Sterilisations during unplanned caesarean sections for women likely to have a completed family - should they be offered?
Experience in a country with limited health resources

ETHICS OF STERILISATION AT SHORT NOTICE UNDER STRESS

Objectives
To determine if it is proper to give a woman of higher parity who needs at short notice a caesarean section the option of a tubal ligation.

Design
Retrospective study.

Setting
Maternity unit of a tertiary hospital in Bulawayo, Zimbabwe.

Participants
Women of higher parity who were delivered by an emergency caesarean section, by an elective caesarean section or vaginally and who had been asked or not asked whether they wanted a tubal ligation.

Methods
A postal questionnaire and visits to the participants.

Results
In the women who had an emergency caesarean section and who were successfully followed up 301/418 (72.0%) women had been offered a tubal ligation and 241/301(80.1%) accepted. 269/301 (89.4%) were happy with the outcome. 32 women were unhappy (of whom six had a tubal ligation, 24 had declined a sterilisation and in two cases the doctor forgot to do the sterilisation). Of the 117/418 women not offered a tubal ligation, 75/117(64.1%) regretted not having had one. The relative risk of being unhappy with the consequences of not being offered tubal ligation compared to been given this option was 6.0 (95% confidence interval (CI): 4.2 - 8.6; p<0.001). Tubal ligations performed during emergency caesarean sections had no higher regret rate (2.5%) in this setting than those performed during elective caesarean sections (3.2%) and not much higher than post-partum sterilisations (0.5%). Women who did not have a tubal ligation during an emergency caesarean section regretted this (56.4%) significantly more often than women who did not have a tubal ligation with an elective caesarean section (34.6%) or after vaginal delivery (45.0%) (p< 0.01 and p<0.02 respectively).

Conclusions
We found no evidence that the need to take an urgent decision resulted in more regret following tubal ligations. Women were far more likely to regret declining a tubal ligation (40%) than regret accepting one (2.5%). In this setting some women are more likely to die of the next pregnancy than to regret an emergency tubal ligation.
INTRODUCTION

In our practice in Africa we noticed over the years in the late seventies and eighties that women of higher parity were often sad and sometimes angry after an emergency caesarean section if this had not been combined with a tubal ligation. They perceived this as a missed opportunity. The prevailing wisdom in the Western World is that it is undesirable for doctors to offer a tubal ligation at the time of an emergency caesarean section, because of the increased risk of regret, the higher perinatal mortality associated with the emergency caesarean section and the easy access the women involved will have later to a safe, insurance-paid sterilisation for themselves or their partner. In our setting some doctors even refuse a direct plea from a woman of high parity for a tubal ligation before an unplanned caesarean section on the grounds that she is not in a position to make a rational request. We have seen women, sometimes with their last three pregnancies unwanted, who lost the baby involved in the emergency caesarean section and who indicated to us after the operation that some good would have come from their operation if they would at least have had a sterilisation. In the local situation the husband is seldom present at delivery to be consulted. The national maternal mortality ratio is 695 per 100,000 live births.

A study from Tanzania of 502 women on the waiting list for an interval sterilisation found that 213 had one or two and 68 had three or more induced abortions while waiting for the procedure. Of these, 167 women of the 281 who became pregnant had used a contraceptive method that failed, gave problems or was just stopped.

The 1999 Zimbabwe Demographic and Health Survey showed that 69.4% of women between 35-39 years and at least 52% of the men of corresponding age do not want anymore children. Zimbabwean women need more support to reach their ideal reproductive goal (first child at age 19 - 22; 2 - 4 well spaced children), especially because, on average, women have reached their desired family size before age 32, leaving them with 18 years of potential fertility. Most women only have access to hormonal modern contraceptive methods and are often subjected to anti-contraceptive propaganda (cancer, thrombosis, poisonous blood retention, abnormal children, hell). The result is often unwanted children or unsafe abortions. Female sterilisation is therefore an attractive and effective contraceptive option, with the disadvantages that it is more or less irreversible and requires two doctors, unless performed under local anaesthesia.

