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Social and cultural aspects of infertility in Mozambique

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Abstract

Findings of an anthropological study of socio-cultural aspects of infertility among members of the matrilineal ethnic group Macua in the north of Mozambique are presented. Infertile women apply various strategies to have a child. Traditional healers are visited much more often than the modern hospital, and the explanations the infertile women themselves give for their infertility more often originated from the traditional healers than from the hospital staff. Almost all of the interviewed women commit adultery in the hope to conceive. Some of them apply fostering as a partial solution for childlessness. The Macua infertile women experience various consequences due to their infertility, of which exclusion from certain social activities and traditional ceremonies is perceived as a very problematic one. The matrilineal kinship system means that the husband and his family do not mistreat and repudiate her. Infertility must be considered as a serious reproductive health problem in Mozambique. For the long term preventive measures may be more influential than curative one. The findings of this study can be used to elaborate culturally sensitive health education programmes.

Keywords: Infertility; Reproductive health; Mozambique; Africa; Perceptions; Health-seeking behaviour; Social consequences; Traditional health care

1. Introduction: Genoveva's story

Genoveva is a 34-year-old woman, living in Montepuez, a district capital in the north of Mozambique. She belongs to the Macua, a matrilineal ethnic group. She married her first husband at a very young age, before she went through the initiation rites, held after a girl has her first menstruation. Immediately after her marriage Genoveva became pregnant, but unfortunately this pregnancy ended in miscarriage. Then she decided to divorce, because she suspected that the blood of her husband did not combine with hers. She married again and had one child with her second husband. She left him, because the man had slept with a daughter of her sister. Then she married again. The child stayed with Genoveva. While living with her third husband she was not able to become pregnant. She visited several traditional healers and the medical doctor in the hospital in the hope of finding a solution for her infertility. According to traditional healers she became infertile because of incorrect handling

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of the umbilical cord after her first delivery. She did not record any result regarding the hospital diagnosis, she only knew that they gave her pills. After 13 *years of marriage to her third husband, he decided to return to his place of birth, Magide. Genoveva wanted to accompany him, but her family did not allow her to do so. One year before the interview she married again. Her fourth husband is a polygamist and she is his second wife. He has three children with his other wife. Genoveva complains that her husband gives giving much more attention to his other wife than to her. He always stays only a few days with her. Therefore she wants to divorce him. She has already asked permission from her relatives to do so.*

Many Mozambican women are, like Genoveva, dealing with and suffering from infertility. Every woman has her own particular story, although all these stories are highly influenced by the social, cultural and economic context of their daily lives. Ideally, health (education) programmes must be based on an in-depth understanding of the problems and needs of the people involved. Although from a medical point of view a health problem may be considered more or less equal all over the world, the way the people involved experience their problems and define their needs may differ per country as well as within countries. Recording the Macua's views on infertility was the objective of the study carried out by the author in Mozambique in 1993. Basically, the objective of the study was to describe the experiences, perceptions and problems of infertile Macua women in Montepeuz, a district capital in the most northern province (Cabo Delgado) of Mozambique. In this article some of the research findings are presented, showing that the way the interviewed Macua women deal with their infertility is very much related to social and cultural contextual factors, such as the matrilineal kinship structure, the existence of a plural medical system, the restricted supply and low quality of modern health services, and local (Macua) explanatory models.

1.1. Growing interest for infertility in Third World countries

In Africa — as in many other places worldwide — infertility is generally considered a huge problem by the persons involved, especially by women. The incidence of infertility varies enormously in each region. In studies in Africa and Asia, percentages of primary and secondary infertility vary from 0.7–22.8% to 2–12% respectively [1]. Yet, neither the personal considerations, nor the statistics resulted in much attention for research or programmes to improve prevention and treatment of the problem. It is only recently that infertility has received more attention from researchers and policy makers in developing countries and international organizations. Some factors seem to have contributed to this recent increase of interest in the topic. The first factor to be mentioned is the AIDS epidemic which raised interest in other STDs. This brought infertility more into the picture due to the fact that gonorrhoea and chlamydia are the main causes of infertility in the Third World [2–6].

