THE FEMALE CLIENT and the
HEALTH-CARE PROVIDER

EDITED BY
Janet Hatcher Roberts and Carol Vlassoff

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE
THE FEMALE CLIENT
and the
HEALTH-CARE PROVIDER

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Foreword

This selection of papers represents the fourth in a series of essay competitions jointly sponsored by the International Development Research Centre (IDRC) and the UNDP/World Bank/WHO Special Program for Research and Training in Tropical Diseases (TDR). The first competition was undertaken in 1989-1990; researchers were invited to submit papers on the theme of women and tropical diseases. A selection of the top ten papers was published by IDRC under the title *Women and Tropical Diseases*. Criteria for judgement included scientific merit, relevance to gender issues, innovative ideas, research recommendations, review of the literature, and knowledge of the field. Although the general quality of the papers was excellent, the competition highlighted a gap in research on tropical diseases and gender, that is, the sociocultural differences pertaining to the roles that men and women perform. Hoping to further research and understanding in this field, IDRC and TDR sponsored subsequent competitions in 1992, 1993, and 1994. Abstracts from the third competition, titled *Gender and Tropical Diseases: Facing the Challenge*, are published in *Gender, Health, and Sustainable Development: Proceedings of a Workshop held in Nairobi, Kenya, 5-8 October, 1993*.

For this fourth competition, the theme has progressed from women and tropical diseases generally, to the factors which facilitate or inhibit women's use of health services, including the provider-client relationship. Several of the papers contained in this selection do not focus specifically on quality of care issues, but as they contribute significantly to the results on gender and tropical diseases more widely and relate to the objectives of the initiative as a whole, we have included them here.

The papers were judged independently by a panel consisting of representatives from the IDRC and the Gender and Tropical Diseases Task Force (TDR) who were unaware of the authors' identities. A set of criteria was developed and agreed upon by the judges prior to the review. Each paper was then scored
accordingly. The papers which were received varied widely in the level of analysis and inclusion of gender as the focal point. There is a clear need to build capacity in this important area of research.

The winner of this competition was *The Assessment of Quality of Care in Prenatal Services In Irbid, North Jordan: Women’s Perspectives*, written by Salah Mawajdeh, Ra’eda Al-Qutob, and Firas Bin Raad. The other papers in this selection are listed in alphabetical order.

We see this publication as an exciting beginning to an area of research on quality of health care for women, taken in a holistic sense that goes beyond maternal, family planning, and reproductive health, which will receive a great deal of attention in the next few years. Donor agencies have already taken up the lead in addressing this issue of quality of care and gender in Latin America. Interest and commitment to this area of research is necessary before programme and policy development can be influenced in the years to come.

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The Assessment of Quality of Care in Prenatal Services In Irbid, North Jordan: Women’s Perspectives

Salah Mawajdeh¹, Ra’eda Al-Qutob², and Firas Bin Raad³

Summary

This paper focuses on an assessment by 289 pregnant women receiving prenatal care from MCH centres in Irbid, Jordan, of the quality of available reproductive health services. Women's perceptions of service quality, as well as their level of satisfaction with the care received, were validated with independent observations of the service delivery process. The results of the study showed that, in general, women were dissatisfied with the patient-provider relationship and with the extent of information exchange between themselves and their care providers. On the other hand, the women were modestly satisfied with the technical competence of providers, and were highly satisfied with the management of the health care facilities. This study highlights the relevance and value of women's reports as credible data sources for quality of care assessment. Health care systems which aim to provide services that transcend the traditional emphasis on technical competence of providers as the sole measure of quality of care ought to be attentive to women's inputs into the health care delivery process.

Introduction

Maternal health services directed towards improving women’s health are finally receiving due attention. This new focus, driven by recent research, emphasizes the close tie between women’s health status and the overall well being of the entire family. This link is most apparent in studies which have demonstrated higher risks of infant and child mortality following maternal death, and the tangible benefits of birth spacing for both the mother and child.

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Increased attention to the health status of women is evidenced in the movement of the international community towards improving legislation and services directed to women. The Safe Motherhood Initiative of 1978 in Nairobi and 1988 in Amman stressed the need for strategies which tackle the root causes of maternal morbidity and mortality. The initiative also highlighted the need to set measurable goals and targets. In addition, one of the pre-congress workshops of the WHO/FIGO which took place within the context of the XIII World Congress of Gynaecology and Obstetrics in Singapore in September, 1991 stated the following as a specific objective:

[to develop approaches for the participation of women and women’s organizations in collaboration with Ob/Gyn and midwifery societies and other relevant groups, in sensitizing decision makers to women’s health needs and perspectives and to encourage women’s participation, especially in reproductive health (WHO/FIGO 1991).

The other significant trend in maternal health services research has been a realization of the necessity to assure/improve the quality of these services. This trend has led to new quality assessment approaches for reproductive health services which examine service delivery in a comprehensive manner, thereby transcending traditional assessment methods which were merely concerned with the technical competence of providers (Bruce 1990). The new approach examines quality of services at a structural level and describes how quality services are actually delivered (process). It also relates these services to outcomes of care which extend beyond the usual physical indicators, such as mortality and morbidity rates, to include behavioral and attitudinal indicators. This comprehensive approach to assessing quality of care relies on the points of view of providers, managers, and users.

One of the pre XIII World Congress of Ob/Gyn workshops stated that Paternalism (or maternalism) approaches to health care must be replaced by a partnership approach in the provision of quality of care to the whole woman, including assistance in dealing with personal sexual problems. Care must be provided with compassion, dignity, confidentiality, continuity, and informed choice. Women should have general access to fertility regulation and pregnancy services with as comprehensive a reproductive health system as possible. Recognition must be given to the poverty status of millions of women throughout the world, and more generally, to the devastating economic situation in the poorer countries of the world (WHO/FIGO 1991).
The need to involve and incorporate women in national development cycles is gaining greater attention, and some countries have instituted Ministries for Women’s Affairs. Carol MacCormack (1992), in a well known study, provides a theoretical framework for linking planning to the evaluation of women’s participation in primary health care, and thus offers a mechanism for assessing the status of countries’ efforts to incorporate women’s views and perceptions in primary health care.

A study of the interaction between women and health care providers may uncover problems in the delivery of quality care. However, this assumption could raise some arguments; at the individual level, medical professionals tend not to rely heavily on patient reporting as part of the management process. This aspect of medical care, along with other clinical skills, is being replaced by more elaborate diagnostic techniques. This tendency is greater for certain disease conditions, such as reproductive morbidities, which may be asymptomatic in some women. In addition, some contend that poorer, illiterate women may be unable to sufficiently describe what they are suffering. The latter may also be the case in facilities providing services of inferior quality.

Reliance on women’s reporting to assess the quality of care builds on the experience of earlier research (World Health Organization 1989; Campbell and Graham 1990; Wasserheit et al. 1989; Bang et al. 1989) which obtained information on reproductive morbidity through survey methods and clinical and laboratory examinations. Despite their known shortcomings, these community cross-sectional surveys provide a viable methodological approach (Campbell and Graham 1990).

In their study of two villages in the Giza Governorate of Egypt, Zurayk et al. (unpublished) compared women’s reports of reproductive morbidity symptoms with the results of medical diagnoses. The authors demonstrated a relatively strong correlation, reporting a specificity and sensitivity of 76% and 50%, respectively.

As part of a larger 1990 study which assessed the quality of prenatal care services in public maternal and child health (MCH) centres in Irbid, Jordan, this study aims to assess quality of care as perceived by the women receiving the care, as well as to validate the women’s reporting with observations made by the research team in the centre.
Assessing Quality of Care in Irbid, Jordan

In Irbid, maternal and child health centres are uniformly distributed and provide prenatal services at affordable costs. The primary users of prenatal care at MCH centres are women of middle and low socio-economic classes. Contrary to health centres in the city, MCH centres in the surrounding villages provide services to well-defined geographic areas, and the services are integrated within primary health care centres. The original study (Al-Qutob and Mawajdeh 1992) assessed the quality of prenatal care in MCH centres in Irbid using three methodologies:

- interviews with health providers and managers of all MCH centres in Irbid governorate (n=31);
- centre observations of 10 randomly selected MCH centres from the total, representing both the city and its surrounding areas; and
- home interviews with 289 pregnant women who had utilized these services.

This paper will present the results of the assessment of the quality of care as perceived by the women.

Methods

The manner in which women assess the quality of prenatal care was studied by examining their reports on the structure and process of care delivery, as well as their satisfaction with the care received.

The conceptual framework adopted by this study is currently under publication. The framework transfers and adapts Bruce's (1990) framework for the assessment of quality in prenatal care, and constitutes five main elements, namely the pregnant woman-provider relationship, the technical competence of providers, information exchange, continuity and follow-up measures, and management.

Comprehensively assessing quality of prenatal care requires the examination of these five elements at all three levels of the health continuum: the structure, process, and outcome (described by Donabedian 1980). For the measurement of quality as perceived by women, specific indicators were identified for each element (See Appendix I).

Names and addresses were obtained of 300 women who had received prenatal care from the selected ten MCH centres in Irbid. The research team was unable to locate the houses of 11 women. A total of 289 women were
successfully interviewed at home within one month of their last prenatal visit, to obtain information on the structural and process indicators of prenatal care. This process was carried out using a multi-structured and open-ended questionnaire that was revised and pretested several times (Al-Qutob and Mawajdeh 1992/3). In order to avoid biased answers, the interview questions were phrased in both positive and negative directions. For purposes of data analysis, the scores of negative phrases were reversed for ease of data interpretation. The interviews were conducted by anthropology and public health graduates trained in the field. The authors of the study provided supervision to ensure reliability and validity of responses.

The structure and process of prenatal care delivery in ten MCH centres was also observed by a medical observer who visited each centre twice within a one month period and who attended the prenatal clinics from start to finish. The observer used a pre-tested checklist to obtain information on several indicators related to the five elements of quality prenatal care at the levels of both structure and process.

Pregnant women in all stages of pregnancy, regardless of parity or status (new registry or follow up), were observed. The observer also recorded all events not included on the checklist which took place during the transaction process. The observation of the health facilities preceded the interviews.

The results of the women’s reports on the indicators of the quality of care and their satisfaction were then validated with the observation results.

Results

Women’s Interviews

All interviewed women responded to the questionnaire, although some were undecided about a few of the indicators. The average woman was 26 years old. Eleven percent were illiterate, while 46% had received less than 10 years of schooling. The majority (95%) were housewives. Twenty-seven percent were primiparas; 15% of the multiparous women had more than seven children. On average, 3.1 prenatal care visits were made. New registries constituted almost forty percent of the study group. Ninety percent of the women reported routine prenatal care as their reason for visiting the MCH centres; only 6% had physical complaints at the time of their visits (Al-Qutob and Mawajdeh 1992/93).
Results of the women’s reports on the quality of care indicators are shown in Table 2. The results demonstrate variations in the responses reported based on the elements and the indicators studied. For instance, it appears that a much lower percentage of women sensed a close relationship with the providers compared to their reporting on indicators of provider technical competence. In addition, a lower percentage of women reported receiving information on pregnancy-related issues compared to their reports on indicators of the management entity.

Table 2: Elements of a Conceptual Framework for Assessing the Quality of Prenatal Care as Reported by Women

<table>
<thead>
<tr>
<th>Component</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient provider relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>understanding</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>communication</td>
<td>66</td>
<td>23</td>
</tr>
<tr>
<td>lack of privacy</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>Technical management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>comprehensiveness of physical exam</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>examined for leg edema</td>
<td>202</td>
<td>70</td>
</tr>
<tr>
<td>iron supplements given</td>
<td>153</td>
<td>53</td>
</tr>
<tr>
<td>Information exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>breast feeding</td>
<td>54</td>
<td>19</td>
</tr>
<tr>
<td>smoking</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>Continuity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>scheduling of appointments</td>
<td>62</td>
<td>22</td>
</tr>
<tr>
<td>provider sincerity</td>
<td>255</td>
<td>88</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>working hours</td>
<td>231</td>
<td>80</td>
</tr>
<tr>
<td>waiting time</td>
<td>244</td>
<td>84</td>
</tr>
</tbody>
</table>

The study demonstrated that 64% of the women reported being satisfied all or most of the time with the care provided (data not shown). Analysis of the satisfaction of women who reported positively on the different elements and indicators of the quality of care showed that the majority them were satisfied with the services they had received, across all elements and indicators studied. However, between a minimum of six and a maximum of thirty percent reported being unsatisfied to some degree with the care received.
With regard to administrative management, one notices that although the majority of women reported the working hours as convenient and the waiting time as short, more women were satisfied with the working hour schedule than with the waiting time.

