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Task sharing: Safety and acceptability of tubal ligation provision by trained clinical officers in rural Uganda

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Summary

Marie Stopes International successfully provides and increases access to long-acting reversible contraceptives and permanent methods of family planning through task sharing to lower level providers in Uganda and in other country programmes. Task sharing is now widely acknowledged as a key strategy for addressing the critical shortage of health providers that affects healthcare in many low income and rural areas.

In Uganda, 34% of married women have an unmet need for family planning services including 14% who do not wish to have any more children.[1] The country is experiencing a serious shortage of trained health providers, and this affects the number of providers who can offer long-acting reversible contraceptives and permanent methods of contraception, especially in rural areas.[2]

The Ministry of Health in Uganda requested locally generated evidence to determine whether trained clinical officers (qualified mid-level health practitioners in Africa) can provide tubal ligations (female sterilisation). To test this, Marie Stopes Uganda conducted a study among four trained clinical officers in mobile outreach teams in rural regions of Uganda to determine if task sharing of tubal ligations to clinical officers is safe and acceptable to women.

The observational study was conducted between March and June 2012, and assessed complications during and after the tubal ligation procedure, as well as the acceptability of the procedure performed by trained clinical officers. A total of 518 women were recruited to take part in the study. They were then followed up three, seven and 45 days after the procedure.

The overall complication rate (major adverse events) for the study was 1.5%, which is comparable to tubal ligation services provided by physicians in other settings 0.87 – 24% (0.87 – 24% intraoperative, 0.7 – 3.4% post-operative).[7,12-16] Nearly all women who had the procedure reported having either a good or very good experience and would recommend the health services to a friend.

Using this evidence, Marie Stopes Uganda has successfully advocated for permission that trained and supervised clinical officers at private not-for-profits organisations can provide safe and acceptable tubal ligations and also that a roll-out plan of training of tubal ligations for public clinical officers in five districts of Uganda will be developed.

Findings at a glance

- Tubal ligations delivered by clinical officers are safe in rural, mobile outreach settings. The overall major complication rate was 1.5%; at days three and seven, the major complication rates were 1.9% and 0.2%, respectively. At day 45, there were no major complications.
- Task sharing of tubal ligation performed by a trained clinical officer is highly acceptable to women living in rural settings. The majority of women rated the tubal ligation procedure as good or very good (range: 92–99%) and the majority would recommend the facility to a friend (range: 93–98%).

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Background

In Uganda, access to quality sexual and reproductive health services is limited, particularly when it comes to long-acting reversible contraceptives and permanent family planning methods, such as tubal ligation. The country is experiencing a serious shortage of trained health providers, and there is also an imbalance of health providers between rural and urban areas.[2, 3] Improving the role of health providers to meet women's contraceptive needs is a critical part of the Government of Uganda Health Sector Strategic Plan to expand sexual and reproductive health services.[2] Only 26% of married women in Uganda are using a modern contraceptive method, and these are predominantly short-term methods such as injectables or the contraceptive pill. This contributes to a high total fertility rate of 6.2 children.[1] In addition, 34% of married women in Uganda have an unmet need for family planning, including 14% who do not wish to have any more children.[1]

The reallocation of clinical tasks from physicians to lower level providers, such as clinical officers, could help to address the shortage of human resources faced by Uganda's health system. Training lower level providers to perform specific clinical procedures is an efficient way to scale up services and meet the need for long-acting reversible contraceptives and permanent methods, such as tubal ligation. Global guidelines from the World Health Organization have identified tubal ligation as within the competency of associate clinicians, such as clinical officers.[4]

Task sharing of tubal ligation to clinical officers has been supported in Uganda.[6] However, tubal ligation had not been included as part of the training curriculum for clinical officers prior to the study. The Ministry of Health requested evidence on the safety and acceptability of task sharing tubal ligation to clinical officers in Uganda. Marie Stopes Uganda received ethical approval to conduct the study from The AIDS Support Organization, and governmental approval from the Maternal and Child Health Technical Working Group, the Uganda National Council of Science and Technology, and the President's Office for Security Clearance.

Methods

The observational study was conducted over four months in 2012 and looked at the provision of tubal ligations by trained clinical officers through Marie Stopes Uganda mobile outreach in rural areas. The selected clinical officers had to pass a two-week training course based on the Ugandan Ministry of Health tubal ligation curriculum before performing 50 tubal ligations as part of the practical training. They were supervised by a physician trainer at all times. The clinical officers were assessed in three areas of competency: effective administration of local anaesthesia; surgical techniques of the procedure; and management of complications.

