

KNOWLEDGE AND REPORTED CONFIDENCE OF FINAL YEAR MIDWIFERY STUDENTS REGARDING GIVING ADVICE ON CONTRACEPTION AND SEXUAL HEALTH

Keywords

postnatal; contraception; confidence; education; knowledge; sexual health

Abstract

Objective: This project explored the views of three cohorts of final year midwifery students, regarding their confidence in giving advice to women on contraception and sexual health in the postnatal period. The project also investigated knowledge of contraception using a factual quiz, based on clinical scenarios regarding contraception and sexual health in the post-partum period.

Design: A mixed method design using qualitative data from focus groups, and mixed qualitative and quantitative data from a paper based questionnaire was used.

Setting: The project was carried out in one higher educational institution in England.

Findings: Findings demonstrate that expressed confidence varies according to contraceptive method, with most confidence being reported when advising on the male condom. The findings of the factual quiz indicate that students applied theoretical knowledge poorly in a practically oriented context. These findings also indicated that most students limited advice to general advice.

Key Conclusions: The paper concludes that midwifery students need more practically oriented education in contraception and sexual health, and that the role of mentors is very important in helping students feel confident when giving advice in this area.

Introduction

The giving of advice on contraception and the planning of future pregnancies is part of the midwifery role and competencies in the UK and Europe (Nursing and Midwifery Council (NMC) 2009 p.24, 26; Fullerton, Thompson and Severino, 2011). The standards for pre-registration midwifery education are based upon the European

Union Directive Recognition of Professional Qualifications 2005/36/EC Article 40 which makes it incumbent upon member states to ensure that midwives are able to, at the point of registration, “provide sound family planning information and advice” (NMC 2009 p. 65). In the last 50 years the range of contraception available to women has increased and most forms of contraception are suitable for use in the post-natal period, and during breastfeeding. This paper reports on research which examined the attitudes of final year pre-registration midwifery students regarding giving contraceptive advice, in particular the degree of confidence they felt in supplying contraceptive advice to women in their care, including their confidence in giving advice on specific methods. The research sought to determine the factors that students felt would increase their confidence and to explore those factors that prevented them from feeling confident in performing this skill. It also sought to determine the competency of final year students, in giving contraceptive advice, by means of clinically based practice scenarios.

A short section outlining methods of contraception is included below as background to the study. The research literature is then considered and the research methods and findings from this study are then reported.

Background

There are thirteen methods of reversible contraception available to postnatal women including the use of the lactational amenorrhoea method (LAM), which relies on breastfeeding to suppress ovulation, and emergency post coital contraception .

These can be divided into non-hormonal, barrier methods (cap, diaphragm, male and female condoms), intrauterine methods (copper- bearing intrauterine devices (IUDs) and progesterone bearing intrauterine systems (IUS or Mirena™), oestrogen containing systemic methods (combined oral contraceptive pill (COCP), combined contraceptive patch or combined contraceptive vaginal ring), and progesterone only

systemic methods (progesterone – only pill (POP), implant and contraceptive injection).

Oestrogen containing methods (COCP, patch or vaginal ring) are not suitable for breastfeeding women, because they have the potential to suppress milk production (Faculty of Sexual and Reproductive Healthcare (FSRH) 2011a). In the non-breastfeeding woman, oestrogen containing methods should not be started prior to the 21st day post partum, because oestrogen increases the risk of developing a deep venous thrombosis (DVT). After 21 days the risk in the post natal woman is thought to be sufficiently reduced to allow the use of an oestrogen containing method (FSRH 2011a). Progesterone only methods (POP, implant and injection) do not interfere with breast milk production and do not increase the risk of DVT. For this reason they can be used by breastfeeding women and should be started by Day 21 post delivery (FSRH 2008). They can also be safely started earlier than the 21st day after delivery, although this is outside the product license for the methods, which shifts the medico-legal burden from the drug company onto the prescriber.

Insertion of intra-uterine methods must be delayed until 28 days after delivery, to avoid perforation of the uterus during insertion (FSRH 2007). Diaphragms and caps cannot be fitted until 6 weeks post partum, to allow time for the vaginal tissues and cervix to stabilise in size and shape (FSRH 2012). Male and female condoms can be used immediately intercourse resumes, but these methods have high failure rates (18% per couple/year) and couples may be unfamiliar in their use (Trussell, 2011). The earliest date of ovulation post partum is thought to be Day 28 (FSRH 2009).

Emergency contraception is not required until 21 days after delivery, but any unprotected intercourse after this time carries a risk of unplanned pregnancy.

Emergency hormonal contraception (Levenolle™) can be safely used after an episode of unprotected intercourse, even in breastfeeding women, but may not be required if the baby is less than 21 days old (FSRH 2011b; UKMEC 2010 p.114).

Knowledge of these basic facts about contraception in the post-natal period is needed to advise women appropriately, in terms of preventing an unplanned pregnancy and/or safely resuming their previous contraceptive method or establishing a new method.