As shown in Table 3, 66 women reported that communication took place between themselves and the health care providers. Among these women, 32% were not satisfied. Among the 34 women who felt that the providers understood their problems and issues, the majority (94%) were satisfied with the service received. The highest rate of dissatisfaction was given to the lack of a private atmosphere for service delivery.

Table 3: Distribution of Positive Responses to Conceptual Framework Elements for Quality in Prenatal Care by General Satisfaction Response

<table>
<thead>
<tr>
<th>Components</th>
<th>satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Woman-provider relationship</td>
<td></td>
</tr>
<tr>
<td>understanding</td>
<td>2</td>
</tr>
<tr>
<td>communication</td>
<td>21</td>
</tr>
<tr>
<td>lack of privacy</td>
<td>18</td>
</tr>
<tr>
<td>Technical management</td>
<td></td>
</tr>
<tr>
<td>comprehensiveness of physical exam</td>
<td>6</td>
</tr>
<tr>
<td>examined for leg edema</td>
<td>57</td>
</tr>
<tr>
<td>iron supplements given</td>
<td>41</td>
</tr>
<tr>
<td>Information exchange</td>
<td></td>
</tr>
<tr>
<td>breast feeding</td>
<td>12</td>
</tr>
<tr>
<td>smoking</td>
<td>9</td>
</tr>
<tr>
<td>Continuity</td>
<td></td>
</tr>
<tr>
<td>scheduling of appointments</td>
<td>5</td>
</tr>
<tr>
<td>provider sincerity</td>
<td>81</td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>working hours</td>
<td>67</td>
</tr>
<tr>
<td>waiting time*</td>
<td>83</td>
</tr>
</tbody>
</table>

* Number of women who were satisfied with the waiting time.

The data in Table 3 also demonstrates which indicators of the structure and process of care are major contributors to women's satisfaction. For instance, while women varied in their assessment of indicators related to provider competence, almost 70% were satisfied with the quality of service provided. In addition, 19% of the women received information on breast-feeding advantages
and the hazards of smoking. However, their satisfaction with these elements varied by content area. More women were dissatisfied with information received on breast feeding, than on the hazards of smoking. The results of women's satisfaction with continuity indicators indicate that women were generally satisfied, although only a third were told to come back at the scheduled time.

Centre Observation

Structure

Most of the observed health care facilities were conveniently located in the centre of Irbid and its surroundings. One other facility was on a hill, and another further from the city. Three of the facilities were newly built. All but two of the older buildings were well-ventilated and illuminated. Each of the MCH facilities consisted of a main examination room and a maternity room in which both mothers and children were cared for by the midwife. In addition, each of the centres had a bathroom, a kitchen, and a waiting room with 8-10 chairs.

In each of the facilities, the maternity room was equipped with an examination couch, a sheet to cover the women, a stethoscope, a Fetoscope, a sphygmomanometer, and a weighing scale. Each also featured a small desk, a few wooden chairs, a filing cabinet, and a cupboard for keeping iron and vitamin supplements. The majority of the maternity rooms were provided with screens. In nine of the rooms, stools and height scales were missing or out of order. On the walls of maternity rooms, a maximum of three educational posters were displayed, one of which was related to pregnancy. A mini-lab was available in two facilities for urine analysis, haemoglobin, blood grouping, and Rh factor determination. A pharmacy was available in only one setting.

The staff responsible for the provision of prenatal care consisted of a physician (male in eight of ten facilities), a midwife, a nurse, and an aid. A lab technician and a pharmacist were present when a laboratory or a pharmacy was available at the facility. In addition, one laboratory dispatch common to all centres collected blood and urine samples on scheduled days, to be processed at the Ministry of Health's district laboratories.

Nine facilities had established days for prenatal care: one day allocated to newly registering women, chosen when both the physician and laboratory dispatch were available; and one day reserved for follow-up cases. The tenth facility encouraged pregnant women to visit on any day.
During the prenatal clinic days, reservations for appointments were not given; women were cared for on a "first come, first served basis." Most women were seen between 8:30 a.m. and noon, which prevented some from submitting samples at the appropriate time for processing at the central laboratory.

The length of time required to receive an appointment for a follow-up visit depended on the location of the facility and on the type of provider. This waiting time was longer at facilities located in the city and when a midwife was required; this was probably due to the urban midwives' heavy work loads, as compared to the lighter ones handled in the city's surrounding areas. In both locations, however, waiting for the physicians lasted for a shorter period of time, since they handled primarily newly registered women and complicated cases referred by the midwives. The waiting time for to see a physician ranged from 10 to 90 minutes in the city and from 10 to 45 minutes in the surrounding areas.

According to the midwives, the difference in waiting time could be due to the location of the facilities and to the availability of easy transportation. For example, in one village where the MCH facility was conveniently located, there was no suitable transportation since the vehicle travelled all the way to the city without stopping. Thus, as stated by a midwife in the village health facility, women would rather shop in the city, visit the MCH facility, and then return home. "The absence of a defined target area makes it difficult for us to deny prenatal care to any woman seeking it wherever she comes," reported another midwife in the city facility.

Women newly registering for prenatal care services were first seen by the midwife and the nurse aid, who were trained to record the socio-demographic, obstetric, and family histories in a register. Laboratory tests, namely urine analysis, measurement of blood haemoglobin, blood type, and Rh factor, were then performed. Afterwards, the physician provided care for the pregnant women. Follow-up visits were usually handled by the midwife, except when the women was judged to be in need of a physician or requested it. The research team observed that the nurse aid took charge of new and follow-up cases during the absence of the midwife in four of the facilities. Complicated pregnancies were usually referred to the hospital with a note from the physician.
Process of care delivery

Upon entering the facility, pregnant women (along with their children) were registered and cared for in the maternity room; hence, the room was always crowded, with an average of 5-10 persons including the personnel. Expectedly, this chaos triggered an uneasiness felt particularly by the midwife. At times she was forced to raise her voice in the lounge. Otherwise, women were generally welcomed and treated in a kind and respectful way.

Newly registering women were seen by both the midwife and the nurse aid, and were then examined by the physician and the midwife in sequence. For each newcomer, a new record was allocated and filled by the midwife and/or nurse aid. Answers to questions on the obstetric card were recorded as reported, though a few items such as measurements (namely height) or physical examinations required checking by the physician. Included in this pregnant woman-midwife exchange were the condition of teeth, nipples, breasts, and the presence of varicosities and vaginal discharge.

Questions on the obstetric card were asked as a formality without further inquiry into the substantive causes of illness or death among members of the family when reported. Moreover, when the pregnant woman volunteered to give a detailed answer about a certain question, she was not given a chance to be heard, nor were her relatives. In one instance, for example, the mother of an eighteen year old pregnant woman was aggressively cut short by the midwife when trying to state that her husband had diabetes: "I am addressing the pregnant woman and not you." Furthermore, women were not invited to be seated while filling the card, possibly as a result of the overcrowding of the maternity room. When a seat was vacant, women still asked permission to be seated; otherwise, they were kept standing for about 10 minutes, holding their crying babies while waiting for the provider to record needed information. Another observation recorded in a separate setting was that of a tired expecting mother sitting on the floor with her sleeping baby.

While completing registration or preparing for a physical exam or laboratory test, women were rarely asked about their motivation for visiting the facility, the purpose of their current check-in, or whether there were any specific complaints.

Each of the pregnant women registering at the facility for the first time was examined by both the physician and the midwife. Only five physicians were actually observed at work, two of whom were female. In the physicians’ room,
women were generally received kindly and were seated. The physician then
estimated the number of weeks of gestation and the requested a physical exam.
The heart beats of both the mother and the foetus were heard, the abdomen
examined, and the legs checked for edema among most of the women. However,
other organs such as the lips and gums, the thyroid gland, the breasts and nipples,
and the varicose veins in legs were not examined. Vaginal exams were not
performed for women at any of the facilities observed.

The facilities observed showed a wide variation in their prescription of
iron and vitamin supplements to this particular group of women; they were
provided based upon the midwife’s own judgement at times, and at others upon
the pregnant woman’s request.

After being physically examined, the women were given appointment cards
which showed the time of their next appointment; these appointments were
spaced one month apart until the end of the 32nd week of gestation, and were
afterwards spaced closer. The relevance of this schedule was seldom explained.
The follow-up cases were the sole responsibility of the midwife and nurse aid,
except when referral to the physician was judged necessary by the midwife, or
upon the request of the pregnant women.

Follow-up cases were treated much the same as the new cases, particularly
with respect to interpersonal relations, information transmission, and continuity
measures. Medical care offered to follow-up patients, however, consisted mainly
of answering chief complaints, examining the size of the uterus, and of checking
heart beats, fetal presentation, and leg edema. Laboratory investigations were
independent of the stage of pregnancy or parity, but depended primarily on the
midwives’ clinical judgment. This judgement was noted to vary considerably.
The transmission of information was inadequate, lacked privacy, and was not
tailored to women’s needs (Donabedian 1980).

Generally, the care provided to follow-up cases did not differ by parity,
gestational age, or the woman’s appearance. In the city, however, it was noted
that women who looked better received better communication and information
from the clinic staff. Otherwise, the interpersonal relationships and the process
of communication did not differ significantly between users in the city and those
in surrounding areas.
Comments on the Pregnant Woman-Provider Relationship

Although pregnant women were welcomed and treated cordially by the health care providers, in many cases they received only a share of the providers’ actual attention. In one facility, it was observed that the midwife obtained obstetric information from the pregnant woman while keeping her back turned. In another facility, the midwife talked sarcastically to a primipara who was breastfeeding her 8 month old baby. Most communication took place with the women standing and holding their crying babies. This was particularly obvious in the urban facilities, where client-provider communication took place in the presence of five or more persons.

The pregnant woman-provider relationship in all facilities lacked privacy, and the women were rarely involved in discussions about their social and psychological well-being. Providers were observed to listen only partially to the pregnant women when they expressed ideas or revealed fears, and seldom did they encourage the women to join in a discussion to find appropriate solutions to their problems. This neglect was apparent in the passivity of the women observed and their acceptance of whatever information they received. For example, in one case, a multipara woman in her 7th month of gestation visited a facility and expressed a fear of vaginal bleeding that had started five days earlier. She was blamed by both the midwife and the physician for not having reported the bleeding earlier. The woman looked depressed and said: "I did not know that this could be dangerous", despite the midwife’s statement to the contrary, and added: "anyway, it was not a planned pregnancy. I don’t want this baby and I don’t care if it dies." None of the providers reacted to this attitude, nor did they discuss with her any social problems which could have been related to her reaction. There was also no attempt to alleviate her pain nor to support her emotionally.

The physical exam performed by the physician was more private than that performed by the midwife. The screen was always pulled, the door closed, and no strangers were permitted in the room. During physical exams performed by midwives in the maternity room of three different facilities, screens where not used, the doors were kept open, and people were present at all times. This lack of privacy was observed more frequently in the cities than in the surrounding areas. In one facility, for example, although the door of the maternity room was closed, it was suddenly opened by the physician in the midst of a midwife’s examination of a 40 year old pregnant woman, resulting in the immediate
embarrassment of the woman and her attempt to cover herself. Discussions from behind the screen were heard clearly by all strangers in the room, including exchanges about the care of breasts and nipples, personal hygiene, and inquiries about vaginal discharges and sexual activities.

