Quality considerations in midwifery pre-service education: Exemplars from Africa

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A B S T R A C T

Objective: this paper uses comparisons and contrasts identified during an assessment of pre-service education for midwives in three countries in sub-Saharan Africa. The purpose of the paper is to stimulate discussion about issues that must be carefully considered in the context of midwifery educational programming and the expansion of the midwifery workforce.

Design and setting: a mixed qualitative and quantitative participatory assessment was conducted in Ethiopia, Ghana and Malawi, in the context of a final review of outcomes of a USAID-funded global project (ACCESS). Quantitative surveys were distributed. Individual and focus group interviews were conducted.

Participants: participants included key informants at donor, government and policy-making levels, representatives of collaborating and supporting agencies, midwives and students in education programmes, and midwives in clinical practice.

Findings: information is presented concerning the challenges encountered by those responsible for midwifery pre-service education related to issues in programming including: pathways to midwifery, student recruitment and admission, midwifery curricula, preparation of faculty to engage in academic teaching and clinical mentorship, modes of curriculum dissemination and teaching/learning strategies, programme accreditation, qualifications for entry-into practice and the assessment of continued competence.

Key conclusions: quality issues must be carefully considered when designing and implementing midwifery pre-service education programmes, and planning for the integration of new graduates into the health workforce. These issues, such as the availability of qualified tutors and clinical teachers, and measures for the implementation of competency-based teaching and learner-assessment strategies, are particularly relevant in countries that experience health manpower shortages.

Implications for practice: this review highlights important strategic choices that can be made to enhance the quality of pre-service midwifery education. The deployment, appropriate utilisation and increased number of highly qualified midwifery graduates can improve the quality of maternal and newborn health-care service, and reduce maternal and newborn mortality.

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Introduction

The global health community has paid critical attention over the past several decades to the identification of effective interventions and strategies that can improve pregnancy and childbirth outcomes (Campbell and Graham, 2006). The Millennium Development Goals (MDG) adopted by 192 countries in 2000 (UNDP, 2000) set very challenging targets for the reduction of maternal, newborn and infant morbidity and mortality. Recent evidence has emerged that some progress is being made toward MDG 5, the improvement of maternal health (Hogan et al., 2010), although the rate of progress is disproportionate among the various global regions (Kinney et al., 2010), and nearly all of the maternal and child deaths occur in developing countries (Save the Children, 2010).

A clear consensus has emerged that providing skilled attendance for every birth is an essential component of approaches for reducing maternal morbidity and mortality, and promoting reproductive health. The availability of a health provider with specific midwifery skills and competencies, particularly life-saving skills (a skilled attendant) is acknowledged to be a key component of any safe motherhood strategy (Bullough et al., 2005; Carlough and McCall,
A work environment that provides resources, supplies, a system for support to midwifery personnel and a mechanism for referral to higher levels of care is also acknowledged to be central to the concept of skilled attendance.

Midwives, as a primary skilled attendant, are acknowledged to have a key role if progress is to be made toward achieving many of the MDGs related to the health of women, their children and their communities (WHO, 2005; UNFPA, 2010). However, global estimates anticipate the need for an additional 4.3 million health workers (WHO, 2006a) in developing countries (WHO, 2005). The estimates include the need for 350,000 midwives as essential providers within this health workforce (WHO, 2005).

Many countries have initiated national or local efforts to improve and expand maternal and newborn health services through expansion of a midwifery workforce (Glatleider, 2006; Temmar et al., 2006; Currie et al., 2007; Rukanuddin et al., 2007; Sogukpinar et al., 2007; Maupin, 2008; Baker, 2009; Merighi and Gualda, 2009; Plager and Razaonandrianina, 2009; Roxburg et al., 2009). A synthesis of findings from evaluations of these expansion efforts indicates that improvements in maternal and newborn health have come when midwives have received a firm educational foundation for practice, receive ongoing continuing education, mentoring and support, and when they practice in an enabling work environment.

This paper uses findings from an assessment of pre-service education for midwives in Ethiopia, Ghana, and Malawi. Comparisons and contrasts found in the experience of these sub-Saharan African countries can be useful when deliberating the many and various issues that must be carefully considered in the context of midwifery educational programming and initiatives taken to expand the midwifery workforce.

