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To do or not to do? That is the question.

An investigation into the enablers and barriers North Coast Area Health Service midwives encounter when integrating the skills and knowledge learnt in short courses and workshops into their clinical practice.

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Abstract

Objective: To build a theory of the factors influencing the implementation into work practices of knowledge and skills learnt in short courses and workshops by midwives.

Method: Nine midwives from six different women's care units were interviewed. Using grounded theory the interview data was used to build and refine a tentative model that was validated by the last four midwives interviewed.

Results: There was a staged progression from training to implementation via a midwife's attitude influenced by both course presentation and workplace environment. At the course it was essential that the midwife became enthused by the presentation for implementation to take place. This enthusiasm was moderated by both course content, which had to be substantially new and relevant, and course presentation, which needed to be interactive and contain practical components. If enthusiasm was achieved the midwife needed both early and frequent practice opportunities, when back at the workplace, to build up competence. These practise opportunities were moderated by work environment including unit culture, management and peer support and external factors. If both enthusiasm and competence were achieved, the skills learnt in a course were likely to be implemented.

Conclusion: Enthusiasm is the key factor for implementation of course content to take place. Without this the knowledge and skills will not be implemented. If enthusiasm is present there also need to be opportunity for competence to be built over the following weeks and months.

Implications: Effective course presentation principles should be applied to all training methods including e-learning. Workplaces to be proactive and provide practice opportunities for successful implementation of new skills to take place.

Keywords: knowledge translation, short course, barrier, enabler, midwife

Executive summary

The problem

Health services provide their staff with many continuing education opportunities which consist of both short courses and workshops delivered by the district itself or with the opportunity for staff to participate in outside training. There is a potential problem though, with the implementation of the knowledge and skills not being incorporated into work practices. This study has explored what are the barriers and enablers to new skills implementation by midwives in the former North Coast Area Health Service.

Method

Nine midwives from six different women's care units were interviewed. Using grounded theory the interview data was used to build and refine a tentative model that was validated by the last four midwives interviewed.

Results

For implementation of new skills and knowledge gained in a workshop environment to take place certain conditions were necessary both during the course and after return to the work unit.

At the course

For course knowledge and skill to be considered for implementation the course has to enthuse the midwife. This was found to be the crucial factor in the whole process. Even if the midwife is excited about attending the course, if she or he finds it boring he or she is not likely to implement the information or skill taught. Mandatory emergency courses are the exception to this and midwives will practice and implement what they learn in those courses. Both content and presentation modifies the enthusiasm a course generates. The course has to contain substantially new information and the presentation has to be interactive and contain a practical component. If this is not the case the course contents are unlikely to be implemented.

At the workplace

Even if the midwife feels enthused by a course she or he still needs to build her or his competence and confidence. This competence must be reinforced back at the workplace. This is done in two ways. Firstly, he or she needs to be given early and frequent practice opportunities. Secondly, if the work unit's culture is welcoming for new practices to be explored, confidence can be greatly enhanced by sharing and discussing the course contents with other work colleagues and sometimes finding a more experienced midwife to act as a mentor.

Outside (the work unit) barriers

Four areas outside the immediate workplace can act as 'instant stoppers' for implementation to take place. Those areas, doctors' attitudes and decisions, outdated policies and procedures, litigation concerns and hospital and health service administration that seem unresponsive, are interrelated in complicated ways and leave the midwives feeling frustrated and helpless.

Recommendations

The following recommendations are suggested to maximise the amount of skills implementation.

At the course

Management and workforce development departments should select courses and facilitators according to both content and pedagogical criteria. Regarding pedagogy, courses need to have substantial non-didactic components (with emphasis on practising new skills) and this should be expressed in the course outline.

At the workplace

Unit managers need to roster midwives who have been to courses in places and roles (e.g. birthing suite) where they can practice the new skills, soon after the course completion.

Unit managers need to encourage and or create processes where knowledge is shared between midwives and mentorships are developed.

Outside (the workplace) influences

Hospital Managers, Maternity Unit Managers, and The Directors of Medical Services need to ensure evidence based practices are supported and create opportunities to review doctors' and midwives' decisions and practices regarding the best outcomes for mother and baby in a professionally cooperative and respectful way.

Hospital management should streamline and expedite policy and procedure development and simplify how changes are made following the production of new evidence.

Introduction

Providing and supporting continuing staff education is seen as important in many organisations. For some professions, such as midwifery and nursing, it is part of the requirements of continuing professional registration [1]. On the other hand, it has been estimated that only 10% of investment in continuing education and training finds its way to improvement in work practices [2]. Despite extensive research into the viability, effectiveness and evaluation of continuing education in healthcare disciplines, no clear picture about the effectiveness of the studied programs emerged [1].

There is a considerable amount of literature published about theories of adult learning [2-7], knowledge transfer [8-10], theories and models of factors effecting the introduction of evidence based practice (EBP) into workplaces [8, 9, 11-15] as well as written surveys of nurses and midwives about what they see as barriers to applying best practice into their work practices [16-20]. What is missing is an in depth qualitative study into what midwives feel influences them to implement what they learn in short courses or workshops when they return to their workplace. This qualitative research explores these factors using grounded theory.

Literature Review

This literature review will be wide ranging since in grounded theory you start with a question without doing much reading beforehand and then use the information gained in the interviews to formulate a theory explaining the answer to the research question. Once you have a tentative theory you then read extensively about all the themes that have emerged [21-23]. The literature review is used to inform you as to the transferability of your theory.

Adult learning principles

Adult learning principles have developed over time. The ability of adults to learn was questioned in the past [4]. Around 1970 Malcolm Knowles, an early expert in adult learning theory, developed a theory stating that adults learn differently from children and called it andragogy [6]. It was underpinned by characteristics of adult learners. He considered adults were autonomous, practical, goal and relevancy oriented, based new learning on their already accumulated experience and have a need to be shown respect [6]. Knowles ideas that adults learn differently from children were controversial [5]. Nowadays, we are aware that most adults incorporate new knowledge with old and thus make new sense of their world, instead of purely acquiring knowledge [2]. There is now a raft of theories that help to explain the learning processes of adults. They all have some things in common. They see the adult learner as someone, who processes what they learn into a whole, and that the context in which the person exists is important [3]. Even though theory is important, in reality educators' teaching methods are pragmatic, that is they use a mix of what they feel works for them [7].

Knowledge transfer

The way we transfer knowledge into practice is known by many names: knowledge translation, knowledge transfer, knowledge linkage and exchange, knowledge mobilisation, knowledge utilisation, research utilisation, research transfer, research into practice, diffusion, dissemination, and implementation [8, 9, 24]. I will use the term implementation in this report.

Despite the name variation the literature agrees on its purpose. It is to apply, over time, knowledge and skills learned in a training situation into work practices (to the benefit of the client or patient) [10].

Theories and models

The interest in building models for knowledge transfer has been fuelled by the rise in the need to embrace evidence based practice (EBP). This need became apparent because, for example, 30-40% of patients in the US and the Netherlands did not receive care based on science and 20-25% received unnecessary or harmful treatments [11]. In fact, the Cochrane Collaboration, which is one of the main instruments of EBP, was inspired by systematic reviews of pregnancy and child birth related research. [25]

What is evidence based practice?

One approach is that EBP is clinical practice built on pure research [26], typically using findings from randomised controlled trials. These findings often take eight to 15 years to find their way into general clinical practice and then they are adopted either whole, partly or modified [27]. Steven Lewis (2007) has explored the reasons for this in a thoughtful paper called 'Toward a general theory of indifference to research-based evidence' where he explains that EBP is not a comfortable fit for clinicians making decisions about actual clients in concrete situations [28]. Evidence based practice is often embedded into policies and procedures, which in turn are written as part of risk management.

Legal issues, risk management, policies and procedures

Health care organisations have a strong interest in protecting themselves against litigation [1]. Developed countries have moved to a culture where adverse outcomes are no longer accepted as part of life [29]. One study in the US found, after controlling for medical and social risk factors, that midwife lead births had a lower death rate (19% at birth and 33% neonatally) then physician lead births [30]. The reasons for this have not been explored. One possible reason could be that midwifery philosophy is client centred and sees pregnancy and birth as a natural process not primarily as a medical condition which requires intervention [31-36].

Clinical practice guidelines, policies and procedures are ways to standardise treatment and ensure best practice and safety are adhered to [29]. At their best, they greatly enhance the treatment of clients. At their worst, they simply function as a safety net from litigation and do not take the client into account [29, 33]. Sometimes different guidelines contradict each other, either at different work sites or for different groups of professionals dealing with the same client [37, 38]. For procedures and guidelines to have the best chance to work in a particular context, as well as evidence from clinical trials, they need to be tempered with elements of clinical experience and skills, patient past experience and local data and information [35, 39].

Models

Models and theories help us better understand processes and situations by explaining the interactions between complex variables. Adult learning, cognitive, behavioural, social learning, marketing and organisational theories, as well as diffusion of innovation and persuasive communication theories all suggest different ways of translating knowledge into practice [9, 11]. Most models are based on general theories, but are more flexible and detailed. How much flexibility there is depends on the particularly derived theory or model [8, 12-15].