Literature Review

The challenges of translating theoretical , taught knowledge into practical clinical competence have been much debated in the literature surrounding professional education in recent years (Corlett, 2000; Corlett et al., 2003; Smeby and Vågan, 2008; Davis, 2010; Sangestani and Khatiban, 2013;). Factors affecting confidence and competence in newly qualified practitioners have also been explored (Stewart et al., 2000; Farrand et al., 2006; Donovan, 2008; Roberts and Johnson, 2009; Liaw et al., 2012). Skirton et al. (2012a) undertook a UK study of the perceived competence of the newly qualified midwife in relation to the pre-registration programme they had undertaken . Their findings support the value of the pre-registration programmes in promoting autonomous practice in the newly qualified midwife. However there is considerable discussion regarding the difference between being competent in carrying out skilled behaviours, and being knowledgeable in the professional practice role. For example, the development of registered midwives who are fit for practice in Australian midwifery education is reviewed by Pincombe et al. (2007). The need for a model which recognises that competence is a complex process of relating knowledge to practical skills, beyond the mere demonstration of skills and a prescribed minimum number of clinical encounters, was identified. There was also recognition that complex decision making and confidence are skills which are developed after registration.

McIntosh et al. (2012) in their study of 120 final year midwifery students identified what they describe as dissonance between what the midwifery student considers is

needed, and what the university provided, to enable them to become confident practitioners on qualification as a midwife. Their paper suggests that some of the student midwives considered they needed more knowledge, as a buffer against anxiety and uncertainty. It highlighted the philosophical gap between adult centred learning, and the need of student midwives to know “the right way of doing things”. The discussion highlighted the importance of mentors in practice who could enable the students to develop confidence in the use of their knowledge through a range of practice settings. The issues therefore appear to be the need for competence on registration, but also the need for confidence developed through suitable clinical experiences with appropriate mentorship and guidance, and for this to continue, albeit in a more distanced way, on qualification.

Some of the literature also discusses the notion of safe practice. For example, Butler et al. (2008) undertook research with qualifying midwives and their mentors and teachers. They describe that one of the competencies regarded as essential on qualification as a midwife is to be a safe practitioner. The study reports self sufficiency, self and professional awareness and using up to date knowledge in practice, as components of safety, but does not explore the concept of ‘being safe’ from the point of view of patient outcomes. ‘Safe’ practice can be construed in a positive sense of doing the woman no harm. However, there is a need to consider whether this could also be construed in a negative sense of deciding not to act because of a fear of doing harm. In the context of this research this would result in the inexperienced midwife taking the safest option of declining to offer advice, rather than deciding on an action which would require the confident application of knowledge in practice.

Despite the recognition of its importance in terms of core competencies, we could find no studies exploring the effects of contraception and sexual health education upon practice in midwifery students. Some studies explore issues of sexual health in

nursing and sexual health education in nursing students (Dattilo and Brewer, 2005; Johnston, 2009; Thurston and Walker, 2011; Tsai et al., 2013). Dattilo & Brewer (2005) note that sexual health assessment is often omitted both from the nursing curricula and from the practice behaviour of nurse educators. In a phenomenological study of the views of nursing students in the USA, they found that nursing students recognised sexual health assessment as part of nursing practice but expressed discomfort with exploring clients sexual health and viewed this assessment as less important than other assessments, and only warranted if tied to a medical diagnosis (Dattilo and Brewer, 2005). Johnston (2009) notes that although child branch nurses, working as school nurses, are frequently involved in the delivery of sex and relationships education, research on the coverage of sexual health issues within the child branch curricula is limited. Her qualitative phenomenological study of third year nursing students found that students received little formal sexual health education in their curriculum, which decreased their confidence in dealing with sexual health issues in a professional role (Johnston, 2009). Thurston & Walker (2011) similarly found that none of the school nurses in their small survey had received pre-registration training in sexual health issues. Two Taiwanese studies specifically addressed sexual health education for pre-registration nursing students (Sung and Lin, 2013; Tsai et al., 2013). Tsai et al. (2013) assessed the learning needs of student nurses for addressing patient's health concerns and found that although student nurses felt that assessing sexual health concerns was part of their role, they needed changes to their curricula to allow them to feel confident in addressing sexual health concerns . Sung & Lin (2013) found a positive effect of implementing a specific 12 week programme of sexual healthcare education on nursing students' knowledge, attitudes and self efficacy in this area measured by psychometric scales . Given the more general role of nursing, these studies address sexual health in a broad sense, rather than the provision of advice regarding contraception. Our study sought to

assess the views of final year midwifery students regarding how confident they felt in giving contraceptive and sexual health (CaSH) advice, the extent to which they were involved in the supply of contraceptive and sexual health advice, and the factors that influenced the confidence they felt in this area. It also assessed their competence in giving contraception and sexual health advice by means of a quiz based on practical scenarios.

Setting and Participants

The setting for the project was a midwifery programme in a large higher education institution in the East of England. The participants were three successive cohorts of final year midwifery students. The institution has an intake of student midwives every six months so the three cohorts were recruited from November 2011- June 2012.