Methods
Design and setting

Access to Clinical and Community Maternity, Neonatal, and Women’s Health Services (ACCESS) was a five-year global project funded by the United States Agency for International Development (USAID). The project’s activities in sub-Saharan Africa were conducted through Jhpiego Corporation, in collaboration with the World Health Organization’s Regional Office for Africa and in partnership with the Ministries of Health of each country. Technical assistance aimed at strengthening the education of midwives was a core programme element. Programme activities included interventions designed to upgrade the teaching methods, approaches, and practices of midwifery tutors; site strengthening of the educational institutions and the affiliated hospitals in which midwifery students obtain clinical practice experiences under the guidance of midwifery preceptors; and enhancing the capacity of tutors and preceptors to perform evidence-based interventions basic to safe motherhood.

A final evaluation of the project was conducted in 2010. The intended outcome of the assessment was to gather information about the success and challenges encountered by these three countries as they designed, implemented or expanded their pre-service midwifery education programmes, so that this experience could inform educational policy development in other regional and global settings. The information from the ACCESS programme’s experience in Ethiopia, Ghana and Malawi was augmented with findings from similar assessments of midwifery educational programming conducted in other countries by the same implementing agency. The findings were also enfolded within the context of lessons learned from wider global experiences of similar programming and from the published literature.

Methods and participants

The participatory assessment was framed according to a continuous quality improvement model. The World Health Organization set of minimum standards for nursing and midwifery education (Morin and Yan, 2007; WHO, 2009) and the ICM (draft) standards for midwifery education programs were utilized as reference standards (personal correspondence, ICM, 2010).

Under USAID rules Institutional Review Board (IRB) approval is delegated to its grantees and contractors. This assessment was conducted by the Global Health Technical Project (GHTech), under contract with USAID. The GHTech project does not require IRB approval for these types of assessments. In addition, the US Government-wide Federal Policy for the Protection of Human Subjects (known as the ‘common rule’) exempts this type of work from IRB approval.

A mixed qualitative and quantitative review was conducted in each of the three participating countries. Individual interviews and focus group discussions were conducted. Site visits were made to education and clinical practice settings. Structured interview and observation guides were used to standardise the content and format of these assessments. A quantitative survey addressing the educational experience and the classroom and clinical teaching environment was also conducted among academic educators and students (findings are reported elsewhere).

Country-level participants included key informants at donor, government and policy-making levels, representatives of collaborating and supporting agencies, midwives and students in education programmes, and midwives in clinical practice. Additional informants included representatives of the donor, collaborating, and implementing agencies.

Data analysis

Qualitative comments that emerged from the interviews and focus groups were reviewed by several members of the team, using the constant comparative method (Boeije, 2002) to extract examples of congruent and divergent opinions about the many issues addressed in the assessment. Quantitative data (reported elsewhere) were entered into an Excel data base and exported to a commercial analytical software programme.

Findings

The details presented below are findings from the assessment conducted in the three African countries, addressing quality considerations for midwifery pre-service education. We cite an issue, set that issue in context, and then provide applied examples of the issue, extracted from study findings. Information presented in the discussion section that follows places these and other issues in the wider context of global considerations that further impact the design and implementation of programmes of health professional education.

Pathways to midwifery

The various educational pathways for midwifery study reflect the view of midwifery as both a traditional occupation and an emerging profession. Global pathways for midwifery are very diverse. Global case studies indicate that there is no single uniform system of routes of entry to initial preparation for midwifery, and no overall consensus regarding the optimal model for such education (Fealy et al., 2009). Programmes are available at technical, baccalaureate and graduate degree levels.
Some programmes are integrated courses of nursing and midwifery studies. Some educational models require completion of the programme of nursing studies followed by midwifery studies. Enrollment in midwifery may occur either immediately following the nursing programme, or after a period of clinical practice. Other models include a direct entry pathway to midwifery, distinct from nursing.

Midwifery education in the three African countries is offered primarily within public institutions of technical or higher (college or university) education, under auspices of Ministries of Health and/or Education. Private academic institutions also offer access to midwifery education, but to very limited degrees. The educational pathways available in each of the three African countries include courses of technical study, leading to diplomas or certificates of completion. A traditional academic pathway leading to a baccalaureate degree is also available in Ethiopia and Malawi, and is presently in development in Ghana. A career pathway to advanced education at the master’s degree level is available in Malawi. The various pathways and programmes are shown in Table 1.

