

Evaluation of Nurse Providers of Comprehensive Abortion Care using MVA in Nepal

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ABSTRACT

Background: Although Nepal's maternal mortality ratio has fallen over the past decade, unsafe abortion remains a leading cause of maternal morbidity and mortality. A key strategy for improving access to safe abortion services is to train mid-level providers such as nurses in comprehensive abortion care (CAC). The Family Health Division of the Nepal Ministry of Health trained an initial cohort of 96 nurses to provide first trimester CAC services using manual vacuum aspiration (MVA) between September 2006 and July 2009. This study evaluates the acceptability and quality of CAC services provided by trained nurses in Nepal.

Methods: Five assessments were used to evaluate post-training service provision on CAC: facility logbooks registry, nurse provider interviews, facility assessments, facility manager interviews and procedure observation checklists. Ninety-two nurses from 50 facilities participated in the evaluation. Descriptive statistics are reported.

Results: Overall, 5,600 women received CAC services from 42 facilities where nurses were providing services between June 2009 and April 2010. Complications were experienced by 68 surgical abortion clients (1.6%) and 12 medical abortion clients (1.2%). All nurses reported that clients were happy to receive care from them, and 67% of facility managers reported that clients preferred nurse providers over physicians or had no preference. Facility managers and nurses reported a need for additional support, including further training and improved drug and equipment supply.

Conclusions: Trained nurses provide high quality CAC services in Nepal. Additional support in the form of facilitative supervision and training should be considered to strengthen CAC service provision.

Keywords: bcomprehensive abortion care, manual vacuum aspiration, mid-level providers.

INTRODUCTION

Unsafe abortion is a leading cause of maternal morbidity and mortality in Nepal, accounting for an estimated 54% of gynecological and obstetric hospital admissions¹ and 20% of maternal deaths in health facilities.² A recent national study found that approximately 7% of maternal mortality was due to abortion between 13 April 2008 and 13 April 2009.³ A key strategy for improving access to abortion services, especially in rural areas, is to train mid-level providers such as nurses to provide

safe abortion services. Studies have shown that mid-level providers can provide postabortion care (PAC) as safely and effectively as physicians.⁴⁻⁶ The purpose of this study was to evaluate the successes and areas for improvement in nursing provision of comprehensive abortion care (CAC) services. The information gained from this evaluation will be used to scale up efforts to train nurses to provide high-quality CAC services across Nepal.

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METHODS

This is a descriptive study of 96 nurses from 50 facilities in five regions of Nepal who were trained in CAC service provision by Ipas Nepal, the National Health Training Center (NHTC) and the Family Health Division (FHD). CAC training was structured according to the national CAC training manual and lasted 14 days. Selection criteria for nurses include: registration with their council, a minimum of a one-year midwifery course in their basic nursing education and have received in-service training on intrauterine contraceptive devices (IUCD) or postabortion care (PAC), or if they have received training as a skilled birth attendant (SBA). Nurses who meet these criteria are selected, trained and certified to offer CAC services up to eight weeks of gestation.

CAC training was structured according to the national CAC training manual and lasted 14 days. The curriculum was comprised of theory in a classroom setting; assessment of skills through role playing of counseling and practice procedures conducted on a pelvic model; and supervised procedures with live patients. Competency was determined through 10 - 15 supervised procedures, demonstrated knowledge through a mid-training assessment, and perceived confidence on the part of the nurse. Once certified to provide CAC services, nurses were required to perform 25 unsupervised cases at their own facility and to submit appropriate paperwork to the FHD before being officially listed as a CAC provider.

Data collection teams of two interviewers spent two days at each study facility to collect data using five assessments. The five assessments tool included facility CAC logbook data, nurse provider interviews, facility assessments, facility manager interviews, and procedure observation checklists. CAC Logbooks (HMIS-11 form) were collected from 42 of the facilities of June 2009 to April 2010. Data were not available for eight facilities because logbooks were not routinely maintained. Logbook data include from demographics, as well as characteristics of the CAC procedure such as technology used, pain management, and provision of postabortion contraception. The nurse provider interview was a structured questionnaire administered in-person by a member of the data collection team. It was designed to collect information on knowledge of the CAC protocol, reasons for not providing CAC services (if applicable), challenges to providing CAC services, impression of administrative and other personnel support for provision of CAC services, need for refresher training and/or additional support via facilitative supervision or continuing education, ways in which the enabling

environment of the facility might be improved, and barriers to achieving listed status. The facility assessment was completed by a member of the data collection team using a standard data collection checklist. Indicators measured include availability of essential supplies and equipment needed for CAC services, management of CAC services, and completeness of logbooks and client records. Facility managers were interviewed using a semi-structured questionnaire designed to identify attitudes/procedures that help or hinder provision of quality CAC services, impression of quality of services provided by trained nurses and identified needs for improving quality of CAC services.