Most models include steps, from assessing the need for change to a sustained change in practice, and many of those models include feedback loops [8, 9, 12, 13, 27]. How many steps and how they go about the process varies. There is a consensus that no model works best in all situations so that there is a need for multiple and or different approaches in different settings for implementation to be successful [11, 40].

Kitson et al.'s function for successful implementation

An example of a model that fits the current study of midwives implementation of training into work practices is Kitson et al.'s (1998) formula: SI=f(E,C,F) which means that Successful Implementation is a function of Evidence, Context and Facilitation [12]. The authors suggest that all dimensions have to be addressed at the same time, not in a linear fashion. Although this study did not concentrate on EBP all three areas, evidence (content of course), context (workplace and larger health environment) and facilitation (presentation of the course) are very important in clinicians' decision to implement new skills into their work practices.

Evidence (content)

For staff undertaking training to actually consider implementing what they learnt, the content of the training had to be relevant to their work [2, 7, 10, 15, 27, 41]. The information and skills also had to make practical sense, that is, be credible when compared to the staff member's previous knowledge and practical experience [38, 39, 42]. It was also important that the staff member saw the information and skill as needed, not just as an optional extra [6, 15, 42]. This shows the importance of Knowles's suggestion that adult learners need new learning to be based on old knowledge and to be relevant and practical [6].

Facilitation (presentation)

Kitson et al. (1998) suggested that facilitation was one of the key variables for successful implementation [12]. Knowledge can be broken up into three parts: conceptual knowledge (information), procedural knowledge (skills) and strategic knowledge (knowing what to do when) [42]. All three types of knowledge need to be addressed. Therefore the likelihood of the knowledge and skills taught being implemented are greatly improved if they are presented in an interactive fashion instead of as didactic lectures [11, 17, 41, 43-45]. A Cochrane review by O'Brien et al. (2001) found interactive workshops produced a 'moderately large' (i.e. >30%) absolute change in professional practice compared with lectures which were 'unlikely' to produce change [46]. The need to feel competent is essential for any implementation of new knowledge and skills to take place [10, 44]. This is achieved by practice started at the course or workshop and continued at the workplace. Practicing skills needs to start soon after the course and continue on an ongoing basis [2, 7, 41, 47]. If this does not occur the new skills will be lost [10, 34, 43, 47, 48].

To succeed in this the facilitators need to know their material very well. In a study involving 61 faculty and 77 nursing students at a college in Canada, participants were asked to rank seven factors of teacher effectiveness. Knowledge of the subject matter was ranked first by both students and teachers although the students ranked it significantly higher (p=.002) than the teachers [49]. It is sometimes better if the facilitator is from the same or a similar profession as the people being trained because this can make them better able to translate the new information into the workplace context [24].

Context

Context means the environment the clinicians work in [50]. It refers both to the unit they work in and the wider organisation [50, 51]. Contexts are characterised by culture, leadership and measurement [50]. For the purposes of this paper we will investigate the literature around culture and leadership only.

Culture at the work unit

Culture is basically summarised as 'the way things are done here' [50, 52]. A culture is based on beliefs and values which are based on assumptions which are often not verbalised or consciously acknowledged [27, 50, 52]. There are sometimes conflicting cultures between different work units, a work unit and the organisation as a whole, or even within a unit [38, 50, 51]. There are also sometimes different cultures within the same professions, for example, some midwives adhere to the philosophy of childbirth as a natural process while others believe in a medical model [29, 34]. This proliferation of cultures can lead to considerable tension [33, 50]. Culture is not a static concept, individual people can affect their workplace culture which can influence the culture of the whole organisation and vice versa [27].

Leadership at the work unit

Leadership has a big influence on a unit's culture [50]. Transformational leaders encourage a shared culture that is open to change [10, 38, 39, 50, 53]. Those leaders are able to transform a work unit from having a psychological attitude of 'this is the way things actually are' [51] to an environment open to learning [50]. On the other hand, if there is a lack of supportive leadership this can act as a barrier to implementation of new skills [2, 27, 47, 54].

Colleagues

For new knowledge and skills to be successfully implemented supportive colleagues are very important [2, 18, 54, 55]. This type of colleagues create an opportunity to share and reinforce the new skills [17]. Colleagues that already use a skill can mentor less confident staff [2, 38]. It can become a two way street, the midwife who has been to a course receives encouragement and reinforcement, while his or her colleagues learn new skills from him or her [10]. Unfortunately not all workplaces have this sort of culture [2, 14]. Many places have subgroups or cliques who oppose each other [56]. This can even develop into horizontal violence [57].

Culture at the organisational level

To understand workplace culture it is important to understand culture not just within an individual work unit, but also at the organisational level. Two important aspects of organisational culture are hospital management and the relationships between medical practitioners and nurses or midwives.

Hospital management

Hospital management is in the difficult situation of needing to balance political and practical realities against conflicting needs of front line workers [1]. Unit managers and staff sometimes feel undermined in their efforts to promote change in practices by senior management [53, 58]. The emphasis on risk management above client centred practice, as expressed in policies and procedures, can be seen as problematic [1, 29, 33].

Medical practitioners and nurses or midwives relationships

This study brought up the relationship between doctors and midwives as a factor influencing midwives implementation practices. The medical and nursing or midwifery professions have a long history of discord [36]. The explanation given for this in journal articles is often influenced

by which theoretical framework the authors subscribe to. The most common frameworks are power differential and or gender approaches [36, 59, 60]. As well, the two groups come from different philosophical backgrounds. The midwives believe that childbirth and pregnancy is a natural process and therefore should be treated holistically [32, 34, 35]. For example, 40% of midwives use some sort of Complementary and Alternative Medicines (CAM) during childbirth [32]. The doctors, on the other hand, come from a medically interventionist perspective [29, 30]. Taken together those two approaches can complement each other in a fruitful way. For this to happen both groups have to acknowledge their need for each other's skills [61]. They need to learn to work 'together', not 'alongside' each other, while respecting and trusting each other's expertise and judgement [59]. The degree to which this happens vary considerably between different work units [36, 55].

Unfortunately, many studies have found that the relationship is often adversarial [29, 35, 36, 60]. Even though it can be described as a struggle about professional boundaries it have taken on personal meanings [36]. Midwives can feel subordinate and undervalued [16, 51] and feel doctors are unwilling to be challenged and that midwives' ability to practice their skills is subjected to the 'impulse' of medical staff [36, 48, 60]. Even though they are responsible for developing policies, those policies are signed off, or not, by obstetricians' approval [33]. This can lead to outdated policies. In some studies midwives felt whenever doctors were present they took over, whether it was at births or inter-professional discussion groups [33, 36, 48]. This lack of respect went both ways. Doctors felt their specialist training, experience and professional judgement weren't acknowledged by midwives [36] and felt that they were all placed in a group of 'authoritarian meddlers' instead of being treated as individuals, even though some have an emotional need, like midwives, to be present at a good birth [36].

The literature review so far has explored themes that the midwives in the present study brought up. Before I started the interviews I had already read some studies that used written surveys for data gathering. The items concerning time and resources in the instrument used were of particular interest in connection with the current study.

Written surveys

The most commonly used instrument regarding knowledge transfer is the BARRIERS to Research Utilization Scale [16-18, 58].

Time

The statement that 'there is insufficient time on the job to implement new ideas' is one of the top three barriers in 13 published studies using the BARRIER scale [58]. Time as a crucial barrier has also been reported in studies not using the BARRIER scale [19, 20]. This has been questioned by Tyden (quoted by Nilsson Kajermo et al. (1998)) , who suggested that 'lack of time may be a socially acceptable excuse, when it really may reflect lack of interest, lack of need or lack of knowledge' (p. 805) [16]. Garrish et al. (2008) also found that 'Junior nurses perceived lack of time and resources as major barriers, whereas senior nurses felt empowered to overcome these restraints' (p. 62) [19].

Resources

Lack of equipment is also often cited as a barrier to implement change in written surveys [16, 20]. When Canada introduced a guideline recommending that intermittent auscultation be used for foetal health surveillance using Dopplers, which were in short supply, many nurses did not let this stop them. Instead they improvised a solution to the lack of equipment [38].

Research Question

What are the factors that help or hinder the transfer of knowledge and skills learnt in short courses or workshops attended by midwives into their clinical practice?

Originally this was only meant to be about one course, Smoke Free Beginnings, teaching midwives about smoking cessation brief interventions in pregnancy. The first midwife interviewed stated she did not have any smoking clients so I and the midwife broadened the scope to include any course she had done. I used this broader scope for the rest of the interviews. Using grounded theory this is acceptable since the content of the inquiry is meant to be guided by the interviewees.

Methods

Grounded Theory

Grounded theory as described by Kathy Charmaz in her book Constructing Grounded Theory [23] is a way of understanding a phenomenon from the interviewees' perspective. Each interview is transcribed and coded before the next interview is conducted so that themes occurring in that interview can be explored in the next interview [22, 23]. Grounded theory then transforms the themes identified into a coherent interpretive theory showing the links, and conditions, making up the path from a to z with all its intricate byways [22, 62, 63]. This theory is often expressed in a 'map' called a diagram by Charmaz [23]. To test the theory you should look for exceptions. Do those exceptions actually lend weight to the theory or show that the theory is flawed? [62]

I and my mentor chose to use a qualitative research methodology because we did not want to test a theory or idea we already had. We chose grounded theory because we were interested in the practical implications of the study and therefore in developing a model or theory that will explain the factors which influence midwives' implementation of new skills into practice and not merely describing their views.

