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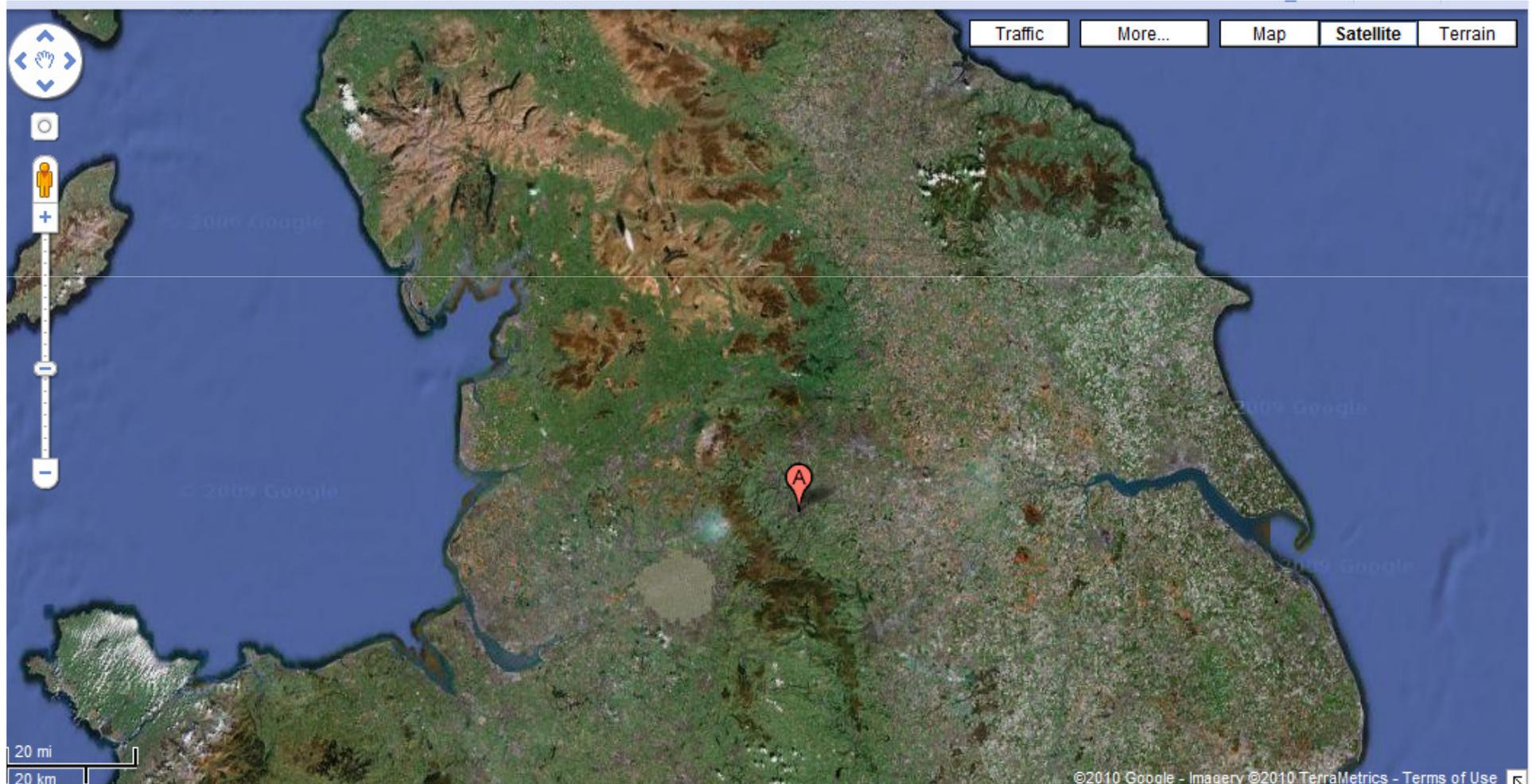
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# Student Nurses' experience of simulation in preparation for practice

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# Where is Huddersfield?