The study protocol, data collection instruments, and associated interview guides were reviewed for adherence to ethical standards by the National Health Research Council (NHRC) in Nepal and by Allendale IRB in the United States.

A rapid assessment of the 96 trained nurses made by phone found that four nurse trainees were no longer working at facilities due to study leave, retirement, transfer to a non-CAC site, or promotion to an in-charge position. The remaining nurses (N=92) participated in the evaluation.

Data were entered into data entry screens constructed in EpiData, then checked for consistency and completeness. Data were cleaned and analyzed using Stata/IC 11. Descriptive statistics are reported separately for each instrument.

Five composite measures for quality of CAC service provision were created from the procedure observation checklist: clinical assessment, MVA procedure, post-procedure care, post-procedure counseling and instrument processing. Each of these five domains had multiple components, and the composite measures were created by averaging the percent of nurses who performed each component of the domain.

RESULTS

Among the 96 nurses who received CAC training, all achieved clinical competency, and at follow-up, 86% (n=79) were providing CAC services in their health facility. Those who were not providing CAC services (n=13) cited reasons such as not being assigned to the CAC unit (n=5), studying (n=4), being too busy with other activities (n=2) and not having clients who request CAC services (n=2) (Figure 1). Though 86% of nurses were providing services, only 62% were listed as CAC providers. Reasons for not being listed included not completing 25

cases (51%), not sending in paperwork (31%) and sending paperwork without receiving a certificate (17%). Nurses currently providing CAC services reported that there were an average of 7 CAC providers working in their facility (SD=7.1). The monthly caseload per nurse was 14 CAC patients (SD=12.6; Range: 2 - 60). In addition, nurses reported referring on average 14 clients per month (to doctors in the same facility or elsewhere) who presented for CAC care at greater than eight weeks gestation (Range: 1-70).

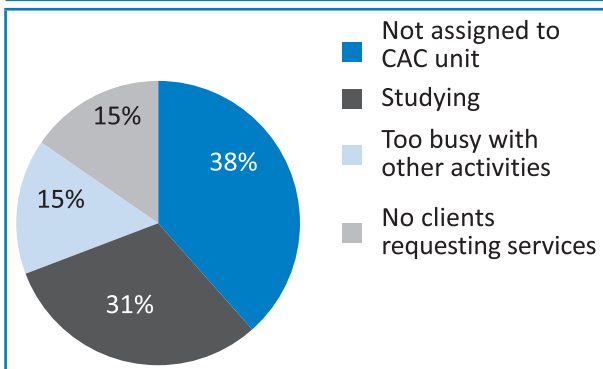


Figure 1. Reasons for non-performance of CAC services (n=13).

Overall, 5,600 women received CAC services from 42 facilities where nurses were providing services. Among women who received surgical abortion services, 68 (1.6%) experienced complications: 17 women had bleeding requiring at least one pint of IV fluid or a blood transfusion; 2 women had uterine or intra-abdominal injuries; 39 women had an incomplete abortion requiring a repeat procedure; 4 women had an infection requiring hospitalization and/or IV antibiotics; and 6 women had a failed abortion. Among medical abortion clients, 97% had a complete abortion at two weeks of follow-up, and 12 women (1.2%) experienced complications: 8 women had bleeding requiring more than 1 pint of IV fluid or a blood transfusion and 4 women had an infection requiring antibiotics. The overall complication rate was 1.4 per 100 patients. Over 99% of CAC patients were discharged from the hospital well, and 69.6% accepted a family planning method upon discharge.

Nurse providers were especially successful in establishing rapport and providing post-procedure counseling, with 100% of nurses providing quality care under these domains. For 9% of nurses, lapses were observed in clinical assessment skills such as taking medical history and assessing psychological status. In addition, 6% did not maintain infection prevention measures because they failed to wear protective barriers and dispose of needles immediately.

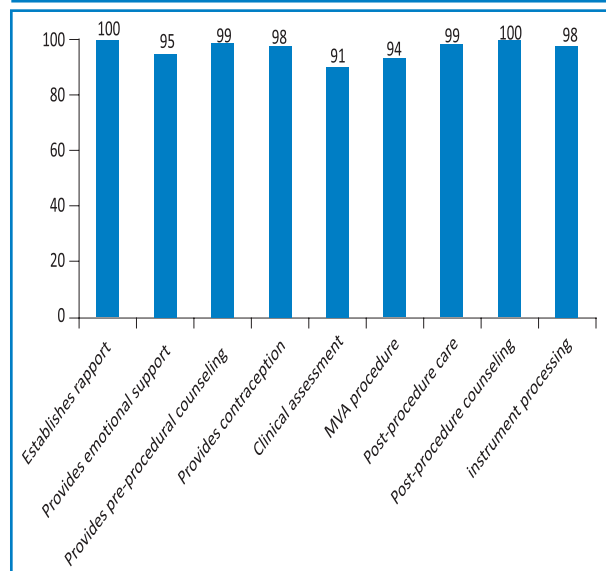


Figure 2. Quality of CAC service provision by nurse providers (n = 92).