### Student recruitment and admission

The demographic profile of students selected for admission to midwifery education programmes is related to the eligibility requirements for the specific academic pathway. At a minimum, eligibility considerations include the chronological age and the education level that are required for application. The global experience generates few examples of formal occupational pathways that accept students with less than ten years of formal education, which typically correlates with an age of 16 at the time of admission. Academic pathways typically require completion of secondary school, which may require 12 years of study.

Additional considerations may include the attainment of a qualifying score on an eligibility examination, and expression of interest in the profession, as are required in Ghana and Malawi, where highly qualified students are admitted to the schools or colleges on the basis of high test scores. Students who express an interest in midwifery as a profession are then selected for the colleges on the basis of high test scores. A traditional academic pathway leading to a baccalaureate degree is also available in Ethiopia and Malawi, and is presently in development in Ghana. A career pathway to advanced education at the master’s degree level is available in Malawi. The various pathways and programmes are shown in Table 1.

### A competency based curriculum of midwifery studies

Competence can be defined as the combination of knowledge, psychomotor, communication and decision-making skills that enable an individual to perform a specific task to a defined level of proficiency. Midwifery competence, which is the intended outcome of a programme of midwifery studies, has been defined by and for the International Confederation of Midwives as the preparation of a clinical practitioner who has acquired a combination of knowledge, professional behaviour and specific skills that are demonstrated at a defined level of proficiency in the context of midwifery education and practice (Fullerton et al., in press). The content of the curriculum will therefore be influenced by the overarching understanding of the role and scope of practice that midwives can (and perhaps should) assume globally, and in each specific country.

A first consideration in design of a curriculum is the definition of the core content. There is considerable global support for inclusion of a common core of content, so that the global community can achieve a common understanding of the midwifery role and a common expectation of those who identify themselves as practitioners of midwifery (Thompson, in press).

The International Confederation of Midwives has generated a set of core competencies for midwives, which delineate the basic knowledge, the technical and cognitive skills and the professional behaviours that should be included in the curriculum of any course of midwifery studies, across all academic pathways and levels (ICM, 2002). The ICM encourages countries to adapt and expand these core competencies to reflect country needs (WHO, 2006b; Homer et al., 2007; Ireland et al., 2007; Butler et al., 2008; Narchi, 2009).

A second consideration for clinical programmes is establishing a proportional balance between theoretical content and opportunity for clinical practice. This includes consideration of establishing a minimum number of clinical experiences in the performance of certain clinical skills, or the management of the care of women who experience specific obstetrical complications, and determining whether these minimum numbers would be required, or simply recommended, as a criterion for completion of the educational programme.

The midwifery curriculum in Ethiopia was developed by education experts, but with minimum input from midwifery educators. The information that is available suggests that the curriculum is not linked to an identified set of expected outcomes for midwifery clinical practice, and, while the theory/practice

### Table 1

Patterns of midwifery education in three African countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Educational pathway</th>
<th>Credential</th>
<th>Years of study</th>
<th>No. of programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>Public Direct entry</td>
<td>Diploma/certificate</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Ghana</td>
<td>Public Direct entry (inaugurated in 2007)</td>
<td>Diploma/certificate</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Malawi</td>
<td>Public Nursing and midwifery combined</td>
<td>Diploma/certificate</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Public Nursing followed by midwifery</td>
<td>Diploma/certificate</td>
<td>4+1</td>
<td>3 (of the same 17)</td>
</tr>
<tr>
<td></td>
<td>Public Graduate career pathway</td>
<td>Diploma/certificate</td>
<td>3</td>
<td>1 in planning</td>
</tr>
<tr>
<td></td>
<td>Private Nursing and midwifery combined</td>
<td>Diploma/certificate</td>
<td>3</td>
<td>Number varies year-to-year</td>
</tr>
<tr>
<td></td>
<td>Private Direct entry</td>
<td>Diploma/certificate in both specialties</td>
<td>3+2</td>
<td>This pathway existed previously and is being reconsidered</td>
</tr>
<tr>
<td></td>
<td>Private Nursing followed by midwifery</td>
<td>Diploma/certificate in both specialties</td>
<td>4</td>
<td>Very few, and number varies year-to-year</td>
</tr>
<tr>
<td></td>
<td>Private Graduate career pathway</td>
<td>Diploma/certificate</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
balance was proportionate according to the standards established by the relevant Ministries, schools were not held accountable for meeting these standards. The curricula in both Ghana and Malawi were developed under direction of the Nurses and Midwives Councils, and both curricula do offer more direct evidence of a relationship to curriculum content and the expected practice role.

