and a feminist but won the trial
- **Fedrick Fenton** posed another trial but she also won
- it illustrated the uneasiness men had of women practicing medicine
- eventually she had her revenge, her daughter **Augusta Stowe Gullen** was the first woman admitted to graduate from a Canadian Medial college.

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## Lecture 8: Letdown Reflex and The Science of Breastfeeding

### **Dr. Phyllis Rippeyoung**

#### **Let Down Reflex**

- involuntary release of lactation, stimulated by the pituitary gland releasing oxytocin
- occurs with baby attached, with great pump, or spontaneously
  - also the concept of being let down, failure to breast feed.

#### **Struggles to Breastfeed**

- lesbians, almost all of them breastfeed
  - one woman a midwife, couldn't so she tried all sorts of remedies. not being able to breastfeed was associated with stress

#### **Feeding the State**

- shift from reproductive health, midwife caring to doctors treating pregnant women
- childbirth mediation, doctors pushed baby formula
- doctors claimed to know more about women than women did, made feeding about a science

#### **Formula in Dev. Countries**

- boycott when crisis in developing countries started
  - dirty water, lack of ability to breastfeed after using formula
  - with lobbying from WHO and UNICEF, standards were set for marketing formula to developing countries

#### **Neoliberal Context**

- Reagan says no because we can't interfere with business, Clinton disagrees
- WHO and friends aren't completely objective in regards to business either
- **Neoliberalism**
  1. free market, less government interference for better economy
  2. decline in domestic jobs, labour unions, and industry
    - jobs are going overseas where it's cheaper, lower wages
- economy and women's movement; less people cooking dinner and taking care of kids
- Neoliberalism pushes workers but takes away domestic women caregivers
  - breastfeeding was pushed to ensure childcare

#### **Ensuring Childcare**

- relying on science, shows it is the way to go for childcare
- breastfeeding will save money; when in reality it makes it harder for women to work
  - this leads to welfare programs

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## Lecture 9 - Technology

### **Technology**

- the greek words for craft
- tools, interments, techniques, and systems with practical application
- **technological determinism**: technology is the primary deriving force in history, because technology fuels changes in society and because technology is the primary force humans and social relations are secondary

### **Speculum**

- **vaginal speculum**, oldest obstetric technology, so that the vagina and vaginal canal/servix can be viewed. led to pap test, swab cells to find cellular abnormalities

### **Periodic Abstinence**

- natural family planning; knowing to abstain from intercourse during ovulation

### **Herman Knauss/ Kyushu Ogino**

- discovered ovulation takes place mid-cycle. in a 28 day cycle, it takes place at 14 days.
  - catholic church loves it because they were anti contraceptive in the first place and this fits within their ideology
  - dubbed the **Ogino-Knauss** method, depends on cooperation of cycle

### **Male Dependent Methods**

- condoms and coitus interruptus. because of incorporation, failed contraceptives led to a lot of unwanted pregnancies
  - alternatives were adoption which were considered shameful, or to procure mis-carriage

### **Canada Health Act**

- No federal law regarding abortion, it was considered a medically necessary service

### **Law**

- Canada follows english law on the matter
- abortion as not a crime if it was done before quickening which was fetal movements, occurring at 3.5-4 months.
- **it became fully illegal in 1869**
  - 1892 contraceptives became illegal
  - 1969 - both legalized

### **Abortion Law**

- crime for performers and the people who got it
- loopholes, not a crime if saving moms life in doing so. this gives doctor legal protection
- used to endure the wellborn multiply

### **Abortion as Backup**

- tried very hard to limit pregnancy but if it failed you would get an abortion
- during trials, abortion doctors were punished less severely
  - punished more severely were the non medical personnel
  - people would do this so that they kept the allopathic community safe

### **Married Women**

- most abortions - to limit amount of kids as it was fashionable to have less kids
- married women have sex more
- abortions to limit health strain on women

### **Douche**

- inserting lysol into cervix to promote miscarriage
- painful, burn out all mucous membranes in vagina
- also used was carbolic acid

### **1969 Law - Omnibus**

- occurs after lobbying
- “the state has no place in the bedrooms of this nation” - **Pierre Trudeau**
- contraception legal, homosexuality with consent is legal
- abortion is legal
  - under strict circumstances
  - all abortions done in hospital
    - **TAC: therapeutic abortion committee**: 35 doctors would rule on a case by case basis on whether or not the abortion would help the mother on a basis of life or death
  - abortions and issues with accessibility's, and need a doctor referral
  - if women could not meet these needs they travelled, self aborted, or underground abortions

