Essential Components of Successful Collaborative Maternity Care Models

The ACOG-ACNM Project

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KEYWORDS

- Collaborative practice • Maternity care • Interprofessional education
- Evidence-based care

KEY POINTS

- Mutual respect and trust were recurrent concepts in the collaborative practices that evolved and lasted over time; institutional culture should emphasize effective team work where all care providers are respected.
- An analysis of 12 articles describing successful collaborative practice models between obstetricians and midwives revealed common themes that can guide others planning to establish similar collaborative models.
- Regulation allowing the full scope of midwifery practice, including both state law and institutional credentialing, was essential to successful collaborative practice, although collaboration was possible in some cases where restrictive regulations remained.
- From these diverse practice settings and collaborative practice models, we provide evidence that collaborative practice not only works, but can lead to improved client and provider satisfaction and clinical outcomes.

Collaborative practice and interprofessional education are not new concepts, and have been highlighted by the Institute of Medicine (IOM) for 4 decades. These concepts and the principle of partnership were central to the recent American College of Obstetricians and Gynecologists (ACOG)/American College of Nurse-Midwives (ACNM) Joint Statement of Practice Relations Between Obstetrician-Gynecologists and Certified Nurse-Midwives/Certified Midwives[1] and the 2010 ACOG-ACNM Issue

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of the Year project.[2,3] The purpose of this article is to describe this ACOG-ACNM successful and sustained collaborative practices project and to report the analysis of 12 of the 60 papers submitted for the project.

The 1972 IOM report, Educating the Health Team,[4] proposed that academic health centers educate health professions students together and that other educational institutions affiliate with interdisciplinary education programs. The report further recommended that faculty become skilled in interdisciplinary teaching and model interdisciplinary practice. The IOM report authors envisioned that this cooperation would result in better use of the workforce and improvement in the quality of care.

The landmark IOM report *Crossing the Quality Chasm* provided a new focus on improving the quality of care through collaboration, recommending that our new health systems be "safe, effective, patient centered, timely, efficient, and equitable." This goal can be reached by "redesigning the way health professionals are trained to emphasize the six aims for improvement, … placing more stress on teaching evidence-based practice and providing more opportunities for interdisciplinary training."[5(pp3,6)] Building on that work, the IOM published *Health Professions Education: Building Bridges to Quality* in 2003 and emphasized that "all health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics."[6(p3)]

More recently, the October 2010 IOM report *The Future of Nursing: Leading Change, Advancing Health* included these 2 important points: "nurses should practice to the full extent of their education and training" and "nurses should be full partners, with physicians and other health care professionals, in redesigning health care in the United States."[7(pp4,7)]

ACOG-ACNM JOINT PRACTICE STATEMENTS

ACOG and ACNM have developed several statements related to joint practice over a number of years. The first was published in 1971 as the *Joint Statement on Maternity Care* and clarified that high-quality maternity care could be provided by teams of physicians, nurse-midwives, obstetric nurses, and others. The document further stated that these teams would be "directed by a qualified obstetrician-gynecologist."[8(p1)] A supplemental statement published in 1975[9] clarified that obstetrician team direction did not mean being always physically present, and clarified 3 principles:

1. A written agreement clarifying consultation and referral policies
2. Responsibility for team care accepted by the obstetrician-gynecologist
3. Arrangements for formal consultation with an obstetrician-gynecologist if team leadership is provided by a physician not trained in obstetrics and gynecology

A revised joint statement in 2001 removed the language of direction of the maternity team by an obstetrician, and referred to inclusion of an obstetrician with hospital privileges on the team to provide complete care.[10]

Recently, a more robust statement was published recognizing the common goal that obstetricians and certified nurse-midwives/certified midwives (CNM/CM) have for providing safe care to women through evidence-based care models.[1] The document clarifies that obstetricians and midwives are licensed, independent clinicians, and collaborate with each other based on client needs. It further states that care is enhanced by mutual respect and trust as well as professional responsibility.[1]

