

Researching professionalism: A quick tour of selected current projects

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Outline of this talk

- Short description of some research projects in the CETL:
 - Assessing leadership using simulation
 - Women and leadership
 - Improving assessment of communication
- Recent work on emotional intelligence

Assessing leadership using simulation

- 5th year students currently undergo training at the Merseyside and Cheshire simulation centre based at Aintree hospital
- Uses a high fidelity robotic patient that can be set up to test a range of clinical scenarios
- 5th year students are put into an acute situation
- We had noticed that what we were really testing was team working skills, leadership and professionalism
- Set up a project to see if we can develop a tool that can be used to assess leadership, team working and professionalism
- Tool has been developed and will be pilot tested in September



Women in Leadership

- A study to investigate perceptions of leadership and gender in undergraduate students and in successful senior women leaders.
- **Undergraduates:**
 - 22% of the total sample stated males made better leaders (comprising 14% of all female respondents and 45% of all males)
 - Male undergraduates were twice as likely to see themselves in a position of leadership in the future than female undergraduates (42.2% vs 21.7%)
 - 17% strongly agreed and 51% agreed that they would like more leadership in the curriculum
- **Issues raised in the interviews**
 - Unprepared, Treated differently because of gender, Networks
 - Family

Improving the Assessment of Communication

- Currently students have a final communication skills OSCE at the end of year 4. If they pass this they are fit to see patients in year 5
- However, still significant numbers of junior doctors who, having passed year 4 OSCEs, go on to have notifiable difficulties with patient communication
- Project to investigate communication skills of year 5 student talking to real patients.
- With student and patient consent, we video recorded 5th year students on GP placement
- We had also recorded their 4th year OSCE for comparison

Can you teach emotional intelligence?

What is Emotional Intelligence (EI)?

- Popularised by Goldman's book *Emotional Intelligence* (1995).
- Derived partly from earlier ideas about social intelligence (Thorndike, 1936) and multiple intelligences (Gardner, 1983).
- EI is claimed to explain differences relating to life success and psychological well being.
- “An array of non-cognitive capabilities, competences and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (BarOn, 1997).

Models of Emotional Intelligence (EI)

- *Ability models* focus on aptitude for processing affective information (Mayer et al., 2003). Correlated to tests of IQ (Mayer et al., 2003; BarOn, 1997).
- *Mixed Models* include an array of abilities, skills and personality traits. EI is not independent of general mental ability and often correlated yet distinct to personality tests (BarOn, 1997; Conte, 2005; Ciarrochi, 2000).

Why is EI important for medical students?

- EI is consistent with a package of interpersonal, intrapersonal and professional skills and attributes recommended by regulatory bodies such as the GMC (Lewis et al., 2004).
- EI has a dual role: academic success (Conte, 2005; Austin et al., 2007), better adjustment and well being (Austin et al., 2007; Slaski et al., 2003; Conte, 2005).
- EI may aid individual development of personal and professional competencies by mapping out areas for improvement .
- Debate on EI as a medical school component (Glick, 1993) and as part of medical school selection process (Carrothers & Gregory, 2000).



What did we do?

- Looked to see if it was possible to demonstrate a change in a measure of emotional intelligence for students who undertook a specially designed intervention programme
- The intervention was 8 sessions of 3-4 hours each.
- Sessions focus on developing multiple intelligences; interpersonal skills and strengths; individual learning styles; memory skills; personal profiles; and preparing for OSCE's.
- November 07 to May 08.



Research Design

- Quasi-experimental controlled trial using randomised principles
- One clinical rotation of 3rd year medical students assigned to the piloted EI intervention as part of the formal curriculum.
- 17 students within this group involved in the research and attended most sessions (Intervention group).
- Control group (n=31) 3rd year medical students.
- A Focus group of participants took place after the intervention to elucidate qualitative data about the student experience of the programme.



Methods

- A variety of reliable and valid questionnaires completed in Oct 07 (baseline) and immediately post intervention (April/May 08).
- Bar-On Emotional Intelligence Quotient (EQ-i) (Bar-On, 1997).
- Beck Depression Inventory Version 2 (BDI-II) (Beck et al, 1974)
- Beck Anxiety Inventory (BAI) (Beck & Steer, 1993)
- The Rosenberg Self-Esteem Scale (RSE) (Rosenberg, 1965)
- Feedback provided on request.
- Focus group analysed using the framework approach (Ritchie & Spencer, 1994).

Demographic data from questionnaires

- Limited demographic data collected - our research is focused on aspects of the student that can be changed.
- 48 participants (31 control group & 17 intervention).
- 31 female (65%) & 17 male (35%).
- Age range (19 to 29).



Statistical analysis

- EI moderate negative correlation with depression and anxiety. Strong positive correlation with self-esteem.
- No significant differences between control and intervention baseline. A significant difference only noted in Intrapersonal scale post - intervention (Independent t-tests).
- Within group analysis (paired t-tests) found a significant increase in EQi (EI) total, intrapersonal & interpersonal scales for intervention group.
- Significant gender differences in stress management, self-esteem and anxiety.
- No significant differences related to feedback.



Limitations

- Difficult to generalise data due to small numbers for quantitative analysis (attendance issues).
- Accuracy of self-assessments (social desirability and bias).
- Impact of confounding variables on questionnaire data (e.g. post-intervention questionnaires distributed close to exams)



Summary & future directions

- Limited significant difference between control and intervention
- Some significant findings within the intervention group found over time.
- EI promotes an awareness of professional and personal competencies and identifies areas for personal improvement.
- Focus group provided depth to the research by documenting student views and aiding in development of the next phase
- Next phase to deliver intervention to the entire year cohort at Lancaster (undertaking the Liverpool curriculum).
 - Development of methodology to include different measures of EI
And also to control for personality
 - Experimental work on measuring attitudes

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- All references used in this presentation can be found at <http://www.liv.ac.uk/cetl/index.htm> - current projects