# Our Chancellor



Inspiring tomorrow's professionals

# Another famous son



Labour Prime Minister of  
Great Britain and Northern Ireland  
1964 – 1970 and 1974 – 1976

Lord Harold Wilson

Inspiring tomorrow's professionals



# Simulated Clinical Practice



- Although not a new concept, the use of simulation as a teaching and learning strategy is becoming more widespread (Murray et al 2008; Prescott and Garside 2009)
- Developed in health care training from the traditional 'practical rooms'
- During the early 1990s, Nurse training in the UK moved from the apprenticeship style model in local Schools of Nursing into Higher Education Institutes (HEIs)

# Simulation: A definition

‘A near representation of an actual life event; may be presented by using computer software, role play, case studies or games that represent reality and actively involve learners in applying the content of the lesson’

(Billings and Halstead 2005: 425)

# Simulated Wards









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Simulation involves turning this.....



Into this



And this



Turning this.....



Into this



And this



Turning this.....



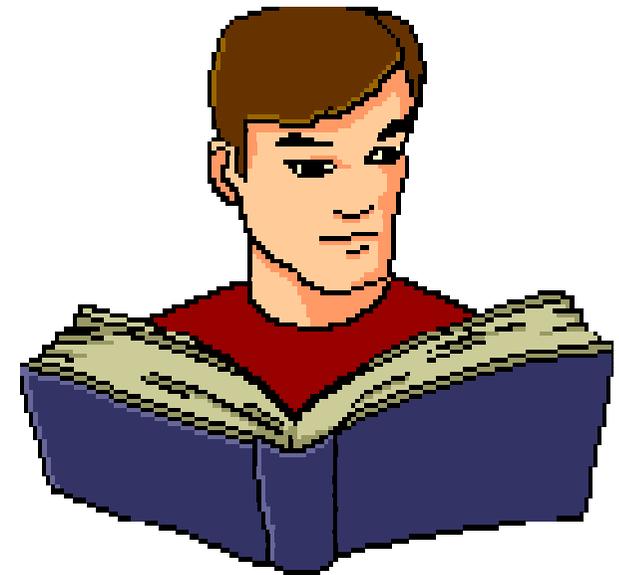
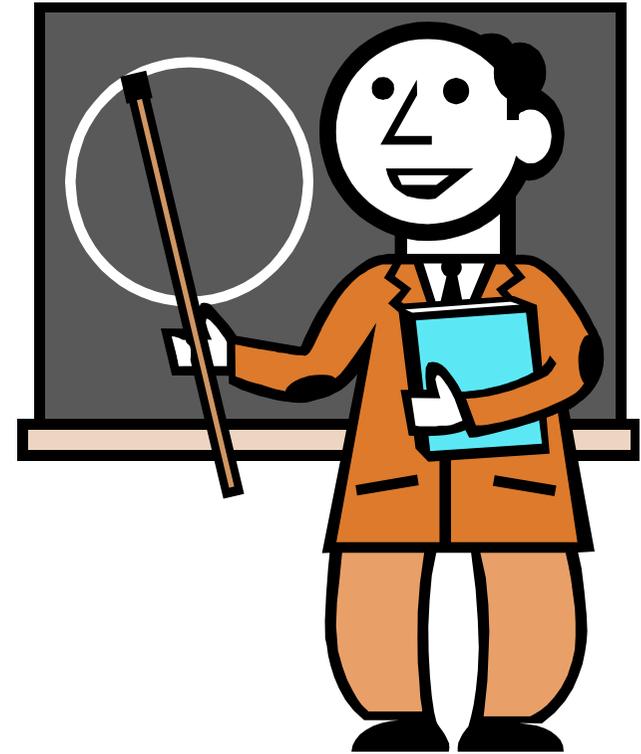
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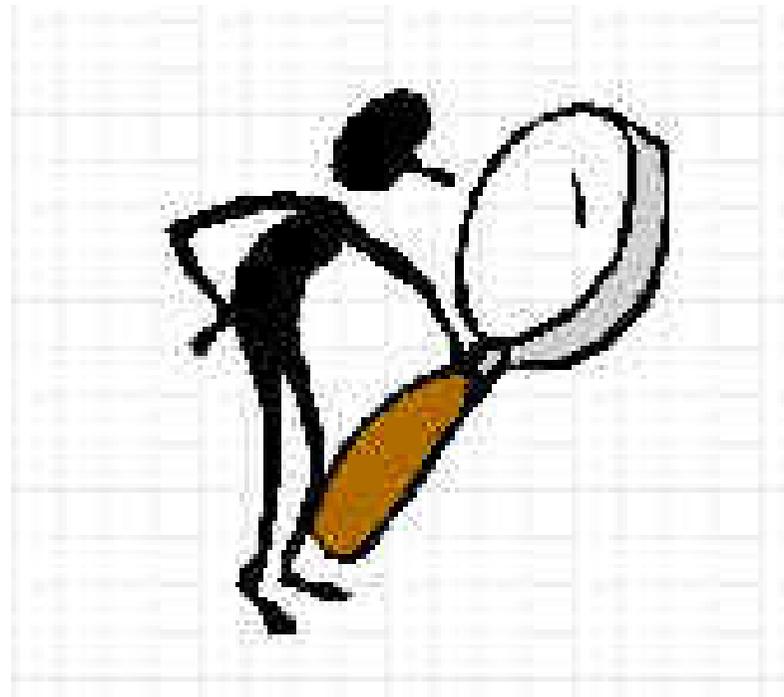
So what?