Infertility is also receiving attention from family-planning workers, who intend to promote the use of contraceptives. It was found that in various Third World countries women did not want to use contraceptives out of fear of becoming infertile [3,7–9]. Last, but not least, women health activists have criticized the limited scope of health programmes for women in Third World countries. These programmes offer only a restricted number of services (especially contraceptives and peri-natal care) to a limited number of women (most often married women and women with young children). In these programmes very little attention has been given to other reproductive health problems, for example, infertility. For years, women's health advocates have pleaded for integrated reproductive health care programmes (RHCP) [9]. Recently, lobbying by women's health advocates — probably in combination with the other factors mentioned — has started to bear fruit. In the *Program of Action* adopted at the International Conference on

Population and Development [10] 'prevention of infertility and appropriate treatment, where feasible' is included as a basic component of reproductive health care. Although this may be considered a first step in the right direction, the report does not indicate in what way this policy statement should be translated into strategies and action. The research findings presented in this article may be useful for the development of a culturally sensitive RHCP in which the views and experiences of the people involved will be taken into account.

1.2. Research objectives

The objectives of the study were:

1. To describe (a) the knowledge, perceptions and practices of (infertile) women in Montepuez, concerning the causes of infertility and the strategies they apply to find a solution for their infertility and (b) the related socio-cultural factors, such as local ideas on illness, health and health care, the meaning of children and infertility, the kinship structure, the position of the women, the costs of and experiences with the services offered, and decision-making processes within the family.
2. To make recommendations to policy makers in the area of health care in Montepuez about the way health education and health care related to infertility prevention and treatment can be improved, while taking into account the socio-cultural and economic situation.

In this article the main focus will be on the results concerning the first objective.

2. Methods

2.1. Study design

The study had a qualitative and explorative character. Explorative, because when starting the research, very little was known about the phenomenon of infertility in Mozambique. Qualitative, as it enabled the researcher to gain in-depth knowledge of the personal experiences of women regarding such a sensitive subject. No representative sample was taken; for details we refer to the report of the study [11].

2.2. Data collection

The study was carried out in Montepuez and focused on two neighbourhoods: one, Nacate (8600 inhabitants), adjacent to the so called 'cement town' of Montepuez, and the other, Nicuapa (2000 inhabitants), a village 6 km from the centre of Montepuez. During the fieldwork period (3 months) the researcher was assisted by two women, both residents of Nacate. Data were collected by means of semi-structured interviews, normally held at the compounds of the informants. The researchers spoke with 34 infertile women, six 'cured' women, 10 fertile women, several traditional healers, female advisers (*nankossi*) in initiation rites and pregnancy ceremonies, members of the popular tribunal, a group of elderly men, a medical doctor and a nurse from the hospital in Montepuez.

In addition to holding interviews, data were collected by means of participatory observations during initiation rites, pregnancy ceremonies, sessions of traditional healers, a funeral and 'ordinary life'. Some numerical data were collected from the health care registers in Montepuez.

2.3. Selection of informants

Informants were contacted through the snowball method. The assistants proved to be very valuable in contacting infertile women. From the moment the interviewing started the rumour of the researcher's presence and the topic of the research spread. Again and again the researchers were contacted by infertile women or their husbands with requests to be interviewed. In Nicuapa the Mozambican Women's Organization (OMM) arranged informants. In both research sites many more women offered themselves as

interview candidates than it was possible to include. Only a few informants were contacted through the consulting hours for gynaecology and obstetrics in the hospital in Montepuez. It was constantly stressed to the assistants and the infertile women that no solution to their problem was offered, in order to avoid creating false expectations.

In this study the focus was on the experiences and perceptions of the women involved. This led to the use of the following definitions: an *infertile woman* is a woman who wants to get pregnant, but does not succeed, irrespective of the duration of time during which she tries to become pregnant or the number of children she already has. The determining factor is that the woman herself considers her inability to become pregnant as undesirable. It is possible that, from a biomedical point of view, the condition is caused by her husband. In this study 25 infertile women without any living children were interviewed and nine infertile women with one or more child. A *cured woman* is a woman who experienced infertility, but resolved it in one way or another. This can be due to a treatment, but also because she managed to have children with another man. Finally, a *fertile woman* is a woman who has never experienced any infertility problem.