Women were asked to get on the examination couch without the assistance of stools or without the help of the providers, and were only supplied with a covering sheet when one was available. At times the pregnant women laid on their backs for 10 minutes or more, and were not told that they might feel pain during the abdominal exam. In four facilities, women's faces turned red and gestures of pain were observed. Neither emotional nor physical support was given to the pregnant women, who were then asked to step down from the couch on their own.

During the physical exam, new registries were not given proper instructions about standard procedures. In one facility, a new primipara was talking while being examined by the midwife. She did not keep her face turned aside as requested, leading the provider to adjust the position of her head in a harsh manner and say angrily: "You bothered me with your breath. Now, keep your face turned aside." A similar incident was observed in another facility while the woman was trying to express her pain with hand motions.

Despite the availability of sinks with soap and running water in all facilities observed, not one provider washed his/her hands, neither before nor after performing a physical examination. One exception to this observed trend was a midwife who felt especially disgusted after examining a "dirty" case, as she called it.

The results of the different observations therefore indicated strong agreement between how women reported the quality of care they received and how outside observers observed that same quality of care.

Discussion

The main objective of the study was to examine women's assessment of and satisfaction with the quality of prenatal care they received based on a certain set of indicators validated by centre observation. The study results showed that women were aware of the quality of care they received. Variability in their responses as to whether or not certain elements of care took place and their varied responses to different indicators within the elements suggest that women pay
attention to the minute details of care they are offered. The extent of agreement between women’s reports and the centre observations supports this suggestion, and indicates that women are able to judge the kind of care they receive.

Despite some women’s dissatisfaction, the majority of women who acknowledged receipt of these services were satisfied with the quality of care received. This selectivity in satisfaction may reflect many factors, including women’s expectations of care, previous experiences, their perceptions of the role of the formal health system, and their personal culture and values. Each of these factors have been shown to shape their perceptions, views, and assessment of the quality of care received.

One aspect with which the bulk of the women were dissatisfied was the client-provider relationship. For instance, about half of the women were found to be dissatisfied with the degree of privacy, and one third were dissatisfied with the lack of communication and interaction between themselves and the care providers. The results of the observation support this dissatisfaction with specific incidences which may have affected not only the concerned woman, but also other women who witnessed the particular situation.

Analyzing women’s satisfaction with received care can pinpoint to the service providers what aspects of care really matter to women. For instance, although many women reported that the waiting time was short, not all of them were satisfied. Even though this information may contradict the facts, it is important to note the cultural context in which care is provided. In fact, these women, who are housewives with moderate education, may be taking advantage of their prenatal visit to socialize together. Thus, the long waiting would not annoy them. The observation results also support this finding. A similar comment on waiting time was raised by Leslie et al. (1989) about the so-called "long waiting time", a term which the author suggested may be culturally biased, and may not be relevant in all settings.

The majority of women were satisfied with indicators of provider competence. However, it is possible that the dissatisfied women may be able to differentiate between particular aspects of adequate and inadequate competence. This knowledge, despite being technical in nature, may help orient program managers and providers to the service gaps which can be improved. The findings gained from analyzing women’s satisfaction with the care received may also suggest to program managers and services providers areas where women need further education. One example is that of the follow-up schedule. Almost eighty percent of the women were satisfied with the return visit schedule made by the
midwife. However, had they known the relevance of timing and the advantages of the timed follow-up visit, their satisfaction level may have improved. Also, their dissatisfaction could be related to the observation made that when the midwife asked the women to come back within a month, she did not make any effort to check whether the date or the timing was convenient to them. She also did not explain to the women the exact scheduled date and the reason for their return visit.

Women's participation in the assessment of the care they receive is expected to contribute to the democratization of the health service delivery system (Bruce 1990; Leslie 1989). The call for improving women's health, increasing their empowerment, and fostering involvement in the development process that activated many international programs such as the Safe Motherhood Initiative can be initiated through involving women at the grass roots level by assessing the care that is delivered to them. This involvement can enhance their participation in prioritizing, planning, monitoring, and evaluating services in a way that meets their values, needs, and expectations. Anrudh (1989) suggested that women's assessment of the quality of family planning services could be used as a means of measuring family planning program performance. In this way, women will be incorporated into the health system, allowing them to improve their own health, reduce gender disparity, improve gender sensitization, and improve their status and self esteem.

Involving women in the assessment of care by incorporating representatives of the community they serve will make quality of care assessment more applicable to the socio-cultural expectations of users than that of health providers, who are usually imported into the community (Leslie 1989). For the formal health system, it may be easier to modify the services to meet users' needs rather than trying to induce social change in an effort to increase the utilization of these services.

To summarize, the study results have clarified two major issues: women's awareness of the elements of the quality of care, and their ability to distinguish between satisfactory and unsatisfactory care. In addition, women's views of the quality of services provided were supported by qualitative measures and professional judgement on how the services meet the users' needs.

In conclusion, this study reveals the strong correlation between how women perceive quality of care and how it is observed by independent observers. Furthermore, the study calls for greater women participation in the evaluation and programming of reproductive health care services.
References


Appendix I

Elements and Indicators of Conceptual Framework for Quality of Prenatal Care.

<table>
<thead>
<tr>
<th>Woman-provider relationship</th>
<th>question</th>
</tr>
</thead>
<tbody>
<tr>
<td>understanding</td>
<td>Did the providers discuss with you anything that bothered you apart from physical ailments?</td>
</tr>
<tr>
<td>communication</td>
<td>Did health providers listen to you when you tried to talk about your complaints or things that bothered you?</td>
</tr>
<tr>
<td>privacy*</td>
<td>Did it bother you that there were people in the room other than the providers of care, including relatives?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical management</th>
<th>question</th>
</tr>
</thead>
<tbody>
<tr>
<td>comprehensiveness of exam</td>
<td>Do you think that the physical examination was comprehensive? In other words &quot;Did they examine your eyes, chest, breasts, abdomen and legs?&quot;</td>
</tr>
<tr>
<td>examined for leg edema</td>
<td>Did they examine your legs to see if they are swollen?</td>
</tr>
<tr>
<td>iron supplements given</td>
<td>Were you given multivitamins or iron tablets?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information exchange</th>
<th>question</th>
</tr>
</thead>
<tbody>
<tr>
<td>breast feeding</td>
<td>Did they discuss with you issues related to breast feeding and its advantages?</td>
</tr>
<tr>
<td>smoking</td>
<td>Did health providers discuss with you hazards of smoking during pregnancy?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Continuity</th>
<th>question</th>
</tr>
</thead>
<tbody>
<tr>
<td>scheduling</td>
<td>Did they schedule an appointment for you?</td>
</tr>
<tr>
<td>provider sincerity</td>
<td>Did you feel that providers care if you come back?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management</th>
<th>question</th>
</tr>
</thead>
<tbody>
<tr>
<td>working hours</td>
<td>Do you think that the working hours are convenient?</td>
</tr>
<tr>
<td>waiting time*</td>
<td>Was there a long queue? &quot;Did you wait for a long time?&quot;</td>
</tr>
</tbody>
</table>

*: Negative answers were re-scored in the analysis
Vesicovaginal Fistula (VVF): Only to a Woman Accursed

Kikelomo Bello

Introduction

This paper examines the different factors which contribute to the incidence of vesicovaginal fistula (VVF), a condition which arises from obstetric complications. The goal of the paper is to present the gendered factors which lead to VVF, as well as a comparison of the client-provider relationship within two existing health systems, the modern/orthodox system and the traditional health system, in terms of accessibility, acceptability, and adaptability.

Causal Factors for Vesicovaginal Fistulae

Vesicovaginal fistula is a health condition caused by the interplay of numerous physical factors and the social, cultural, political, and economic situation of women. This interplay determines the status of women, their health, nutrition, fertility, behaviour, and susceptibility to VVF (WHO 1989).

Physical Causes

The physical factors which influence the incidence of VVF include obstructed labour, accidental surgical injury related to pregnancy, and crude attempts at induced abortion. Obstructed labour leads to VVF when prolonged and unrelieved pressure on the woman’s pelvic wall causes a puncture in the bladder. Surgical procedures which cause VVF are of two types. The first, which may be termed orthodox medical accidental injury, refers to injury which is caused to the bladder during obstetric operations performed within the formal/modern health care system, such as the hospital. Such procedures include caesarean sections and difficult forceps delivery.
A table prepared for a comparative report by Kelly (1979) presented the cause of fistulae in 161 patients in Africa, particularly in Ethiopia, and in Britain. Some patients in the data became VVF patients as a result of operative delivery performed in orthodox hospitals. Table 1 shows a breakdown of the causes.

**Table 1. Main Cause of Fistulae**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Africa</th>
<th>Britain</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstetric</td>
<td>121</td>
<td>7</td>
<td>128</td>
</tr>
<tr>
<td>Pressure necrosis</td>
<td>121</td>
<td>3</td>
<td>124</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Caesarean hysterectomy</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Surgical</td>
<td>2</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Abdominal hysterectomy</td>
<td>2</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Vaginal hysterectomy and/or repair</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Aldridge sling</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>33</td>
<td>161</td>
</tr>
</tbody>
</table>

Source: J. Kelly (1979)

A study carried out by Mustafa and Rushwan (1971) in Khartoum in the late 1960s confirmed that the major cause of VVF is prolonged, obstructed labour which is often followed by instrument delivery (mainly forceps) and/or gynaecological operations. Between 1966 and 1968, 91 (74.8%) of the women studied demonstrated VVF resulting from obstructed labour, 25 (20.5%) from instrument delivery, and 6 (4.7%) from gynaecological operations.

The second form of surgical procedures which may lead to VVF are performed within the traditional health care system. These procedures are commonly employed during pregnancy and labour, and lead not only to VVF, but may also cause haemorrhages and sepsis. Examples include female circumcision, the Gishiri cut\(^2\), and Angurya, a traditional practice in which tissue is removed

---

2 This is a traditional operation practiced in Northern Nigeria among the Hausa people. The operation consists of cutting the anterior vaginal wall with a large curved knife or razor blade, thus endangering both the bladder and the urethra. This cut is also used in the treatment of a wide variety of gynaecological illnesses including infertility, dyspareunia, amenorrhea, goitre, and backache. This practice alone accounted for 13% of all VVF cases in a 1983 study carried out in Zaria, Nigeria (Tahzib 1983).
from the vagina by traditional surgeons for the treatment of coital pain, infertility, obstructed labour, amenorrhea, dyspareunia, vulva rash, goitre, and generalised body aches and pains (Sambo 1990; Tahzib 1985; Harrison 1985).

In an unpublished paper, Darrah and Froude (1975) estimated that some 40% of the patients attending Zaria hospital (Nigeria) with VVF had received Gishiri cuts. This finding is substantiated by a study conducted by Tahzib (1983) involving 1443 VVF patients at the Ahmadu Bello University Teaching Hospital, Zaria, between January 1969 and December 1980. In a table titled “Aetiological Factors Leading To Fistula”, Tahzib showed that 1209 (83.8%) of VVF resulted from prolonged labour, 188 (13.0%) from Gishiri cuts, 14 (1.0%) from surgical trauma, 10 (0.7%) from infections, and 22 (1.5%) from “other” causes including congenital injuries, insertion of caustic materials into the vagina, and so on.

Socio-Cultural Factors Affecting the Prevalence of VVF

The World Health Organization (WHO) argues that poor socioeconomic development is the basic underlying factor responsible for maternal ill-health, including the prevalence of obstetric fistulae. It further argues that the standards of health in developing countries are low, and that natural hazards such as malnutrition and infections remain largely unchecked. The situation worsens where health services are deficient or absent, particularly in isolated rural areas. Logistic problems compound the problem, including the failure of existing health systems to provide appropriate health care that is accessible, acceptable, and/or adaptable; the sole development of urban areas to the marginalization or total exclusion of rural areas; unequal distribution of government resources; and the lack of appropriate basic infrastructure such as roads, water, health centres, schools, and electricity (WHO 1989).