The southern half of Zimbabwe is about two-thirds the size of the UK and has 4 million inhabitants. It has two part-time and one full-time gynaecologists for the 90% of the population who cannot afford private care. This can be compared to Scotland, which has 470 fellows and members of the Royal College of Obstetricians & Gynaecologists for a population of 5 million. The local junior doctors spend only 4 months in the department
for their pre-registration requirements, on a one-in-three rota, and earning, after tax, the equivalent of US$300 a month. As a result, the junior doctors do some (clandestine) private practice and are hurried and tired and not in the mood (without extra incentives) to increase their workload and their exposure to the human immunodeficiency virus (HIV) by offering interval and post partum ligations to the poor. Senior doctors concentrate their efforts on the few patients who can afford private care. Increasingly, elective operations are cancelled because of lack of staff, motivation, equipment, linen, oxygen or anaesthetic drugs. One central hospital in Zimbabwe performed no post partum sterilisations in the first six months of 1999 while there were more than 6000 vaginal deliveries in that hospital, more than 800 of the women involved had post partum four or more living children. There were another 7000 vaginal deliveries in the city clinics for which that hospital is supposed to perform the tubal ligations. In the USA in 1972, 19.3% of the women who had just delivered and who had four or more children had a post-partum tubal ligation. At that time the ideal family size in the USA was similar to Zimbabwe’s in 1999. In Zimbabwe the lack of staff and equipment is compounded by the long distances women may have to travel, as much as 500 km, for an interval tubal ligation. Because of the serious obstetric complications that can occur in women of high parity in this setting, especially if they have a scar in the uterus, we felt that our policy of offering tubal ligation to women delivered by emergency caesarean section was justified. The purpose of this study was to compare the prevalence of regret in women of high parity who had been offered tubal ligation during emergency caesarean section, to regret in women who had not been offered tubal ligation. We also studied the prevalence of these two different types of regret in women of high parity who had an elective caesarean and in those who delivered vaginally.

METHODS
When, at the end of 1990, the Ministry of Health in Zimbabwe allowed tubal ligation without the signature of the husband or guardian, we started offering tubal ligations with unplanned caesarean sections to women likely to have four or more viable children after the operation, or three children if the woman was 30 years or older. At first, this policy was not universally followed, especially by senior medical staff and older midwives who often had strong views against it. Sometimes tubal ligations were not offered with an emergency caesarean section because it was forgotten in the rush to organise an operation at short notice. Most doctors would just mention the option of a tubal ligation with the caesarean section. If a patient would jump at the opportunity, clearly understanding what was involved then she was further counselled. If a patient would hesitate or not understand what it entailed the subject was dropped, unless of course there was a
good medical indication for the sterilisation. All women sterilised were counselled and signed a consent form.

The emergency caesarean sections were done for many different indications (hypertension, vaginal bleeding, malpresentations, prolapse of the umbilical cord, one or more previous caesarean sections in labour, failure to progress, fetal distress and failed vacuum extraction, see List 1). Sometimes the consent for tubal ligation would be a factor in, but not the sole reason for, deciding on an emergency caesarean section. For example, if the staff was in doubt whether to induce labour or do a caesarean section on a 38 years old mother of four suffering from a serious pregnancy induced hypertension. A caesarean section would expose her to extra risks in the next pregnancy. This would not happen, if she were sterilised during the operation. Classically in our situation, if she would not be sterilised, she would start using oral contraceptives. At the next visit to her clinic the nurse would stop the tablets because of an elevated blood pressure without organising an alternative contraceptive. The next time we would see her perhaps is while she had an induced abortion or with eclampsia.