2.4. Characteristics of the interviewed women

All the interviewed women belong to the ethnic group Macua and speak Macua-meto. Most of the interviewed women were Muslim, the dominant religion in the area; a small minority was Catholic. Their ages varied from 19 to 50 years old. Almost 50% never attended school; only six informants finished primary school. With the exception of four women all of those interviewed were small farmers. At the time of the interviewing 28 (80%) of the 34 infertile women were married; nine of them with polygamous husbands. From the six cured and 10 fertile women, 11 (68%) were married, and two had a polygamous husband. The majority of the women in all three categories had been divorced once or more.

3. Macua culture

The way in which the interviewed women cope with their infertility is very much related to the fact that the Macua have a matrilineal kinship system, i.e. the descent is traced through the mother's line. Having children is a very important event in Macua culture, not only for the parents and other direct relatives, but also for the members of the matrilineage, because children guarantee the continued existence of the matrilineage as a whole [12]. Childlessness is a problem that needs to be prevented. During initiation rites and pregnancy ceremonies women and men are taught how they can have healthy offspring.

3.1. Initiation rites

When a Macua girl has her first menses, she is ready to participate in the initiation rites. During these rites *nankossi* (female advisers) initiate the girls into the secrets and life of an adult and fertile woman. After having passed through this ceremony, a girl is ready to marry and have children (although some marry before the initiation rites). That the future fertility of the girl (couple) is an important theme during these rites may become clear from the following: the girl has to prove during the rites that she can perform (stand) the sexual act; the sperm of her future husband (if already present) is tested by female relatives of the girl; based on the ramifications of a dug up root, statements are uttered on the (in)fertility status of the girl. On the last day of the initiation rites, infertility can — according to the Macua — be caused: the girls have to remove their pubic hair. This hair must be wrapped in a cloth and buried in earth. A so-called witch can dig up this cloth and treat it with certain medicinal plants to cause infertility in the girl concerned.

3.2. Pregnancy ceremony

The first time a Macua girl becomes pregnant, a ceremony, *nthaára*, is organized. During the *nthaára* the girl is instructed on how to behave

while pregnant and in labour. By following these rules she avoids risks and problems during pregnancy and delivery. Only women who have been pregnant and gone through the *nthaára* themselves may assist in this ceremony. After the birth of the baby, another ceremony, *ntháara no mwana*, is held. On this occasion the parents receive advice on how to behave now that their child is born.

4. Results

4.1. Help-seeking behaviour

All of the interviewed infertile women — except one — had been searching for medical treatment to solve their infertility. All of them visited traditional healers once or several times, while only half of them went to the hospital. The intensity of seeking medical treatment varied a lot, especially with regard to the number of visits paid to the traditional healers. Some women said that they visited 'very many, maybe 20 or 30 different traditional healers'. Others had only been once or twice. Most women first visited traditional healers and later went to the hospital. Some women revealed that they had gone to the hospital 2 years previously, because they heard about the availability of medicines to treat infertility. In this period the doctor working in the hospital in Montepuez did an epidemiological study on the relationship between STDs and infertility. He had medicines to treat certain STDs, and — more importantly — he guaranteed the availability of these medicines. In some cases his treatment may have led to a cure for the infertility problem, which made him famous.

In general the women could not tell exactly when they visited a healer or doctor for the first time. This varied from about 6 months to 10 years of trying to become pregnant. Some referred to their first visit by indicating with which husband they lived at that time. At the time of the interview most women had not lost hope of a solution and continued looking for medical treatment in whatever form.

Half of the husbands had accompanied their wives once or more to a traditional healer and/or encouraged the wife to go. More women were accompanied by their mother or another female relative. This clearly shows the impact of the matrilineal kinship structure: her family is interested in her ability to have children. Her in-laws are less likely to interfere. The only infertile Macua woman who referred to interference by her in-laws had a husband from a family in the patrilineal south of Mozambique. In this case her in-laws were very upset about her inability to give children to her husband's family and really mistreated her, physically as well as mentally.

