

ASSESSING THE IMPACT OF INTERPROFESSIONAL  
EDUCATION (IPE) ON MEDICAL STUDENT ANXIETY:  
A QUASI-EXPERIMENTAL STUDY

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Submitted in partial fulfillment of the requirements for the degree of  
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## **CERTIFICATE OF AUTHORSHIP/ORIGINALITY**

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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## **Abstract**

Improving collaboration and communication in maternity care is key to increasing safety for women and babies. Different professional groups perceive ‘collaboration’ differently, with doctors regarding collaboration as conversations with their medical colleagues or where midwives/nurses carry out doctors’ orders. Nurses and midwives perceive collaboration as shared conversations with all members of the healthcare team, where their opinions are listened to and they actively contribute to patient care. These two worldviews provide insight into the challenges faced by the healthcare system in attempting to improve patient safety.

This study addresses one aspect of collaboration and communication by examining the impact of a program of ‘Interprofessional Education’ (IPE) on medical student anxiety during their Labour Ward clinical experience. IPE has been proposed as a means to improve collaboration and communication among health professionals although few studies have been able to demonstrate this link. The student experience in the Labour Ward was chosen as an example of a highly stressful component of the undergraduate medical student education program. Students have reported their experience in Labour Ward as being extremely stressful and midwives as ‘the women from hell’ (Lemmp & Seale 2004). The long-term hypothesis underpinning the study was that by providing medical students with a very positive and stress reducing experience, facilitated by a midwife mentor who role modelled collaboration and excellent communication between professional groups, students’ perceptions of their future colleagues would be enhanced and this would be demonstrated in more collaborative behaviour. In the short term, the question to be explored in this thesis became: Can a particular model of IPE reduce medical student anxiety in labour ward?

This study used a quasi-experimental design, with Before and After surveys to collect data from two groups of students experiencing one of two models of IPE (IPE1 and IPE2) across three different sites. IPE1 provided a midwife “champion” to introduce students to the birth unit, other staff members and women; and to model exemplary care for women throughout labour and birth. IPE 2 provided a model of care where students engaged opportunistically with any ‘available and willing’ midwife/doctor on duty who was caring for any woman at any stage of her labour and birth, in order to meet their learning objectives.

Following institutional ethical approval, a total of 105 fourth year medical students were enrolled in the study. Seventy students completed both Before and After surveys (66% Response Rate). The Spielberger State - Trait Anxiety Inventory (STAI), a well - known 40 – item validated measuring instrument, commonly used to measure anxiety in university students, was used to measure anxiety. The students were also invited to complete a Clinical Experience Logbook, to provide a simple description of the number and type of clinical experiences to which students in each location are exposed. Space within this logbook was provided for students to express their comments and reflections regarding care they had given to women in labour. This was also to record care (in the form of educational experiences, anxiety inducing experiences and general “care” of the student by midwives) that they had received during their labour ward placement.

The results of the study revealed that students who experienced IPE1 had significantly lower STAI (State Anxiety) scores at the end of their clinical experience placement (difference -6.5, SE 1.7,  $p=0.0003$ ) than students who experienced IPE2 (difference 0.8, SE 2.1,  $p=0.7000$ ). Therefore a model of Interprofessional Education that provides medical students with a midwife mentor to facilitate their clinical experience and learning opportunities in labour ward has been demonstrated to have a positive effect. Further studies are required to determine if this model of IPE has a positive impact on students’ perceptions of their working relationships with medical and midwifery colleagues and whether these perceptions remain following graduation.

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