During the period of development of the 2010 joint statement, the leadership of both organizations decided to ask ACNM member midwives and ACOG Fellows with successful and sustainable collaborative practices to describe their care models in

jointly written papers that could be disseminated through journal publications and presentations at the local, regional, and national level. ACOG hosted an annual competition on a clinical practice topic determined by the current president. It was through this competitive call for papers, the 2011 Issue of the Year, that the call for collaborative papers was launched by ACOG and ACNM.[2] The authors considered that highlighting the successes described by their colleagues would spur further collaboration and thus increase care options for women.

DOCUMENTING SUCCESSFUL MODELS OF COLLABORATIVE PRACTICE IN MATERNITY CARE

A team of 3 ACOG Fellows and 3 ACNM member midwives developed the review process for the competition. Guidelines were created by this team and support staff of the two organizations. In addition to the paper having at least one obstetrician and one CNM/CM coauthor, suggested topics for inclusion were:

- Background for the initiation of the collaborative practice
- The practice model, including how patient care decisions are made
- State, regulatory, and credentialing issues that have been addressed
- Practice outcomes (using data if possible) related to women, providers, and health care setting
- Challenges faced and solutions
- Interdisciplinary education and training
- Suggestions for model replication
- Plans for any future initiatives

Clinicians from both academic and community practices were encouraged to submit papers with enough flexibility in requirements to encourage a wide range of submissions. The call for papers was issued in September 2010 through both organizations with a February 2011 due date.[3] Papers were evaluated based on thoroughness of description, sustainability, level of influence on access to care, health disparities, vulnerable populations, clinical outcomes, education, and/or research.

Sixty papers were submitted by the due date from a wide variety of practice settings across the United States. Each paper was reviewed by 2 different teams of one obstetrician and one midwife. Over a series of phone conferences, the top papers were agreed on, re-reviewed by the entire team, and finally 4 winning articles and 4 honorable-mention articles were selected. This analysis includes the 4 winning articles published in *Obstetrics and Gynecology* in September 2011[11–14] and the articles by Pecci and colleagues, Angelini and colleagues, Cammarano and colleagues, Ogburn and colleagues, Blanchard and colleagues, Egan and colleagues, Cordell and colleagues, and Nielson and colleagues describing collaborative practice models included elsewhere in this issue.

MATERIALS AND METHODS

Design

A descriptive qualitative analysis of the 12 articles was conducted to answer the question "what are successful and sustainable models of midwife and obstetrician collaborative practice in maternity care?"

Sample

The sample was a subset of the 60 papers submitted: those previously published,[11–14] and an additional set selected for publication in this issue (see the articles by Pecci

and colleagues, Angelini and colleagues, Cammarano and colleagues, Ogburn and colleagues, Blanchard and colleagues, Egan and colleagues, Cordell and colleagues, Nielson and colleagues elsewhere in this issue). The content analysis methodology was applied to the 4 published articles and the version submitted to ACOG-ACNM for the remaining 8 articles. An exemption from human subjects review was obtained from the University of Minnesota IRB (1201E09484). The authors of the articles agreed to have their article included in the analysis.

Content-Analysis Method

A general, inductive approach to qualitative content analysis was used, as described by Thomas[15] and Hsieh and Shannon.[16] Although no predetermined codes or categories for data were used, the authors were provided with suggested guidelines to follow. These authors used similar approaches to describe their practice models, and the initial codes or categories were similar to the topics described above.

Papers were first read in their entirety to obtain a sense of the whole. NVivo 9 (software package for qualitative analysis) was used to facilitate the coding and analysis process; all articles were imported into NVivo and then reviewed line by line (M.D.A), and sections of the text were identified and coded, adding additional codes as needed. From the coded text, larger categories of related codes were derived, and finally broad themes were derived from those categories following discussion by the full research team.