**Confucius (551BC – 479BC):**

I hear (or read) and I forget



# I see and I remember



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# I do and I understand



To some extent simulated practice is about practicing the skill, the ‘doing’.

But we believe it is more than  
that!



It is about applying the theory in real life  
situation.

Theory and skills are not separate entities.

# Simulation and Gestalt theory



- Different aspects of theory and practice can be linked to form a unified whole
- Gestalt 'aha' phenomena
- Gestalt theory originally developed by three German psychologists
  - Max Wertheimer (1880 – 1943)
  - Wolfgang Kohler (1887 – 1967)
  - Kurt Koffka (1886 – 1941)

# 'Aha'

- Student viewed as an active participant, responding to and interacting with the world around them (Harris 2005)
- Gestalt - Learning by insight
- The student's perception of a situation, cognitive or motor, undergoes a process of restructuring. They then see the situation in a new way – a new unified whole. They have gained insight (Quinn 2000)

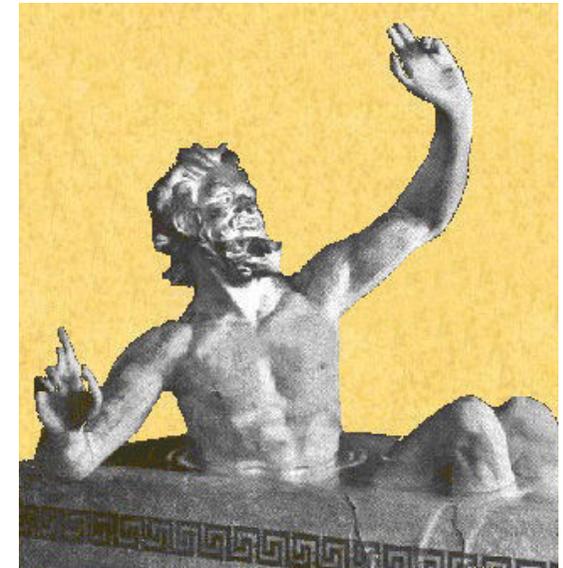
# Gestalt

- The mind actively groups, organises and makes patterns out of the stimuli experienced.
- The penny drops – the ‘aha’ phenomena
- The student will be able to use the insight gained in solving other problems