Methods

The findings reported in this paper are the results of a questionnaire and factual quiz, which were distributed within a larger mixed methods study, which included the use of focus groups. The themes arising from the focus groups are not reported in their entirety here but selected themes are reported, where they illuminate or add detail to the questionnaire findings. The qualitative comments derived from the open response sections of the questionnaire are also used to triangulate the quantitative data in this way.

Mixed method design is well used in health research (Andrew and Halcomb, 2011; Östlund et al., 2011; Longworth, 2013) and provides a means of adding robustness to outcomes, through the use of both quantitative and qualitative approaches. In this study a mostly quantitative approach was used in the design of the questionnaire and factual quiz, which was distributed to all eligible participants. A subsample of

participants volunteered to take part in focus groups, which provided a richer, 'thicker' account of attitudes and experiences of participating student midwives, and thus enriches the findings (Kitzinger, 1995).

Ethical Considerations

The work described in this article was carried out in accordance with *The Code of Ethics of the World Medical Association (Declaration of Helsinki)* for experiments involving humans . The research project received ethical approval from the university faculty ethics research panel. It was made clear to students that they were under no obligation to take part and that their decision to participate or not would not have any impact on their academic career.

Focus groups were conducted by two facilitators who did not teach or contribute to the midwifery programme, to allow participants to contribute freely and confidentially. Paper questionnaires were completed during class, supervised by a lecturer who was not part of the research team, and were returned anonymously in a 'drop box' which was later collected by one of the researchers.

Data collection

The questionnaire (Appendix 1) was constructed using a combination of closed questions requiring a response on a Likert-type scale, and open response boxes inviting more qualitative comments. The questionnaire was developed by reviewing the literature, from personal knowledge of the pre-registration curriculum and with the aims and objectives of the research in mind.

The questionnaire was piloted using three students not involved in the participating cohorts. The questionnaire was slightly amended to reflect the comments of the

participants in the first focus group which established a need to provide an open – response box for Q. 9b. Further ethical permission was granted for this amendment.

The questionnaire sought participant responses on three aspects of delivering contraceptive advice:

- How confident they felt in giving advice on contraception and sexual health.
- How they would prefer to receive contraceptive and sexual health education.
- What they felt would increase their confidence and knowledge in this area.

An accompanying factual quiz (Appendix 2), based on clinically based practice scenarios, was constructed, with the aim of assessing how students would advise post-natal women in their care, in specific clinical situations. A scoring schema was also constructed and used to mark the responses.

Questionnaires were distributed to a convenience sample of 104 final year midwifery students, from three consecutive cohorts. A total of 86 (83%) students returned the questionnaire. Twenty eight students drawn from the three cohorts also took part in three focus groups (one focus group per cohort).

Data analysis

The questionnaire data was analysed using an Excel spreadsheet to collate qualitative responses.

SPSS software was used to code, record and analyse the quantitative data from the Likert-type scales. This ordinal data was further presented in charts and tables.

The quiz based on clinical scenarios was marked using a scoring template and the marks subsequently entered in and further analysed in SPSS.

Focus group comments were analysed thematically (Braun and Clarke, 2006) and are reported more fully elsewhere (Davis and Walker 2013)

Findings

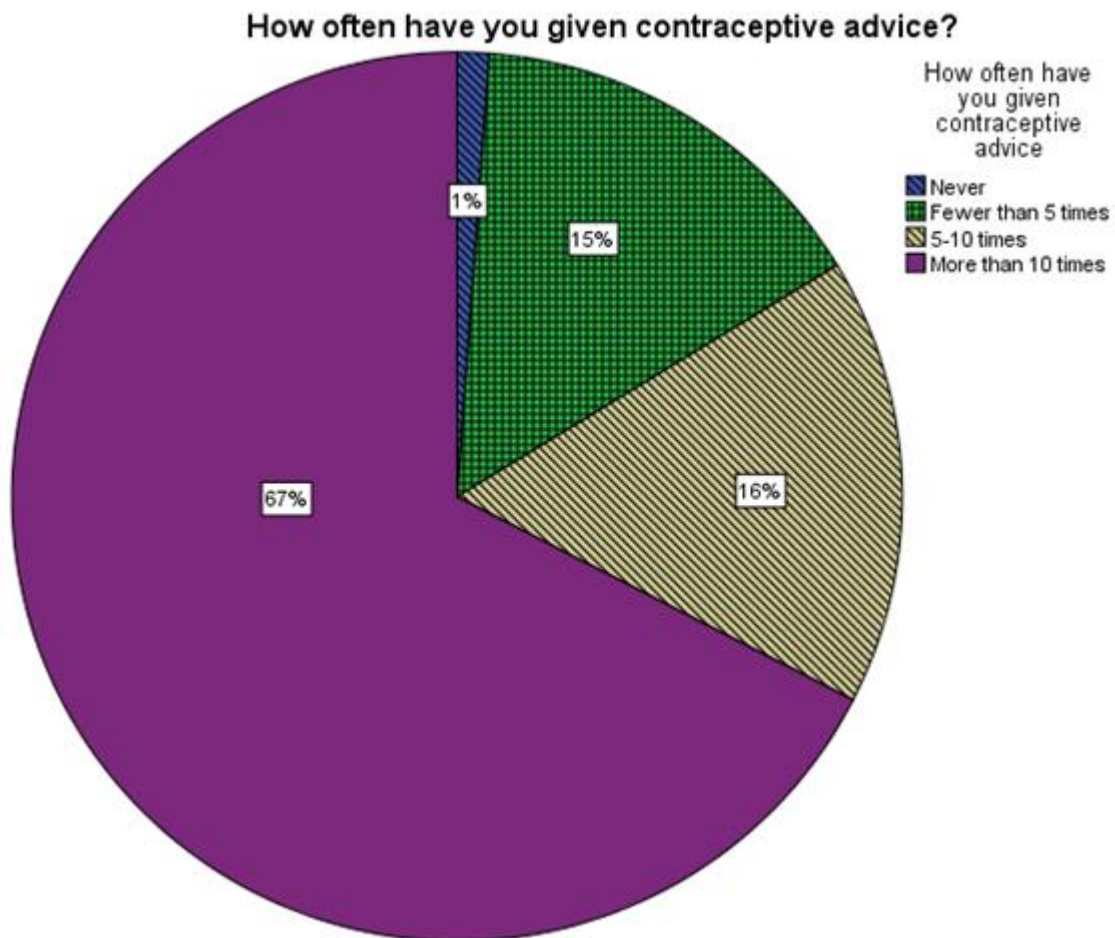
Most students (67%) reported having given contraceptive advice “more than 10 times” i.e. most students were regularly tackling the issues of post-natal contraception (**Fig 1**). Only 8% of students reported giving “very specific and detailed advice”