Rigor was built into the process in several ways. After one author (M.D.A.) completed the initial independent coding of 4 articles, the coding was reviewed with a coauthor (E.B.S.) who had also independently coded 2 of those 4 articles. Differences in the coding scheme were reviewed and a consensus was reached. Finally, another coauthor (O.M.) independently reviewed the initial coding scheme, and differences with the original coding were discussed and consensus reached. Any possible biases or preconceived ideas in interpretation of the data were discussed in advance by the authors, and considered in discussions. Final identification of themes was discussed among all authors and a consensus was reached where differences occurred. To provide an audit trail, a record of the coding process was created, including any decisions made. As a final step, authors of 6 of the 12 articles, representing a range of practice types, were asked to review a draft of the results section of this article to determine if the summary broadly represented their experience. Overall they stated that the analysis reflected their practice model, and minor edits were made on receipt of their comments.

RESULTS

The series of papers represented a wide range of practice locations and size. The articles are now published and may be reviewed by interested readers (see the articles by Pecci and colleagues, Angelini and colleagues, Cammarano and colleagues, Ogburn and colleagues, Blanchard and colleagues, Egan and colleagues, Cordell and colleagues, Nielson and colleagues elsewhere in this issue).[11–14] Most practices were based in urban areas and were part of larger teaching hospitals. Some practices were much smaller, including a birth center practice with a total of 5 providers. All collaborations involved obstetricians and midwives, and many included nurses and other care providers. Larger practices included advanced practice nurses and specialty physicians from areas such as neonatology, perinatology, reproductive endocrinology and infertility, maternal-fetal medicine, urogynecology, and gynecologic oncology. Academic institutions included educational collaborations with

students and/or residents from the disciplines of obstetrics, midwifery, family medicine, pediatrics, and anesthesia.

Eight states were represented across the articles, namely California, Maryland, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Washington. In addition, the states of Alaska, Arizona, and New Mexico were represented as collaborative practices that are part of the Indian Health Service (IHS) and tribal health services. The number of years of practice varied widely; the oldest collaboration began in the late 1960s and the most recent in 2006.

The structures of the practices also varied. Most practices were part of large teaching hospitals, and their services were based in hospital-associated clinics and inpatient hospital units. Several practices were broader in scope; one practice comprised hospital birth services as well as 5 community clinics, a birth center, and a private practice that offered home birth. Another practice included a hospital-based office, 4 community health centers, and services at a correctional facility. In addition, 2 practices represented a combination of private practice and a federally qualified health center (FQHC) or other publicly funded clinic practice. Nearly all practices described service to women from low-income and underserved communities.

Based on the content analysis, 5 main themes were identified. Descriptions of each theme follow with quotes that amplify the descriptions provided. Some themes related to specific components of collaborative practice while others related to the formation and broader outcomes of the practices.

Theme 1: Impetus for New Collaboration

Each practice described the impetus or motivation for launching their collaborative practice model. Among the reasons described were expanding practice to care for more women in a safe, cost-effective manner; providing services women were requesting such as personalized care, more female providers, and women's participation in care; offering the midwifery care model; providing learning opportunities for medical students, residents, and midwifery students; and increasing access to care for underserved populations. One alternative experience was a group of midwives who approached an obstetrician to establish a collaborative relationship. The following quotes highlight this theme.