# Eureka!

We believe that this is a common aspect of simulation and have labelled it 'the eureka moment'



# The Simulation team

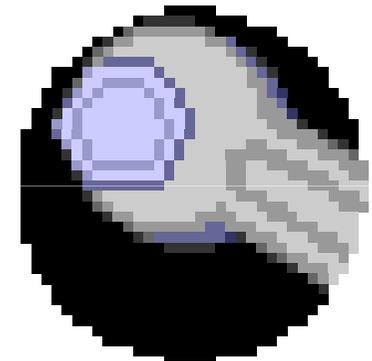
- Practice and skills co-ordinator
- Senior Lecturers (all branches)
- Lecturer/Practitioners
- Clinical Skills Trainers
- Technicians



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# Embedded

- Simulation is integrated within the whole curriculum not just ‘bolted on’
- Begins in week one – hand washing
- Focus in year 2 (Adult)
  - Acutely ill patient in a secondary care setting
    - ABCDE
  - Patient/client with a long term condition in a primary care setting
- Focus in year 3 (Adult)
  - Critically ill adult



# NHS Trusts



- Links with local NHS Trusts ensures that students are practicing with similar equipment, paperwork and policies as they do in their clinical placements

Calderdale and Huddersfield   
NHS Foundation Trust

The Mid Yorkshire Hospitals   
NHS Trust

# Assessments

- Year 1 (CFP)
  - Fundamental clinical skills
- Year 2 (Adult)
  - Assessment of an acutely ill adult using the ABCDE approach
- Year 3 (Adult)
  - Simulated Clinical Oral Examination

Assessing theory i.e. underpinning knowledge  
using simulation

















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# Background



- Major investment into simulation through curriculum planning, staff investment and the creation of the simulated environments
- The NMC (2007) project supported the embedding of simulation in the curriculum
- Justification for continued resources to further develop simulation as a teaching and learning strategy

# Methodology

- Mixed method
  - Quantitative
  - Qualitative (Phenomenology)
- Questionnaire
- Pilot study (Prescott and Garside 2009)
  - Second year Dip HE (Adult) students
- Full study
  - Over 500 students across the three years.
  - CFP – all branches

# Methodology (2)

- Following analysis of the questionnaire
  - Semi-structured interviews
  - Focus groups
  - Final year students (Adult)
  - Interviews facilitated by other Academic staff rather than those involved with simulation teaching
  - Digitally recorded and transcribed

# Phenomenology

- Grounded in philosophy and psychology
- Many authors attribute the founding of phenomenology to the 18<sup>th</sup> Century German philosopher Edmund Husserl (1859 – 1938)



# Husserl

- Husserl directed his work away from the traditional positivist approach towards phenomenology following the death of his son during WWI
- He believed that science had lost its contact with deeper human concerns (Cohen and Omery 1994)
- He also criticised the way that the scientific perspectives of the world were taken uncritically for granted (Kvigne, Gjengedal and Kirkevold 2002)

# Phenomenology

- Husserl devised the term 'lebenswelt' (life-world)
- Describes what people 'take for granted'
- Any attempt to understand reality has to be embedded in the experience of those living that reality (Gray 2009)
- Inductive not deductive
- Perception and meaning not measurement and cause (Paley 2005)

# Descriptive phenomenology



- *Epoche* (bracketing) (Jones 2001)
- Allows the generation of ‘pure knowledge and understanding uncontaminated by *a priori* beliefs’ (Brewer 2003: 227)
- Aim is to identify the essence of the lived experience i.e. the emerging themes that best describe it (Moule and Goodman 2009)

# Interpretive phenomenology

- Devised by Martin Heidegger (1889 – 1976)
- Criticised Husserl's approach
- Sought to understand the lived experiences rather than just describe them