More often, the women visited herbal healers, *akulukanos*, than spiritual healers, *majini*. Most visited traditional healers who lived close by, but some famous healers living farther away were visited as well. Concerning modern health care services, principally the hospital in Montepuez was mentioned. In general, shorter journeys are made to visit modern health care institutions than to visit traditional healers. Also, in general the women have to pay less for modern health care than for visits to traditional healers. From this it may be assumed that neither the physical distance nor the expenses are the (main) reason for fewer visits to the hospital in comparison to visits to traditional healers.

4.2. Explanations and treatments for infertility

The explanations the infertile women themselves could give for their infertility more often originated from the traditional healers than from the hospital. Several women mentioned more than one reason and some expressed their doubts about the reasons mentioned. In the following section the traditional and modern explanations and treatments for infertility which were most often mentioned are reviewed.

4.3. Traditional explanations and treatments

The traditional explanations for infertility may be divided according to the categories introduced by Foster and Anderson [13]: when the illness is perceived to be caused by acts of people, spirits or witches they are referred to as personalistic

explanations; when it is assumed that illnesses originated by natural causes (such as a physical problem) they are naturalistic explanations.

The personalistic explanation most mentioned was possession by spirits, called *majini* or *maleika*. Some informants said that the fact that they were 'married' and had sexual contact with these spirits, prevented them from having sex with their husbands. Some women also mentioned the fact of being possessed as the reason why men did not stay with them. Another personalistic explanation various informants referred to was witchcraft. Women can become infertile if they are bewitched at different moments in their life. As mentioned before, at the last day of the initiation rites a woman may be bewitched if someone misuses her pubic hair. Also it is believed that — as in the case of Genoveva — women can be bewitched after delivery, if the umbilical cord is not treated in the culturally appropriate way. Women assisting at the delivery can destroy the future fertility of the woman by not burying the umbilical cord straight up. Finally, women can also be bewitched by drinking tea made of particular medicinal plants.

The naturalistic explanations most mentioned were problems with the blood, *norro* (local term for gonorrhoea) and *muankoko*. In case of problems with the blood it is said that the blood of the husband does not combine well with the blood of the woman. Sometimes it is explicitly stated that the man's blood is too hot and poisonous. In these cases the man is blamed for his wife inability to conceive. When a woman suffers a lot of pain after sexual contact and during her menses, she and her family interpret this as confirmation of the diagnosis that the blood of the man and the woman do not combine well. Almost all the informants, including the representatives of the popular tribunal, considered this a very legitimate reason for divorce. In such cases relatives require their daughter or sister to divorce, even when the woman herself does not fully agree with this. As one woman told:

> *I am not in favor of it* [*the divorce*], *but because I am always ill when I have had sexual contact with this man, and the family already decided it, I have to divorce. But it is not my wish*!

Norro (gonorrhoea) is thought to cause infertility by destroying the woman's belly or uterus. It is striking that although almost all the informants mentioned *norro* as a possible cause of infertility, only one infertile women mentioned it as the reason why she herself was infertile. This is the more notable because a quarter of the infertile women admitted having (had) an STD. Finally, a naturalistic explanation sometimes given was *muankoko*, a condition described as a red ball, coming out of the vagina, which impedes conception.

Most infertile women treated by traditional healers have been treated with herbal teas, balms or baths. In case of spirit possession women undergo an exorcism ritual which include drumming, dancing, drinking herbal teas or baths and offering prayers to the spirits. Some of the possessed women said they could not be treated in this way because they could not afford the expenses.

According to the informants herbal healers are able to diagnose and treat STDs. However, these treatments did not always prove to be successful. Some women told that they and/or their husbands were in a second instance successfully treated in the hospital, after having tried treatment by the herbal healers.

Less often Muslim treatments were mentioned. Texts from the Koran can be applied in various ways (in liquids and amulets).

4.4. Modern explanations and treatments

In the hospital in Montepuez means to diagnose the cause of infertility are very limited: a general and gynaecological examination of the woman; the reproductive history of the couple; blood examination to screen for STDs; sperm analysis and a review of the husband's occupational activities (to determine exposure of the testicles to high temperatures). Furthermore, patients can be taught to record their basic

temperature curve. Ways of treating some of the complications found are perhaps even scarcer than the diagnostic means: sometimes irregular menstruation cycles can be treated with the contraceptive pill, and some of the STDs with antibiotics. However, the medical doctor in service remarked that these medicines are rarely available. Regularly, patients are referred to the provincial capital Pemba (a distance of 200 km), to acquire these medicines.