List 1 Indications for caesarean sections for those women who were candidates for an emergency sterilisation (n=609)

<table>
<thead>
<tr>
<th>Indication</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High blood pressure ± diabetes</td>
<td>19.4%</td>
</tr>
<tr>
<td>Abruptio/Placenta praevia/Other bleeding</td>
<td>16.4%</td>
</tr>
<tr>
<td>For 3rd or 4th CS in labour or ruptured membranes</td>
<td>13.1%</td>
</tr>
<tr>
<td>Malpresentations (breech, shoulder, cord, hand)</td>
<td>12.5%</td>
</tr>
<tr>
<td>Failure to progress/Cephalo-pelvic disproportion</td>
<td>9.5%</td>
</tr>
<tr>
<td>Failed trial of scar</td>
<td>8.4%</td>
</tr>
<tr>
<td>Fetal distress</td>
<td>7.6%</td>
</tr>
<tr>
<td>Failed induction</td>
<td>2.6%</td>
</tr>
<tr>
<td>Impending rupture or ruptured uterus</td>
<td>2.6%</td>
</tr>
<tr>
<td>Financial and/or sleep considerations (private doctors)</td>
<td>2.5%</td>
</tr>
<tr>
<td>Eclampsia</td>
<td>2.3%</td>
</tr>
<tr>
<td>Failed vacuum extraction</td>
<td>1.3%</td>
</tr>
<tr>
<td>Retained second of twin</td>
<td>1.0%</td>
</tr>
<tr>
<td>Obvious HIV+, able to give artificial feeding</td>
<td>0.5%</td>
</tr>
<tr>
<td>Life, term, extra-uterine pregnancy</td>
<td>0.2%</td>
</tr>
<tr>
<td>Carcinoma of the cervix</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
This study comes from the smallest of the four central maternity units in Zimbabwe, which delivered 25,132 women during the period under study, from 1-12-1990 to 1-7-2000. One third of the delivered women were lower middle class and urbanised (often private patients), one third were semi-urbanised and the remaining were referred via district hospitals. Full time private gynaecologists share responsibilities with gynaecologists employed by the Government; their results are included.

Eligible women who had a tubal ligation (Table 1) in the maternity unit were sent a postal questionnaire with a stamped and addressed return envelope. There were four reminders. Women who returned questionnaires with illogical or incomplete answers were written to or visited. The forms and reminders were sent in batches and follow up visits were made when staff and fuel were available, with the result that the mean time of follow up since the index delivery was 31.8 months.

Questions were asked about: regret in relation to sterilisation; physical and mental complaints; survival of the child; marital status; the completeness of the family before the index pregnancy; satisfaction or not with the treatment in the hospital; memory of the pain related to post partum tubal ligation (to compare general and local anaesthesia) and the number and gender of the surviving children.

Women who regretted to be sterilised were written again and offered re-anastomosis with all costs paid, including travelling expenses.

A similar effort was made to contact all the women of high parity who had no tubal ligation during a caesarean section (Table 1). Most questions were similar but we enquired about regret at not having had a tubal ligation and if this procedure had been offered. The reasons for not having a tubal ligation were asked. A sample of 20% of women of high parity who had delivered vaginally and had had no post-partum tubal ligation was sent the questionnaire and 45 of the non-responders were visited. Less effort was spent to contact the above women because there were so many (5146) of them. Overall more than 400 women’s addresses were visited to verify answers, to inquire about moving house or deaths and to check the reliability of the answers to the questionnaire. In short women with the defined number of children who had a tubal ligation were followed up very actively, those without a tubal ligation and who had delivered by caesarean section with somewhat less effort and of those who delivered vaginally with less effort still.

Regret after a tubal ligation means wanting more children and blaming the tubal ligation and not the possibly underlying diabetes, HIV, extensively scarred uterus, heart abnormality or hypertension for (better) not having more. Two women who had regrets because they became pregnant after a tubal ligation are not considered. Regret after not having had a tubal ligation signifies that women were bothered by the inconvenience or
Table 1 Regret concerning having had a tubal ligation (TL) or not during an emergency caesarean section, elective caesarean section or after a vaginal delivery. All women described here seemed to have, at the time they had or could have had a TL, either four or more viable children or three if the women were at least 30 years old.