Most (79%) reported giving “General advice only” (**Fig 2**). From qualitative responses we can ascertain that this general advice comprised advising a woman that she was fertile and needed to discuss contraception with her GP.

Only 36% of students felt the advice they had given was “entirely accurate”

Most (59%) felt their advice may have contained “a few errors” (**Fig 3**).

Figure 1



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Figure 2

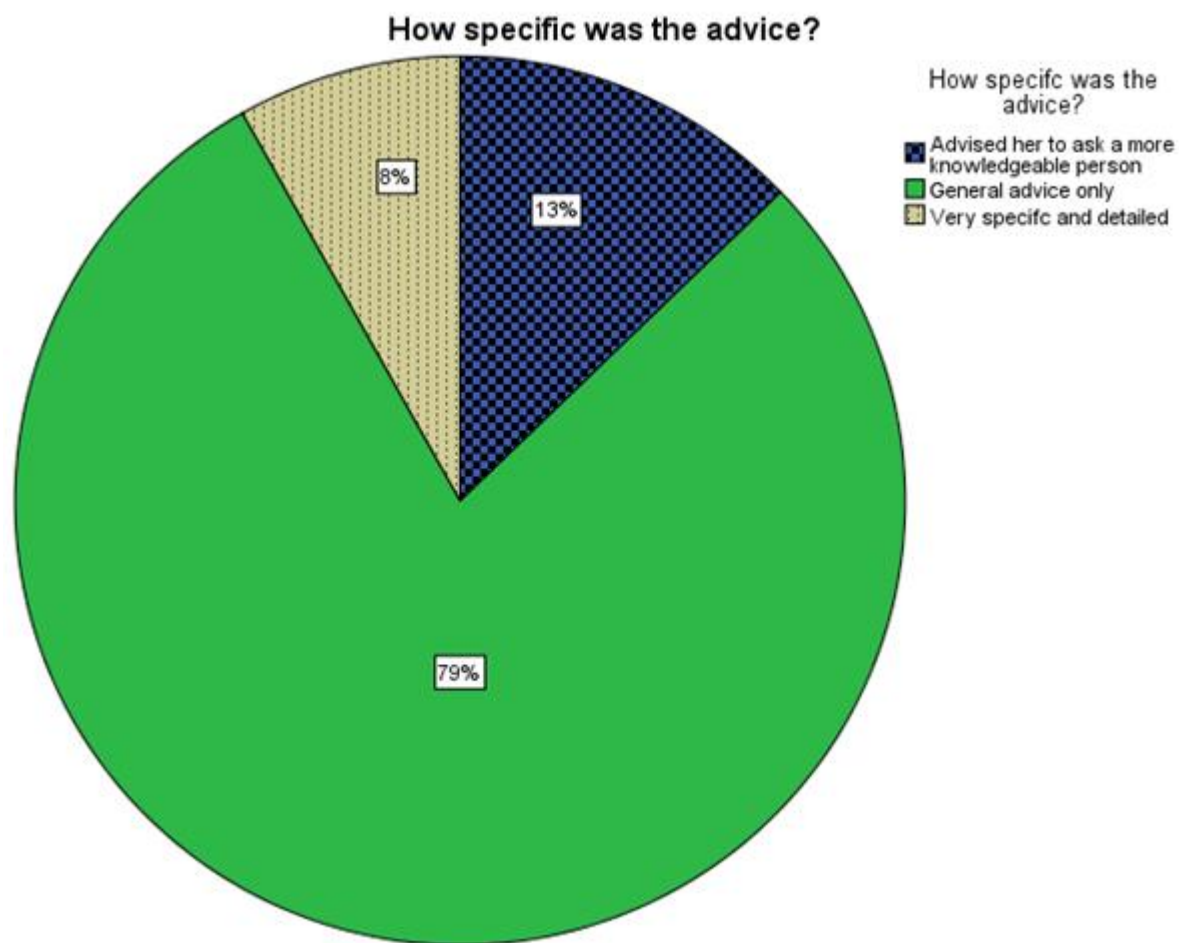
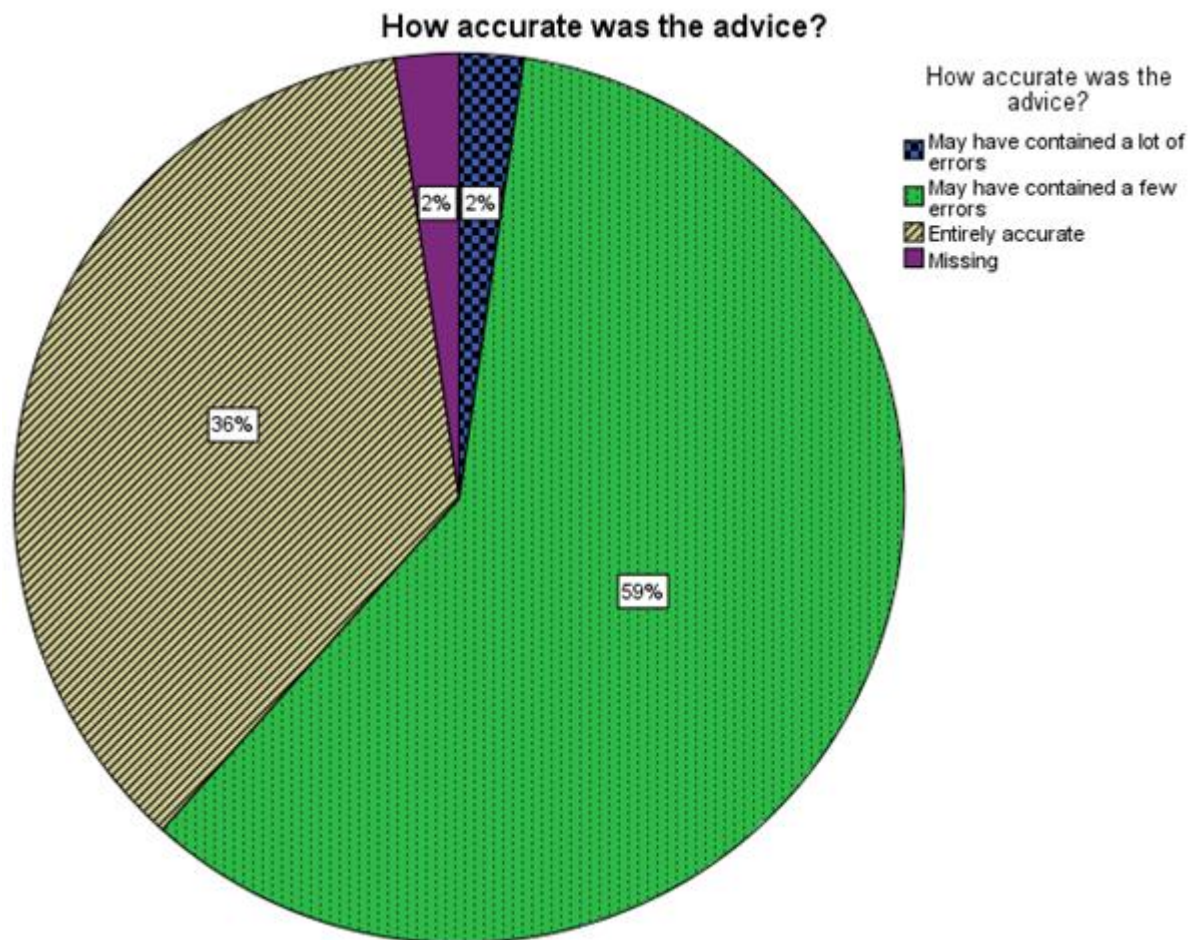


Figure 3



Participants were asked to indicate how confident they felt about giving advice on particular methods of contraception (**Table 1**). The method they expressed most confidence about was the male condom, upon which 70% reported feeling 'very confident' about giving advice. Only 10% reported that they felt 'very confident' but 40% reported feeling 'fairly confident' about giving advice on LAM. Similarly only 13% reported feeling 'very confident' but 55% reported feeling 'fairly confident' about giving advice on the progesterone only pill. These two methods are very suitable for breastfeeding women.

Methods for which more than 50% of respondents reported feeling 'not very confident' or 'no confidence' were female condoms (58%) and diaphragms and caps (65%).

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Table 1. Reported Confidence by Contraceptive method.