The study sites were three rural regions of Uganda (Central, Western and Eastern), and the trained clinical officers were attached to Marie Stopes Uganda mobile

Task sharing

Task sharing is the process of training mid-level health providers – such as nurses, midwives and clinical officers – to complete additional clinical tasks and procedures.

Mid-level health providers are more evenly distributed across rural and urban areas than physicians. Offering these providers with training for specific tasks and procedures means that a rapid expansion of access to essential family planning methods can be made possible.

Benefits

- Cost-effective: medical education, training and salaries for clinical officers require less time and monetary investment than for physicians.[5]
- Overcomes uneven health service distribution: clinical officers may be more willing to work in rural areas than physicians.
- Frees up physicians' time: tasks and procedures taken over by clinical officers that were previously delivered by physicians, allow physicians to spend time on more critical services and care.

outreach teams that offered a full choice of family planning methods. A total of 518 women were enrolled in the study. To be eligible, the women had to opt for a voluntary tubal ligation, give their informed consent, be older than 18 and to have a gap of more than three weeks after childbirth. They were also assessed for adverse health conditions. The study teams consisted of a research nurse, a research assistant, a clinical officer and a supervising physician. Safety outcomes were measured by assessing the prevalence of complications (major adverse events) during the tubal ligation procedure (baseline) and then after the procedure at three follow-up visits on days three, seven and 45. Client acceptability was measured based on women's satisfaction with the tubal ligation procedure, with the overall experience at the facility and whether they would recommend the procedure to a friend. Written informed consent was received from all clients.

Client characteristics

Nearly half of the women who participated in the assessment (41%) were between 35 and 39 years old, and also almost half (47%) had five to seven children. The most commonly used family planning method was injectables (51%) and about one fifth of the women had not been using any family planning methods.

Safety of tubal ligations provided by a trained clinical officer

Intraoperative complications were not categorised by level of severity (minor, moderate and major). Around half of the women reported experiencing pain (53%) or a vasovagal reaction (3%). Additionally, two women were unable or refused to have the tubal ligation procedure completed - both women opted for an implant as her family planning method.

Post-operative complications were categorised by level of severity, following Marie Stopes International's clinical guidelines (minor, moderate, major). The complication rate on day three was 1.9%. On day seven, the complication rate was 0.2%, and there were no major adverse events on day 45. The overall complication rate for the study was 1.5%.

Client acceptability to receive a tubal ligation by a trained clinical officer

Nearly all women (range: 92–99%) experienced the tubal ligation procedure as good or very good and also rated the facility (range: 94–99%) as good or very good. In addition, most women would also recommend the facility to a friend (range: 93–98%).

Conclusion

This study indicates that task sharing of tubal ligation to trained clinical officers is safe and acceptable to women living in rural Uganda.

The satisfaction rate from the clinical study is similar when compared to other studies for tubal ligations provided by physicians in Nigeria, Ethiopia and Kenya.[7,15,16] Although it is challenging to compare this clinical study with other studies that have a different research design (due to different clinical settings and complication categorisation), it is worth noting that a number of studies have collected data on the safety of the outcomes of tubal ligation and that complication rates are between 0.1% and 7%, whether performed by a physician or not, and whether performed in a rural, mobile outreach setting or urban clinical setting.[7-15]

The roll-out of a national tubal ligation task sharing policy that allows clinical officers in private and public facilities to provide tubal ligations could provide the impetus to increase access to this service significantly across the country. In remote settings where there is a shortage of trained healthcare providers offering tubal ligation, this policy could help to reduce the unmet need for family planning among women who have already reached or exceeded their desired family size.

Evidence to action

Marie Stopes International successfully provides and increases access to long-acting reversible contraceptives and permanent methods of family planning through task sharing to lower level providers in Uganda and in other country programmes where there is a high unmet need for spacing and limiting with a shortage of trained providers.

Marie Stopes Uganda used the findings from this study to advocate for better implementation of public policies and practices to address task sharing of tubal ligations provided by clinical officers. The findings of this clinical study were presented at the Maternal and Child Health technical working group meeting in September 2013, organised by the Ministry of Health in Kampala, Uganda. Based on the findings from Marie Stopes Uganda, the Ministry of Health permitted all trained and supervised clinical officers at private not-for-profits organisations to provide safe and acceptable tubal ligations in Uganda. In addition, the Ministry agreed that an activity plan will be established for a proposed roll-out of training of public clinical officers in five districts of Uganda. The Ministry of Health also considers seeking funding and mobilising resources for curriculum amendment to include tubal ligation for clinical officers, training, supervision, and a national scale-up.


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