The researcher

I currently work as a Research and Evaluation Officer for Health Promotion in Lismore. My current major project is involved with the evaluation of the effectiveness of a smoking cessation course Health Promotion is offering to midwives. I am a woman with two grown up children which gave me a connecting point with the midwives during the interviews. Even though I work in evaluation, my degree is in sociology and IT and my research skills comes from 'on the job' learning. This HETI scholarship is my first attempt at qualitative research.

Participants

The first midwife interviewed by me was an acquaintance. There were difficulties finding additional midwives prepared to take part in the study. After trying purposive sampling without success the study changed to using a snowball technique where midwives already interviewed recommended the study to suitable midwives they knew [22, 23]. This method was successful.

Nine midwives were interviewed for this study, with a tenth deciding not to proceed on the morning of the scheduled interview. The midwives came from six of the 10 maternity units in the former North Coast Area Health Service. Three were community caseload midwives, practicing in continuous care settings, while six were hospital midwives who might only have one interaction with each woman. They came from small, medium and large (base) regional hospitals. There were both hospital and university trained midwives in the sample and their age spanned from the late thirties to early sixties. All, but one, interviewed midwives brought up the same themes in their interviews indicating that the above factors did not influence their implementation of course material into their clinical practice.

Interviews

The midwives were asked to choose a time for the interview that suited them and were given the choice of being interviewed either at the health premise in which they worked, my office in Population Health in Lismore, or another place of their choosing. All but one chose to be interviewed in a coffee shop over morning tea or lunch. The last midwife chose to be interviewed in her office. The interviews took place between March and December 2011. The interviews lasted from 32 minutes for the first interview to 1 hour 23 minutes with the majority around one hour. At the end of the last four interviews the interviewee and I looked at the tentative diagram of the theory I was developing and discussed whether it described the process accurately. This added 5 to 25 minutes.

The interviews were undertaken in an informal manner, almost as if two acquaintances met over a coffee and discussed a subject they were both interested in. I was not a passive observer but participated by asking questions and showing interest until we exhausted a new theme or an interesting aspect of an old one [22, 64]. This way my understanding slowly matured [65]. The interviews were unstructured where I started with explaining the background to the study and why I was interested in it and how grounded theory worked. During those explanations I got a feel for the midwife's communication style and how to develop rapport between us [64]. For example, did she or he feel comfortable with directing the scope of the discussion themselves or did he or she prefer to be given leading questions and comments? When we had exhausted the free flowing part of the interview we looked at a list of themes raised by previous midwives and checked if they had been covered [22, 65]. These lists grew through the first four interviews when data saturation was reached.

After the fifth interview I synthesised the themes discussed into a diagram showing their interactions. The last four midwives interviewed agreed, after the formal interviews were concluded, to look at this diagram and critique it [21, 64]. All felt 'it worked for them' except that I had left out their need for appropriate equipment being available for implementation to take place. I added this theme to the diagram.

Due to lack of time no midwife were approached again for a repeat interview even though all had agreed to this.

Analysis

All interviews were recorded using the Livescribe digital recording pen (version 2.8.2) and then transcribed by me [22]. Sometimes non-verbal cues, such as long pauses, tears, laughter and tone of voice, were included in the transcripts so as to capture the true meaning of the comment [66]. The transcripts were placed into Word tables, where a second column was used

for coding. The peripheral material, explanations of the study and the midwives work arrangements, were transcribed but not coded. Transcripts were not returned to the midwives.

The first three interviews were coded intensively [67]. Then, for each interview the overall themes were extracted and introduced into the next interview [67]. Field notes, recording the setting, impressions of the midwives' comfort level at different times of the interview, my interview style and mistakes, were written up to facilitate improvements in future interviews [68].

Memos were started for each theme, describing the theme, aspects of it that needed more investigation and its development during further interviews [20, 21, 23].

The last six interviews were coded for occurrences of previously recorded themes and intensively coded when new themes or new aspects of old themes were detected. This process of constant comparison is integral to grounded theory [23, 65]. Those six interviews were only partially coded intensively throughout due to time constraints. Throughout the study I discussed most interviews with my mentor but due to his extreme workload he did not code the interviews.

Once the diagram showing the interconnectivity of the themes had been refined and checked by the last four midwives I made copies of the transcripts removing the coding and used those for the writing of this report. For each theme all transcripts were read through from start to finish [20, 22]. This was done for three reasons. Firstly, so I would be truly immersed in the data as well as get an overview of it. Secondly, to make sure I understood the context of each quote used and therefore not distort its meaning. Thirdly, to make sure I didn't miss any significant statements [22].

Bias

When using grounded theory you start with as open a mind as possible toward the subject to be studied [22, 23]. I only pre-read enough to be able to put a project proposal and ethics application together. This informed me that time constraint was one of the key issues in implementation so I started the study wanting to investigate this area [19, 20, 58]. Personally I also believe that most of the training I undertake is not put into practice so I approached this study with this underlying assumption.

Limitations

There was little scope for my mentor to review coding in detail thereby increasing the study's validity. However, the conceptual model developed with my mentor's input has been validated by the last four interviewees. This indicates a high level of trustworthiness. All findings presented in this report are immediately verifiable with direct quotes, so the findings' trustworthiness is also grounded in the data presented.

This study was limited to one rural area health service and interviewed only midwives so the developed theory is referring to their understanding only. All themes in this study however, except for enthusiasm, have been corroborated by already published papers and this suggests that the developed theory has applications beyond midwives in the in the former North Coast Area Health Service (currently covered by two new health districts). Enthusiasm created at a course or workshop could be an unexplored concept within the field of knowledge implementation and would benefit from more research.

Ethics

This study received ethics and site-specific approval from the North Coast Area Health Service in 2011 (reference LNR 007).Included in the ethics application was the statement that 'From the first two interviews it is expected areas will emerge that would be fruitful to explore further' since this is an essential part of grounded theory. It was this statement that made it possible to broaden the inquiry to include any course attended.

Results and Discussion

From the interviews I developed a theory about how midwives incorporate what they learn in a course into their clinical practice. Figure 1 outlines the details of and relationships between concepts.