However, the opportunity for students to obtain minimum suggested numbers of clinical practice experiences was very limited in all three countries. Challenges included the competing demand for similar experiences by students of other health-related disciplines, the chronic and severe staff and preceptor shortages in the clinical settings, and, in some cases, a lack of preceptors who were prepared to teach and supervise students in their acquisition of certain skills, such as the signal functions of basic emergency obstetric and newborn care.

Recommended minimums are associated with competency development, even though acquiring specific numbers of experiences does not necessarily mean that competency has been achieved by any individual learner. Midwifery students in each of the three countries were, nevertheless, allowed to graduate from the programme without having acquired recommended numbers of clinical experiences. The pass rate on recent credentialing examinations in both Ghana and Malawi has been declining, which supports the premise of a relationship between adherence to academic standards and competency development.

Standardisation of the curriculum

There are several facets to the effort involved in standardisation of a curriculum. Efforts need first to be expended by all parties who are invested in the issue (e.g. administrative and regulatory authorities and representatives of education programmes) to come to agreement about the organisation, core content, and intended outcomes of the programmes for education of a specified cadre of health worker, often (and preferably) using national or regional standards or guidelines for quality control. A second step is then to share these decisions widely, certainly within the country, and sometimes across regional borders, so that there is a sharing of common goals and intentions.

Multicountry collaborations in support of midwifery education have been developed in the Africa region, demonstrating the value of professional interaction across regional and country borders (Ndlovu et al., 2003; Mogobe et al., 2009). Similar collaborations have been deliberated or established, such as the WHO/SEARO Nursing and Midwifery Education Network for Southeast Asian nations, and geographically aligned models established by several states in both the northeast and southwest regions of the United States. These collaborations imply that the core content and practice competencies for midwives are similar between and among countries, so that there is a shared understanding of what those health workers using the title ‘midwife’ can be expected to do in the workplace. These international models serve to demonstrate the added value that can accrue to countries when they are able to call on one another for assistance and support in achieving a common objective for the preparation of a workforce for women’s health-care service delivery (Wright et al., 2005; Sochan, 2008).

The Ministry of Health in Ethiopia has adopted a standardised curriculum across all of its publicly funded technical schools over which it exercises authority. However, the Ministry of Education, which has authority over bachelor degree granting institutions, has not instituted that same standard curriculum policy, making it possible that graduates of programmes within the country could have different core knowledge and skills at the time of entry into practice. This is not advantageous to Human Resource (HR) personnel who have to rely on their understanding of the midwifery role and scope of practice, as they deploy these practitioners. The managers and clients of health facilities need to share a common expectation of the services that can be offered by any individual who holds a specific workforce title.

Conversely, the curricula are standardised across all of the public education programmes in both Ghana and Malawi. Quality assurance of this function is delegated to the country’s Nursing and Midwives Council.

Faculty preparation for academic teaching and clinical mentorship

Well qualified tutors are essential components of the framework of quality midwifery education. Classroom teachers and clinical preceptors each have a separate, but integrally linked mission for the transmission of theory, and the assessment of student learning.

The Ministries in each of the three African countries were challenged in their mission to appoint well-qualified teachers/ tutors for the academic programmes. Administrators of the education programmes were challenged, in their turn, to identify numbers of tutors who were up-to-date in their knowledge and proficient in their clinical skills, in addition to having the appropriate skills to teach, mentor and evaluate students in classroom and clinical settings.