Marriage and Child Birth

The socio-cultural factors which contribute to the prevalence of VVF in women focus on their status in society. For example, girls are given in marriage at very young ages in some cultures, often before or during the process of puberty, and childbearing is seen as an indicator of the attainment of "married woman" status. This helps to explain why VVF sufferers are often very young girls.
Study results on VVF vary geographically. In Africa, where the problem appears to be most prevalent, studies have shown that at least 70% of women with fistulae are aged 30 years and under. Tahzib’s 1983 study, in fact, showed that 5.5% (80) of VVF sufferers were under 13 years of age. (See also Murphy 1981; Mustafa and Rushwan 1971; Tahzib 1985; Harrison 1985). In some parts of the continent, therefore, children beget children. Another finding of these case studies is that women often develop VVF during their first pregnancy.

Table 2. Age Factors

<table>
<thead>
<tr>
<th>Age group</th>
<th>Fistula patients</th>
<th>Control groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New</td>
<td>Longterm&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Age at marriage</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>&lt; 12</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>12-13</td>
<td>40</td>
<td>23</td>
</tr>
<tr>
<td>14-15</td>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td>16-17</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>18-19</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25-29</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Not known</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age at birth of first child</th>
<th>Fistula patients</th>
<th>Control groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>12-13</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>14-15</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>16-17</td>
<td>31</td>
<td>61</td>
</tr>
<tr>
<td>18-19</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>20-24</td>
<td>16</td>
<td>42</td>
</tr>
<tr>
<td>25-29</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Never Pregnant&lt;sup&gt;*&lt;/sup&gt;</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>207</td>
</tr>
</tbody>
</table>

* Fistula caused by gishiri cut administered for treatment of infertility.
<sup>a</sup> Long term patients: 52 patients who had been incontinent for 2 years or more.
<sup>b</sup> Control group A: 45 patients suffering from post-partum cardiac failure.
<sup>c</sup> Control group B: 207 patients treated for post-partum cardiac failure between 1969 and 1972.

Source: Adapted from Margaret Murphy (1981).
In Asia, the same type of trend holds true, except that a greater concentration of women with VVF fell within the 20 to 24 year age group (except in Bangladesh, where almost half were under 20 (Begum 1989)). This suggests that the age of marriage in Asia is generally higher than it is in Africa (WHO 1991).

The case is different in Latin America, in that VVF has only been reported in Ecuador. A study by Calle (1989) indicated that 75% of the women with fistulae were primiparous, but the numbers were reported to be so small as to make the findings inconclusive.

It is possible that there are more women and children with VVF than appear in the data. This possibility is supported by a 1991 WHO statement that data used in most analyses, except those of Murphy (1981), were obtained from hospital records (WHO 1991). It can be argued that these hospital records show only the incidence of VVF which were actually treated in hospitals.

**Malnutrition**

In areas where malnutrition is an indicator of a community’s nutritional status, women have been noted to be more acutely malnourished than men due to differential feeding practices for boys and girls from birth. This reflects a fundamental undervaluing of girls and women which leads to their neglect and discrimination. The effects of malnutrition contribute greatly to the underdevelopment of women’s physiology, and eventually to some of the physical problems addressed earlier (Royston and Armstrong 1989). Evidence to support this is found in Murphy and Baba Tukur’s 1981 study.

**Education**

With respect to education, Murphy and Baba Tukur’s study also demonstrated that only boys attend school in Zaria (this research coincided with Universal Primary Education in Nigeria). Girls were seen hawking foodstuffs and other goods prepared by the women, who were confined to their compounds. Adult education for women was not fully accepted. In three villages, home economics was the only course offered to girls, while in six villages, adult literacy classes were for men only.

In many instances, a lack of health education hinders VVF prevention. Most rural dwellers see obstetric complications either as a result of the pregnant woman’s sin, the anger of the gods, a curse, evil spirits, or heredity. For
example, studies conducted across West Africa by the Prevention of Maternal Mortality Network (1992) demonstrated that certain behaviour, including infidelity and disregarding the authority of one's husband or elders, is believed to lead to obstructed labour and haemorrhage. According to the study, women in Accra (Ghana), Benin, Calabar (Nigeria), and Freetown (Sierra Leone) reported that when complications arose, oracles were consulted. If the oracle confirmed insubordination, the pregnant woman was forced to apologize and to preform cleansing rites before she was taken for treatment. Similarly, in Bo, Sierra Leone, complications determined to have arisen from infidelity led to forced confessions of sin and the husband spitting water on the woman's abdomen to appease the gods. Only then was further help sought in hospitals, and only if the complication was thought to be serious enough (The Prevention of Maternal Mortality Network 1992).

Illiteracy is also a factor which determines what kind of medical help is sought (Harrison 1983; Murphy 1981; Mustafa and Rushwan 1971). Illiteracy deters people from attending hospitals, particularly when they are made to feel stupid and when hospital staff come from an alien culture with differing traditions, customs, and language (Murphy 1981; Murphy and Baba Tukur 1981; Prevention of Maternal Mortality Network 1992). According to Edström (1992) and Royston and Armstrong, (1989) education gives young women better access to profitable employment alternatives. It also reduces the incidence of high risk pregnancies, unwanted pregnancies, and abortions by increasing contraceptive use and reducing fertility. As girls stay in school longer, the average age at marriage tends to rise, as does the average age at first birth, especially when family planning services are promoted, readily available, and accepted by the women (Edström 1992; Royston and Armstrong 1989).

**Decision-making**

Another social contributor to VVF is the lack of decision-making power available to women, even in decisions pertaining to their own health. This situation has been found to be particularly true for women in seclusion or "purdah"\(^3\) (The Prevention of Maternal Mortality Network 1992). The existence

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\(^3\) Women in purdah are not permitted to leave the family compound. Their situation implies economic dependence on men. They are not permitted to engage in any form of commerce, and have no cash available for emergency unless they receive it from their husbands.
of this problem is a major determinant in the health seeking behaviour of women. For example, if labour becomes obstructed and all local methods fail, a woman may be taken to hospital only if consent is given by either her husband, the village chief, or sometimes her mother-in-law. Most times the decision comes too late. Depending on the distance to the nearest hospital, such women and/or their babies may not make it alive; if they do, permanent damage to the internal organs would have occurred (Harrison 1985). This situation is reported in Margaret Murphy’s research in Zaria (1981), where it is characteristic for VVF patients to come from rural areas. In her study, part of which involved 100 fistula patients, 71% of the new patients at the clinic came from distances of at least 100 km. The greatest number of new patients came from distances of between 100-199 km from Zaria. Eleven new patients even came from as far away as 800 km to attend the clinic (Murphy 1981).

The timing of decisions to go to a hospital has been linked to knowledge of the possible complications and a mistrust of orthodox or modern health care services (WHO 1991). One such mistrust arises from the fact that most of the women are examined by male doctors (Ojanuga 1992).

**Economic Factors Contributing to the Prevalence of VVF**

The single most important economic factor contributing to the prevalence of VVF is poverty, especially poverty in rural areas. According to the WHO 1991 *Report on Obstetric Fistulae*, women with fistulae come almost exclusively from poor families and communities. In her 1981 Zaria study, Murphy indicated that her data pointed to the fact that fistula patients usually come from poor subsistence farming backgrounds (Murphy 1981; Murphy and Baba Tukur 1981).

Poverty also serves as a disincentive or deprives fistulae patients from using modern health facilities in two ways: personal costs incurred as a result of attending these facilities, and cuts in services and provisions at these facilities as a result of insufficient funding or budget cuts. Examples of the first type of cost include costs of transportation to the hospitals, costs of medication, hospital fees, costs of bandages and sutures, and costs associated with feeding both the patient and those who accompany her. Examples of the second type of costs include lack of sufficient hospital beds, inadequate numbers of staff, and a poorly equipped establishment (Ojanuga 1992; The Prevention of Maternal Mortality Network 1992).
Health and Social Consequences of VVF

With some of the causes of VVF established, it is important to demonstrate their impact on women.

Women with VVF suffer from urinary incontinence which, if not managed properly, causes them to smell of urine. This continuous urine leakage makes them vulnerable to urinary tract infection, vaginitis, and excoriation of the vulva (that is, injury to the surface of the skin or a mucous membrane caused by physical abrasion, such as scratching). Stricture of the vagina (vaginal stenosis), whereby the vagina narrows, secondary amenorrhea, possible future inability to carry a child even after obstetric repair of VVF, and a low child survival rate are also conditions related to VVF (WHO 1991).

The most traumatic aspects of VVF from the social point of view are the resulting incontinence, childlessness (which may lead to marital breakdown and eventually divorce), and social excommunication (Murphy 1981; Harrison 1983). Data from Murphy's study revealed that 14% of the new patients were divorced as a direct result of their illness, while 42% were still living in their husband's compound. When the condition persisted, the proportions changed (28% and 11%, respectively). According to Murphy, no women in control groups A or B were divorced or living apart from their husbands. By contrast, only 11% of the long-term fistula patients were living with their husbands and 77% had been living apart for at least 2 years. Of the 22 cured patients interviewed during a subsequent confinement in the hospital, 16 were still married to the same husband as when they first developed fistulae. More childless women were divorced by their husbands as a result of their disorder, than were women with living children (36% and 14%, respectively). Childlessness, therefore, is obviously an important factor in marital breakdown, but so too is the fact that the illness is regarded as incurable (Murphy 1981).

It would seem that the resulting excommunication would be the hardest consequence to bear psychologically for women with VVF. This is indicated by a lack of support not only from society but also from their own families. These women for example, are not welcome in society because they smell. They are not permitted to live in the same house as their families or husbands, neither are they allowed to handle food, cook, or pray. Murphy (1981) observed that women hospitalized for fistula repair enjoyed less support and interest from their husbands than other patient groups, and the amount of practical support provided by family members diminished with prolongation of the illness. Interviews with
women with this condition also revealed that patients felt they were a social disgrace to their families and so deserved to be outcasts (Murphy 1981). These women had developed psychological self labelling and self esteem problems.

**Treatment**

Vaginal fistulae are repaired through orthodox surgical correction; a successful repair is gauged by whether the woman is continent of urine. The study by Mustafa and Rushwan (1979) revealed the types of surgical procedures used to repair VVF in 122 cases treated in the Khartoum Teaching Hospital between 1966 and 1968. These are presented in Table 3.

<table>
<thead>
<tr>
<th>Operation Performed</th>
<th># of Cases</th>
<th>Successful Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal repair</td>
<td>119</td>
<td>89</td>
</tr>
<tr>
<td>Transperitoneal</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Transvesical</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Urinary diversion (i.e. transplantation of the ureters)</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>90</td>
</tr>
</tbody>
</table>

Repairs are generally successful, depending on the extent of damage and duration of condition before medical attention was sought. Kelly (1979) reports that 100 of 128 African women (78%) were cured at the first attempt. Of 33 British women, 31 (91%) were cured, while 2 (6%) faced continued stress incontinence.

Given the causal factors addressed above, the health of women in VVF endemic areas depends greatly on prevention, which itself is an indicator of social change. In order to be effective, social change must include an improvement in the status of women, as stated by the World Health Organization's Maternal Health and Safe Motherhood Programme:

> [Obstetric fistula lies along a continuum of problems affecting women’s reproductive health, starting with genital infections and finishing with maternal mortality. Because of its disabling nature and dire consequences - social, physical and psychological - it is the single most dramatic aftermath of neglected childbirth. As with all of these problems, its prevention must ultimately lie in a profound change in the status of women. This change must involve, among other things, recognition of women’s value, starting with adequate nutrition in childhood and continuing with access to primary care.]
education as a very minimum. It must include the eradication of harmful traditional practices and raising the age of marriage, giving women other ways of achieving social status than early child bearing. These are long-term goals, not easy to achieve, but vitally important to women's health and lives (WHO 1991).

In Nigeria, the National Council of Women's Societies of Nigeria (NCWSN) launched an exemplary program in 1989, selecting the prevention and treatment of fistulae as one of their top priorities. One interesting feature of this Programme is the provision of physical, psychological, and social rehabilitation to women recovering from fistula repair, in order to facilitate reintegration into their social group (Murphy 1989).