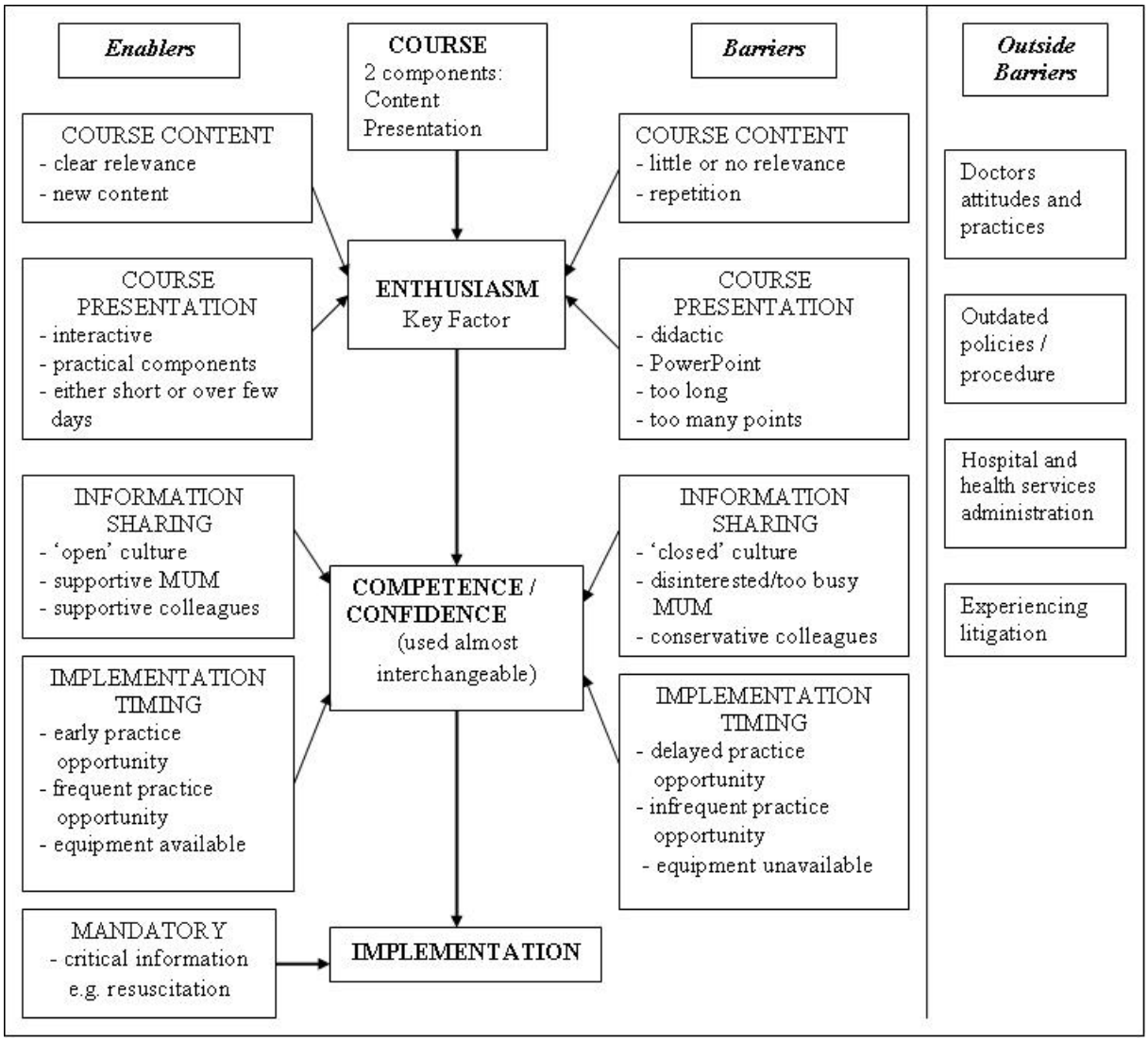

Figure 1: **Diagram of midwives implementation process**

The direct path from course through to implementation goes through two stages. The first stage occurs during the course while the second refers to when the midwives are back at their workplace. If the course generates enthusiasm and the midwife feels a reasonable level of competence and confidence, the course content is likely to be implemented. If on the other

hand, the midwife leaves the course feeling uninterested it does not matter how confident she or he feels, they are unlikely to implement the course contents except if it contains critical information such as resuscitation.

Both enthusiasm and confidence are affected by modifiers. For enthusiasm the modifiers are course content and course presentation. Confidence levels are affected by the opportunity to share the information and the timing of implementation opportunities. The modifiers work across a spectrum from positive (enablers) to negative (barriers).

There are also four other factors that can inhibit implementation. I call those outside barriers because they are not directly linked to the course or workplace.

A midwife's ideal path from training to skill implementation in the workplace

The following description of the 'ideal path' is based on the model I developed. The midwife (let's assume it is a female) attends a course. The course content is clearly relevant to the midwife's core business and it contains new information or expands considerably on things she already knows. The course is presented in an interactive way, without overreliance on a PowerPoint presentation. Plenty of practical components are included where skills can be practiced. The course is a good length so that all relevant points can be presented and practiced without being dragged out. At the end of the course the midwife feels really enthusiastic and energised but also a bit unsure about her level of competence.

This midwife works in a unit with a culture embracing innovation and new ideas. The next time she works her Unit Manager asks her how the course was and picks up on her enthusiasm but also her uncertainty about her competency. The manager encourages her to use her new knowledge as well as sharing it with her co-workers. The manager also suggests the midwife finds someone who's already using those skills. The midwife finds a more experienced colleague who mentors her in the use of the new skill. She also shares her experience at the course with the rest of the staff and they start discussing its techniques and implications for the unit. This helps build the midwife's, as well as the whole unit's, confidence. The manager schedules the midwife to work in a section, for example the birthing suite, where she has early and frequent opportunity to use her newly learnt skill until it is bedded down.

The overall culture in this particular setting (community, hospital, medical practitioners) are all embracing new best practice initiatives so there are no external barriers that stops the midwife incorporating her newly learnt skills into her work practices.

Details of concepts

(Please note that some midwives were often speaking in 2nd or 3rd person.)

At the course

The course is where it all starts. If the course does not generate enthusiasm whatever is taught in the course will **not** be implemented. This is the fundamental element in the implementation process. It surprised me in itself and also that I could not find any published articles that referred to this. There is quite a bit published about the benefit of trainees being excited about

a course before they attend it (see Merriam and Leahy (2005) comprehensive review of published articles about learning transfer between 1990 and 2002 [2]), but nothing about the importance of the course generating enthusiasm.

Enthusiasm

Enthusiasm (feeling inspired, feeling passionate, loving it) is the key factor motivating implementation.

> *'…my belief in this course [clinical supervision] that I done… the value of it. I just pushed myself out of my comfort zone to make it happen.' I2*

> *'If they got enthusiasm in that… they been able to get something practical out of it… They're more likely to use it.' I7*

> *'…that was very inspiring … and it really impacted on the way that I practice…' I3*

> *'…if you feel passionate about something… one of our ladies who really feel passionately about the breast feeding… so she became the breast feeding consultant…' I5*

> '*I loved it [Smoke Free Beginnings course] and it did actually changed my [practice] … I2*

If this is missing then what the midwives learn in a course is not implemented.

> *'…to follow through with that course it would have needed to be way more… my level of inspiration would have to be a lot higher…' I3*

> *'It was dry and boring and I didn't come back feeling enthused… I have forgotten all I learnt in the 8 hours…. It was money not well spent on me.' I1*

The exception to this is critical skills (e.g. resuscitation) that are normally taught in mandatory training sessions. The midwives appreciate it if those courses are taught in an interesting manner but even if they are not they will practice the skills and make them part of their clinical practice.

> *'…those emergency ones [mandatory courses] I think we all really appreciate because we're not always involved in them [emergencies] so it's important to have that refresher… So you got something in the back of your mind … a first step to be able to… like to facilitate an emergency…' I8*

Course content as a moderator of enthusiasm

The level of enthusiasm generated depended both on the course contents and how the course was presented.

The content of a course can either enhance the enthusiasm or dampen it. If the content has a clear relevance to the core business of midwifery, or involves a particular interest a midwife have, they are more likely to be enthused. Even if they feel enthused by the course, if the content was not seen as core business, it does not get implemented. The content also needs to

be either new or to substantially add to the midwives' existing knowledge, otherwise the course was seen as a waste of time.

> *'… well I think it's about the content… like genuinely learning something that I did not know before… that supports me being a good midwife… you know, I want to be really good at my job…' I3*

> *'… yes it was re-learning things… or learning things in more depth then I would have done… and then becoming more familiar and really concreting that information that I was needing… a thing I knew a little bit about… wasn't very confident with. Something I wanted to learn a bit more about…' I7*

> '*If it is not relevant then you really not going to use it.' I6*

> *'Like I'm already doing it so it just feels… like you're just wasting time…*' *I3*

The course also needs to contain reliable information. One midwife related how she came away feeling excited about pain control methods in child birth and went on the net to learn more. She found out that some of the methods when evaluated were found out not to be particularly successful. It left her with doubts about what she learnt in that course.

> *'I took from it though, certain areas that I thought were good… It was a pick and choose…' I4*

The findings in this study of midwives that show the need for course content to be relevant, accurate and substantially new are reflected in published articles [2, 6, 7, 10, 15, 27, 38, 39, 41, 42] written between 1997 and 2006 and covering many disciplines such as midwifery, nursing, social work, education, business and industry.

Course presentation as a moderator of enthusiasm

Kitson et al. (1998) suggested that course facilitation was one of the key contributors to successful implementation [12]. This is borne out by the interviews where the midwives indicated that even if the course content had clear relevance and was new to them, the way the course was presented also affected the enthusiasm the course generated.

> *'…sometimes you go along to a course and you're just really excited about the topic but it's badly put together… the speakers, you know… and you walk away feeling more frustrated.' I8*

As midwives are adult professionals who have considerable expertise, and as midwifery is a practical profession, they all strongly felt the need for practical components as integral parts of any courses they attend.

> *'…we are all adult learners… a good presenter is being able to present information that's making it an open and a shared learning experience at the same time. So none of us really… when we are all skilled and experienced now… like to go to a course and being dictated to… You know, we want really good examples… we want really good discussion…' I8*

'…it's very much hands on… you can listen and you can sort of read about things… it's just not alive and it's a bit like the whole parenting role… it's like a whole lot of things… until you actually done it…' I4

'… that whole pragmatic approach was 'monkey see, monkey do…' it so works for me so I think, I'm not the only… you know, physical learner…' I2

'…at least half the course was practical… I was always frightened of doing the practical work… but I found it really useful… and everyone was really supportive so that… made it a really pleasant experience… I6

The training needed to be interactive and not didactic.

'…I don't respond well to PowerPoints and lecture type scenarios… I tend to just… the problem with that is that I can't… they don't hold my concentration for long enough even if it's interesting…' I3

'[about didactic courses] I tune out a little bit… my legs are sore, and my mind comes to boil and… I'm not really concentrating' I5

Ideally, the presenter should also be a practitioner so that they can use their own experience as examples both in their presentation and when answering questions.

'So I think that for the presenter to be very experienced and… be able to draw on that… and also to know all the evidence on it... it's got to be someone who really knows their stuff because if you just got someone who is just reeling it off but then can't answer questions…' I6

'They were all people in our line of work so we knew that they, you know, practiced what they preached basically… It wasn't someone from a cupboard office that was coming to tell us how to do our job.' I5

The need for an interactive presentation style by knowledgeable trustworthy presenters is well documented in the literature [11, 17, 24, 41, 43-46, 49].

There were also practical points raised about the timing and length of courses. Midwives said the length of a course needs to be appropriate for the amount of information and skills covered, which meant that some courses can be 'short and sharp' while others are more appropriate to be held over a number of days.