<table>
<thead>
<tr>
<th>Emergency Caesarean Section</th>
<th>Elective Caesarean Section</th>
<th>Vaginal Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>No TL</td>
<td>TL</td>
</tr>
<tr>
<td>(n)</td>
<td>(%)</td>
<td>(n)</td>
</tr>
<tr>
<td>288</td>
<td>(47%)</td>
<td>412</td>
</tr>
<tr>
<td>321</td>
<td>(53%)</td>
<td>142</td>
</tr>
<tr>
<td>Total</td>
<td>609</td>
<td>554</td>
</tr>
<tr>
<td>Attempted follow-up all</td>
<td>all</td>
<td>all</td>
</tr>
<tr>
<td>Responders of those 239</td>
<td>179</td>
<td>314</td>
</tr>
<tr>
<td>(83.0%)</td>
<td>(55.8%)</td>
<td>(76.2%)</td>
</tr>
<tr>
<td>Regret TL/</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Regret no TL (2.5%)</td>
<td>101</td>
<td>18</td>
</tr>
<tr>
<td>Relative risk regret no TL/ TL (95% CI)</td>
<td>22.48 (10.09-50.04)</td>
<td>10.87 (5.32-22.22)</td>
</tr>
<tr>
<td>Want more children 6(2.5%)</td>
<td>41(22.9%)</td>
<td>10(3.2%)</td>
</tr>
<tr>
<td>Mean age [SD] at index delivery</td>
<td>36.5[4.4]</td>
<td>33.6[3.8]</td>
</tr>
<tr>
<td>Mean children [SD] at follow-up</td>
<td>5.7[2.0]</td>
<td>4.5[1.5]</td>
</tr>
<tr>
<td>No male children 2.5%</td>
<td>9.5%</td>
<td>7.3%</td>
</tr>
<tr>
<td>No female children 5.9%</td>
<td>6.1%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Last pregnancy “unwanted” at least</td>
<td>59%</td>
<td>25%</td>
</tr>
<tr>
<td>Lost child (regret TL no TL or not having TL)</td>
<td>33(1)</td>
<td>14(10)</td>
</tr>
</tbody>
</table>
side effects of other contraceptive methods or by the fear of becoming pregnant or because of an unwanted pregnancy.

**Statistical Methods**

Statistical analysis was performed using Epi-Info version 6.0. Continuous variables were compared using Student's $t$-test for normally distributed variables and the Kruskal-Wallis test for variables not normally distributed. Categorical variables were compared using the chi-square test or Fisher's exact test as appropriate.

**RESULTS**

In the first three months of the study period of nearly ten years 32% of all the women left the maternity hospital having four or more living children while in the last three months this had reduced to 17% ($p=0.001$). The number of deliveries and size of the area that refers to us did not change.

Six hundred and nine women with the defined number of children were delivered by emergency caesarean section (Table 1). Information was obtained from 418 of these women (68.8%). Three hundred and one of these 418 women (72.0%) had been offered sterilisation (Table 2) and 241 women (80.1%) had accepted. Thirty-two of the 301 women (10.6%) regretted, 6 after a tubal ligation, 24 after declining a tubal ligation and 2 because the surgeon forgot to do the tubal ligation. One hundred and seventeen of the 418 women (28.0%) had not been offered sterilisation; of these, 75 women (64.1%) regretted not being sterilised. The relative risk of regret if not offered sterilisation was 6.03 (95% confidence interval, CI 4.23 - 8.60).

Five hundred and fifty four women of high parity had an elective caesarean section, of whom information was available for 366 women (66.1%). Three hundred and forty-six had been offered a tubal ligation, of whom 314 (90.8%) accepted. Ten of these 314 women (3.2%) expressed regret, as did five of the 32 who declined the offer. Twenty women were not offered tubal ligation; of these 13 regretted not being sterilised. The relative risk of regret if not offered sterilisation was 14.99 (95% CI 8.31 - 27.06).