It is encouraging that women are now raising awareness of this issue, and are trying to make real changes. Given that VVF is solely a woman's problem, this issue will remain unresolved far into the future without the active participation of women.

Analysis of Issues Affecting Provider-Client Relationships

This section of the paper will analyze VVF provider-client relationships in the modern health sector using three indicators: accessibility, acceptability, and adaptability.

Accessibility (Distance, Time, and Cost)

The literature states that the geographical distance to the nearest hospital is an important factor of accessibility. With most hospitals established in urban areas, people in rural areas are marginalized in terms of health provisions, health infrastructures including local health centres, good roads, and experienced health personnel. This has been established as a disincentive to using modern health facilities.

The travel distance is also a direct variant of the time spent. Most rural dwellers, particularly pregnant women, consider it a waste of time to travel far distances to visit clinics for just a few hours. To most rural dwellers, particularly those who work on family farms, time management is very important. Time waste does not encourage women to go to hospitals (Leslie 1992). The costs of going to and receiving health care in hospitals or health centres is also too dear for women, including those with VVF.

With regards to accessibility, then, it can be concluded that modern health care is not accessible to most potential VVF patients.
Acceptability (Cultural Practices, Status of Women, Faith in Modern Health Care)

The issue of acceptability is an extremely important indicator when examining health service use by VVF patients. It determines in part what happens when there is an obstetric emergency, and how quickly VVF patients or their family members will respond.

The literature states that cultural practices pose the greatest danger to both potential VVF patients and to those with the condition. Within most VVF-endemic cultures, women are subordinate to men. Two results of this gender-determined hierarchy are that many women live in seclusion, and that cultural attitudes toward women with obstructed labour endanger their lives. Women must ask for permission to visit modern/orthodox medical centres, they need permission to leave the house (as is the case with women in purdah), they need permission to go ahead with measures that concern their own health. Women in these cultures lack decision-making power. These women’s health needs appear on their husband’s or family’s list of opportunity cost, as all finances are controlled by the males.

This is a great reflection of the status of women in these cultures. It implies that husband/community decisions and needs supersede and override a woman’s right to safe health. How else could one explain marrying a 12-13 year old girl? Women’s bodies are objects of possession and are controlled without their permission. Women are not permitted to visit hospitals because their culture does not allow them to expose themselves to a male doctor. Thus, only their husbands and other women may see them naked, even when their lives are in danger.

None of the above arguments against acceptability of modern medical health care helps when women cannot trust the system that is supposed to take care of them. In studies carried out in some West African countries by the Prevention of Maternal Mortality Network (1992), focus groups demonstrated that community members were acutely aware of problems within the health care system, such as administrative and management problems (lack of supplies, attitude of staff, and waiting time), inadequate staff, hospital fees, and the fear of seeing a male doctor. A combination of these factors contributes to maternal deaths in developing countries.

A difference in medical cultures, whereby women encounter behaviour to which they are not accustomed, also contributes to a lack of acceptability. Women are sometimes verbally abused by nurses. The intolerance of medical
cultures is clearly demonstrated when nurses and patients do not have an understanding and respect of each other. For example, in Ilorin, Nigeria the nomadic Fulani women reported that the health facility staff (who are largely Yoruba) insult them and tell them that they behave like the cows they herd. When interviewed, the staff complained that the Fulanis do not come to the hospital until they are in serious condition, and that they resist buying supplies (The Prevention of Maternal Mortality Network 1992). These women also encounter having to tip staff before they can actually see the appropriate medical personnel.

It appears, therefore, that modern health care is not acceptable to most potential VVF patients, nor those with the condition. Neither their status within their cultures, nor the way they are received in hospitals, encourage them to visit hospitals which are the only source of VVF repair.

Adaptability

This section will examine how the modern health sector is trying to incorporate VVF patients to make them more comfortable in the hospital environment.

Apart from performing surgical operations, hospitals represent a hierarchical structure, both in terms of a health structure and in terms of a health personnel pyramid. It is similar to other bureaucratic institutions, with many rules and red tape procedures consuming a lot of time before anything is accomplished. It has rigid guidelines and is criticized as impersonal and sometimes inhuman. Most women coming for VVF repair are not used to this kind of structure and are not used to impersonal relationships. In Nigeria, for example, the medical structure is such that the teaching hospitals stand at the pinnacle, followed by state hospitals, health centres in local government areas, and comprehensive health centres and dispensaries at the bottom. Similarly, in the medical personnel structure, doctors are seen as the most important, then other professionals such as pharmacists and bio-medical researchers, followed by nurses and technical staff. At the very bottom may be the janitors and gatekeepers. Most of the doctors are of course men, who VVF patients refuse to see.

In terms of health participation, hospitals have not done much to encourage patient participation. Rather, they have indirectly continued to encourage discrimination against these women. This is sometimes due to a lack of funding or lack of interest. Prevention in the form of intensive health education for
current and potential VVF patients and their family members should be a hospital initiative. Hospitals do not have efficient follow up systems to ensure that patients are reintegrated into their communities.

One of the critiques against modern health care systems is their focus on curative rather than preventive health care. Curative health does not eradicate the problem, it only soothes it. It is a "band aid" measure against the problem of poor health, especially in rural areas. With most of the hospitals located in urban areas, health coverage remains minimal in most countries, particularly those in the developing world. Preventive health care, on the other hand, encourages participation of the potential users of health care, as it involves intensive health education being taught to women and men. It involves health care representatives discussing the problems of health in their communities with the people, and suggesting how they can participate in solving them.

The establishment of hospitals in the urban centres encourages discrimination across socio-economic lines. It means that a person living in an urban area has a better chance of receiving hospital care and social amenities than those living in rural areas. This in turn suggests that data on the actual numbers of women with VVF are inaccurate.

Given this situation, it would appear that traditional health systems are more accessible and acceptable to VVF patients. Most of the patients who are eventually taken to hospitals have previously contacted either traditional healers or faith healers, who are found in their communities and who have a better understanding of their culture and cultural practices. These healers have won the respect of the community and vice-versa. As a result, there is a better understanding in the client-health provider relationship.

Adaptability of the traditional health system is an indicator that is by itself not adequate. Most of the techniques administered by traditional healers to women with VVF further endanger the women’s lives and leave them more susceptible to permanent disability or maternal death.

In most societies cultural and spiritual aspects of pregnancy and childbirth have a strong influence on behaviour. It is important that [modern] health care providers are aware of these aspects so that they can organize services that are appropriate and acceptable to the people. Unfortunately, there are usually limited opportunities for [modern] health personnel to explore the sociocultural context of childbirth (Royston and Armstrong 1989).

Recognising the limitations of both systems, the World Health Organization (WHO), United Nations Fund for Population Activities (UNFPA), and the United Nations Children’s Fund (UNICEF) have over the past 15 to 20 years established
a collaborative effort between national governments to deal with the training of traditional birth attendants (TBAs) so that they may be incorporated into the orthodox health care system (Royston and Armstrong 1989; WHO 1992). The term partnership may, however, be preferable to the word incorporated, because each system has a status of its own. The former makes it appear as if TBAs are a mere bonus to the existing formal system.

One of the most important arguments in favour of greater "collaboration" between the two health systems is that it serves as a means of bridging the gap between the medical cultures of the two systems. As a result of this collaboration of organizations and governments, TBAs have been, and continue to be, trained.

This initiative has given rise to many positive results. It has ensured safer and faster delivery of health care to certain communities. It has increased the participation of women in the health of their families. It is cost effective in that it promotes health prevention and health education, thereby saving more lives by encouraging people not to wait too long to seek help. TBAs are trained to be accountable for the health of their communities, and as such are responsible for safer deliveries under cleaner conditions. They are also trained to recognize and refer obstetric complications within the community to the first referral level, the health centre, and/or to hospitals directly.

Trained TBAs could contribute much to the prevention of VVF in rural areas. This statement is based on deductions and assumptions from both personal analysis and the literature. Their services will be more accessible, acceptable, and adaptable as most trained traditional birth attendants are women from within the same community as the patients, with an understanding of the culture. This way women do not have to fear exposing themselves to men other than their husbands. As well, trained TBAs will be in a good position to educate their community against early marriages. They will be able to teach hygiene to pregnant women, and speak against unhealthy behaviour that endangers the lives of pregnant women and their children. In other words, trained TBAs will approach health care in the communities from a holistic approach.

**Observations, Criticisms, and Suggestions**

While researching for this paper, it became evident that there has not been much literature on the socio-cultural aspects of VVF. Rather, the majority of papers have focused on the medical aspects of the condition. To further compound the issue, most literature concerning VVF are full of medical
terminology that require frequent consultations of the medical dictionary to be able to follow the flow of thought. I realize that the terms are medical, but they also have simple meanings. It would benefit a reader if there were appendices with the meaning of the terms. In addition, I did not come across any paper written on the role of TBAs or traditional midwives in the prevention of VVF.

I also observed that most literature on VVF approach the issue from a curative aspect. Most authors are doctors working within urban hospitals and who are more involved with repair of fistulae. Preventive measures were most times omitted.

Appendix 1

Definition of Medical Terms (Dorland’s 1981)

Amenorrhea: Absence or abnormal stoppage of the menses

Dyspareunia: Difficult or painful coitus

Dysuria: Painful or difficult urination

Morphology: The science of the forms and structure of organisms

Necrosis: The sum of the morphological changes indicative of cell death and caused by the progressive degradative action of enzymes

Pathogenic: Giving origin to disease or to morbid symptoms

Primiparous: Bearing or having borne but one child

Sepsis: The presence in the blood or other tissue of pathogenic microorganisms or their toxins


**Appendix 2**

**Sociocultural Factors that Affect Treatment of Obstetric Complications**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Ghana</th>
<th>Benin</th>
<th>Nigeria</th>
<th>Sierra Leone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accra</td>
<td>Kumasi</td>
<td>Calabar</td>
<td>Enugu</td>
</tr>
<tr>
<td>Knowledge</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>pregnancy not a concern</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>signs/symptoms of complications not recognized</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Attitudes about causation</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>insubordination/ stubbornness</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>infidelity</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>evil spirits</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>will of God/fatalism</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>heredity/reincarnation</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Women’s status</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>in purdah</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>husband’s permission required</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>economic dependence</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>physical dependence</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Extended family</td>
<td>economic dependence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>kinship support network</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>age/seniority</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Societal factors**

| stigmatism               | +                   | - | - | + | - | - | + | + | + |
| self-management          | +                   | - | + | - | - | + | + | + | - |
| community overrides family| +                   | + | - | - | - | + | + | + | - |

**Practices**

| spiritual healers/ prayer houses | + | + | - | + | + | + | + | - | + |
| diviners                         | + | - | + | + | - | + | - | + | - |
| untrained TBAs                   | + | + | + | + | - | + | + | + | + |
| traditional healers             | + | + | + | + | + | + | - | - | + |

**Note:**

- Factor mentioned in focus group as affecting the treatment of obstetric complications in this geographic area.
- Factor not mentioned in focus groups as affecting the treatment of obstetric complications in this geographic area.

Source: Adapted from The Prevention of Maternal Mortality Network (1992)
### Appendix 3

**Accessibility Factors that Affect Treatment of Obstetric Complications**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Ghana</th>
<th>Benin</th>
<th>Nigeria</th>
<th>Sierra Leone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accra</td>
<td>Kumasi</td>
<td>Calabar</td>
<td>Enugu</td>
</tr>
<tr>
<td><strong>Distribution of facilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none (rural)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>no referral facility</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>health centres/ hospitals in large towns</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Transportation vehicles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none in village</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>pass by infrequently</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>fuel shortage</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>breakdown problems</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>restricted use at night</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td><strong>Drivers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>refuse emergencies</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>won't drive at night</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>demand payment in advance</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Factor</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>won't leave main road</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>charge higher fees when vehicles scarce</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>charge higher fees in emergencies</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Roads</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no roads</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>impassable in rainy season</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Referrals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>easier to go to teaching hospital</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>must mobilize/ borrow funds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>hospital registration fees</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>bribes, tips, fees</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>gatekeepers</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>blood</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

**Note:** + Factor mentioned in focus group as affecting the treatment of obstetric complications in this geographic area  
- Factor not mentioned in focus groups as affecting the treatment of obstetric complications in this geographic area.