'…there was so much crammed into one day I felt like I probably would have needed 3 days.' I3

'I was really impressed… it was only… for about 3 hours…' I8

Finally, some dates (e.g. school holidays and special occupational days) should be avoided when scheduling courses.

'…the training that I was allocated to do was on International Midwives day… We did not have a choice. … when I responded to the e-mail …, and said this is a very inappropriate day to be training … suck it up you are doing it.' I2

As shown above, enthusiasm is the key factor that influences if the content of a course is going to become part of a midwife's practice. The level of enthusiasm generated by a course is in turn influenced by the course's content and how the course is presented. The importance of course content and presentation is well documented in the literature.

At the work place

If a course has generated enough enthusiasm for the midwife to consider implementing what he or she has learnt, the next hurdle or enabler is at the workplace. Feeling competent and confident (the midwives used the two words almost interchangeably) is essential for successful implementation. The confidence building process starts during the course and is then cemented back at the workplace. The ability to share the information learnt with colleagues and opportunities to practice the new skills are essential for building confidence.

Competence and Confidence

Midwives saw competence as a continuum which goes from having no confidence at all to being completely confident in performing a task or using a skill.

'…I don't feel confident with the hip checks. I feel confident with other parts [skills taught in a course] but not the hip checks.' I1

Lack of practice opportunities diminishes over time the level of confidence midwives have in performing a task.

'I have done that before when I was in Sydney and I felt fairly competent at it… then I had a 10 year break, and then did some more training… I don't feel so confident as I would have once' I1

Midwives also mentioned teaching or showing others how to do tasks as an indicator of their competence level.

'I'm happy to bumble my way through for the first time, and maybe not get it completely right in the way that I say something… but I'm not… I wouldn't be confident… I wouldn't feel good teaching…' I3

'…feeling confident. I can do this and then being confident to show others that I have actually learnt this skill and this is how you do it.' I2

One of the issues is the level of competence at which you can perform a task or procedure well.

'… every year you practice your boundary expand and you… you become more competent, more skilled, more confident in providing … you should only practice within your skill boundary and you only take that step when you're well supported and you're ready to and you're confident in that level.' I8

One midwife identified being able to access information, resources and support as a component of building competence.

> *'I've built up a place in my practice where I feel really competent and confident and I mightn't know everything but I know <u>where</u> to get the resources… I know <u>where</u> to get the help and I know <u>how</u> to communicate it now to get the right outcome.' I8*

Studies also shows the need for competence if new skills are going to be implemented [10, 44]. Skills can also deteriorate over time as reported, for example, by Howel at al. (2000) in a study about nurses knowledge, skills and practice in cancer pain management [43]. So the question becomes: How can confidence in using skills be increased and maintained over time? The interviews with the midwives brought up two modifying factors in the workplace, the ability to share skills learnt with colleagues and the ability to practice the new skills both early and frequently. Published studies have identified those two areas as important to skill implementation [2, 7, 10, 17, 18, 34, 38, 41, 43, 47, 48, 55].

Information sharing as a moderator of competence

The degree of information sharing taking place within a workplace is dependent on the culture of the workplace. Culture is created and modified by a number of factors. The larger context, in which the unit is situated, i.e. hospital environment and attitudes of the doctors attached to the unit, sets the overall parameters (see p. 25 on the larger health environment). Within this larger context each workplace has its own unique culture which sets the boundaries for the amount of information sharing taking place within it

> *'… you go and get your basis and then if you are in a really… supportive environment… where someone who's more experienced then you can support you through it… you always will grow your skills… But you also got to have the motivation and the courage to step up with those new skills. And the unit has got to encourage you as well.' I8*

> (Very slow talking, careful choice of words. Checking very frequently for my reaction) *'I think… predominately change is not well received… in hospitals at all… we get stuck… you know there's always resistance to… doing things different… even though there's evidence to support the change… we're told we should be following best practice and we got research that dictates best practice and a department that's not changing its practice base on what's out there … So… then everyone goes… 'oh, well we really don't care about this best practice'… What we value is… the cultural norm. I might want to do things… differently and that makes my colleagues uncomfortable… but sometimes I would just… I just close the door…' I3*

Both Merriam and Leahy (2005) and Chant et al. (2002) have pointed out how a non-supportive environment drastically curtails learning transfer. They also point out how a positive supportive environment facilitates learning transfer [2, 54, 56].

A unit's culture is influenced by the attitude of the Maternity Unit Manager (MUM). Not only does the MUM influence the atmosphere of the whole unit, she or he also affects the individual midwife and whether a midwife is encouraged to implement what he or she has learnt.

'…our manager is quite open. She knows it's best practice… so it's going to be more woman centred or it's going to… grow the unit… We are trying to get things happening here… organise some workshops for groups at the moment… and our only problem is… not the unit manager… it's the upper, upper echelons…' I8

'I was on annual leave, my manager phoned me and said we need to put numbers in this course, I think you be good at it… she said some really flattering things to me about how she thought I would be the best for it, and stuff… so I guess that's why I went along...' I2

'…I came back and said to my manager… I'm meant to be teaching this now… and the manager… didn't really seem to care one way or the other whether I would or not… so I went 'great, I don't have to do it.' I3

'…and I was still being treated like I was only just out of my training [four years later] by my manager and also I had to fight to get more experience' I6

Some midwives commented that their managers' support is influenced by how busy they are.

'… our Unit Manager… she's supportive of certain things but she has got so much on her plate… she has all these pressures…' I6

'[MUM] is too busy. Because they haven't got the time to look at it… or interested in… or making it available for everybody.' I7

The culture in some of the maternity units was very supportive and when midwives came back from courses that enthused them, a considerable amount of sharing and reinforcement with colleagues took place. The midwife attending the course, reinforced what she or he had learnt, either from discussing it with other midwives or by finding a mentor.

'… if it's something new I say… have you… I applied that to… this girl, for example, breast feeding and how did you go with that… Did it work? And I say 'oh yes, it did work' or 'no, it didn't work for her'. We do talk about it and discuss it and see whether… it helps… that's really good. I9

'You get some people who come back from courses very enthusiastic and they share information… and I think that's good… even if it's just one thing I heard at this course was blah. It is still… everyone gets that… you retain that…' I1

'… to be able to go back to your place of practice and sourcing out … getting that mentor. Or going to the Unit Manager and say 'I've been to this course, I really think this is a wonderful new skill to implement or model of care… and starting to have that conversation to source out the people who either had experience or interested… and then you can get it growing.' I8

The learning was a two way street, the rest of the unit staff also learnt new skills through the sharing, sometimes to the extent of those skills becoming an integral part of the unit's repertoire.

'And when that enthusiasm is high we then share it, while that enthusiasm level is high then the momentum builds on it… so it's actually that my enthusiasm for it did… permeate through the culture of the [unit]…' I2

'… every time midwives are sharing… specially the more senior, experienced midwives to the less experienced midwives… But even the senior experienced midwives to be challenging each other in a really positive way and sharing that knowledge so… coming back and saying… right I been to this… workshop and I… you know I got this great new… sort of clinical skill or something that I think… it would be great if we could implement it and just have that discussion with the senior midwives… with all the midwives it sort of just… you know, teaching amongst each other is really important in our profession' I8

In other units, the colleagues were less interested in sharing and happy with how things have always been done. In those units there were sometimes tension, between individual staff members and cliques of staff, to the detriment of facilitating new skills being used and transferred to the rest of the staff.

'…the other things that interfere with education… staff that have been there for a long time… Are ready for retirement … I've done this for so many years… it's always worked for me, why should I change… they put their head in the sand… they don't want to accept change…' I5

So I think that you need to be… somebody that they rate… that they think is, you know, equal or greater then them…' I2

In keeping with the above comments by midwives McCormack et al. (2002) try to untangle the complex relationship between leadership, culture and context and how they contribute to an environment open to learning [50]. Rouiller and Goldstein (1993) suggest that supervisory and peer support is a stronger predictor of transfer than what trainees learned [54]. Dobbins et al. (2002) point out that lack of administrative support is a barrier to skills implementation [27].

Implementation timing as a moderator of competence

The midwives emphasised the need to be in an environment where they could start practising new skills soon after a course to get confident in using the skills. The midwives also needed frequent practice opportunities and easy access to the equipment needed, whether it was special tools or space. If those opportunities, and equipment, were not available any confidence built up during the course dissipated.

Early practice opportunity

This was most important. No matter how enthusiastic and confident the midwives felt after a course, if they could not start practicing within a short time period they lost their confidence and therefore became reluctant to implement the new skill in their practice.

'… and so I come back all gang ho… I am going to get all those babies to turn and help these mums and then I wasn't in birthing suite… it was a good 6 to 8 months before I could get down there and I didn't feel like doing it… I thought… I don't know if I can work… do I remember whether I am doing it the way they were showing me…' I5

'Timing as well… like you're getting those policy directives that comes out that we have to learn. …but we are not allowed to implement them until 6 months down the track… they should not come out until we are going to implement them straight away. Otherwise we forget about them. There are too many other things in the meantime…' I5

Frequent practice opportunity

Not only do you need early practice opportunities to become confident in using a new skill, frequent practice is also needed for the skill to become a regular part of your practice.