### **Thalidomide**

- give birth defeats to children, deforming human limbs- **phocomelia**
  - marketed for morning sickness

## **DES**

- recommended to prevent mis-carriage
- caused a lot of cancers in female babies

## **Barbera Seamen**

- doctors care against pill to show side effects/ death for women

## **IUD - Dalkon Shield**

- has teeth, prevent it from falling out. painful, bleeding, sterilization, tubal pregnancies
- string was conductor for bacteria

## **Women's Health Movement**

- all of these mishaps lead to the women's health movement, the DCP is broken and technology is no longer seen as secure
  1. knowledge about own bodies is critical to empowerment
  2. help others women learn about their bodies and produce written documents
  3. women gathering examining each others vaginas
  4. travelling to inform
  5. lobbied for better laws
  6. abortion techniques taught in med school
  7. taught themselves abortion, ask for JANE.

## **1988 - Morgantaller Case**

- strikes down abortion law

## **Doctor Patient Contract - Pushback**

- 1960s pushback on doctor authority, breaking of contract
  - particularly in reaction to women's health
- **women distrust stemming from**
  - the pill controversy
  - civil rights movements
  - abortion laws, made it difficult to get abortion
    - selective abortion with arbitrary regulations
  - thalidomide, DES, Dalkon Shield
  - this all
- this all lead to questioning wether technology was a problem or solution

## Book Review

### Antecedents to Discovery of Stethoscope

- french revolution, surgery was amalgamated into medicine and it was taught in hospitals
- diseases were seen as constellations of symptoms, physical examination was cursory, empirical wisdom as held over theorizing
- **Jean Nicholas Corvisart** was interested in percussion - tapping the fingers on the chest cavity to see if there were any abnormalities
  - the source was from **Leopold Auenbrugger**
- **Rene-Theophile Laennec** became a doctor, and earned a position in Necker Hospital
  - He would place his ear directly on the chest of patients, but to be more sanitary and respectful to women he would roll a cylinder and use that to transfer the sound
  - he called these **stethoscopes**, from greek chest & to explore
    - used for **mediate auscultation - listening through mediator.**
  - he had to invent words to describe the sounds he heard.

### Anatomy

- anatomy had suddenly been made to fit clinical medicine, internal organs could be explored without the patient being a cadaver.
- organicism: all diseases would soon be linked to organic changes
- **Antoine Van Leeuwenhoek** - invented microscope after previous works by people experimenting with lenses in earlier times.
- **Conrad Ronteger** detailed the properties of X-rays
  - influenced medicine profoundly

### Other Instruments

- thermometers and kymograph, translated information of non visual nature to visual graphs
  - the word natural was starting to be replaced with numerical word normal
- diagnostic tech. was invented to see beyond the patients story and identify material basis for symptoms

### Hospitals

- places of sick peoples who could not look after themselves, kind of like a hotel for soldiers or injured people. gladiators had the **valetudinaria**.
- house care in Arabia inspired the hospitals in Europe. the concept of a **mauritan** and the idea of grouping the sick for care and wellbeing.
- monasteries started making places for healing, many appeared all over Europe - thousands
  - rules of admission, food was simple, limited number of beds.
- became the locus of education, wealthy benefactors established charitable institutions
- anaesthesia, antiseptics, professionalization, technology all made the hospital desirable

## **Biotechnology**

- **Asilomar** summit, splicing DNA and copying it into organisms to replicate it.
- PCR to amplify DNA

## **Distance: Doctor and Patient**

- all of these technologies come at a price, the tyranny of the normal.
- prior to stethoscope, it was possible to have a disease but feel fine.
- now the patient is no longer the sole authority on whether or not they're sick
- distance between the patient and doctor increases with technology, as we start to treat the data and not the person in question.

## **Article Review**

### **Egg and Sperm**

- male sperm spoken about in terms of achievement and success and then the egg spoken about in terms of passiveness and waiting to be activated
- socially constructed gender roles from the day we are born
- very prevalent in the literature
- ejaculation as a feat and menstruation as a horrible curse
- women's ability to 'only' produce x amount while men amazingly produce millions

### **Myth of the Male Pill**

- the market for the male pill is small
- not many men would take it
- there isn't a regulatory function we can try and stop to make men contraceptives
- we don't know how it may affect men long term.