Source: Adapted from The Prevention of Maternal Mortality Network (1992)
### Appendix 4

**Health Service Factors that Affect Treatment of Obstetric Complications**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Ghana</th>
<th>Benin</th>
<th>Nigeria</th>
<th>Sierra Leone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors of most concern²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lack of supplies</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lack of blood</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lack of medicine</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lack of surgical equipment</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lack of beds</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>lack of dressings</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lack of IV sets</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>lack of water</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>attitude of staff</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>waiting time</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

² Factors marked with a '+' indicate a significant problem, while factors marked with a '-' indicate a minor problem.
<table>
<thead>
<tr>
<th>Factors of medium concern&lt;sup&gt;b&lt;/sup&gt;</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>inadequate staff</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>fear of unknown</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>hospital fees</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td><strong>Other factors mentioned&lt;sup&gt;c&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fear of male doctors</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note:  
+ Factor mentioned in focus group as affecting the treatment of obstetric complications in this geographic area  
- Factor not mentioned in focus groups as affecting the treatment of obstetric complications in this geographic area.  
<sup>a</sup> Factors mentioned frequently in most focus groups  
<sup>b</sup> Factors mentioned at least once in many focus groups  
<sup>c</sup> Factors mentioned at only one site

Source: Adapted from The Prevention of Maternal Mortality Network (1992)
References


Darrah, A; Froude, J. 1975 unpublished. Hausa medicine for western doctors. Departments of Sociology and Medicine, Ahmadu Bello University, Zaria.


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The Adverse Affects of Kala-Azar (Visceral Leishmaniasis) in Women

Jharna Bhattacharyya and A.K. Hati

Summary

West Bengal, India, is an area endemic to kala-azar. Between 1980 and 1993, almost all of the one hundred parasitologically confirmed cases of kala-azar were admitted to Calcutta hospitals through the recommendations of the West Bengali government and non-government organisation (NGO) health providers. Forty-five percent of the patients suffering from the disease were women; this figure is proportionately higher than that for other parasitic diseases such as malaria, for which the ratio of male to female patients was 68:32. The enormous burden this particular disease places on women may be due to the fact that it has largely become a household disease transmitted by sandflies (*Phlebotomus argentipes*).

In the Hindu community, 41.2% of the females were affected, as were 60% of the women in the Muslim community.

Female sufferers were more undernourished than were males. The percentage of females having body mass index (BMI) value below 16 was higher (57.7%) than that of males (40%). Lower values of BMI in females were evidenced in all age groups. Death rates resulting from kala-azar were also higher among the female population than among males, at 17.7% and 5.5%, respectively.

Women’s admission to the hospital was usually delayed, in spite of the health providers’ best efforts. Within the first six months after kala-azar detection, 73% of the males had been admitted to the hospitals, compared to 62% of the females. The trend was reversed over the next six months (males 16%, females 24.4%). Hospital stays were also longer for the males than for the females. This trend created many difficulties during treatment, producing more nonresponsive cases among the females than among the males.

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1 Calcutta School of Tropical Medicine, Calcutta, India.
The reasons given for both delayed admission and the short hospital stay of the females included: the reluctance of the women to divulge their disease condition fully to family members or to the health providers; their child-rearing duties; the lack of proper medical attention provided for women; and the importance placed on them remaining with the family to carry out essential household duties. The women also became easy victims of superstitions and unscientific propaganda promoted by others for their own interests.

In the endemic area, more than one person was affected in each of seven families, for a total of 24 patients. Of these, 14 were males and 10 were females, with a 7% death rate among males and a 30% death rate among females. The incubation period seemed to vary from 14 days (minimum) to 6 months (maximum). It was interesting to note that six males and five females were simultaneously affected with malaria and kala-azar; among the five female patients, one also suffered from haemoglobin E thalassaemia.

Anaemia was more common among the females than among the males. A high rate of reticulocytes among the females indicated more haemolysis; leucopenia was also more pronounced in females than in males, demonstrating that the resistance to the disease was lowered in females. A red cell morphology study revealed that anisocytosis, hypocromia, poikilocytosis, and spherocytes levels were higher in females than in males.

In so far as clinical signs and symptoms were concerned, no marked differences were noticed between the male and female patients, although anorexia, swelling of the face, weight loss, weakness, diarrhoea, oedema of the feet, and jaundice were found in greater numbers among the females than the males. Surprisingly, liver function tests showed practically no difference between females and males, although hypoproteinaemia and hyper-globulinaemia were found to be more pronounced in females than in males.

Haptoglobin status in males and females showed no difference, although in both male and female KA patients significant increases of ahaptoglobinemia (HP 0-0) were observed through polyachrylamide gel electrophoresis (PAGE). Treatment resulted in negative indications, demonstrating that functional haptoglobinemia was due to the haemolytic effect of kala-azar.

Oxidative metabolism of red cells of kala-azar patients showed a significant decrease in the erythrocytic reduced glutathion (GSH) level and its stability. Glutathion reductase (GR) activities were much more pronounced in
female than in male patients. In addition, a significant increase in the methaemoglobin level was noticed in females, but not in males. Hence, it can be said that kala-azar infection adversely effects the oxidative metabolism of red cells, particularly in females, and thereby increases the risk of anaemia.

Introduction

Kala-azar (KA) occurs in certain endemic areas of West Bengal (nine of seventeen districts), among socially and economically disadvantaged population groups. Women constitute about 50% of this population. This study was conducted to determine the differential impact of kala-azar on female clients compared to male clients, and the nature of the health services they receive through various health providers.

This paper documents the status of one hundred parasitologically positive KA patients who were admitted to the Carmichael Hospital for Tropical Diseases (Calcutta), the Medical College and Hospital (Calcutta), or the Nilratan Sirkar Medical College and Hospital (Calcutta). Each of the patients came from an endemic zone of the district of North 24-parganas, West Bengal state, India, and was admitted to the hospital between 1988 and 1993.

The sex, age, and religion of the patients were taken into account. The body mass index (BMI) of each patient was noted and analyzed according to sex and age. Responsive and nonresponsive cases among males and females who died or relapsed were also documented.

The respective times required for male and female KA patients to reach health providers, and the length of their hospital stay, were recorded. Certain haematological parameters, liver function tests (LFT), some aspects of oxidative metabolism of red cell, and haptoglobin and haemoglobin electrophoretic patterns were studied in these KA patients and analyzed according to sex. Occurrence of KA in more than one family member was analyzed. Prevalence of malaria among these KA patients was also recorded.
Results

Age and Sex Gradation

One hundred kala-azar patients were admitted to the hospitals; of these, 55 were males (age varying from 5-60 years) and 45 were females (age varying from 8-50 years). Age gradation of the KA patients is shown in Table 1.

Table 1 Age Gradation of 55 Male and 45 Female KA Patients

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age in Years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-10</td>
<td>11-20</td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

Historically, it has been understood that females are usually less affected by the insect-borne diseases than are males, as females are usually covered (and therefore protected) by more clothing than are males; they therefore face a lesser chance of infection. This study, however, demonstrates that 45% of those infected persons admitted to health care facilities were females, which indicates that the burden of this disease on women is enormous. The greater degree of transmission to women may be due to the fact that kala-azar is transmitted at the household level by sandflies (*Phlebotomus argentipes*). In an early field study, 38.5% of the women suffered from the disease (77 out of 200) (Hati et al. 1985). Those aged up to 30 years bore the brunt of the disease, thereby hampering community development. It is important to mention that in this present study, 30% of cases occurred in the above 30 age groups (27% among the males and 33% among the females).
BMI Status of Kala-azar Patients

This study was undertaken to assess the degree of individual undernutrition among the 100 KA patients in relation to age, sex, duration of illness, drug responsiveness, and mortality, using body mass index (BMI) as the parameter. Agewise body mass index (BMI) status in males and females is shown in Table 2.

Table 2. Agewise Distribution of BMI Values of Kala-azar (KA) Patients

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age in Years</th>
<th>Total ++</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-10</td>
<td>11-20</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of cases</td>
<td>7 (*2)</td>
<td>18 (*8)</td>
</tr>
<tr>
<td>Mean</td>
<td>11.8</td>
<td>13.5</td>
</tr>
<tr>
<td>± S.D</td>
<td>2.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Range</td>
<td>10.2 - 12.5</td>
<td>11.6 - 15.5</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of cases</td>
<td>5 (**2)</td>
<td>16 (*4; **4; ○○1; &lt;5; &lt;1)</td>
</tr>
<tr>
<td>Mean</td>
<td>9.2</td>
<td>11.6</td>
</tr>
<tr>
<td>± S.D</td>
<td>2.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Range</td>
<td>8.2 - 10.8</td>
<td>10.0 - 15.0</td>
</tr>
</tbody>
</table>

* number of nonresponsive cases; ** number of death cases; ○ number of cases nonresponsive to SAG and pentamidine; spleenectomy done; ○○ number of cases showing malaria in KA; < number of cases showing malaria in KA having Hb-E thalassaemia; << associated with night blindness; ++ comparison between male and female (P<0.05)

The differences between the mean and range of BMI in males and females are obvious. It is quite evident that females in all age groups were much more malnourished than were the males. As age became advanced, a higher value of BMI was obtained. In all the age groups, in comparison to males, females had
lower BMI values. This reflects the socioeconomic condition of the community, where the position of the female is always inferior to that of the male, and where females receive less food and/or food of a poorer quality than do the men.

The mean BMI values and the ranges of 100 KA patients in different clinical groups are shown in Table 3. A BMI value < 16 was taken as a marker for severe undernutrition (Edwards and Bouchie 1991). Patients in the age group below 15 years had lower BMI values than those above 15 years of age, both for males and females, although females always demonstrated lower BMI values than did males. The difference in BMI values between the two groups (below 15 and above 15 years) was statistically significant both for males and females.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± S.D.</td>
<td>Range</td>
<td>Mean ± S.D.</td>
</tr>
<tr>
<td>Control (C)</td>
<td>23.4±4.2 (55)</td>
<td>16.0-31.6</td>
<td>18.7±4.8 (45)</td>
</tr>
<tr>
<td>Total Series (KA)</td>
<td>14.0±3.6 (55)</td>
<td>10.2-21.3</td>
<td>11.8±3.4 (45)</td>
</tr>
<tr>
<td>KA Patients &lt; 15 yrs</td>
<td>12.2±2.1 (19)</td>
<td>10.2-14.1</td>
<td>10.4±2.2 (13)</td>
</tr>
<tr>
<td>KA Patients &gt; 15 yrs</td>
<td>14.8±2.6 (35)</td>
<td>11.6-21.3</td>
<td>13.5±2.4 (33)</td>
</tr>
<tr>
<td>Drug Respnsv (R)</td>
<td>15.4±2.4 (37)</td>
<td>11.8-21.3</td>
<td>12.1±2.2 (26)</td>
</tr>
<tr>
<td>Drug Non Respnsv(NR)</td>
<td>13.1±2.5 (18)</td>
<td>10.2-16.5</td>
<td>10.1±2.1 (19)</td>
</tr>
<tr>
<td>Nonfatal</td>
<td>14.8±2.6 (50)</td>
<td>12.8-21.3</td>
<td>12.0±2.1 (39)</td>
</tr>
<tr>
<td>Fatal</td>
<td>11.3±1.2 (3)</td>
<td>11.4-12.6</td>
<td>10.2±1.2 (8)</td>
</tr>
</tbody>
</table>

N.B. Figures within parenthesis indicate numbers of cases

Comparison between groups demonstrated the following results: C vs. KA S(P<0.05), C vs. KA < 15 yrs S(P<0.05), C vs. NR S(P<0.05), KA < 15 yrs vs. > 15 yrs S(P<0.05), KA R vs. NR S(P<0.05)
Male and female patients then were classified according to BMI unit. Five males and three females fell under the BMI unit 5.0-10.9. When the BMI unit was raised to 11.0-15.3, the number of corresponding males and females was 22 and 26, respectively. Between BMI units 16 and 19.3, there were 26 males and 16 females. Two males had BMI values between 20-21.3; no females were represented in this category. From this, it can be seen that undernutrition is generally more prevalent in females than in males. However, the degree of undernutrition demonstrated no significant relation to the duration of disease before treatment in either males or females.