Five thousand, six hundred and sixty-seven women of high parity delivered vaginally. We presented questionnaires to all 521 of them who were sterilised and received 420 replies (80.6%). A 20% sample of those 5146 women who were not sterilised were followed-up resulting in 329 answers (32.0%). Five hundred and ninety of the 749 women (78.8%) had been offered a post-partum sterilisation; of these, 64 (10.9%) regretted declining and two (0.3%) regretted accepting. One hundred and fifty-nine women were not offered a sterilisation; of these, 84 (52.8%) regretted not being sterilised. The relative risk of regret if not offered sterilisation was 4.72 (95% CI 3.60 - 6.19).
The rates of regret in women being sterilised was 6/241 (2.5%) in women with an emergency caesarean section, 10/341 (3.2%) in those with an elective caesarean section and 2/420 (0.5%) after vaginal delivery (Table 2). Regret rates for not being sterilised were respectively 101/179 (56.4%), 18/52 (34.6%) and 148/329 (45.0%) in the three groups. Sterilisations were declined in 60/301 (19.9%), 32/346 (9.2%) and 170/590 (28.8%). Regret rates for declining tubal ligation were respectively 24/60 (40.0%), 5/32 (15.6%) and 64/170 (37.6%). Women who were not sterilised had not been offered a sterilisation in 117/179 (65.4%), 20/52 (38.5%) and 159/329 (48.3%), respectively.
Two of the six women who regretted having been sterilised with an emergency caesarean section took up our offer for re-anastomosis with all costs paid but both changed their mind when a pre-operative HIV test turned out to be positive.

DISCUSSION

I acknowledge the limitations of this study. Obviously, a randomised trial to investigate regret following offering a sterilisation or not is out of the question, and one has to rely on an observational study with its possibility of bias.

Some of us would have found it, in a randomised trial, unethical to deny half of the women the chance of having a sterilisation, others would often have found it unethical to ask the other half of the women if they wanted a sterilisation. Soliciting informed consent would be absurd in this case.

The lack of randomisation resulted in those women with the most children and with at least one viable son and with a first and stable marriage and with a likely to recur medical problem and of older age, being offered more often a sterilisation (Table 1), so that the regret rate of acceptors is low. Mutatis mutandis there would have been more women who regretted not having had a sterilisation among those who were not offered a choice if it would have been a randomised study. Randomisation would probably have neutralised many confounding factors like education, speaking a common language with the patient, social class, opinion of the midwives and doctor present and level of distress.

Another limitation is that while every effort was made to find the women who had a sterilisation, we did not go all out, because of lack of resources, to find the members of the control groups, especially those who delivered vaginally. This might have resulted, although we found no evidence of that from 45 home visits to the latter, in satisfied women being underrepresented.

Nevertheless the results of this study are astounding, and even allowing for its limitations important; thus 64.1% of women with the specified number of children who had not been offered a sterilisation with an emergency caesarean section would have liked a sterilisation, compared with 65.0% who had an elective caesarean section and 52.8% of the women who had a vaginal delivery.

Furthermore, it can be calculated from Table 1, assuming that we have answers from representative samples of women in the six different groups, that 76% of all the 609 high parity women who had an emergency caesarean section are, or would have been, happy to have had a tubal ligation, compared with 81% of those who had an elective caesarean delivery and 50% of those women who had a vaginal delivery. Only 47%, 74% and 9%, respectively, actually had a tubal ligation, with the smallest difference between wanted and performed tubal ligations in the group of women with an elective
caesarean section. These latter women had the opportunity because nearly all were offered a sterilisation and they did not have to overcome the fear of an extra operation for sterilisation like women after a vaginal delivery. They shared with the women who had an emergency caesarean section the high risk of a future pregnancy with at least one scar in the uterus and possible recurrence of the factor, which prompted the caesarean section in the first place, like hypertension, cephalo-pelvic disproportion or haemorrhage.