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## Lecture 10 - Pediatrics

### Refrigerator Mothers

- two themes, **mother incompetence** and **mother blame** for children ill health
  - e.x. vaccinations, late mothers blamed for causing mental disabilities, breastfeeding and non breastfeeding mothers being criticized
  - mothers blamed for causing childhood autism

### Pediatrics

- emerges in 17th and 18th c, see a shift in social attitudes towards children
- focus of paediatrics, prevention of disease and disability in children
- as paediatrics rises in importance, mother blame also increases

### Mother Blame

- not looking after children, not looking well enough, causing disease in children

### Bruno Bettelheim

- interred in a nazi camp and survived, he went to become a big figure in psychology
- saw **parallels between prisoners of concentration camps and autistic kids**
- he believed these behaviours were caused by emotional **coldness of authority figures**
  - nazi guards were like emotionally cold moms
  - publishes the empty fortress
    - holds fathers less responsible than mothers
    - commits suicide in 1990

### History of Childhood

- **Philippe Aries** - major contributor, studied history of childhood from middle ages to the 20th c
  - what we understood as a child starts in the 17th c
    - child: **vulnerable, dependent, naive, playful, innocent**
      - innocent from sexuality and violence, hence hatred for perverts
- lengths and nature of childhood has varied over time

### **Childcare in Antiquity**

- infants were **swaddled**, wrapped up tightly
  - washed them with alkaline soda ash, arabs with oils
- good to keep baby warm and grow straight (otheropedie)
- keep babies out of way hung them on hook on wall
- breast milk was good, essential at certain points
- children were given opium to stop them from crying during teething
- **wet-nurses** - reserved for rich
  - unrelated woman to mother breastfeeding the baby
- infanticide
  - defence from this was rolling over or **overlaying**
  - common because no birth control, rids you of responsibility of having a baby
  - defence against adultery or illegitimacy
- children were **sold into slavery**, children were **maimed to become beggars**

### **On the Life of Children (1472)**

- first study devoted to childhood diseases
- artificial breast-feeding broth called panada
- flower based mixture pap; not a real substance
- infant mortality was a major problem, very high

### **17th/18th C**

- growth of **nosology** - classification of the symptoms of diseases + those children specific
- discovery of the high mortality rate in children

### **Mortality Rate**

- children in poor conditions/abandoned
- children were dying in wars
- 40% of all deaths were children under 5years old
- movement by reformers, physicians, educators to put special care for children
- OECD - remove aboriginal children from their parents to improve their health

### **19th/20thC**

- focus of child reforms zeroes in on the mother
  - mother targeted by childcare experts
    - promote scientific rearing

### **Dionne Quintuplets**

- 1938, North-bay; born into a french Canadian family, super rare occurrence
- mother already had 5 kids, they could not afford five more
- taken by ontario government as a tourist attraction and **scientific endeavour**
  - **scientific childrearing**
- 3 physicians responsible for their reading
  - **Alan Dafoe, Alan Brown, William Blatz**
- need much care and attention and mother milk
- basis of scientific child reading
  1. hygienic surroundings
  2. breastfeeding
  3. early potty training
  4. nutritious diet
  5. strict schedule, habit training
- motherhood was glorified, became women's sort of mission in life
  - women who don't are selfish and lazy and incompetent
  - mothers expected to subsided to the doctors requests

### **Concepts**

- motherhood, contraception, child birth and raising are not just biological aspects of life, they are socially constructed and affect out health long term

### **Reading Review**

#### **Pediatrics**

- from greek child and healer
- focused on disease prevention as much as on cure
- forced us to examine the determinants of health early on

#### **History**

- fingernail test to assure quality of breast-milk; if it retained its form
- babies offered mixtures or gruel
- on the eve of the French revolution, 5000 kids were abandoned annually

### **The Dawn of Child Welfare**

- hygiene became important
- dispensaries for child wellbeing and breast milk depots
- advice to mothers such as aeration of the homes, moderate diet and exercise
- rewards for bigger families

### **Professionalization of Paediatrics**

- devising safe methods for artificial feeding, in advancements in nutrition and sterilization and germ theory, doctors were able to make more and more of a difference
  - vitamin - life chemical blocks
- Virginia **Apgar** method for rapidly assessing newborns

### **Benjamin Spock**

- book bringing Freudian thought to the average americans
- third most popular book in the world
- suggested babies sleeping on their stomach, they died of sids

### **Social Pediatrics**

- children were recruited to work force young, legislation changed this and so they were exported by the **Barnardo** founded homes.
- John Caffey drew attention to shaken baby syndrome via radiology, broken bones

