

**Kenda Crozier PhD abstract
University of Ulster June 2005**

**The development of a concept of birth technology
competence in midwifery**

Abstract

Background: Generally there has been little discourse within midwifery about the use of technology in birth. An exception to this has been the work of Sinclair (1999) which explored midwives' readiness to use technology in the labour ward. This thesis thus builds upon that empirical work by defining and developing the concept of birth technology competence.

Objective: To develop the concept of birth technology competence in midwifery. This study aimed to define the concept of birth technology competence and confirm the existence of the concept in midwifery practice.

Method: The Swartz Barcott & Kim Hybrid model of concept development was used to examine and define the concept of birth technology competence. This involved three phases: 1) theoretical phase utilising a concept analysis to develop tentative attributes of the concept; 2) fieldwork phase using an ethnographic approach to examine the concept in the social context of midwifery practice; 3) analysis phase in order to synthesise the data from the previous two phases in order to develop a model of birth technology competence in midwifery. The model was tested by a process of participant validation.

Participants: Midwives in two UK consultant led maternity units.

Findings: Findings were used from the theoretical phase of the study to identify potential attributes of competence which could be applied to technology usage. The attributes were used to inform the early observations in the fieldwork. The observational field work further illuminated criteria for competence by following midwives in their everyday work and observing technology use in practice. The analysis identifies a model of midwifery technology competence in 3 main categories: *bureaucratic competence*, in which the defining attribute is that practice is governed by policies and guidelines; *classical professional competence* in which the defining attribute is the use of the professional's own clinical judgement; and *new professional competence* in which the defining attribute is woman centred care. Participant validation using a focus group of midwives was used to validate the model of birth technology competence in midwifery.

Implications: The method of concept development has been refined and developed within this study by the addition of the phase of respondent validation. The identification of a concept of birth technology competence is of use to practitioners and educators in that it helps to orientate the training in technological skills and also identify areas for assessment of this essential midwifery skill. Understanding the ways in which technology is used in midwifery practice may also further inform the debate about normality in midwifery. The development of new professional competence in midwifery utilising a communicative action approach is recommended to enhance woman-centred care in midwifery.

