Second Year
Sex, Gender and Medicine
Seminar
Lecture 2: Evidence

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Gender and Medical Evidence

Why has this become important?
Outcomes Data

Women < 50 years old have 24% higher mortality rate from myocardial infarct than men of the same age.

What are the symptoms of Acute Myocardial Infarct (AMI)?

- Week 14 Semester 1  Fred goes to the doctor?
- Week 1-3 Semester 3
Symptoms of AMI

- crushing chest pain
- pain radiating into the left arm
- feeling of acute indigestion
The most common symptoms reported by female patients suffering AMI are:

- shortness of breath – 58%
- weakness – 55%
- unusual fatigue – 43%
- cold sweat – 39%
- dizziness – 39%

(NIH NEWS, J American College of Surgeons, 2004; 198: 177)
Gender-blindness in medical research

- Women have only made up 7% of all cardiac research subjects.
- 2/3 of all pharmaceuticals used to treat both men and women have only been tested in men.
- 2/3 of all diseases that affect men and women have only been researched in men.
- 1 in 3 women die of heart disease in Australia.
Why is it ‘gender blind’?

- more developed medical research systems in countries with white populations of European genetic origins

- greater levels of funding in these countries with white populations of European genetic origins

- Medical evidence developed from research conducted in less than 10% of world population

- the teratogenic risk associated with involving women in clinical trials while in their reproductive years and potential longer-term outcomes for offspring
What’s being done about it

- NIH in the US has recognised the significance of gender blindness in research and its clinical consequences
- instituted a policy of requiring research of disease that affect both men and women to include gender as a variable of research
- allocates funding in line with this policy
- resulting in increasing numbers of publications indicating whether or not difference exists
So far this research has found difference in...

- Coronary heart disease
- Cardiovascular disease and arrhythmia
- Brain differences including number of neurons and plasticity
- Differential addiction times
- Responses to pain medication
- Eating and digestion
- Differential drug metabolism
- Differential treatment of dyslipidaemia
- Differential carcinogenic and toxic effects of tobacco smoke
...and more

- Differential risk of lung cancer
- Differential HIV viral loads and treatment options
- Depression from a genetic level
- Sex hormones and cognitive function
- Differential dietary treatment for obesity
- Gender differences in pre-pubertal children
- Differential lifetime medical costs
- Cataract Surgery
- Stress responses and the sympathetic nervous system
  (Taylor et al, in Psychological Review
It is no longer adequate to say

there’s ‘no evidence of difference’

where sex disaggregated data does not exist…

this constitutes a lack of evidence

not a lack of difference