# Heidegger

- Rejected the notion of *epoche* suggesting that pre-suppositions should be used to understand what was different or new (Ray 1994, Jones 2001)
- A tool to discover meaning (Moule and Goodman 2009)
- Interpretive research could not be free from the influence and judgement of the researcher (McConnell-Henry, Chapman and Francis 2009)

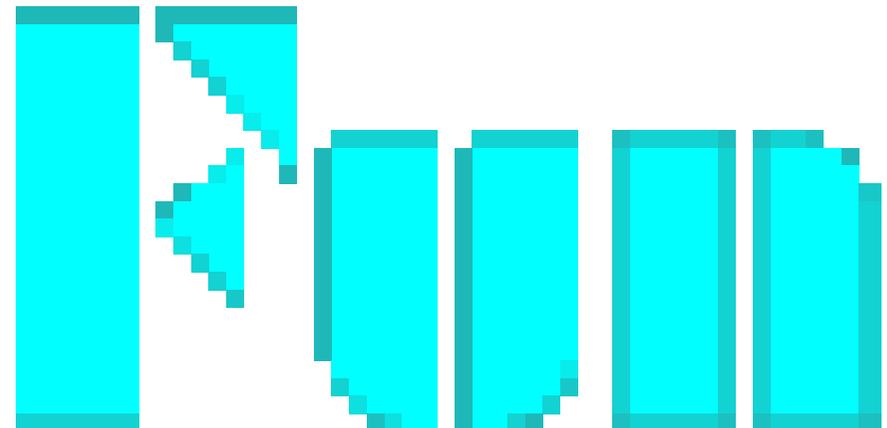
# Ethical considerations

- School research ethics panel approval gained for all stages of the study
- Informed consent gained from all participants



# Emergent themes (1)

- Fun
- Different learning styles
- Theory to practice
- Safe environment
- Realistic environment



# Emergent themes (2)



- Increased confidence
- Professionalism
- Peer/tutor observation
- Recruitment

# Fun!

Overwhelming outcome – simulation as a teaching and learning strategy is fun!

*‘It is great and is always a session I look forward to each week’*

*‘Learned more in one hour in skills lab than three hours of lecture, because you’re having fun’*

Recurring theme from evaluations was that students wanted more time in the simulation suite

# Different learning styles

Many of the students stated that they remembered more from a simulation session than a lecture.

*‘They [the simulation sessions] were easier to remember than a lecture’*

Many commented on nursing being a ‘hands on profession’ with one student suggesting

*‘That’s how I learn – through doing’*

# A challenge?

- Simulation ‘fun’ v lectures ‘boring’
- Practical aspects of learning ‘fun’ v theoretical ‘boring’
- We therefore factor in aspects of the theory into each simulation session
  - Related anatomy and physiology
  - Pharmacology
  - Normal physiological parameters
  - Legal and ethical aspects of care
  - Evidence based practice
  - Care of family/significant others

# Theory to practice – Simulation



Students reflected on the integration of theory, simulated practice and clinical practice.

*‘Good to have theory before practice and piece together what we have learned and read. It gives you an idea about practice. The theory, skills and placement all come together’*

*‘Nursing practice is totally new to me – simulation has helped me to link and increase understanding between theory and practice’*

# Theory to practice – Clinical Practice



Students commented positively on their learning through simulation compared with clinical practice.

*'I like the simulation sessions because you cover things that we don't always get the time to do in practice'*

# Theory to practice – pressures on mentors



These points were explored further within the focus groups.

Students concurred that these comments related to the pressure that mentors in practice were under. Many students felt that their mentors did not have the time to spend with them, demonstrating aspects of care and providing a rationale for the care.

Simulation sessions in small groups provided this opportunity.

# Theory to practice – Clinical pressures



*‘Jobs are given in practice and sometimes you don’t know where to start, but if you have had it explained in simulation you know how and why you’re doing it when you have no time to go through it in practice’*

One student commented that their mentor had said

*‘Do whatever they say at University’*

# Theory to practice – facilitators



As facilitators we have a responsibility to ensure that the information we give students is evidence based and current. Students do take notice!