### **Reading Review**

#### **Unnatural Selection**

- with the ability to banish genes that kill us and make us susceptible to cancer, heart disease, depression, addictions, should we?
- PGD, pre-implantation diagnosis can show us which fetuses have which bad genes, dont use that one
- people are looking to use it for cosmetic purposes
- most people want to use it to save lives or better lives

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## Lecture 11 - Surgery

### **Surgery**

- greek term meaning **done by hand**
- history shows it was used in history to deal with trauma
- **themes:**
  1. warfare gives rise to certain surgical techniques
  2. much of what we see in medicine was based on the development of surgical models
  3. elective surgery becomes more frequent over time ; **e.g. cosmetics**

### **Early Evidence**

- **trephination:** holes dug into the human skull to relieve pressure, calm migraines, rid demons
- splints made of tree bark were used to set fractures
- **code of Hammurabi;** punish a surgeon by replacing slave or cutting hand
- ancient Egypt: mummification; organs extracted
- circumcision of men and women
  - man; religious rite and health reasons
  - women's infibulation: complete sewing with tiny hole left for urine/menses
    - **for socio cultural aesthetic purpose**
    - **done at easily ages with no anaesthesia**

### **Problems with Surgery**

- **infection, lack of antiseptics**
  - soaking the wound in wine or beer, alcohol killing the bacteria
  - greeks called it **suppuration**
- **pain, lack of anaesthetic**
  - opium and alcohol were used, or bleeding in standing position to force unconsciousness
- **loss of blood, haemorrhaging**
  - people would cauterize the wound; sealing the wound by heating it up

### **Amputations**

- removal of bad limbs/removal of cataracts
- repair of harelips/ **replacement of noses due to syphilis**
- removal of kidney and gall stones

### **Barber Surgeons**

- village surgeons, got their own guilds in the 1540
  - can apprentice, regulate themselves

## 1800's

- gases that can knock people out
  - **nitrous oxide, laughing gas**
    - laughing gas parties, similar to snogging glue
  - was not taken seriously by people or by surroundings
- **James Young used chloroform** on women in labour but this **prolongs labour**

## Infection

- antiseptics vs. asepsis
- **antiseptics:** destruction of bacteria causing disease, e.g. wipe a room and heat up instruments
- **asepsis:** absence of micro-organisms
- **Joseph Lister: carbolic acid before surgery**
- **Pasteur:** forms basis of germ theory: germs from outside the body

## Breast Cancer:

- limited mobility due to swollen arm lymph nodes
- doctors would not give clear cancer diagnosis
- **Biopsy + mastectomy** all in one procedure, no real consent. if we find cancer we will take it out before u wake up

## Halstead Radical Mastectomy

- **Halstead** was a cocaine addict
- popular because of belief in **waging war on cancer**, cutting it out of the body
- removal of underlying muscle, part of chest bones and sternum; swelling in arm permanent
- wasn't correlated with increased survival
- **sexism:** didn't care about women's bodies, thought we knew what was right. **no empathy.**
  - **cult of male experts, eventually doubt arises**

## Breast Cancer Advocates

- women who had the Halstead
  - evidence **lumpectomy** can be as effective as surgery
  - early detection no longer is the best idea, puts you at risk for useless surgery

## Reading Review

### **Surgical Instruments**

- greeks invented the syringe; called it **pyculos: pus puller**

### **Medieval Surgery**

- **Cosmos and Damian** were biblical healer saints
- **laudable pus:** thick yellow pus that incited healing
  - opposed to thin red/pink pus that associated inflammation, gangrene, cellulitis

## Reading Review

### **Barron H Lerner - What Do You Know**

- historian and physician
- **Halstead Radical Mastectomy:**
  - vogue procedure in the 1950s, designed for cancers located on the inner portion of the breast. patients undergoing the surgery lost the affected breast, both chest wall muscles, and a portion of ribs and sternum. doctors thought this was the only cure.
  - playing doctor vs. historian; tell patient she didn't need to have that happen to her? or let it be and allow her to live
  - Lerner says the operation was well meaning but misguided.
- he says historians are not necessarily better doctors, but it provides a unique opportunity to examine history and medicine. shows just how little we know about both past and future interactions of doctors and patients.

### **Angelina Jolie**

- found she had the BRAC1 gene, increases risk for breast cancer and ovarian cancer
  - she had an 80 and 50 percent risk
  - those with BRAC1 defect usually have 65% of getting it on average