> *Because CNMs were known to be cost-effective providers with documented success and interest in this [underserved and publically insured] population, the department initiated a 5-CNM group practice … with its own caseload of patients.*[12]

> *A large increase in prenatal registration, and a concern that the volume change would lead to an increased number of adverse perinatal outcomes, prompted the leadership of obstetrics and gynecology, its division of midwifery, and the family medicine department to address changes that could improve perinatal outcomes, patient safety, patient satisfaction, and graduate medical education (see the article by Pecci and colleagues elsewhere in this issue).*

> *This collaborative practice began … when a physician was approached by a midwife who had a successful birth center in the community [and] asked him if he would be interested in being a collaborating obstetrician. He had never met a midwife before, nor did he understand what a collaborating physician's role would entail. Recalling the advice of his residency director, strongly recommending that he work with midwives if given the opportunity, he accepted the offer (see the article by Cammarano and colleagues elsewhere in this issue).*

Theme 2: Basic Foundations of Collaborative Care

Midwives and obstetricians wrote about the basic building blocks or functional components of working well together. These features included reciprocal consultation, collaborating in the care of specific clients, processes for referral of care from one clinician to another, methods of fostering clear communication, addressing any medicolegal concerns, and developing a financial structure that resulted in a lack of competition for clients and care processes or procedures. Practice guidelines were another piece of the foundation and included midwifery practice guidelines, as well as common practice guidelines used by any clinician in a given care situation. Evidence-based practice was described both as a basis for providing care and as a way of ensuring consistent management in situations where midwife clients were transferred or collaboratively managed. Regulation allowing the full scope of midwifery practice, including both state law and institutional credentialing, was described as essential to successful collaborative practice, although collaboration was possible in some cases where restrictive regulations remained.

> *Another important cornerstone to the success of the department midwifery practice was the creation of an operating agreement between the CNMs and the department physicians. This practice agreement clarifies the guiding principles and relationships between the two groups and includes the philosophy, scope of practice, functions, and organizational structure of midwifery clinical services. It details diagnostic tests and therapeutic agents that may be independently ordered by midwives, conditions requiring physician consultation, collaboration and referral, and specific protocols and guidelines.*[12]

> *… All members are engaged stakeholders in quality improvement activities and evidence-based policy revisions. This likely fosters consensus and group adherence to clinical guidelines, improves patient education and outcomes, promotes normal birth, and reduces medical liability.*[14]

> *Our collaborative practice model is possible because certified nurse-midwives in the state of Washington are independent practitioners. … Certified nurse-midwives can admit patients under their own names, obtain full prescriptive authority, and carry their own medical liability insurance.*[11]

> *Decision making is shared, and is based on evidence. If a disagreement in the plan of care arises, it is discussed until the providers come to a consensus while keeping both the evidence and the woman's needs as the driving forces behind the decision. It is important to listen to the needs of the woman (see the article by Cammarano and colleagues elsewhere in this issue).*

Theme 3: Commitment to Successful Partnership

The authors of the articles described additional aspects of collaboration that led to real success and strategies to solve potential problems. Mutual respect and trust were recurrent concepts describing relationships that evolved and lasted over time. Department or institutional culture should emphasize effective teamwork whereby all care providers are respected, understanding that women and their families benefit when the best of each profession is encouraged. Likewise, full participation by all clinicians in grand rounds as well as quality, credentialing, and other committees was important. Opportunities for leadership roles for both physicians and midwives were considered essential.

Faculty appointments for midwives and physicians, a seat at important tables for both, and a clear process to immediately resolve any misunderstandings are essential in supporting collaborative practice models. Midwifery and medical care models were

appreciated and respected. Many practices attributed low cesarean section rates and high rates of vaginal birth after cesarean (VBAC) compared with national data, and high patient satisfaction, to their successful collaborations.

Highlights of these key aspects of partnership are evident in the following quotes.

…But underlying that hard work and willingness to take risks are deeper values that cannot simply be encompassed under the heading of a practice model. Shared aims, trust, and respect are the underpinnings of success at [our practice], and, we suspect, elsewhere (see the article by Cordell and colleagues elsewhere in this issue).