Only half of the women had used modern health care. In most cases they went to the consulting hours for gynaecological and obstetrical problems at the hospital in Montepuez. Most of the times they could describe the examinations they underwent, but they did not receive or understand the results. The few women who did remember the diagnosis, mentioned a 'negative' result involving the sperm of their husband, a retroverted uterus, infected ovaries, and a wound in the abdomen.

All of the women who went to the hospital had medicines prescribed. Most of them were given pills, others referred to injections and capsules. The women also complained that the prescribed medicines very often were not available in the hospital pharmacy. Some of them bought the medicines at the local market. Others said that they were referred to the hospital in the provincial capital Pemba, but none of them went there because of lack of money or fear of the unknown. Other women said that their treatment was suddenly interrupted due to the transfer of the medical attendant. Only one woman, whose husband at the time was working in the national health service, was examined and treated in the hospital in the capital Maputo, a distance of 2000 km.

5. Other strategies

Besides looking for a medical solution in one way or another, the women also mentioned two other strategies they used to have a child, namely having extramarital sexual relations and fostering children. Both strategies will be defined briefly.

5.1. Extramarital sexual relations

All — with the exception of one — infertile women who were unmarried at the moment the interview took place, reported having regular sexual relations with various partners. Also, the large majority of the *married* infertile women did not limit their sexual relations to one partner. With the exception of six women, all women said that they had or had had extramarital partners. Some of them gave a concrete motive for having sexual relations with different partners: the traditional healer advised them to do so; to check whether the blood of another man was more compatible; at the time that the husband married his second wife; or while the husband was temporarily absent. According to the women the husbands did not know that they committed adultery. If they became pregnant by another man, the women were not very likely to tell him. In case the husband would find out, they said they would not be afraid of the consequences, even if this would lead to a divorce. Their main goal was to have a child, not to remain with their husband. Again one can see the influence of the matrilineal kinship system: the child stays with the mother after a divorce.

Most of the women were absolutely convinced of the fact that their husbands have extramarital relationships, for 'a man is a man'. A couple of women said they accepted the need of their husbands and encouraged them to try to have a child with another woman. Other women, however, became very angry with their husband because of adultery and were afraid to contract a STD through him.

In general extramarital sexual relations seem to be very common in Montepuez. Women refer to having sex with men in exchange for goods or money, especially to support themselves financially when their husbands are absent due to work or military services elsewhere. Earning money for sex was referred to as *ajuda de sal* ('help with salt'). During the initiation ceremony, older women sang a song in which they stressed the economic value of women's sexuality. Moreover, in the period of sexual abstinence after delivery — which traditionally lasts until the

child can walk — the man is allowed to have sexual relations with other women.

5.2. Fostering

More than half of the women took care of the children of relatives or — occasionally — of their husband. Some of the fostered children were orphans (war had only ended in 1992). Women taking care of their husband's children (from an earlier marriage) is a rare event, because in this matrilineally organized society the children stay with their mother or her relatives after divorce or the mother's death.

Although most infertile women say they really liked to raise the children of relatives, it caused problems as well. Sometimes, the biological parents accused the foster parents of mistreating their children or exploiting them. Other women had problems with the conduct of the children themselves, e.g. when the children did not want to obey their foster mother because she was not the 'real mother'.

In any case, some women were extremely positive about being able to take care of the children of relatives or expressed the wish to do so.

6. Implications of infertility in women's lives

The infertile women were asked to compare their own situation with the situation of fertile women. All expressed feelings of sadness and some said they were jealous, especially when they see '... girls with whom I passed the initiation rites looking after their children.' A compound without children is considered a place without pleasure. Some women expressed worry and fear that their family would die out if they did not have children. Women who have only one child foresee problems for that child when they themselves die: the only child will be left without a network of brothers and sisters who can support him/her when needed. Other reflections on what will happen to them when they died emerged: who will mourn over them and who will bury them? Given the importance of the funeral ceremony, this is a point that should not be underestimated.