'…and over time… you forget things… so practicing… would definitely help in that integration…' I3

'Having to change that practice… turning it around… and then gradually over two years… becoming familiar with what you're using… I was lucky enough with presenting [the Smoke Free Beginning course]… so that helped with my learning… because I go back to it all the time. And then when I became comfortable with that… then I could start reading people a little bit better… if they crossed their arms I realised I had gone on the wrong track.' I7

Published studies show that for clinicians to develop and retain new skills they need to be in a work place where they can start practice those skills soon after the course and they also need frequent practice opportunities until the new skills are integrated otherwise the skills will be lost [2, 7, 10, 34, 41, 43, 47, 48].

Equipment and facilities

In the first four interviews the topic of having appropriate equipment and facilities available did not come up, and even though the fifth midwife mentioned it, I did not make it a part of the model that I showed to the sixth and seventh midwives at the conclusion of their interviews. Both of them pointed out that this was missing from the model. I then added it to the model, under implementation timing, at the request of the seventh midwife, and midwives eight and nine agreed it was a barrier they experienced when implementing their new skills. Some published studies also cites lack of equipment as a barrier to implement change [16, 20].

'And we don't have any set training room. You can't leave the ward so… there is no training room…' I5

'Something that can make it difficult is just not having access to the tools that you need or the space that you need…' I6

'… everything needs to be easily accessible…' I7

The larger health environment

Midwives reported four aspects of the larger health context that are potential barriers to implementing new knowledge and skills into their practices. They are the hospital bureaucracy, risk management and litigation, doctors, and policies and procedures. Those four outside (the work unit) potential barriers are intertwined with each other.. The interactions between those four areas are not easy to untangle and most of the midwives I interviewed were only vaguely aware of the interconnections. All those aspects of the larger health

environment came up as 'instant stoppers' frustrating the midwives and seen as outside their sphere of influence.

Doctors' attitudes and practices

This was by far the most frustrating outside barrier that midwives mentioned. Studies are full of examples, and explanations, of this conflict [16, 36, 48, 51, 60]. Some midwives were showing understanding for doctors.

> *'…doctors are taught to be, you know… a little bit standoffish… we know best… so they can cope with things, I suppose… it wouldn't be so easy… (long pause)' I5*

> *'…I was having a discussion with one of our VMO's… he's having some difficulties around his communications… I said to him… 'Its women centred care.' And he said… 'I used to be able to tell people what I needed to do and what I wanted to do and they just let me' and I said 'this has changed now… and we know it's changed for the better so you need to change the way that you're offering your services.' So there still is that culture, isn't it of… ' I8*

Most midwives were simply annoyed.

> *'…we got two doctors in the pregnancy care that are just so old fashioned and will not keep up with the times… and even though they working here they really… we're struggled over the last 3 years to get them to come onboard with the new researches and the new practice that we are trying to implement… the guidelines that we're following… because they're so used to doing their own thing in their own rooms… which sometimes aren't the right things and are so outdated…' I9*

> *'… I took a woman to the high risk clinic and he [doctor] wasn't going to let her go past 40 weeks because of a condition… and I said can you please direct me to where I can find the evidence for this and he just went… tapped his head and said it's all in here… he said this in front of the woman and she was very angry and I just thought you haven't given me any evidence... I couldn't find anything… it just said there were no evidence that there is a worry about [condition]… a doctor that is not open to… maybe something happened in their history and so… but rather than following the evidence they following old…' I6*

One midwife was actually reduced to tears by a doctor.

> *'I went home, not last night, but the night before in tears. I just… because I had the obstetrician call us all a bunch of dickheads and… that was to the other staff in the hospital as well... he's just a bully. We known he's a bully. He has always been a bully… I just wish I wouldn't let it get to me but I was just… my eyes were streaming and I had to stop driving because I just cried… (tears running down her cheeks while telling me) I5*

Some midwives really struggled with where their responsibility ended, and when to do what the doctor requested, while others saw it in black and white terms, that is, the doctor is in charge and you follow his or her orders.

'…a doctor is in charge and you want to do something… and that doctor says 'no'. Well that's it. Because they're in charge. … they may or may not have their reasons but they are the ones that are ultimately in charge of that patient... you are looking after that patient yet… if they don't agree with it and they don't want it then it won't happen.' I7

'… I have once in the past… it was very extreme… I said… I refuse… I will not proceed with any more care. If you want to manage it that way you can go in and proceed with the rest of the care…
Interviewer: Can I ask what happened?
What happened… they agreed (both of us laughing)… because they were not going in there and sit and watch her… and that was an extreme thing and I would rarely do that… but that was quite extreme… and that was because I really knew it wasn't right…' I8

Kerren Reiger (2008) in a paper titled 'Domination or mutual recognition? Professional subjectivity in midwifery and obstetrics' has explored the issues brought up above in a very thoughtful manner [36]. She suggests that the 'turf war' within birthing facilities reach a depth and passion that are remarkable. She suggests this may in part be caused by 'the intense emotional and social significance of birth itself' (p. 133) [36].

Outdated policies and procedures

Most of the midwives interviewed were very aware of what constitute evidence based best practice in their field.

'…you just change your practices. As long as it is within the scope of your policies. And if it is not then we would take it to the manager… and say this is what they suggesting as current best practice now… then we discuss with the obstetricians and the other staff and try to get it implemented.' I5

However, they were frustrated policies and procedures were taking a long time to update.

'…at the moment… we are trying to support a policy… trying to get support for water births… at the end of the day it has been a year and a half … And we still haven't… it's way too slow. It could have been done… like there is no reason why it couldn't have been done overnight… resistance… really, really, really it's about attitudes and just needing… that time for people to actually change their attitudes and that's why it goes so slowly… for it's just about waiting for peoples minds… frustrating...' I3

It is important to remember that it often takes eight to 15 years for new evidence to find its way into general clinical use [27].

Most midwives in this study felt that one reason that it takes so long to change policies and procedures is that before a new policy or an amendment to an old policy can be introduced, it has to be accepted by the doctors working with the unit. In some units this causes problems while in other units the process is much easier. This, in combination with doctors sometimes requesting suboptimal procedures (in the midwives' eyes) to be used, can lead to great soul searching for the midwives.

'If the policy is not up to date… I am just trying to think about the right words here… I will be debating it with the doctors… say my piece… I feel this is not up to date… I think this is not current best practice… I show them the documents if I had them on hand… and I would record in the notes what I have spoken to him [doctor] about… but ultimately if he said do a b and c I have to do a b and c… unless it's to inject that woman with cyanide. I wouldn't do it. If I knew it would kill her I wouldn't do it.' I5

About outdated policies and procedures and midwife's autonomy, professionalism and accountability*:*
'It is <u>the</u> problem in the hospital system… If you know that policy is out of date and it's not going to be best practice for that woman you use your best practice always… you can't forget it [the outdated policy]… you have to acknowledge it but you then have to document most recently best practice… like I talked to a colleague or someone… we all agreed and this would be the management … whatever you are doing… and the doctor gives you their management which you disagree with, if you are on grounds with best practice… you're on grounds to… change that and also to challenge that… Because in the end of the day I have to be accountable for what I've done… I can't just say… the doctor told me to do it and if it all went wrong they say… yes well the midwife did it … I got to be accountable so I got to know my best practices… I got to know my skill boundary…' I8

Similarly to what the midwives in this study felt Flynn, as reported by MacKenzie Bryera and van Teijlingen (2010), conclude that policies and procedures 'can be seen as over-prescriptive and undermine autonomous decision making' p. 493 [29].

Hospital and health service administration

There is an impression by most of the interviewed midwives that the hospital administrations are not really that interested in client and staff needs. This is another factor that contributes to frustration and discourages sustained enthusiasm. The health area has, for example, invested a great deal of both time and money to train midwives to be clinical supervisors and then left them without the structures and resources to actually work in this capacity.

'I think sometimes we're directed actually to do things just to tick boxes and… nobody really cares… it's just about… you know, ticking boxes and… bureaucracy as opposed to people and… their outcomes…' I3

'…I was actually about to go to xxx and start doing some clinical supervision, for the staff has asked and they are really, really wanting it, they needing it and their manager was prepared to pay me but my manager said 'no you can't until we get the OK from the area'. Because if it affects my work here, which is understandable [stressed voice then long pause]… we can't do any other work anywhere if it's going to impact on our work that we are doing here… and I was prepared to go to full time, an extra day a week doing clinical supervision and travel to wherever I'm needed but [my MUM] said that the Director of Nursing said no…' I5

'… we at the ground level have been trained in this skill… NSW Health have got a policy saying clinical supervision must be available to all staff and then there is this big gap in between… like the managers don't know how to implement it… we are very much the pioneers to implement this great idea… there is not a pathway of what to do with this training we have had… so we are just floundering…' I2

This is similar to Walker et al.'s (2011) description regarding unit managers from Clinical Development Units (CDU) in Australia who felt that waning support from higher management contributed to the CDU's unsuccessful introduction [53].