The main ethical argument against offering a sterilisation with an emergency caesarean section is that such an important decision should not be taken at such short notice, ignoring the fact that months of pregnancy have preceded the final decision and that women would remember how welcome the pregnancy was and their thoughts about a future one. Nevertheless the pressure under which a decision has to be taken exists and is probably responsible for the high regret rate (40%) after declining a tubal ligation.

The higher regret rate found after a sterilisation with an emergency caesarean section than after a vaginal delivery has little to do with women being rushed into a sterilisation, but more with the very low regret rate after post partum tubal ligation, because the fear for that operation and other obstacles select only the most determined.

I feel after this study that it is unethical not to offer tubal ligation in women of high parity at the time of an emergency caesarean section. I invite colleagues to perform a similar study to confirm or reject our conclusions. I anticipate litigation in which gynaecologists are accused of not counselling women about the option of a sterilization, exposing the woman to another operation.

It is obviously much better to discuss tubal ligation at a possible emergency caesarean section early during the antenatal period, to obtain consent then and to confirm that consent at the time of the emergency section. I strongly encourage health workers to raise the hypothetical questions when seeing multipara pregnant women: “If you need an unexpected caesarean section would you like a tubal ligation and would that decision be altered if the baby is not alive or not very strong when it has been delivered?”

These questions should also be printed on antenatal forms.

This policy however will not prevent decisions having to be taken under stress because many multipara pregnant women who need an emergency caesarean section are not booked and if they are, then not often booked at the place where they will be operated on. In addition, the overwhelming majority of caesarean sections in Africa, for non-private patients, are not elective but emergencies.

I believe that the results of this study will apply to other countries taking into account what the ideal number of children is for that specific community. This number is 3.9 for women in Zimbabwe. We also think that there are multipara from cultural minorities in developed countries who would benefit from a policy of offering a tubal ligation with an emergency caesarean section. This is especially true if there are religious or
cultural objections to contraception. The objections often disappear, to many a woman's relief, if a caesarean section provides a medical "excuse" for ending her reproductive career. This happens frequently, but then mostly in combination with a non-indicated elective caesarean section in Latin America, and in Roman Catholic hospitals in Africa.

Finally the occasion to perform a tubal ligation on women who otherwise do not have the opportunity, resources or courage to have an interval sterilisation does not present itself only during caesarean sections. We think that other operations performed upon multipara by gynaecologists or even surgeons should prompt counselling for the opportunity of a tubal ligation. Presently we are following up such a group of women. Recently we saw a mother of five boys and five girls (five children would have been enough she said later), 43 years old in shock after transport over 110 km with an ectopic pregnancy. After resuscitation just before induction we asked her whether she would like “to be closed”. She was very relieved to hear the next day she had indeed been sterilised. The recurrence rate of ectopic pregnancies is about 20%. An obvious example of a woman more likely to die in the next pregnancy than regretting a sterilisation.

POSTSCRIPTUM

To illustrate the need to discuss a possible caesarean section with the option of a sterilisation in the antenatal period, the following case history:

Para 3, Gravida 4. First two deliveries in the Netherlands with the help of caesarean sections. On holiday at home in Somalia the patient delivered her third baby vaginally during transport en route to a hospital. It is decided with the couple, in view of the last delivery, to try a vaginal birth of her fourth baby, in a Dutch hospital, in 2002. In order to prevent another delivery en route, labour is induced at term by rupturing the membranes. Three minutes later, fetal distress is noted and some vaginal blood loss. Ten minutes later she is delivered of a healthy baby after a laparotomy, under general anaesthesia, for a ruptured uterus. The Muslim husband is present in the operation theatre and is asked whether he agrees to the sterilisation of his wife, in view of the poor quality of the anterior lower uterine segment. He indicates that it is completely his wife’s decision and because she can’t be asked and because this scenario had not been discussed during antenatal visits (with the help of a translator), the sterilisation did not take place.
REFERENCES

1 Zimbabwe Demographic and Health Survey 1999. Central Statistical Office Harare, Zimbabwe Macro International Inc.; Calverton, Maryland, USA.