* Rounding error resulting in greater or lesser than 100%

Respondents reported confidence: % (n)	Completely confident	Fairly confident	Not very confident	No confidence	Missing	<i>Total</i>
Male Condoms	70 (60)	26 (22)	3 (3)	0 (0)	1 (1)	100 (86)
Emergency Contraception	21 (18)	47 (40)	24 (21)	7 (6)	1 (1)	100 (86)
Mirena™ (IUS)	15 (13)	41 (35)	38 (33)	3 (3)	2 (2)	99 (86) *
Combined oral contraceptive pill	14 (12)	58 (50)	24 (21)	2 (2)	1 (1)	99 (86)
Progesterone Only Pill	13 (11)	55 (47)	30 (26)	1 (1)	1 (1)	100 (86)
Female Condoms	13 (11)	28 (24)	42 (35)	16 (14)	2 (2)	101 (86) *
Lactational amenorrhoea method	10 (9)	40 (34)	40 (34)	9 (8)	1 (1)	100 (86)
Intrauterine devices (coils)	8 (7)	43 (37)	44 (38)	3 (3)	1 (1)	100 (86)
Injection	6 (5)	51 (44)	38 (33)	3 (3)	1 (1)	99 (86) *
Implants	5 (4)	58 (50)	33 (28)	3 (3)	1 (1)	100 (86)
Diaphragms & Caps	3 (3)	30 (26)	45 (39)	20 (17)	1 (1)	99 (86) *
Total (n)	(153)	(409)	(311)	(60)	(13)	(946)
%	16	43	33	6	1	99 *

Estimation of practical competence using a factual quiz based on practice oriented scenarios.

Students completed a factual quiz in which they were given practical scenarios and asked how they would respond (**Appendix 2**). Eighty two students returned the quiz. Eighty were completed and two blank. The blank questionnaires have been omitted from the analysis.

The maximum possible score was 29 marks

The range of total marks was 1-16 (Mean=9.34, Median=10). (**Fig. 4**)

Final year students did not score highly suggesting that they were not competent in translating their theoretical knowledge into specific advice in practice-based scenarios.

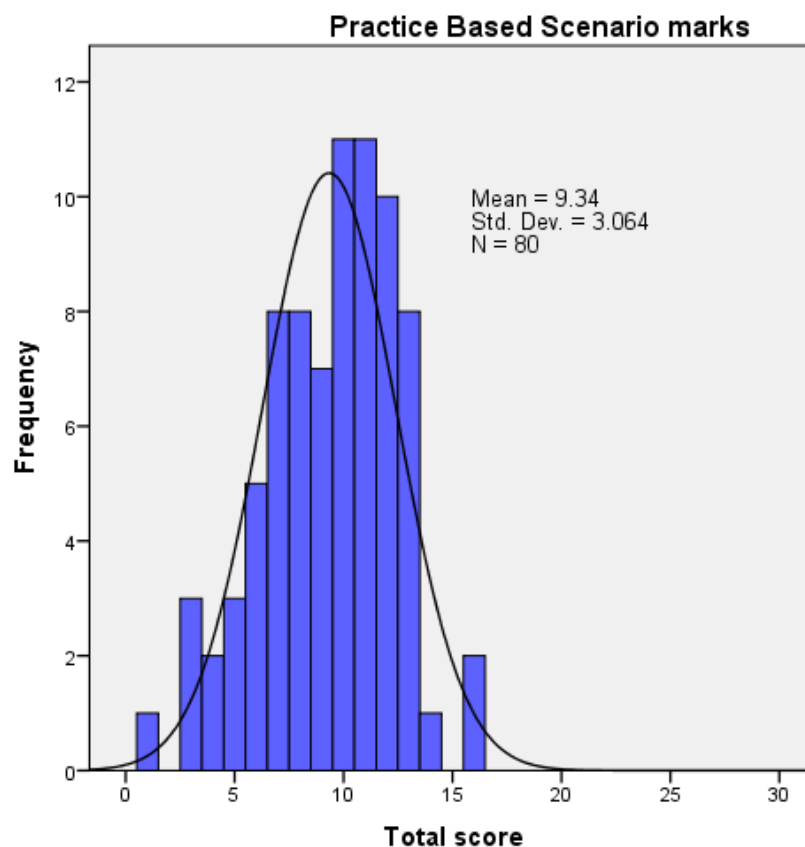


Figure 4

Unsafe answers to clinically based scenarios

Decisions as to whether or not an answer was unsafe were taken conservatively. If the respondent left the question blank or indicated that they were unsure or would seek advice, these responses were not deemed unsafe. An inaccurate but safe response (e.g. wait 6 weeks before starting an oestrogen containing method) was not recorded as 'unsafe'. Despite this conservative judgement of whether or not a response was 'unsafe', thirty two students (39%) gave potentially unsafe answers to the scenarios. These were given to Questions 3 and 5 which involved the use of oestrogen containing methods in the immediate post partum period or whilst breastfeeding.