Experiencing litigation

One midwife interviewed had been involved in a court case while most of the other midwives interviewed had not had close contact with litigation and therefore did not see it as a problem affecting their ability to implement new skills. The midwife involved in the litigation, on the other hand, had a completely different attitude to the introduction of new ideas and skills into her practice. No matter how enthused a course left her feeling she simply did not want to implement it.

> *'…a court case… to do with a work related thing… I have met on the legal side of it… their requirements… you know, they're not in the real world, I mean… they expect you to be there every minute documenting details and you try to say 'yeah well you see we have a couple more in labour and we got a couple more things happening…' 'oh no, I am only talking about this case and it has no relation to…' and the thing is you're not aware of the full extent of the legalities until you're exposed to the ins and outs of what's going on…'*

> *'And at the end of the day… they tend to have a pecking order on who shall get the blame. And sadly (laughter) the midwife gets blamed. I was on 6 months probation. I had to be assessed every so often… and it had nothing to do with me… it would be difficult to go somewhere else now…'*

> *'And after going through that whole procedure it really knocks the stuffing out of what you want to do. You just don't want to do certain things that you do because if at the end of the day there is a legal problem… you just don't want to be caught up with it. And I find that really sad…* ***inhibits you putting new things into practice… It didn't at one time but it does now.****' I4*

At first glance it looked as if this interviewee was contradicting the developing theory. The midwife does not mention enthusiasm or competency as factors influencing her implementation. As the interview continued it became clear that she had encountered a situation that so profoundly contradicted her previous responses that those responses were no longer applicable. Instead of invalidating the theory this exception to the theory actually strengthened it by showing how this midwife who no longer wanted to implement new things used to do so in the past.

The outside the workplace barriers of doctors' attitudes and practices, outdated policies and procedures, hospital and health service administration and experiencing litigation, explored above have one common denominator for the midwives interviewed. Those barriers caused enormous frustration and negative feelings. The midwives felt helpless and this caused those barriers to become 'instant stoppers' of knowledge transfer and application. A notable exception was the midwife who asserted her professional right to practice evidence based care and was very careful to both consult and inform colleagues and record her actions and the rationale for her decisions. This midwife obviously felt more empowered and clear about her professional obligations to EBP and the problems she might incur if she has to follow outdated policies.

Time

Finally, lack of time was only brought up by the midwives as a reason for not implementing something when they did not feel any enthusiasm for the task despite it being among the top three barriers found in written surveys [19, 20, 58]. It was never used as an explanation why something they felt enthused about was not implemented.

> *Interviewer: 'You gone to a course… you learnt something new… is time a problem for using what you learnt?'*
> *Interviewee: 'It shouldn't be… no… because you just do it'*
> *Interviewer: 'You manage to fit it in?'*
> *Interviewee: 'It depends… if what you're learning is pertinent to your work… you just change what you do…' I5*

This is consistent with Tyden's suggestion, quoted by Nilsson Kajermo et al. (1998) that 'lack of time may be a socially acceptable excuse, when it really may reflect lack of interest, lack of need or lack of knowledge' (p. 805) [16].

Conclusion

This grounded theory study of midwives' journeys from attending a course or workshop to implementation of the skills learnt, resulted in the development of a theory of the process involved. The direct path from course to implementation passes through two stages, at the course and at the workplace. At both stages there is a crucial requirement that has to be met for the journey to continue.

At the course

The course needs to make the midwife feel enthusiastic about what she or he has learnt. This enthusiasm is the crucial factor and has not previously been reported in the published literature. If the midwife does not feel enthusiastic at the end of the course the skill taught will **not** be implemented no matter how confident he or she feels. The level of enthusiasm is dependent on the course content (new information and skills with clear relevance) and its presentation (interactive with practical components). Both those aspects of the course modify the level of enthusiasm experienced and work on a continuum from strong enablers to serious barriers.

At the workplace

If the midwife feels enthusiastic then the next step is to build the competence that started developing during the practical aspects of the course. This competence is reinforced at the workplace. This is accomplished through the ability to practice the new skills both early and frequently until they have become an integral part of the midwives' skill set and through information sharing. For information sharing (discussions with colleagues and mentoring) to take place, the work unit needs to have a supportive culture receptive to change. This sort of open culture is fostered by Unit Managers.

Outside (the workplace) influences

Four areas outside the immediate workplace can act as 'instant stoppers' for implementation to take place. Those areas, doctors' attitudes and decisions, outdated policies and procedures, litigation concerns and hospital and health service administration that seem unresponsive, are interrelated in complicated ways and leave the midwives feeling frustrated and helpless.

Recommendations

The following recommendations are suggested to maximise the amount of skills implementation.

At the course

Management and workforce development departments should select courses and facilitators according to both content and pedagogical criteria. Regarding pedagogy, courses need to have substantial non-didactic components (with emphasis on practising new skills) and this should be expressed in the course outline.

At the workplace

Unit managers need to roster midwives who have been to courses in places and roles (e.g. birthing suite) where they can practice the new skills, soon after the course completion.

Unit managers need to encourage and or create processes where knowledge is shared between midwives and mentorships are developed.

Outside (the workplace) influences

Hospital Managers, Maternity Unit Managers, and The Director of Medical Services need to ensure evidence based practices are supported and create opportunities to review doctors' and midwives' decisions and practices regarding the best outcomes for mother and baby in a professionally cooperative and respectful way.

Hospital management should streamline and expedite policy and procedure development and simplify how changes are made following the production of new evidence.

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Appendix 1 - Interview questions

Questions for Interview 1

- Housekeeping
  - Recording OK?
  - Consent OK?
- Explain study – difficulties, makes it easy, suggestions
- Describe work situation
- Mandatory vs voluntary
- Contact again?

Questions for Interview 2

- Housekeeping
  - Recording OK?
  - Consent OK?
- Explain study – difficulties, makes it easy, suggestions
- Describe work situation
- Mandatory vs voluntary
- Themes
  - Competence
  - Relevance to work
  - Implementation timing
  - Information sharing
  - Course structure
- Contact again?

Questions for Interview 3

- Housekeeping
    - Recording OK?
    - Consent OK?
- Explain study – difficulties, makes it easy, suggestions
- Describe work situation
- Mandatory vs voluntary
- Themes
    - Competence
        - Doing is learning
        - mentor
    - Relevance to work
    - Implementation timing
    - Information sharing
    - Course structure
    - Enthusiasm / passion
        - See benefits for themselves as professionals
        - Emotional appeal
        - Understanding content
    - Time constraints
    - Organisational constraints
- Contact again?

Questions for Interview 4

- Housekeeping
    - Recording OK?
    - Consent OK?
- Explain study
    - difficulties, makes it easy, suggestions
    - Implementation / Integration
- Describe work situation
- Themes
    - Competence
        - Doing is learning
        - How to gain more competence?
    - Relevance to work
    - Implementation timing
    - Information sharing
    - Course structure
    - Enthusiasm / passion / inspired
        - See benefits for themselves as professionals
        - Emotional appeal
        - Understanding content
    - Time constraints
    - Organisational constraints
        - Structural – Hierarchical

    - Colleagues
    - Mandatory vs voluntary
- Contact again?

Questions for Interviews 5 - 9

- Housekeeping
    - Recording OK?
    - Consent OK?
- Explain study
    - difficulties, makes it easy, suggestions
    - Implementation / Integration
- Describe work situation

- Themes
    - Competence
        - Doing is learning
        - How to gain more competence?
    - Relevance to work
    - Implementation timing
    - Information sharing
    - Course structure
    - Enthusiasm / passion / inspired
        - See benefits for themselves as professionals
        - Emotional appeal
        - Understanding content
    - Time constraints
    - Outside constraints
        - Medical / Doctors
        - Root Cause Analysis / Legal
    - Organisational constraints
        - Department
        - Hospital
        - Unit Manager
    - Colleagues
    - Mandatory vs voluntary
- Contact again?

Appendix 2 - Field notes sample

NOTES - Interview x.

Date: xx
Length of interview: xx minutes

The interviewee is a community midwife ~~from a small community~~.

The interview took place over lunch at a coffee shop in a different ~~small~~ community. The interviewee chose the place.

She was tense to start with so I started with doing most of the talking, i.e. explaining about what I was interested in finding out in this project. I realised early on I needed to help her feel confident, so I somewhat changed tack and started asking background questions about what was involved in booking in sessions. Not only did this make her relax but I got very valuable information that will be essential for other interviews.

After she relaxed the interview proceeded OK.

She really disliked the xxx training day and was determined to make her point. Came back to it over and over again until I stopped trying to get her on 'my' track and really listened to her view. When I did she had some very valuable insights about implementation, of the course content, and in general.

Confidentiality discussed.
Consent signed.
Permission to record granted.
Re-interview permission granted.