Nurses had positive attitudes about their CAC training with 99% satisfied with the content of CAC training and 98% feeling confident in their CAC skills after training. Overall, nurse providers felt supported by their managers (96%), doctors in their facility (92%) and other nurses (100%), and 100% of nurse providers felt that clients were happy receiving CAC services from them. Facility managers also had positive opinions about nurse providers. Ninety-seven percent of facility managers agreed that trained nurses provide high quality CAC services after training, and 90% agreed that nurses can provide first trimester services of the same quality as doctors. Facility managers felt that the primary benefits to training nurses as CAC providers were to maintain continuity of services (74%), share the burden on doctors (72%), retain nurses at the facility (28%) and client preference (24%). Although nurse providers are effectively stabilizing clients and providing referrals when appropriate, facility managers felt the primary limitations to nurses providing CAC services were their inability to manage severe complications (70%) and policy prohibition against providing CAC beyond eight weeks gestation (62%).

Facility managers and nurses both felt that nurse providers need additional support for CAC service provision (Table 1). Facilitative supervision was commonly cited by both groups as a need. Nurses also mentioned needing additional practice (35%), and facility managers suggested that MVA refresher training and MA training would be beneficial (92%). Both groups mentioned the need for improved drug and equipment supply.

Table 1. Additional support needed for CAC service provision, reported by nurses and facility managers.

	Nurses		Facility managers	
	n	(%)	n	(%)
Facilitative supervision	51	(65)	65	(74)
Further training/practice for nurses	28	(35)	82	(92)
Train more CAC providers	48	(61)	0	(0)
Train other staff (for support)	46	(58)	0	(0)
Improved equipment supply (e.g. MVA)	37	(47)	56	(63)
Improved drug supply (e.g. MA)	28	(35)	57	(65)
Private counseling area	0	(0)	28	(33)
IEC activities to advertise services	45	(57)	0	(0)

DISCUSSION

This evaluation shows that nurses are providing high quality CAC services. Over 90% of nurses were successful in each of the nine quality domains, and complications rates in facilities where trained nurses practiced were 1.4 per 100 patients, which is comparable to rates found in previous studies.^{4,7} Though most trained nurses were providing CAC services at follow-up, efforts should be made to ensure that trained nurses are assigned to CAC units where they have an opportunity to provide services. In addition, training should increase its emphasis on becoming a listed provider so that all trained, practicing nurses can be identified as government-approved CAC providers.

Nurses feel confident and supported in providing services, and facility managers have positive attitudes toward nurse providers. Nurses were satisfied with the CAC training that they received, and facility managers were confident in nurses' abilities to provide quality CAC services. However, facility managers felt that nurse provision of CAC services was limited by the inability of nurses to manage severe complications and by the restriction on nurse provision of CAC beyond eight weeks gestation. Fortunately, severe complications are rare, but clients seeking CAC services beyond the gestational age limit are common. The large number of women being referred due to a gestational age of greater than eight weeks emphasizes the need to raise awareness about CAC service availability so that women can access services earlier in pregnancy. Information, education and communication (IEC) materials and the early pregnancy detection and referral program through female community health volunteers offer potential strategies to reach women in their communities.

Nurse provision of CAC services has been successful, but additional resources are needed to further improve services. To address training needs, ongoing facilitative supervision should continue after training is complete. Training on MA and refresher training on MVA, especially on clinical assessment and complications management, should also be provided to trained nurses. Additionally, scale-up should include improved equipment and drug supply to health facilities.

The primary data collection challenge was in observing CAC procedures by nurse providers. The data collection pair spent two days at each facility, but this was not a sufficient amount of time in low caseload settings. Data from the procedure observation checklist are more likely to be from the nurse providers who have the highest caseload and therefore are most experienced. As a result the findings from this data source may not be generalizable to all trained nurse providers.

Client interviews elucidating perceived quality of care are an important source of information assessing nurse providers. However, due to time and budget constraints, this approach has not been included in the current study. Planned future research will consider the client perspective on quality of care, with particular attention on nurse providers.

Introduction of MA during the study period meant that more clients seeking CAC services had access to care. Because the current cadre of nurses was only trained for provision of MVA, this study's findings are not generalizable to nurse provision of CAC with MA. Future research will consider the successes and barriers to quality provision of CAC services through medical abortion.

CONCLUSIONS

Trained nurses are providing high quality CAC services in the study facilities. However, additional training and an increased drug and equipment supply are needed to strengthen CAC service provision and ensure that nurses are able to continue providing a high quality of care. Due to the documented success in the study facilities, training of nurses should be scaled up to expand CAC service provision across Nepal.

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