Even among practicing obstetricians, the image and perception of midwives has been perceived as an outdated mode of practice. Common misconceptions that midwives eschew science in favor of feelings … can be obstacles to creating an environment of trust and synergy. The reverse scenario can also be true; midwives' perception of obstetricians is that they are technology driven, are not sensitive to the needs and desires of their patients, and believe that only medically trained practitioners should provide obstetric care can interfere with the professional collaborative relationship. The truth is that midwives and obstetricians together offer the best of what maternity care has to offer. When the best of both professions are brought together in a successful collaboration, women and their families benefit…. (see the article by Nielson and colleagues elsewhere in this issue).

Despite differences in the medical and midwifery models of care, the collaboration between the CNM and obstetric services … has thrived, in large part because of a mutual respect for differences that is coupled with a dedication to common principles. Cooperation, service to the community, and collaboration in the education of the next generation of practitioners are shared core values, but respect for distinct approaches to maternity care—great minds don't think alike—has been an equally important determinant of the success of this collaboration.[13]

We believe that we provide safe evidence-based care to a diverse population with varying and sometimes significant medical risk levels, and we conclude that our good outcomes are the result of our practice model and not of a high-grade, low-risk client pool.[11]

Theme 4: Care Integration

A shift to a common philosophy of care and committed teamwork, with the woman at the center, began to emerge in some of the practice descriptions. Care was described as each provider working to their scope of practice so that high-quality, evidence-based care was provided appropriately to women and "where the midwifery philosophy and the medical model intersect at the point of care" (see the article by Angelini and colleagues elsewhere in this issue). Care was provided to women based on their health status and care needs; separate midwifery and obstetric case loads were not necessarily required. Practice guidelines were developed and used for specific care situations rather than for specific care providers. In some higher-risk settings, midwives partnered with obstetricians in providing integrated care, resulting in improved measurable care outcomes for women. This philosophy is highlighted in the following quotes.

The high risk obstetrics clinic is staffed by a perinatologist, an attending physician, 2 midwives, a physician assistant and 2–3 obstetric residents. Each patient is cared for by the resident, midwife, or physician assistant, and then the case is reviewed with the perinatologist or attending physician before the patient's discharge from the clinic. The multiple providers in this model, especially the

stability of the midwifery and physician assistant personnel, provide a variety of benefits: to the patients, the individual providers, and our department as a whole (see the article by Egan and colleagues elsewhere in this issue).

When building an integrated practice, the ability of each new team member—whether physician or midwife—to work comfortably with other professionals is key. This type of practice, wherein each provider is expected to contribute to the level of their individual skills and expertise, does not work if professional hierarchies and distrust of dissimilar providers exist. This means midwives need to understand the departmental expectation that they participate in resident/student education, be willing to provide midwifery care in a high-acuity setting with relatively few opportunities for low intervention care, and understand expectations for their clinical leadership. Physicians coming in need to know midwives are not just 'present' but are actively involved in the care of women from each of the obstetric practices; the physicians must be able to build on the group expectation of mutual respect and best use of each group member (see the article by Blanchard and colleagues elsewhere in this issue).

This is aligned with the philosophy shared by the obstetricians, nurse-midwives, and hospital nurses who are committed to promoting spontaneous physiologic birth with the judicious use of obstetric intervention and the practice of evidence-based maternity care.[14]

Our collaborative model emphasizes care of the patient by a team of maternity care providers rather than a single provider. Obstetricians, family physicians, midwives and residents together review patient history, care plans and fetal tracings on every patient at formal teaching rounds in the morning and evening and informally throughout the day. This emphasis on frequent communication encourages early collaboration and discussion regarding evidence-based plans of care for each patient. All team members are encouraged to express their opinions and concerns; respectful communication is expected (see the article by Pecci and colleagues elsewhere in this issue).

Theme 5: Health Professions Education in an Interprofessional Practice Environment

Many of the authors practiced in settings with health professions education programs or served as clinical sites for students and/or residents, primarily obstetric residents. One article described a collaborative practice that was set up specifically to educate obstetrics and gynecology residents. Where education occurred in an interprofessional setting, residents valued midwifery teachers for their approach to normal birth and supportive teaching style; some practice sites described becoming a preferred location for student clinical experiences specifically because of the interprofessional opportunities.