However almost all of these unsafe responses resulted from a failure to spot that the woman's proposed course of action was hazardous, and could be described as passively unsafe answers due to a failure to advise against a course of action. Very few students actively advised an unsafe course of action. Only 16 responses out of a total of 560 (2.8%) were deemed unsafe due to the student indicating that they would give actively unsafe advice. Seven of these responses (1.2%) involved unsafe advice regarding when to start the combined oral contraceptive pill (COCP) after delivery, which could have resulted in a risk of DVT. Nine of these responses (1.6%) involved suggesting an oestrogen containing method to a woman who was breastfeeding.

Comparing Confidence and Competence

In a subset of participants (N=47) it was possible to associate expressed confidence in giving advice on a particular method with scores from the practice based scenarios. These related to the POP (Q2), COCP (Q3) and emergency contraception (Q6).

There was no correlation between expressed confidence in giving advice and competence (assessed by scores obtained in the practice based scenarios) in Question 2 (Mann – Whitney $U=,193.5, p=0.47$), Question 3 ($U=209.5, p = 0.683$), or

Question 6 (U=12, p=0.149). This suggests that midwifery students' expressed confidence in giving advice on these methods was not matched by their competence in practice based scenarios that were designed to explore how they would respond to situations in which they needed to advise women on each of these methods.

Views on how contraception and sexual health should be incorporated into a midwifery curriculum.

All students 'agreed' (17%) or 'strongly agreed' (83%) that contraception and sexual health (CaSH) should be included in the midwifery curriculum. The most common response regarding how CaSH should be included was as "part of a post natal module" (56%). Standalone lectures (17%), inquiry based learning (13%) and case studies (6%) were other options.

The qualitative responses from the questionnaires provided more detail regarding student preferences and learning needs. In order to improve their confidence in this area students suggested more lectures on the subject, opportunities to refresh their learning, and more opportunities to see contraceptive advice being given whilst on practice placements (see Davis and Walker 2013).

Reported barriers to their developing confidence in giving sexual health advice included a negative response from the women to whom they were giving advice, a perceived lack of time, and a general feeling that they lacked appropriate knowledge. Readily available sources of reference e.g. leaflets or aide memoires which the participants could consult and hand out to women in their care were suggested as ways in which the accuracy of advice could be improved.

Role of mentors

Role modelling from mentors and more experienced midwives in practice, was suggested, in qualitative comments, as something that would help to develop student confidence when giving contraceptive advice. However this was often reported as lacking. A preference for receiving education from midwives, who were themselves

experienced in this field, was also expressed. Some ambivalence from mentors, regarding the appropriateness of midwives giving contraceptive advice was reported both in qualitative responses and in the themes arising from focus groups. Often it was reported that midwives in practice restricted their advice to advising women that they were fertile and to see their GP regarding contraception.

“Do not feel I have learned enough in theory. However I haven't seen contraception discussed in practice more than ‘Women are very fertile at this point and so if you choose to have sex use contraception’ (Qualitative comment QR2 -40)

“Usual advice consists of advising women if having a sexual relationship (resuming) then think about contraception and discuss with GP at 6-8 week check” (Qualitative comment QR2 -43)

Discussion

Our findings demonstrate that the midwifery students who were participants in this study were practicing within the limits of their competence, with regards to the giving of advice on sexual health, in as much as they recognised gaps in their knowledge and avoided giving unsafe advice. The participants knew about a number of contraceptive methods, and worked within the boundaries of their knowledge. However there were significant limitations to that knowledge, some of which have the potential to adversely affect the well-being of women in their care, by leaving them uninformed regarding their choice of contraceptive methods, and potentially at risk of an unwanted pregnancy. The strategy of avoiding harm practiced here is a very defensive one, consisting of the avoidance of error by inaction. This may not be in the best interest of women who need advice on contraception or sexual health issues.

Pincombe suggests that “competency based education appropriately aims to enable students to successfully integrate theory and practice” (Pincombe et al., 2007, p99).

However the students who took part in our study reported difficulty finding opportunities to apply the knowledge they had acquired in a safe and supported

setting, when in practice. This was because they lacked opportunities to see detailed advice on CaSH given in practice situations.

The participants in our study were not registered midwives, but were in the final year of their studies and so it could be argued that these participants still had experience to gain before registration and once graduated would be “beginning practitioners” still requiring assistance and support (Cohen and Rose, 1984; Glover, 1999; Pincombe et al., 2007). Participants reported a marked lack of confidence in their knowledge and skills around contraception, which they related, in part, to the lack of role models whom they could observe giving detailed contraceptive advice.

In this respect our findings concur with those of Skirton (2012) who suggested that newly qualified graduate midwives were able to cope with a range of clinical situations in a safe manner, but lacked confidence in certain areas, and that positive reinforcement by supportive colleagues was required for graduates to develop as practitioners. It also implicitly concurs with Butler’s finding that graduating and experienced midwives, and midwifery teachers, view practicing safely as paramount in terms of competency at the point of registration (Butler, Fraser and Murphy, 2008). ‘Safety’ comprised a ‘using up-to-date knowledge in practice’, along with awareness of gaps in one’s professional knowledge, but also self-sufficiency and a degree of confidence (Butler, Fraser and Murphy, 2008). Our participants were aware of the gaps in their knowledge, but lacked confidence and were therefore not self-sufficient in the giving of contraceptive advice, and were unable to apply their knowledge in practice. Our findings also support the work of Roberts and Johnson (2009) and Stewart et al. (2000), who note that competence and confidence are not identical, and that both are required for effective professional development.