Ethiopia’s Ministry of Health (for technical schools) or Education (for degree programmes) assigns teachers to midwifery schools from among the graduates of its baccalaureate programmes. These individuals may not have specific preparation for teaching, and some are not qualified as midwives, or do not have recent or sufficient clinical practice experience in midwifery to develop the level of clinical proficiency required to teach. Ghana’s Human Resources for Health Development Department selects teachers for the midwifery programmes from among university graduates. Again, these individuals may not have recent and relevant preparation in teaching, except for graduates of the University of Cape Coast which offers a designated teacher-training degree. These teachers may not, however, be appropriately prepared for the teaching of a midwifery curriculum of studies. Teachers in university schools in Malawi are appointed directly from teaching colleges and must have a degree in nursing education. However, midwife educators may not have much, if any, actual practice of midwifery. Teachers in the technical programmes in Malawi are selected by the Ministry of Health from among nurses who have attended college, even though they may not have selected education as a career goal and may also lack the necessary clinical skills.

Curriculum dissemination and teaching/learning strategies

An appropriate mix of teaching methods offers the best advantage to learners as they strive to acquire the expected job-related competencies. Lectures and assigned readings allow students to access essential information but do little to promote the development of essential skills. Demonstration of procedures by proficient faculty, practice using equipment and supplies in a clinical skills lab and coaching through difficult clinical decision making processes in the actual clinical practice setting are examples of teaching methods/learning activities that will optimise the development of essential midwifery competencies.

The primary approach to presentation of content in each of the three assessment countries was a traditional lecture mode, supplemented by limited group work, and module-based self-study. The educational institutions in each country had limited access to computers, software and information technology support. Further, access to evidence-based learning resources was limited by slow
and unreliable internet connectivity. Educational administrators noted that an investment in and enhancement of educational technology would offer an opportunity for increasing educational quality and efficiency.

Technical assistance was provided to tutors in each of the three countries on effective teaching skills, to strengthen their abilities to incorporate more interactive teaching/learning strategies into their class presentations (e.g., the use of seminars, debates, use of multimedia resources). Tutors were queried about their familiarity with the problem-based learning (PBL) methodology (Albanese, 2000; Rowan et al., 2009) (information from quantitative survey, reported elsewhere). Few tutors in any of the public midwifery education programmes in the three assessment countries were inclined to use that approach, due in some part to the fact that there were no other models of its use within other public health provider education programmes.

Programme accreditation

Standardisation of programmes may also include the additional input of authoritative bodies external to the programme and perhaps even to the country (WHO, 2008). Program accreditation is a self- and peer assessment process through which an education programme is reviewed against set of standards or criteria that set expectations about quality (Magnaña-Valladares et al., 2009). The scope of this review of health-related education programmes typically addresses criteria for equity and fairness in student selection, the degree to which faculty are prepared for the teaching role, the ‘fit for purpose’ of the curriculum, the infrastructure and learning resources available in the academic and clinical settings, the effectiveness of programme management and the degree of administrative support provided to the programme by the host institution. A very recent focus has also been placed on assessment of the degree to which programmes seek to know if the practitioners that they educate have all of the competencies that they need to make a difference to the health of the community, and that the graduates actually use these skills in their practices (Boelen and Wollard, 2009).

An external accreditation process had not been established in any of the three countries in Africa. The ACCESS programme contributed to development of a midwifery education programme accreditation process in Afghanistan that can serve as a model for this process in lower resource countries (Smith et al., 2008). Essentially all programmes in higher resource countries have very well established mechanisms. Ethiopia has very recently established a quality assurance board that is charged with the mission of setting standards and reviewing (accrediting) the quality of schools; however their scope of work has not yet been fully clarified.

Qualifications for entry into practice and assessment of continued competency

The assessment of initial competency for practice of a profession is a responsibility that is vested in the education programme, but may also, and often is, shared by external credentialing (certification) or licensing regulatory boards and agencies. A wide variety of approaches for assessment and verification of this competency have been developed. These approaches typically involve, at minimum, a verification that an individual has acquired and can demonstrate proficient performance of a set of clinical skills. Multimethod assessments typically also involve passing an oral or written examination of knowledge and problem-solving abilities. Verification that these entry-level skills are maintained over a lifetime of practice is a second consideration, and the responsibility for conducting this assessment is a subject of considerable debate (Bradshaw and Merriman, 2008).

Ethiopia has not yet implemented any programme of initial verification of fitness for practice beyond the approval for graduation given by the academic programme, nor any system, optional or mandatory, for continued competency assessment. Programme graduates are eligible to practice throughout their lifetime. The Nurses and Midwives Councils in Ghana and Malawi are charged with the responsibility of developing and administering an initial licensure examination, and setting minimum performance standards. Malawi is presently pilot-testing a re-registration scheme, based on a continuing education requirement.