Childless women mentioned the problem of lack of support from their children, now and in the future. Who will construct a new house or improve the existing one when they are old? Who will feed her or give her a new *capulana* (wrap-around cloth)? Women without any children saw that women who did have (older) children found their compound swept, the water and the fire wood fetched, and the meals prepared when they came home from working in the fields. Women without children have to perform all these tasks themselves. Also, they lack the support of children when they are sick.

Besides these worries and concerns, other implications of infertility have to do with exclusion from some important activities and ceremonies. Concerning these implications the infertile women may be divided into three categories. The first category of women, consisting of women who have never been pregnant, suffers the most problems: they are not allowed to assist the *nthάara*, nor assist deliveries, nor be involved in conversations about these events. Also, they may not be in places where the bodies of the dead are washed or placed upon a bier. Women of the second and third categories are excluded from less social events. Women of the second category, who have gone through the *nthάara* themselves (this means that they have been pregnant for at least four months) are allowed to assist in the *nthάara* of other pregnant women, even when this pregnancy ended in miscarriage. The same principle applies to women belonging to the third category, i.e. women who have had a delivery and gone through the *nthάara ma bwane* themselves (even if their child or children died afterwards), may assist in these ceremonies. The excluded women say they feel isolated and miss the gatherings and the conviviality with the other women. Although the interviewed *fertile* women realize that the infertile women feel bad about this exclusion, they say that these cultural taboos have to be respected. If the infertile women do not follow the cultural rules, they or their relatives will get serious (health) problems.

Some infertile women said they fear divorce

due to the fact that they could not give a child to their husband. People say that they know cases of divorce due to childlessness. Besides the threat of divorce women experienced in their actual marriage, the reason(s) of earlier divorce(s) was/were traced. It was found that — according to the infertile women themselves — past divorces very often were not related to the fact that they were not able to have children. Only five women felt that one or more husbands had left them because of this. Many other motives were mentioned. Moreover, it was not only men who wanted to leave their wives. To the contrary, under certain conditions (incompatibility of blood) the women or their relatives were very much inclined to seek a divorce.

So, although the threat of divorce as experienced by the infertile women must be taken seriously, divorce itself does not seem directly related to having or not having children.

7. Conclusions

First of all it may be concluded that infertility is felt to be a huge problem by the women concerned. However, they can not only be described as passive sufferers, as infertile African women are generally depicted in literature. The research findings show that the way in which the women experience their infertility is very much related to the social and cultural context, and especially to the matrilineal kinship structure. Children are of great value to the woman's family. Therefore her family supports her in her search for a solution; for the same reason her husband and in-laws do not mistreat and repudiate her. This is in sharp contrast with what often happens with infertile women in patrilineally organized ethnic groups. Also, we have seen that the Macua men regularly are considered to be the ones who cause the infertility. In these cases the woman and/or her relatives take the initiative to divorce. To a certain extent the Macua women are able to make their own decisions. Most of the infertile women have had several sexual partners and/or committed adultery, in the hope of conceiving. In this way they try to influence their own (reproductive) life course.

Concerning the practice of fostering it was found that it may decrease the extent to which the women experience their infertility as a problem; but most women did not really see this as a permanent solution.

We have seen that the infertile women in this matrilineal society are able to use strategies which support them to a certain extent to cope with their infertility. However, the culture was also hard on them: they are excluded from important social events and ceremonies. There is no way to escape this exclusion, and women feel deeply saddened by that. The women see themselves constantly and 'for life' confronted with their infertility. In this way, Macua society makes it hard for the women to learn to live with it.

We saw that the interviewed infertile women were trying hard to get pregnant and eagerly looked for a solution to their problems, in whatever way. Although the prevalence of infertility was not studied in this study, given the fact that it was very easy to find several women with fertility problems in only two neighbourhoods and the fact that all infertile women without hesitation mentioned relatives, neighbours and friends who suffered from the same problem, it may be assumed that the prevalence rate of infertility is high in the study area. One of the conclusions is that infertility needs to be considered as an important reproductive health issue by policy and programme makers.