**BMI and Responsive and Nonresponsive Cases of KA**

Of the 37 nonresponsive cases, 19 were female and 18 were male. Thus, 41.6% of the total female group, and 32.7% of the total male group, did not respond to drug treatment. The relationship between BMI and responsive and nonresponsive cases of KA is shown in Table 3. The mean BMI of nonresponsive cases was much lower than that of responsive cases; the difference in the two mean BMI values was statistically significant for both males and females.

In the majority of the nonresponsive female KA patients, BMI values were less than 16, indicating that these women were severely undernourished. This might have resulted from their immuno-compromised state (as a result of KA infection), which in turn favoured more frequent intercurrent infections. However, it is also possible, as the BMI values in the control group might suggest, that the subjects were already undernourished and hence immuno-compromised, and subsequently became drug nonresponsive after developing KA.

**BMI and Mortality in KA Patients**

The incidence of death among kala-azar patients is shown in Table 3. Eight females (17.7%) and three males (5.5%) were in this group. BMI values of the eight females who died as a result of kala-azar had a mean of 10.2, and a range of 8.2-12.6. The corresponding values for the three males were a mean of 11.3, and a range of 10.0-12.6. It could be postulated that the lower BMI values among the females contributed to their increased number of deaths.
However, the most important finding was that the female drug nonresponsive cases were more severely undernourished than were the males. This, again, may have been due to their immuno-compromised state, which favoured more frequent intercurrent infections. This supposition is supported by Chandra (1973), who stated that undernourished, and hence immuno-compromised, subjects could be predisposed to develop drug nonresponsive VL (visceral leishmaniasis).

Although the mechanism of drug nonresponsiveness in VL is complex, it appears worthwhile to see the effect of improving the nutritional status from the very beginning of treatment by dietary protein supplements or by other means (i.e., plasma or blood transfusion) on the drug-responsiveness, which may possibly be achieved at least in some patients from improvement of immunocompetence (Chandra 1973).

**Time Taken for KA Patients to Reach Health Providers**

The details about the time taken for KA patients to reach health providers are shown in Table 4. Delay in admission was more pronounced for female patients than it was for male patients. As a result of this unnecessary, unusual delay, deaths among female patients were exaggerated.

Adequate and proper treatment with the exact doses of sodium antimony gluconate (SAG) is of prime importance. This is often ignored, more so in the treatment of females, creating a high number of nonresponsiveness towards SAG.

<table>
<thead>
<tr>
<th></th>
<th>0-6 Months</th>
<th>6 Months - 1 Year</th>
<th>1 Year to 1.5 Years</th>
<th>More than 1.5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of cases</td>
<td>(40) *1; **1</td>
<td>(9) *1; 02</td>
<td>(3) *2; **1</td>
<td>(2) 01</td>
</tr>
<tr>
<td>Percentage</td>
<td>73%</td>
<td>16%</td>
<td>5.3%</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of cases</td>
<td>(28) *6; ***1</td>
<td>(11) *3; **5</td>
<td>(2) *1; 02</td>
<td>(4) **2</td>
</tr>
<tr>
<td>Percentage</td>
<td>62.2%</td>
<td>24.4%</td>
<td>4.4%</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

* number of cases nonresponsive to SAG; ** number of death cases; 0 number of cases nonresponsive to SAG and Pentamidine. N.B. figures in parenthesis indicate number of cases.
**Clinical Features of the Kala-azar Patients**

Routine clinical examinations were performed with standard techniques. Diagnosis of kala-azar was confirmed by the presence of LD bodies in either the bone-marrow or splenic aspirates of the patients. Clinical features of the KA patients are shown in Table 5.

*Table 5 Clinical Features of the Kala-Azar Patients*

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>52</td>
<td>42</td>
</tr>
<tr>
<td>Double rise of fever</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Abdominal mass</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Anorexia</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Swelling of face</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Weight loss</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>Weakness</td>
<td>30</td>
<td>41</td>
</tr>
<tr>
<td>Diarrhoea, abdominal pain or distension</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Swelling of neck, cough</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signs</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Splenomegaly (1-20 cm)</td>
<td>54</td>
<td>45</td>
</tr>
<tr>
<td>Hepatomegaly</td>
<td>53</td>
<td>41</td>
</tr>
<tr>
<td>Jaundice</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Lympadenopathy</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Ascites</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Odema of feet</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Nasopharyngeal growth</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Darkening of skin</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>
**Complications and Associations**

Associated infections in this series of kala-azar patients included bacterial pneumonia in four males and seven females, and enteric fever in one male. One female patient developed colour-blindness, while another suffered from menorrhagia and weakness in all limbs. The latter patient developed bilateral foot drop G.B. Syndrome. One male patient was also a diabetic.

**Association of Malaria and Kala-azar**

Six males were affected with malaria (*Plasmodium vivax*) at the same time as kala-azar (*Leishmania donovani*). Among them, one was nonresponsive to sodium antimony gluconate (SAG) and pentamidine, and 2 were only SAG nonresponsive. There were also five females affected with malaria during their KA infection; among these patients, one was SAG nonresponsive and another was a Hb-E thalassaemia patient infected with both *Plasmodium vivax* and *Leishmania donovani* simultaneously.

**Motivation**

Motivation is one of the essential factors for the admission and proper treatment of women in the hospital. When women are suffering from a prolonged fever which is not amenable to antimalarial or other treatment, they usually go to village healers and/or follow traditional healing methods. Superstition is rampant; worship to a village god may be offered. Sometimes "holy water" is thrown on the patient, or a small plate may be placed on her back while the village healer chants a hymn. Potentially harmful healing practices, such as touching a red hot iron or placing an irritating plant on the left side of the abdomen (over the enlarged spleen), are often practiced. Going to the village healers and priests is now almost exclusively practiced by females. Males usually go to the primary health centres (PRC) or hospitals for modern treatment, particularly when they are informed about the healing power of modern medicine or when they observe their friends and relatives being cured by the treatment.

Many factors prevent women from coming to the hospitals in proper time to receive modern treatment.
They usually do not want their family members to know about their illness.

Their health is not given the same attention by the family as is the health of male family members.

The woman is responsible for providing care for the family, so it is very difficult for her to find time to go to the hospital or PHC.

Women tend to follow more closely local superstitions and believe in the power of village healers or priests.

Women often ignore their own health, which results from the inferiority complex which they suffer from an early age.

Financial difficulty is more evident among women than among male family members.

Women appear to be more attracted to unscientific propaganda, especially when made by competent medical persons who may have personal and/or vested interests. They sometimes believe that one drop of blood taken from a finger will be enough for conclusive diagnosis (bone-marrow/splenic smear examinations in the field or in the hospitals and splenic smear examinations in the hospital are often not liked and resisted by the patients).

Faced with these difficulties, health personnel from both the government and NGOs (non-government organizations) continued their sustained effort to locate new cases of kala-azar emerging in the area. Attempts were made to admit all patients in the hospitals for better treatment facilities. Even then, late admission among the female patient group was noted. The female patients also did not want to stay in the hospital to receive full treatment; their average hospital stay (20.8 days) was shorter than that of the males (30 days).

Infection of More than One Person in a Family

Seven families in the endemic zone presented more than one kala-azar patient. In two families, two persons were attacked with KA; in two other families three persons suffered from KA; in one family five persons had KA; and in one family seven persons suffered from KA (Table 6). The total number of males affected was 14, and the total number of females was 10. Among them, one male and three females died of kala-azar.
### Table 6 Family Members Affected by Kala-Azar

<table>
<thead>
<tr>
<th>Family #</th>
<th># of members affected</th>
<th>Male/ Female</th>
<th>Age in years</th>
<th>Suffering before admission</th>
<th>Date of admission</th>
<th>Hospital stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1 male</td>
<td>25 yrs</td>
<td>1 year</td>
<td>1.3.87</td>
<td>39 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 female</td>
<td>18 yrs*</td>
<td>2 years</td>
<td>2 years</td>
<td>23 days</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1 male</td>
<td>12 yrs**</td>
<td>1 year</td>
<td>11.9.92</td>
<td>45 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 male</td>
<td>22 yrs</td>
<td>6 months</td>
<td>16.11.92</td>
<td>38 days</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1 male</td>
<td>43 yrs*</td>
<td>1 year</td>
<td>12.8.93</td>
<td>60 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 male</td>
<td>9 yrs</td>
<td>4 months</td>
<td>19.11.93</td>
<td>120 days</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>1 male</td>
<td>55 yrs**</td>
<td>2 years</td>
<td>14.3.90</td>
<td>37 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 female</td>
<td>42 yrs*</td>
<td>1 year</td>
<td>10.8.89</td>
<td>30 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 female</td>
<td>14 yrs*</td>
<td>1 year</td>
<td>15.7.88</td>
<td>26 days</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>1 male</td>
<td>40 yrs*</td>
<td>2 years</td>
<td>12.2.90</td>
<td>2 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 male</td>
<td>27 yrs</td>
<td>1 year</td>
<td>20.2.90</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 male</td>
<td>30 yrs</td>
<td>2 years</td>
<td>23.2.93</td>
<td>2 months</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>1 female</td>
<td>20 yrs</td>
<td>1 year</td>
<td>2.1.87</td>
<td>2 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 female</td>
<td>17 yrs</td>
<td>8 months</td>
<td>18.7.87</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 male</td>
<td>18 yrs</td>
<td>6 months</td>
<td>28.2.88</td>
<td>2 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 male</td>
<td>45 yrs</td>
<td>3 months</td>
<td>20.1.90</td>
<td>46 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 female</td>
<td>35 yrs</td>
<td>6 months</td>
<td>2.7.90</td>
<td>28 days</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>1 female</td>
<td>18 yrs</td>
<td>3 months</td>
<td>25.1.90</td>
<td>32 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 female</td>
<td>22 yrs</td>
<td>2 months</td>
<td>7.3.90</td>
<td>36 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 male</td>
<td>10 yrs</td>
<td>3 months</td>
<td>15.9.90</td>
<td>32 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 male</td>
<td>24 yrs</td>
<td>3 months</td>
<td>12.8.91</td>
<td>24 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 male</td>
<td>26 yrs</td>
<td>1 year</td>
<td>30.8.91</td>
<td>33 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 female</td>
<td>35 yrs</td>
<td>6 months</td>
<td>14.10.91</td>
<td>31 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 female</td>
<td>50 yrs</td>
<td>1 year</td>
<td>20.10.91</td>
<td>32 days</td>
</tr>
</tbody>
</table>

* death; ** nonresponsive

The second patient in family no. 7 (Table 6) was in good health before she came to the house of her younger sister on 7.1.90. She began to suffer from fever on 25.1.90. Hence, in her case the maximum incubation period seemed to be 14 days.
The female patient in family no. 1 (Table 6) suffered in her home for two years before she was admitted to the hospital. Twenty-three days after admission, she died. This was a prime example of the impact of negligence and delayed admission.

In family no. 6 (Table 6), a gap of six months was noticed between the onset of disease symptoms among the first three patients; this suggests that the maximum incubation period might be 6 months. Therefore, attempts to estimate incubation periods within a family affected with KA have been made, and were placed between 14 days and 6 months.

**Haematological Studies**

Haematological parameters of the 100 KA patients were studied with standard techniques (Dacie and Lewis 1975). Haematological studies showed that anaemia was more severe among females than it was among males (Hb in females: mean 7.1 g%, range 3.5 - 9.9 g% and in males mean 8.8 g% range 6.0 - 11.5 g%). Packed cell volume (PCV) was also lower among women (mean 24.3%, range 14.0% - 32.0%) than among men (mean 27.3%, range 16.0% - 37%). The reticulocyte count was higher in females (mean 4.54%, range 2.5 - 10%) than in males (mean 3.62%, range 3.0 - 9.4%). This indicated more haemolysis in females than in males, thereby creating more anaemia in females. Leucopenia was also more pronounced in females than in males, showing that females enjoyed less resistance to the disease than did the males.