The mismatch between the general agreement that contraception and sexual health advice is an integral part of their role and the lack of confidence which students feel when giving such advice on contraception, is echoed in other studies which address

the role of sexual health assessment in nursing (Dattilo and Brewer, 2005; Johnston, 2009; Tsai et al., 2013) . It is perhaps more unexpected among midwifery students since conception and reproduction, and by implication sexual intercourse and contraception, are very much the basis of their professional practice. Although there are some reports of personal discomfort as a reason for not giving specific contraceptive advice, among the qualitative responses, the main reason cited is lack of knowledge. Students were unsure of their knowledge base and lacked confidence applying it in practice. McIntosh et al. (2012) report that midwifery students who participated in their study viewed knowledge as a finite resource acquired at university, which was supplemented by confidence which was acquired by performing in practice. Midwifery students in our study appeared to be caught in a situation where they felt they had insufficient knowledge to apply it in practice, and so were unable to gain any confidence in this area.

The lack of association between expressed confidence and assessed competence is of concern, since it suggests that some participants were over-confident in advising on certain methods. However this may be an effect of the methodology used to ascertain competence. Students may have felt more inclined to risk a wrong answer or a guess, when completing a paper based, practice orientated factual quiz, than when actually giving advice in a real clinical situation.

The cursory nature of postnatal contraceptive advice was noted by Glasier et al. in 1996, and noted again by our participants in 2013 (Glasier, Logan and McGlew, 1996). The finding that a high proportion of students limited their advice to “general advice only” suggests that lack of confidence in their contraceptive knowledge results in failure to address the need for more specific advice on contraceptive safety, and effects of contraception on breastfeeding, which arise in the post-natal setting. Delaying advice until the post natal GP visit often carried out at 6-8 weeks, puts women at risk of a second unplanned pregnancy, before contraception can be

reinstated (Ross and Winfrey, 2001). This finding, and analysis of the source of 'unsafe' answers given in the practice based scenarios, suggests that students maintain 'safe' practice, by avoiding engaging in discussions about contraceptive needs. This is an appropriate response for a novice, but it must be complemented by directing women to a more experienced colleague who can address their health information needs. If safety is judged to be making a referral due to lack of knowledge, the suggestion is that this knowledge is not an expected part of the professional midwife's area of expertise. It brings into question the scope of professional practice. The NMC Standards (2009) include a requirement for the qualifying midwife to 'enable women to make informed choices about their health' (p21) and to provide care which considers support in the post natal period while 'facilitating discussion about future reproductive choices' (p24). There is also the specific requirement for 'providing advice on contraception' (p25). Arguably therefore, there is an expectation for the newly qualified midwife to be both competent and confident in the provision of contraceptive education to women. The midwife is expected to be safe, and refer to others in the multi professional team where appropriate. However, this should not be a mechanism used to ensure safety by avoidance (in this case of advice giving) but rather it should be a professional judgement used when the midwife recognises gaps in his or her already established knowledge. Such a situation should also present the opportunity to find out, and to develop one's own knowledge so that the level of expertise and confidence grows. With expanding professional roles this is likely to become mandatory.

We consider ourselves fortunate to have had access to pre-registration midwifery students who were very willing to participate in this study. Our impression was of a group of students who were aspiring to be capable professional practitioners. Hobbs' (2012) ethnographic study identified the importance of midwives taking a reflective and critical approach to professional practice and for this approach to be fostered

during their pre-registration preparation. McIntosh suggests that curriculum planning needs to take into account the views and expectations of students, who should be involved in curriculum design (McIntosh et al., 2012). The willingness of the students to participate in the study, and their desire to strive to continually improve the profession they were joining, was clearly evident and suggests that students are willing and able to contribute to curriculum development and drive forward the education for their profession.

Limitations of the study

This was a small study based in one university in one geographical area of the UK. The use of practice based scenarios is a proxy measure used to assess practical competence. It is possible that students may have responded differently in a real clinical situation.

Conclusions

Students lacked confidence in giving advice on many contraceptive methods and managed this by giving general advice only or by referring a woman to another person, usually her GP. Lack of knowledge was most often cited as a reason for lacking in confidence and this was related to a shortage of time given to learning about contraception in the curriculum. A lack of opportunity to observe mentors giving contraceptive advice, and a lack of ready reference sources to consult were also reasons given for lack of confidence. Responses to practice oriented scenarios confirmed that students either lacked theoretical knowledge or had difficulty utilising this knowledge effectively in practice settings.

Enhancements to the coverage of contraception and sexual health advice in the pre-registration midwifery curriculum may be needed to improve both confidence and competence in this area. Particular attention may need to be paid to the translation of theoretical knowledge into confident and competent practical skills.

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