However, imagine that health policy makers in Mozambique decide to take the infertility problem seriously, what then are concrete programme options? Mozambique is one of the poorest countries of the world. Yearly, only a few US dollars per inhabitant are spent on health care. Most probably the Mozambican Ministry of Health will not think of introducing advanced technologies as IVF and the like. The small group of 'rich and infertile' women will find its way to South Africa or Europe, and maybe in the future to a private clinic in the capital city Maputo.

It may be expected that preventive interventions will have more impact than curative ones,

although those presently infertile will not profit from these. In this study several practices and perceptions were found which — from a biomedical point of view — increase the probability that men and women become infertile. Interventions to prevent infertility are narrowly related to these practices, such as prevention of STDs by promoting the availability and the use of condoms, and early recognition and treatment of STDs. No new vertical health programmes are needed to prevent infertility, but in existing programmes the relationship to infertility must be stressed. Health education should be directed to adolescents to promote the adequate use of the offered services and to initiate behavioural changes. The research findings on the ideas, practices and lifestyle of the women give several clues for the way in which health education can be given in a culturally sensitive way [11].

Besides preventive activities, however, improvements in curative care are also possible. Some simple medical treatments of infertility do exist which do not need high investments and can be implemented in hospitals at the level of the one in Montepuez. We think of such treatments as stimulating coitus at the moment of ovulation, treatment of certain hormonal problems and STDs, and self-insemination. Some of the present infertile couples could profit from such improved interventions. Permanent availability of medicines and reagents must then of course be guaranteed, as well adequate provider-client interaction and communication, in order to prevent that patients do not understand what the doctor meant to explain. The medical personnel therefore must be made more aware of the perceptions of their patients.

References

[1] Mtimavalye LA, Belsey MA. Infertility and sexual transmitted disease: Major problems in maternal and child health and family planning. Technical background paper prepared for the International Conference on better Health for Women and Children through Family Planning. Kenya, Nairobi, October, 1987.

[2] Dixon-Mueller R, Wasserheit J. The culture of silence. Reproductive Tract Infections among women in the Third World. New York: International Women's Health Coalition, 1991.

[3] Frank O. Infertility in sub-Saharan Africa: Estimates and Implications. Popul Dev Rev 1983; 9: 137–144.

[4] Frank O. Sterility in women in Sub-Saharan Africa. IPPF Med Bull 1987; 21: 6–7.

[5] WHO. The epidemiology of infertility. Report of a WHO Scientific Group. World Health Organization Technical Report Series No. 582. Geneva, Switzerland: WHO, 1975.

[6] Adjei S, Adansi-Pipim G. Biomedical issues in family planning in Africa. Developments in Family Planning Policies and Programmes in Africa. Legon, Ghana: University of Ghana, Regional Institute for Population Studies, 1989; 68–96.

[7] O'Reilly KR. Sexual behaviour, perceptions of infertility and family planning in sub-Saharan Africa. Afr J Sex Transm Dis 1986; 80(2): 47–49, 80.

[8] Ravindran TK, Sundari. Users' perspectives on the appropriateness of particular methods of fertility regulation for particular settings in Asia. Paper presented at the Asian Regional Meeting on 'Women's Perspectives on the Introduction of Fertility Regulation Technologies', Manila. India: Centre for Development Studies, 1992.

[9] Germain A. Reproductive health and dignity. Choices by Third World Women. Technical background paper prepared for the International Conference on Better Health for Women and Children through Family Planning. Nairobi, Kenya: October 1987.

[10] United Nations. Report of the International Conference on Population and Development. Cairo, 5–13 September 1994.

[11] Gerrits T. As a pumpkin without fruits. A study on infertility of Macua women in Montepuez, Mozambique [masters dissertation, in Dutch]. Cultural Antropology, University of Amsterdam and Voorlichtingskunde, 1994.

[12] Martinez FL. The Macua people and their culture [in Portugese]. Lisbon, Portugal: Ministério da Educa¢cao/ Instituto de Investiga¢cão Científica Tropical, 1989.

[13] Foster GM, Anderson BG. Medical anthropology. New York: Wiley, 1978.