

What do doctors think of human factors?

Prof. Rinaldo Bellomo

ICU

Austin Hospital

Medical illusions

- **Doctors believe they make free decisions** (a philosophical, sociological, neuro-cognitive, electrophysiological, and blood flow MR-demonstrated impossibility)
- **Doctors believe that what they do is important** (a historical, biological, paleontological, sociological and cosmic impossibility)
- **Doctors believe that their perception is accurate** (a physical, neuro-cognitive, psychological, and behavioural impossibility)
- **Society even believes that doctors are essentially only driven by the desire to do the right thing for the patient 😊....honestly!!!**

Human factors that drive behaviour in hospitals

- Tribalism (each specialty as a tribe)
- Hierarchy (your bosses can determine your career – they give you jobs/provide references)
- Mafia-like behaviour (we are all part of a cabal and need to protect ourselves from those mad people out there)

Human factors in hospital

- There is no reward for “good behaviour”
- There is no punishment or consequence for “bad” behaviour unless extreme
- The clients are deeply ignorant of science, trials, biology etc.
- Evidence is flawed and only statistical
- Evidence is only a minor driver of practice

Let's take red cell transfusion

- Blood is highly emotive stuff
- Many people think that more must be good
- Patients feel better if they get blood
- **They may also die more**
- Different patients may respond differently to blood
- In ICU patients, we only have one large level 1 randomized controlled trial (completed in Canada in 1999 using non-leucodepleted red cells) showing that less blood might be better (and is cheaper)

So how do we decide?

- Random process (bounded chaos)
- Discussion with colleagues (consensus)
- Prejudice
- Totems and taboos
- Power play
- Perceived risks
- Buffing up

Who decides

- Random
- Sometimes consultant
- Sometime registrar
- Rarely junior staff
- Sometimes patients (Jehovah's witness)
- All a form of “**bounded chaos**” (like The Law, Education, Policing, Politics, the Military, Administration etc.)

Can we make all this better?

- **Please define better?**
- We do not measure outcomes
- Which outcomes?
- Human factors are “process” ...if we spend effort making sure that process changes...we need to know that **changing process changes outcome**

Other human factors

- Doctor-nurse relationship
- Doctor-patient relationship
- Doctor-doctor relationship
- Nurse-nurse relationship
- Numerology
- Eminence-based medicine
- Eloquence-base medicine
- Surgeons vs. non-surgeons

Summary

- The hospital environment is a minefield
- Human factors are massive and overwhelming
- Their complexity is extraordinary and their drivers innumerable
- The general goals are shared
- The specific goals are chaotic
- Lack of clear evidence on outcome effect feeds this chaos