The designation of the pass or fail standard is an important allied consideration. The testing community has developed a number of approaches for setting a cut score that can be defended by reference to external criteria of best practice (Kane et al., 1999; Howley, 2004). However, and all too often, as was the case in both Ghana and Malawi, an arbitrary pass score is selected, without further justification.

Discussion

The issues already presented are some of the fundamental components that must be deliberated during the design of midwifery pre-service education programmes. Additional issues emerge for consideration in planning for the integration of fully qualified midwives into the health workforce. These issues are particularly relevant in countries that experience health manpower shortages, and in countries that are most affected by out-migration of health personnel. The discussion that follows is intended to stimulate the policy debate concerning several of the issues identified as priority research questions on human resources for health (Ranson et al., 2010). The experience of these African countries offers evidence that can inform these deliberations in terms of outcome and impact.

What are the advantages and implications of the various academic educational pathways to midwifery? Technical and academic degree programmes are certainly of greater value to individuals, and offer easier access to career pathways. Governments would presume that graduates of these programmes would acquire a greater breadth of education, and perhaps, therefore, a higher level of critical thinking skill, which would be of benefit in the provision of quality health care. At the same time these programmes are more expensive of both time and money for both students and programme sponsors. Governments have also noted that midwives who have been educated to the highest level of international reference standards are more likely to be recruited to work in countries that have health manpower shortages which may be more attractive because of geographic work site or monetary compensation (Smith and Mackintosh, 2007). However, the alternative consideration has not been clearly demonstrated to have a distinct advantage in the longer-term. A number of countries have expended considerable time and resources to train lesser-skilled cadres of health workers, who have a limited set of midwifery skills, partly to address immediate health workforce needs, but also with the understanding that these workers do not have a competency profile that would be acceptable outside of the country’s geographic boundaries (Foster et al., 2005; Ahmed and Jakaria, 2009). These countries may also have diverted attention from the priority of educating a skilled birth attendant (Sibley and Sipe, 2006). Similarly, there are a variety of examples of situations in which less-educated health workers are allowed to perform functions that the more highly educated midwife may not be allowed by policy to perform (Cumbi et al., 2007; Lehmann et al., 2009).
What is the particular advantage of educating practitioners in the two disciplines of nursing and midwifery? These combined pro-
grammes may require a longer period of enrolment in order to acquire
competencies for both professions (e.g. midwifery studies following
completion of nursing studies), and may therefore also be more
expensive for students and for educational institutions. There is no
evidence in the literature that can document the advantage of either
educational pathway in terms of the optimal outcomes for mothers
and babies. However, there are acknowledged advantages to dual
preparation. Human Resource Departments have the option of
assigning these practitioners to any setting within the health facility,
and these practitioners are more broadly prepared for practice in
health facilities where only a few health workers are assigned, for
example, in rural health clinics or health posts. On the other hand,
there is the risk of de-skilling when practitioners are assigned outside
of customary work settings. For example, government policy in
Malawi is to move staff between facilities every two to three years,
and facility policies require staff rotation between midwifery and
nursing units. Graduates of the nursing/midwifery colleges in Malawi
have a dual credential and can therefore be assigned to a wide variety
of health facilities or work units. Transfers can occur even when a
midwife specifically requests assignment to the maternity unit.
Unless Human Resource personnel and supervisors recognise their
added value, the advantage of unique midwifery skills can be lost.
Similarly, it is sometimes the case that individuals are prepared as
midwives but never actually work as midwives. This could be viewed
as a waste of precious educational resources.

Assuming that curricula have been designed with reference to
international or regional standards for core content, how much of
that content should be compromised in order to substitute content
that is specific to a country’s burden of disease? For example,
countries in many areas of the world have a substantial burden of
malaria, and of HIV/AIDS, and midwives have both opportunity and
responsibility for prevention and intervention into those health
issues. How and with whom should the responsibility for making
these curricula modification determinations be shared? To what
extent should the good intentions of donors who wish to include
these curricula modification determinations be shared? To what
length should the good intentions of donors who wish to include
within the pre-service curricula the special topics of interest
for which they have been funded (e.g. use of a specific clinical
management strategy) be accommodated?