This noncompetitive, integrated educational practice model has been a successful and collaborative effort between obstetrics and midwifery using midwives as clinical faculty within an academic department of obstetrics and gynecology. The model highlights resident teaching by midwives primarily in low-risk obstetrics in collaboration with attending obstetricians in the labor unit and in the obstetric triage/emergency setting. Midwives involved in medical education are in a pivotal position to affect the education of the next generation of obstetricians and consultants while showcasing the midwifery model of care. This approach opens the door to the future of collaborative practice through innovation in obstetrics/gynecology residency education (see the article by Angelini and colleagues elsewhere in this issue).

Midwifery students who receive clinical training in the practice here are equally exposed to this model of care, and have the opportunity to work with medical students and residents. For example, the chief resident may review a triage

plan of the midwifery student before it is presented to the faculty midwife, or an advanced midwifery student may have a medical student observe a birth and talk about why she or he makes certain choices about birth position and support techniques (see the article by Blanchard and colleagues elsewhere in this issue).

The birth center serves as a clinical site for those wanting to learn about the midwifery model of care including medical residents, nursing students, midwifery students, childbirth educators, and doulas. Every effort is made to offer educational opportunities and encourage a learning environment while keeping the personal, home-like environment of the birth center intact. When asked their permission first, clients are generally very gracious about allowing observation or participation of students (see the article by Cammarano and colleagues elsewhere in this issue).

…the interprofessional workplace and clinical training environment …has been integral to the sustained cohesion, viability and productivity of the collaborative practice. The members of the collaborative credit interprofessional education with successes that include effective quality improvement programs, superior trainees, excellent outcomes, and longevity of the clinical service.[13]

DISCUSSION

This sample of the total of 60 papers submitted to the ACOG-ACNM collaborative practice project provide exciting examples of the extent to which committed clinicians are working together to provide excellent, women-centered maternity care. Although it is difficult to capture all the richness in a summary analysis, some common themes were evident. Reasons for launching the collaborative practices were provided, primarily related to a genuine desire to provide better care or increase access to care for women. Foundational aspects of collaborative practice were described. A clear description of the commitment to work together and to commit to "making it work"[12] was evident. In some cases, an emergence of a truly integrated care model with the emphasis entirely on providing the best care to women based on their needs could be documented. The number of teaching institutions in the sample provided a view of the benefits of interprofessional education settings, an idea that has been called for over the past 40 years and was the focus of a recent report led by the Macy Foundation and multiple health professions organizations.[17]

Mutual trust and respect were commonly described in these articles and have been previously identified as core to collaboration.[1,17,18] Successful collaborative care models have developed over time and have focused on client needs,[18] clinical competence, and good communication.[19] Collaboration can be synergistic and can result in quality care that has been shown to be acceptable to women.[20,21] In 1972, Meglan stated "the time has come for action,"[22(p71)] urging midwives and obstetricians to work together to improve maternity care, the same year that the IOM first called for interdisciplinary education and care.[4] The time has indeed come for more collaboration in health care among many types of clinicians. An analysis of this set of collaborative practice articles provides additional evidence that this care model can really work, describes benefits of interprofessional practice and education, and provides multiple excellent examples for others to follow.

Implications for Practice and Education

The specific details in this set of articles provide a road map for those interested in developing collaborative maternity care and broader women's health practices. From these diverse practice settings and collaborative practice models, evidence is provided that collaborative practice not only works, but can lead to improved client and provider

satisfaction and improved clinical outcomes. Details of the development of these practices, several in existence for more than 30 years, should enable clinicians to more rapidly develop successful practices in today's health care environment. Articulation of a clear purpose, key leaders on board to assemble the basic building blocks of the practice model, and a common philosophy with the commitment from involved health professionals to do the hard work represent an essential starting point. Policy and system-level commitments are necessary to continue to remove barriers and to address liability concerns, access to hospital privileges for all clinicians, supervisory language in state statutes, a payment model that encourages teamwork and collaborative practice, reimbursement for teaching students and residents, and a supportive workplace culture.