Themes emerging:

1. Confidence / perceived competence
2. Early implementation
3. Information sharing
4. Course structures
5. Information relevance to work

Comments on my interview technique after doing the transcript:

I need to:

1. Respect silences, DON'T jump in
2. Don't talk over, to try to 'get back on track'
3. If the interviewee has 'a bee in the bonnet', let her explore it
4. Don't be nervous (nervous laughter)
5. Don't reminiscence about my own experiences when interviewee is 'on a roll'.
6. OK to do this to help her relax and as a way to give her permission to not having implemented course material

Appendix 3 - Example of Memo

Memo – Enthusiasm / Inspired

13/10/11 – I1, I2 & I3 (after 3 interviews)

Feeling inspired / enthusiastic while attending a course is the essential element for the implementation of new skills / knowledge learnt into work practices.

There are two distinct aspects that both need to be present in a course for a midwife to feel enthusiastic.

1. Content.
    a. The content has to be new (at least partially).
    b. (Concretely) applicable in the work situation.
    c. Sometimes there is a need to explain 'why' the new skill should be used (instead of saying 'you must').
2. Presentation.
    a. The presenter(s) need to be enthusiastic themselves. Have a love for and being inspired by what they teach.
    b. Interactive presentations (eg discussion) are better than passive (eg PowerPoint etc).
    c. Lots of time to practice (in a non-threatening environment).

There are both intellectual and emotional aspects to being inspired.

If a midwife returns from a course feeling really enthusiastic this can permeate through the workplace culture and create change.

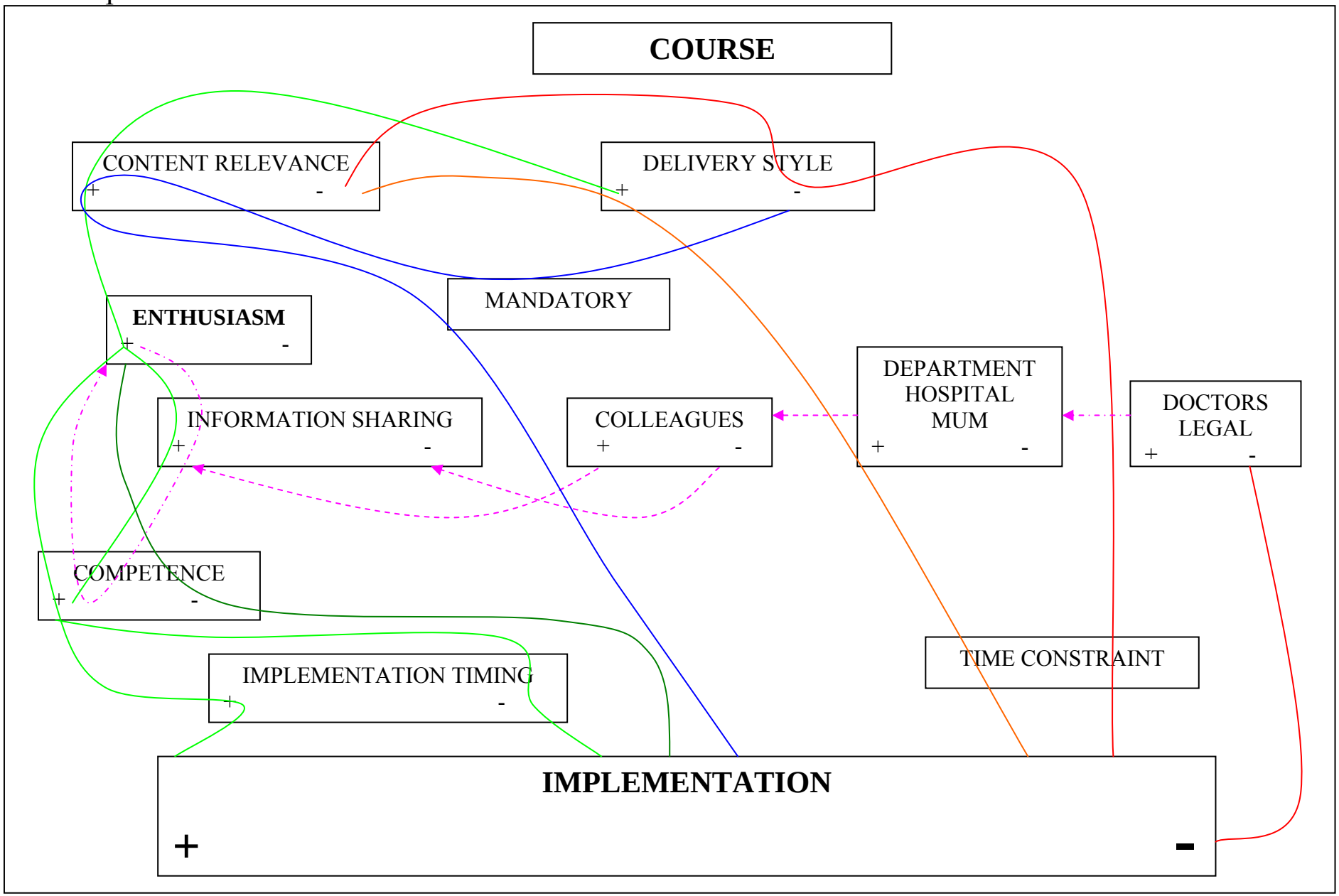
Enthusiasm ↔ information sharing ↔ momentum ↔ enthusiasm ↔

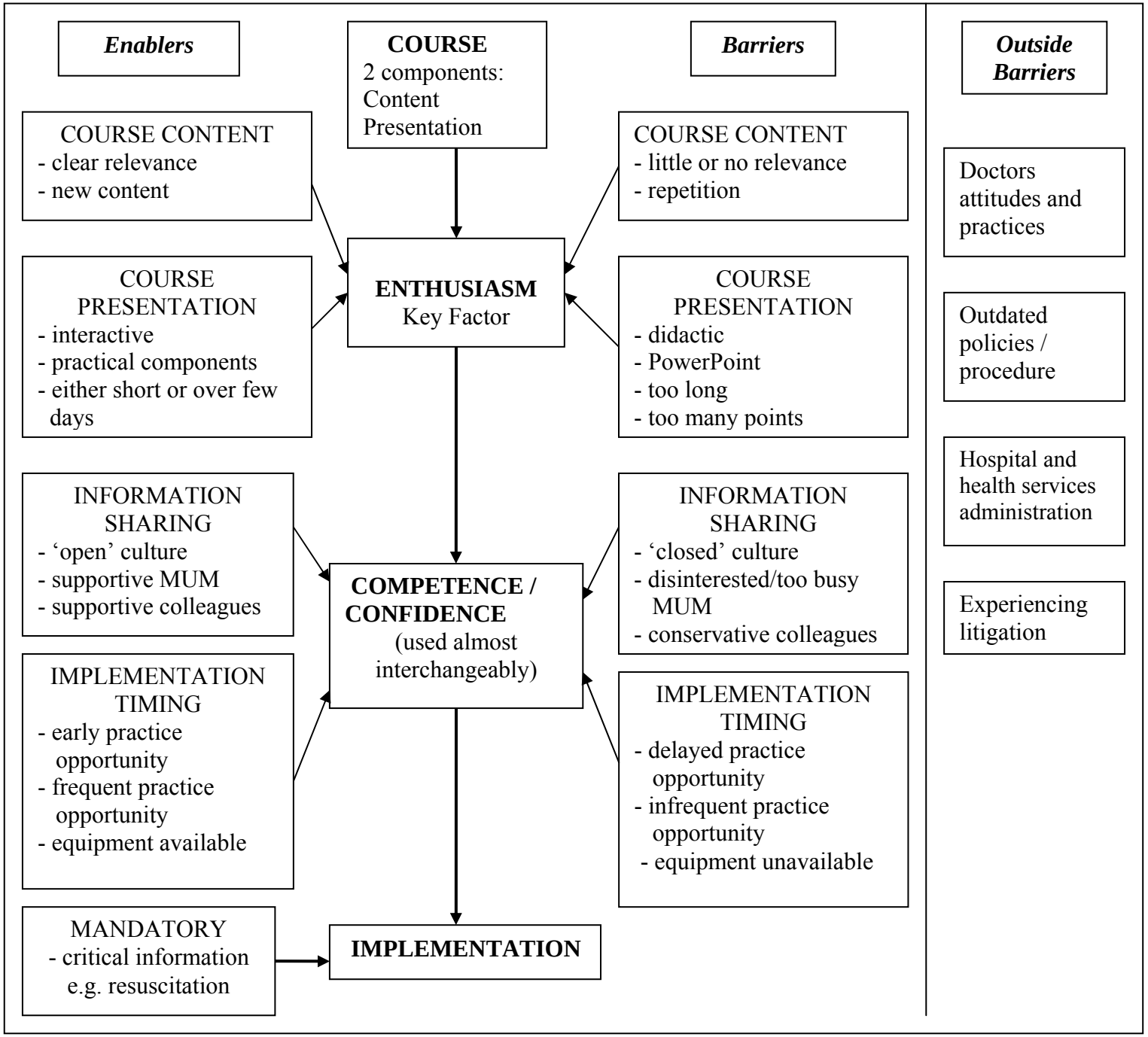
Enthusiasm can overcome lack of confidence:
Feeling lack of confidence but feeling enthusiastic ↔ discussing with others ↔ building confidence

On the other hand:
Repeating known information/skills → less feeling of inspiration → less integration

Appendix 4 - First and final theory diagrams

1st attempt





Final Diagram