The three African countries addressed in this evaluation each
experienced substantial challenges in securing access to clinical
practice experiences for enrolled students, both in general, and
also for specific clinical situations that occur as random events
(e.g. management of haemorrhage). These skills can (and should)
be demonstrated and practiced on models and in simulated
situations. However, these artificial situations do not require that
learners react (think, act, evaluate) in the short timeline of a true
emergency. Are simulated practices sufficient to allow students to
complete their programme of studies, when minimum numbers of
clinical practice experiences cannot be acquired within the aca-
demic timeframe, or when the learner has no opportunity to work
with actual clients who have specific clinical conditions? Addition-
ally, given the substantial pressures that governments might
experience to produce larger numbers of midwives to address
workforce needs, is it appropriate to expand the number of
education programmes in light of existing shortages in qualified
faculty, teaching and learning resources, access to clinical experi-
ence, the need for very close mentorship as students acquire
clinical skills (a ratio of one faculty to two students being desirable)
and in the absence of suitable regulatory frameworks needed to
ensure sustainable quality (Harvey et al., 2007)?

Issues related to deployment and retention of workers within a
country are tightly bound to the responsibilities of administrative
authorities to provide for appropriate supervision of the midwife in
the workplace, and the conditions of the working environment.
There were examples offered by midwifery practitioners in each of
the assessment countries about the difficulties that had to be
addressed day-to-day under circumstances of chronic staff
shortages, the lack of supplies and equipment that limited their
ability to perform certain life-saving skills, and feelings of isolation
from other health workers who could offer assistance in emergency
situations. What coalition of education and practice authorities
should be charged with addressing quality assurance in these
matters?

A lack of collegial support from midwifery co-workers or the
obstetricians who supervised the midwives’ work also presented
constraints in certain circumstances. This occurred in some cases
because the consultant physician did not wish to delegate certain
functions to the midwives, even though by policy and training, the
midwife was prepared to perform the task (e.g. manual vacuum
aspiration). In another instance, the consultant obstetrician did not
appreciate the value of the partogram as a decision-making tool,
therefore, discouraged its use by midwives, and discounted the
urgency of the midwives’ requests for client consultation, based on
the partogram’s graphic data. What priority should be placed on
educating health workers about the scope of practice of all other
health professional cadres? Would there be value to finding the
‘common core’ among scopes of practice, and creating opportu-
nities for cross-teaching and cross-training at the pre-service level
(Saxell et al., 2009; Taleff et al., 2009)? What role do clinical
preceptors and supervisors have in helping to educate facility-
based staff about updates to evidence-based clinical practice, and
the expansion of the midwifery role in terms of both the functional
role and autonomy in practice?

A professional association had been developed by midwives in
each of the three countries. This organisational resource proved to
be substantially beneficial to the midwives to find a voice in the
political and policy arena. The organisations promoted efforts to
enhance the capacity of midwifery leaders, and promoted the
professional development of midwives as a preferred cadre of
skilled birth attendants, with a career pathway to higher academic
and policy making levels. What further role might these associa-
tions play in advocating for the prominence of midwifery in
country reproductive health and manpower policy?

And finally, what role can midwifery pre-service education
programmes play in the preparation of midwives to contribute to
the documentation of information that describes midwifery prac-
tice, and to inform them about ways to use this information for
decision-making? These data are needed to demonstrate the
unique contribution of midwives, as countries move forward
forward toward the targets of the Millennium Development Goals.

Summary, conclusions and implications for practice

The information highlighted from this review of midwifery pre-
service education and practice in these three African countries
offers a context for deliberation about a number of very contem-
porary and very compelling challenges in midwifery pre-service
education. These challenges must be addressed to offer the
opportunity for midwives to make their most positive contribu-
tions to the health of women and families. Many important lessons
can be learned from reviewing the decisions taken in each country
with respect to the various issues, such as the selection of the
pathway to midwifery education, and the impact of these decisions
when the practitioner enters the health workforce. Certainly, many
adverse effects for both students, educators, graduates, and the
countries themselves were realized when programmes did not
adhere to educational policies that had been promulgated by
country authorities or recommended in international guidelines

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