Does Interprofessional Education Improve Safety and Outcomes for the Assessment of Fetal Welfare?

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Doctor of Philosophy

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Certificate of Original Authorship

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.

Helen Cooke

29th February 2016
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Peer Reviewed Publications and Conference Presentations


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List of Abbreviations

ACM – Australian College of Midwives
ACOG – American College of Obstetricians and Gynaecologists
AHS – Area Health Service
ALSO – Advanced Life Support in Obstetrics
CEC – Clinical Excellence Commission, NSW
CTG – Cardiotocography
DoH – Department of Health
EFM – Electronic Fetal Heart Rate Monitoring
FBS – Fetal Blood Sampling
FHR – Fetal Heart Rate
FIGO - Federation of International Gynecologists and Obstetricians
FONT – Fetal welfare, Obstetric emergency, Neonatal resuscitation Training
HIE - Hypoxic Ischaemic Encephalopathy
IA – Intermittent Auscultation
IIMS – Incident Information Management System
IPE – Interprofessional Education
ISBAR - Identify, Situation, Background, Assessment and Recommendation
LHD – Local Health District
MoH – Ministry of Health
NICE - National Institute of Clinical Exc
NICU – Neonatal Intensive Care Unit
NICUS – Neonatal Intensive Care Unit System
NIH – National Institute of Health (UK)
NSW – New South Wales
PDC – Perinatal Data Collection
RANZCOG - Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCOG - Royal College of Obstetricians and Gynaecologists
WHO – World Health Authority
Abstract

The New South Wales (NSW) Fetal welfare, Obstetric emergency, Neonatal resuscitation, Training (FONT) program commenced in 2008 when 233 midwives and doctors were trained to teach FONT to all maternity clinicians in 80 maternity services across NSW. FONT aimed to improve knowledge, teamwork, communication and clinical outcomes in fetal welfare assessment and maternity emergency management. This thesis presents an evaluation of the fetal welfare component of the FONT program.

Study Aim: To evaluate a range of educational and clinical outcomes before and after the introduction of FONT/IPE.

Methods: A pragmatic, mixed methods study design using four quantitative and qualitative studies was used. The studies included: a pre and post knowledge test administered to 233 clinicians who attended the initial FONT/IPE train the trainer program in 2008; a subsequent purposely developed, 34 item, Likert-scaled questionnaire administered to these same trainers, one year later, to evaluate satisfaction and engagement with the ongoing delivery of FONT/IPE; individual, semi-structured and in-depth interviews with a purposive sample of the trainers and maternity service managers, to further explore FONT/IPE engagement and impact; and an evaluation of NSW state-wide, maternal and neonatal clinical outcomes associated with fetal welfare, before and after the implementation of FONT/IPE. The outcomes of the four studies were linked using the six levels of the “Barr/Kirkpatrick Educational Evaluation framework” (Barr et al. 2005).
Results: FONT/IPE increased clinicians’ knowledge, skills and confidence in fetal welfare assessment, communication, escalation and advocacy and resulted in improved collegiality and clinical debate amongst most staff. There was evidence of resistance to changing the organisational culture by some senior medical staff with analysis of interviews revealing two major themes of either fear of power loss (on the part of medical staff) or power gained (on the part of midwives) through participation in the program. These themes were interpreted using a framework of professional closure strategies (Witz 1992) and insights provided by the science of neuroleadership. There was an associated significant reduction in neonatal death rates (p=0.038) and a reduction in rates of Hypoxic Ischaemic Encephalopathy (p=0.032) when comparing data from four years before and four years after the implementation of FONT, however the clinical outcomes cannot be viewed as directly arising from the FONT/IPE intervention.

Conclusion: FONT/IPE and IPE programs generally, may be further enhanced using a framework of “RESPECT” (Reciprocity, Equality, Status, Patient/Woman, Experience, Connection and Trust) arising from this study, to overcome barriers to success.