Numerous examples of the benefits of educating health professions students and residents together have been demonstrated in these articles. It is clear that we must work together in the education of the next generation of health professionals by partnering in assuring that students develop interprofessional practice competence in the 4 domains of: valuing interprofessional practice; understanding the complementary roles and responsibilities of one's own and other health professions; skilled interprofessional communication; and participation in team care for the benefit of the care recipient.[17]

One example of basic interprofessional education is the 1Health course at the University of Minnesota. All health professions students progress together through didactic and clinical interprofessional learning opportunities during the course of their professional programs.[23] A specific maternity care example is the Drexel University OB/GYN department transdisciplinary simulation training, hosted several times each year.[24] Midwives, nurse practitioners, obstetrics residents, undergraduate medical and nursing students, physician assistants, and anesthesia residents and nurse anesthesia students all work together on cases including shoulder dystopia, amniotic fluid embolism, and postpartum hemorrhage cases. Training occurs as an integrated team so that clinicians learn to practice together and improve the quality of care provided to women.

The concept of an integrated practice model that emerged from this analysis whereby care was provided according to women's individual needs, based on clinicians' scope of practice and most efficient use of resources, may not be a preferred practice model for all clinicians. A continuum of collaboration with an integrated model at one end of a broader spectrum of working together is described in the article by King and colleagues elsewhere in this issue. Maternity care in the United States varies by location, and a range of choices and preferences may be available: from women who may have few choices about where they obtain care, to those who may choose a specific provider and preferred care location. Some states continue to restrict the full scope of midwifery practice and, while it may be possible to work around the barrier in some settings,[13] restriction of full practice remains a barrier. Regulatory improvements continue to occur,[25] and removing these barriers should make collaborative practices more common.

Limitations

This analysis represented a selection of 12 articles from the 60 papers submitted to the ACOG-ACNM collaborative practice models project. Although there were many similarities across the practices and common themes identified, it cannot be stated that these descriptions are common to all midwifery and obstetrician collaborative practices. The series of articles was overrepresented by larger teaching institutions, which may have influenced the themes identified. More information was provided about interprofessional education of obstetric residents than about other disciplines; some articles described examples of family medicine residents, obstetric residents, and

midwifery students learning together. Continued analysis of the larger set of practice models may provide additional information on successful collaborative practice in maternity care. Future collaborative practices should continue to document the components that lead to success, and expand the inclusion of clinicians beyond this specific look at practices involving ACNM member midwives and ACOG Fellows.

SUMMARY

This analysis of a series of descriptions of successful collaborative practice models provides a road map to support others in developing similar models. Midwives and obstetricians have built the necessary foundational components for successful collaborations that mature over longer periods of time. In addition, some practices provided examples of an integrated model of team care that is consistent with calls for new care models that provide high-quality care with appropriate use of health care resources.[5,17,26]

> *In the IHS, collaborative practice with CNMs and OBGs [obstetrician/gynecologists] has become the predominant model of maternity care …[providing] Native American women with high quality care that is in harmony with their culture, is cost effective, and results in improved outcomes. In a system of scarce resources, the evolution of collaborative practice has …reduce[d] adverse outcomes to low levels while achieving the positive outcomes of low cesarean delivery and high VBAC success rates …[and] is an example of how CNMs and OBGs should work together to optimize maternity care for all women (see the article by Ogburn and colleagues elsewhere in this issue).*

Obstetricians, midwives, and other health care providers have clearly moved in a direction of greater collaboration and integration in the maternity care setting. The continued development of these practices in the future is anticipated, along with increased opportunities for all health professions students to learn and practice together, with the aim of improving the health of women and their families.

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