Training Clinical Officers in Tubal Ligation May Help Meet Rural Ugandan Women's Need for Sterilization

In a prospective study designed to examine whether mid-level providers can safely perform tubal ligation in rural Uganda, where physicians are in short supply, almost all women whose procedure was performed by a clinical officer had a successful outcome and reported that they were satisfied with the ligation.[1] Newly trained clinical officers were able to successfully complete more than nine-tenths of the tubal ligations they attempted, in most cases without the help of a supervisor, and three days after the operation only 2% of women reported having a major complication. During follow-up interviews 45 days after the surgery, 99% of women indicated that their experience at the clinic had been good or very good.

Uganda's high unmet need for contraceptives is compounded by the lack of health care providers, especially in rural areas, as the number of public-sector physicians (approximately one for every 1,000 Ugandans) is too small to provide many types of preventive care, such as sterilization. Clinical officers, who receive three years of clinical training, are taught to perform minor surgical procedures, but generally not tubal ligation, even though they are legally permitted to provide this service. However, data have been lacking on the safety of tubal ligations performed in Africa by medical personnel other than physicians.

To evaluate the outcomes of and patient satisfaction with such procedures, researchers conducted a study in which four clinical officers, chosen on the basis of their general surgical expertise, received six weeks of training in tubal ligation, which included their performing at least 50 supervised surgeries. Each officer then joined a mobile family planning clinic team that served a rural area in central, western or eastern Uganda.

Between March and June 2012, the researchers enrolled 518 women aged 18 or older who had given birth at least three weeks earlier and wished to undergo a tubal ligation. They were informed that although a clinical officer would be performing the procedure, a supervisor (physician or medical officer) would be on hand in case of need. (Participants were also given the option of having a doctor perform their ligation; women who chose this option were not included in the study sample.) A nurse took note of complications that occurred during surgery.

During follow-up visits to the clinic three days, one week and 45 days after the opera-

tion, women rated their tubal ligation and their experience as a clinic patient, and indicated whether they would recommend the clinic to a friend. Women also reported on any related health problems (e.g., pain, fever, poor healing, infection) they had had since the surgery. These were classified as minor if the woman could treat herself at home; moderate if she needed medical attention; and major if she had to be hospitalized or suffered lasting impairment, or if the tubal ligation was unsuccessful. At each time point, 93–94% of patients were interviewed.

Participants were split fairly equally among the four clinics, and two-thirds were aged 30–39. They had seven children, on average; four in 10 had at least eight. Half had used the injectable in the month prior, while one-fifth were not using any form of contraception. Other reported methods included condoms, the pill, IUD and lactational amenorrhea (1–10%).

In 93% of the surgeries, the clinical officer operated successfully; in 7%, the supervising physician had to complete the procedure. Of the procedures they performed successfully, clinical officers completed 70% without assistance and 29% with verbal guidance from the physician on how to resolve a complication. In the remaining 1%, the physician physically assisted in the surgery.

Three days after their procedure, most women (69%) reported having minor complications, though the proportion fell to 4% by day 45. Moderate and major adverse events were far less common; they were reported by 12% and 2% of women, respectively, at day 3, and by fewer than 1% of women at the final follow-up visit. At each time point, the most commonly reported complaint was minor or moderate pain.

Respondents' approval of the surgery and of the mobile clinic was consistently high at all three visits; 92–99% rated their procedure as good or very good, and 94–99% chose one of these ratings when asked about the clinic. Similarly high proportions of women (93–98%) said they would recommend the clinic to a friend.

The authors recognize that ideally, the study would have compared clinical officers' tubal ligations with those performed by physicians, and would have had a larger sample to yield a more precise estimate of the incidence of adverse events. Moreover, women could have given incorrect accounts of the nature and severity of their postoperative complications. Despite these limitations, the authors note that tubal ligations performed by clinical officers appear to be safe, and that training clinicians to provide such procedures "could help to address the high unmet need for permanent contraception in Uganda, particularly in remote settings." Indeed, on the basis of the study findings, the Ugandan government is planning a national rollout of the program to train clinical officers to perform tubal ligations. *–S. Ramashwar*

REFERENCE

1. Gordon-Maclean C et al., Safety and acceptability of tubal ligation procedures performed by trained clinical officers in rural Uganda, *International Journal of Gynecology and Obstetrics,* 2014, 124(1):34–37.