One commented

*'You do things properly here!'*

Another stated that

*'No matter what the question, teachers can give you proper answers'*

# Safe environment



Simulation provides students with the opportunity to familiarise themselves with equipment and procedures in a safe, supervised environment.

Students are encouraged to 'have a go'. They reported feeling secure and able to make mistakes under the supervision of a facilitator.

*'It is good because you can make mistakes in the simulation sessions, without frightening patients, or putting them at risk anyway – it's scary to think what it would be like without it wouldn't it?'*

# Realistic environment



Students commented positively on the reality of the simulated environment.

*'The reality was reinforced by the skills rooms and being able to use the simulation equipment – it is very near to realism'*

# 'Reality'

- Students attributed this 'reality' to
  - Setting
  - Facilitators who ensured that a holistic approach was taken
  - Realistic scenarios not embellished for effect (Prescott and Garside 2009)
  - Having to deal with the unexpected, for example dealing with relatives or the telephone ringing

# Confidence

Working in smaller groups gave some students a confidence that they did not have in the large lecture based cohorts.

They also commented on the enhanced peer support.

*‘Peer support is helpful and you can ask your friends if you don’t know and sort it out between you which is good’*

# Confidence – team working



‘Makes you feel a useful member of the team.’

‘Helped build my confidence – gave each other  
feedback’

# Professionalism



We believe that the principles of practice in simulation should mirror those from clinical practice in order to encourage professional behaviour.

A recent development – changing rooms that now allow the students to wear their uniforms in the simulation suite.

This has had a positive effect on the students.

# Professionalism – uniforms



They reported that by wearing uniforms they

*'Felt better and looked much better'*

One student commented

*'It was weird, it made you compelled to be bothered. I do things in my uniform that I would just think 'no way! I am not doing it'. But in my uniform I just think it is part of my job and I just don't think about it, no question, I just do it!*

# Uniforms

Perhaps the wearing of uniforms may avoid a repeat of scenes like these.



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# Being observed

Many students reported a degree of anxiety at being watched.

*‘Some people, especially the quieter people found it intimidating’*

However, the students did acknowledge that they became less anxious with this over time

*‘At first it is really embarrassing, but you do get used to it, especially after the first year’*

# Being observed – the manikin



Some students struggled relating to the manikins.

*‘You do feel a bit daft at talking to a manikin’*

*‘At first you were really self conscious and worried about saying something wrong but you get over that he’s plastic...it’s weird you treat him like a real patient’*

# Recruitment



Students commented on the positive impact that seeing the simulation suite operational at Open days and when they attended for interview had on their decision to study at the University.

*'When I came for interview – I was impressed by looking at the skills lab.'*

# What did the students learn?



- Illness and disease
- Related nursing care and treatment
- Clarify issues relating to nursing practice
- Improved psychomotor skills
- Patient interaction
- History taking
- Questioning skills
- Team working – multi-professional
- Patient dignity
- Ethical, moral and legal aspects of practice

# Discussion

- This study supports the use of simulation as a teaching and learning strategy
  - Fun
  - Increased confidence
- Simulated environments can mimic reality
- Close working relationships with clinical colleagues enhances the ‘reality’
- This study also suggests that students consider practice through simulation to be commensurate with clinical practice

# Limitations

- Although over 500 students were involved they were all from one University
- Only the students' views were obtained
- Most data was obtained via questionnaire – allows a wider sample, but limits clarification of both question and answer
- Despite the limitations we believe that the study does support simulation as a positive teaching and learning strategy

# Recommendations

- Using simulation to ensure that all students are exposed to key scenarios from practice
- Develop use of DVDs in simulation (Bloomfield, Roberts and While 2010)
- Further development on the use of simulation as a method of assessing theory
- Research the impact that simulation as a teaching and learning strategy has on patient/client outcomes

# Any Questions?



Thank you for listening

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