OBS GYN DEP., UNITED BULAWAYO HOSPITALS (UBH) P.O. BOX 958
Bulawayo. Tel 72111. Ext 2222

You had a delivery in the delivery clinic on 29-05-2001. Can I ask some questions to plan future services and know more about patients? Please donate some of your time and fill in this form and return inside enclosed stamped envelope. The results are of course completely confidential.

1. How many children do you have now (2)?
   - How many boys (2)?
   - How many girls (1)?

2. How many children do you want to have in total (2)?

3. Did you lose any child after this delivery? No [x] Yes [ ]

4. Any pregnancies after (2)?
   - Yes [x] No [ ]

5. If yes, delivered, where? Date:...........
   - Miscarriage, where? Date:...........

6. Are you now: Married, have a boyfriend, single, divorced, widowed. Since when........

7. Did you get any problems after last delivery? No [x] Yes [ ]
   - If yes, what problems did you get after last delivery? .........

8. Do you any of the following problems these days?
   - Headache [ ] Yes [ ]
   - Loss of appetite [ ] Yes [ ]
   - Pain in the abdomen [ ] Yes [ ]
   - Getting fatter [ ] Yes [ ]
   - Feelings of sadness [ ] Yes [ ]
   - Less desire in sex [ ] Yes [ ]

9. Did you want to have more children after that delivery? No [ ] Yes [x]

10. Would you have wanted your tubes tied (sterilisation) after that delivery, if possible in the clinic? Yes/No [ ]

11. Did the doctor/sister while you were pregnant ever ask you if you wanted your tubes closed? Yes [x] No [ ]

12. Did the doctor/sister after delivery ever ask you if you wanted your tubes closed? Yes [x] No [ ]

13. Do you have any complaints about your periods? Yes [ ] No [x] What complaints? ............

S. M. 25
14 If you have period complaints did they start after you had your last baby

Yes/No

None

15 What Family Planning Method do you use now? N/A...

Injection, yellow Pills, other Pills, Norplant, Condom.
Loop, natural, traditional, calendar, you had your tubes closed, you think you cannot become pregnant any more, no partner, you take risks
(please tick right one)

When was last tablet, or injection, or implant... N/A...

16 If you would not have wanted a sterilisation after delivery, why not? Because:

You wanted to have more children

Yes ☐ No ☐

Religious reasons

Yes ☐ No ☐

You had (nearly) only boys or only girls

Yes ☐ No ☐

Because your partner wanted more children

Yes ☐ No ☐

You wanted to use another method of family planning

Yes ☒ No ☐

You thought you were too old to get pregnant again?

Yes ☐ No ☒

You needed more children because of a new relationship?

Yes ☐ No ☒

The opportunity was not there

Yes ☐ No ☐

You are too afraid of such an operation

Yes ☐ No ☐

Other reasons:

17 Your last pregnancy:

1. You wanted it then
2. It came too early
3. You had hoped that you would not become pregnant any more before that pregnancy

18 Do you wish you had your tubes tied just after your last delivery? No / Yes undecided

19 What church do you belong to? N/A

20 Do you have any other comments on the treatment and care you received in the clinic? Please feel free to comment on anything...smooth, quick, effective, courteous,close to home, a positive experience, a relief thanks doctor, I wish we would more about what.
If you still want to have some advise or action in family planning, or sterilisation, please visit the walk-in-clinic at UH in front of maternity or your nearest municipal clinic.

Thank you, Dr. D. A. Verkuyl FRCOG, Head Department UBH