**Electrophoretic Study of Hb of all KA Patients**

To determine abnormality in haemoglobin (Hb) type, if any, associated with kala-azar, haemoglobin electrophoresis study was performed with the standard techniques (Dacie and Lewis 1975) using filter paper strips. All cases except one showed normal band for Hb electrophoresis, indicating no abnormality in Hb type in these cases.

One female aged 14 years who suffered from kala-azar and was infected with *Plasmodium vivax* showed two bands on Hb electrophoresis, one at E region and other at F region, and was diagnosed as Hb-E thalassaemia. Her RBC
morphology showed hypochromia, anisocytosis, and poikilocytosis. Her reticulocyte count was also high. Hepatosplenomegaly was present, and the foetal haemoglobin (HbF) level was high (15%) during infection.

The association between kala-azar, malaria, and Hb-E thalassaemia is a new finding, and is therefore reported here. This provides another example that females are more susceptible to infection than are males.

**Haptoglobin Studies in KA Patients**

The haptoglobin status of 100 patients admitted to the hospitals was studied through the polyacrylamide gel electrophoresis (PAGE) method as described by Clarke (1964) and Smithies (1959), with a slight modification.

Significant increase of ahaptoglobinemia (HP 0-0) was encountered in kala-azar patients, when screened before treatment. Most of the patients had also been screened for HP after treatment, and the incidence of HP 0-0 was found to be negative. It is suggested that the functional ahaptoglobinemia (HP 0-0) was due to the haemolytic effect of kala-azar. The phenomenon was found to be the same in both males and females.

**Studies on Oxidative Metabolism of Red Cells of KA Patients**

As haemolytic anaemia is one of the hallmarks of kala-azar, the status of some enzymes and other factors involved in maintaining the integrity of red cells under stress was studied. The parameters studied were as follows:

- methaemoglobin (Met Hb) level by the method of Evelyn B Malloy (1938);
- level of the erythrocytic reduced glutathione (GSH), by the method of Beutler et al. (1963), and GSH stability by the method of Beutler (1957) on the basis of incubation of erythrocytes with Acetyl Phenyl Hydrazine (APH);
- activity of the erythrocytic enzyme Glucose-G-Phosphate Dehydroglucose (G-6-PD) by screening test (method of Bernstein 1962) as well as by quantitative assay according to the method of Kornberg and Horekar (1955) as modified by Marks (1958), using Tris-HCl buffer at pH 8.0; and
activity of erythrocytic enzymes Glutathione Reductase (GR) and Glutathione Peroxidase (GSH-Px) by the methods of Racker (1955) and Gross et al. (1967), respectively.

Results of Oxidative Metabolism of Red Cells

Results were analyzed by sex for all 100 KA patients (Table 7).

Level of GSH

Compared to the corresponding controls, the level of erythrocytic GSH in KA patients (both male and female) was reduced by a statistically significant amount (P<0.05). The level of GSH was below 30 mg/100 ml RBC in six females and three males. Values of GSH in females was much lower than in males.

GSH Stability

In normal subjects, the unstable pattern of GSH after incubation with APH (i.e. value below 30 mg/100 ml RBC) was not found. In KA patients, however, the GSH level dropped below 30 mg/100 ml RBC in 18 female cases (of 45) and in 13 male cases (of 55), showing instability of GSH in those cases. Here also GSH instability was more pronounced in females than in males (Table 7).
Table 7 Effect of Kala-Azar on the Oxidative Metabolism of Red Cells (Mean ± S.E./Range)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Kala-Azar Patients (100)</th>
<th>Normal Controls (100)</th>
<th>Comparison Between Groups (Control vs. Patient)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G-6-PD Units/ ml/RBC/min</td>
<td>GR Units /100 ml/RBC/min</td>
<td>GSH-Px in K/gm Hb/min</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (55)</td>
<td>5.04±0.25</td>
<td>2.80±0.15</td>
<td>35.92±0.94</td>
</tr>
<tr>
<td></td>
<td>3.50-6.80</td>
<td>1.90-5.30</td>
<td>31.70-48.35</td>
</tr>
<tr>
<td>Female (45)</td>
<td>4.82±0.15</td>
<td>2.20±0.17</td>
<td>33.2±0.78</td>
</tr>
<tr>
<td></td>
<td>3.40-6.5</td>
<td>0.80-4.30</td>
<td>30.50-41.6</td>
</tr>
<tr>
<td>Male (55)</td>
<td>5.10±0.19</td>
<td>4.40±0.19</td>
<td>36.66±2.22</td>
</tr>
<tr>
<td></td>
<td>3.60-8.00</td>
<td>3.50-6.60</td>
<td>32.80-49.30</td>
</tr>
<tr>
<td>Female (45)</td>
<td>4.91±0.16</td>
<td>4.00±0.22</td>
<td>34.02±0.82</td>
</tr>
<tr>
<td></td>
<td>3.40-7.00</td>
<td>2.80-7.30</td>
<td>30.50-45.80</td>
</tr>
</tbody>
</table>

S = significant  
NS = not significant  
Figure in parenthesis indicates the number of subjects studied  
* Indicates the number of cases showing a fall of GSH below 30 mg/100 ml RBC
G-6-PD Activity

G-6-PD activity was slightly lower among both male and female KA patients than it was among the controls; the mean values were not statistically significant (P > 0.05) (Table 7). This suggests that there is no significant change in G-6-PD activity during kala-azar infection.

Activity of GR

There was a marked depression in the activity of GR in kala-azar patients as compared to controls. In two cases, enzymic activity was less than 2 units/100 ml RBC/min (females) (Table 7). A significant decrease in GR activity, particularly among females, therefore occurs during kala-azar infection.

Met Hb Level

Comparison of data from normal and kala-azar patients showed that there was a marked increase in the level of met Hb in female kala-azar patients.

Activity of GSH-Px

No significant difference in the activity of GSH-Px during kala-azar infection was detected (Table 7).

Conclusion

From the results of this study, it appears that during kala-azar infection, the following significant changes take place in the host red cell.

- There is a significant decrease in erythrocytic GSH level and stability, particularly among female patients.
- There is a significant decrease in the activity of the enzyme GR, which is also more pronounced in females.
- Activity of erythrocytic G-6-PD and GSH-Px is not affected adversely in either males or females.
Met Hb levels increase significantly in both males and females, but more so in females. Therefore, it can be said that kala-azar infection affects the oxidative metabolism of red cell more adversely in females.

It can be safely stated that *Leishmania donovani* infection somehow exerts an inhibitory effect on red cell enzyme GR activity, which ultimately affects the GSH level and its stability. This results in disturbances of red cell integrity with subsequent predisposition to haemolysis. This may be one of the causes of severe anaemia in kala-azar, particularly among females.

**Liver Function Tests (LFT) in KA Patients**

Liver function tests were studied in 100 KA patients. The results are shown in Table 8. This table shows practically no difference between female and male patients, although hypoproteinaemia and hyperglobulinaemia were found to be more pronounced in females.

**Table 8 Liver Function Tests (LFT) of KA Patients**

<table>
<thead>
<tr>
<th>Sex</th>
<th>SGOT IU/L</th>
<th>SGPT IU/L</th>
<th>Akaline phosphatase units</th>
<th>Total protein in g%</th>
<th>Albumin g%/Globulin g%</th>
<th>Blood sugar fasting in mg%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male (55)</strong></td>
<td>30.8</td>
<td>25.8</td>
<td>14.5</td>
<td>8.22</td>
<td>3.6/4.5</td>
<td>88.0</td>
</tr>
<tr>
<td>Mean</td>
<td>4.0-65.0</td>
<td>2.0-45.0</td>
<td>6.0-31.0</td>
<td>5.6-11.2</td>
<td>1.5-5.8/1.6-9.0</td>
<td>84.0-104.0</td>
</tr>
<tr>
<td>Range</td>
<td>21.6</td>
<td>32.3</td>
<td>6.5</td>
<td>6.2</td>
<td>2.8/5.7</td>
<td>86.0</td>
</tr>
<tr>
<td><strong>Female (45)</strong></td>
<td>3.0-28.0</td>
<td>11.0-55.0</td>
<td>5.0-9.8</td>
<td>5.6-10.0</td>
<td>1.0-6.7/2.0-8.9</td>
<td>60.0-103.0</td>
</tr>
</tbody>
</table>
Normal Controls (100)

<table>
<thead>
<tr>
<th>Sex</th>
<th>SGOT IU/L</th>
<th>SGPT IU/L</th>
<th>Akaline phosphatase units</th>
<th>Total protein in g%</th>
<th>Albumin g%/Globulin g%</th>
<th>Blood sugar fasting in mg%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (55)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>23.8</td>
<td>21.8</td>
<td>11.2</td>
<td>7.6</td>
<td>4.4/3.6</td>
<td>85.0</td>
</tr>
<tr>
<td>Range</td>
<td>7.0-35.0</td>
<td>6.0-32.0</td>
<td>3.0-13.0</td>
<td>6.3-7.9</td>
<td>3.7-5.4/1.8-3.6</td>
<td>70.0-110.0</td>
</tr>
<tr>
<td>Female (45)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>20.5</td>
<td>18.2</td>
<td>9.2</td>
<td>7.1</td>
<td>4.0/3.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Range</td>
<td>5.0-25.0</td>
<td>3.0-35.0</td>
<td>3.0-13.0</td>
<td>5.7-7.9</td>
<td>2.8-4.8/2.0-3.5</td>
<td>60.0-100.0</td>
</tr>
</tbody>
</table>

NB: Figures in parenthesis indicate the number of subjects studied.

**The Role of Health Providers**

The health providers (both government and non-government) play a very vital role in West Bengal, searching for kala-azar patients and admitting them to hospitals. Yet they must be motivated more thoroughly to avoid the biases of gender, so that female patients will also be admitted quickly to the hospital, receive early treatment like their male counterparts, and be cured.

**References**


Genero, Cliente Femenino y los Proveedores del Servicios de Planificacion Familiar en Quito

Nelly Idrobo B. y Amparo Lopez

Summary

This paper is based on a study of 162 urban residents of Quito, Ecuador (97 men and 65 women), and focuses on gender differences in the use of family planning and determining factors, the role of the couple in decision-making, and gender inequalities in the attitudes of family planning providers to their clients. The study found that males dominated in decision-making regarding reproduction and the number of children that the couple had, while females were responsible for meeting these goals through appropriate reproductive behaviour, including family planning. Men were especially dominant in cases where women's activities were confined to the domestic environment.

The attitudes of health providers reinforced gender roles, by perceiving the female to be primarily responsible for family planning. They gave information on contraception to the woman after she had given birth, rather than to the man or to the couple in more neutral situations. Women in the study were satisfied with the health services they received and did not question the gender bias expressed therein. Moreover, women did not question their responsibility for family planning and the provision of care to their children.

The study concludes that gender bias remains strong in Quito, not only among women and men, but also in the health services which evidently do not consider men as jointly sharing responsibility for the welfare of the family. The researchers recommend that health care personnel should be taught not only about sex-related differences in reproductive health, but also about inequal gender roles. These inequal roles not only burden women with the responsibility of bearing children, but also fail to empower them to make reproductive choices. The researchers suggest that "male" contraceptive methods, such as the condom and

1 Médicas del Instituto de Investigaciones para el Desarrollo de la Salud. IIDES. Quito, Ecuador
vasectomy, in addition to "female" methods, should be promoted in family planning clinics, and that gender-sensitive services should be extended to rural areas where the problems of gender discrimination are even more pronounced.

Antecedentes

Numerosos estudios realizados en Latinoamérica, nos muestran que existe un alto porcentaje de mujeres que son asiduas clientes de los servicios de planificación familiar puesto que ellas son las que mayormente se ven afectadas al no desear más hijos que los que tienen, espaciamientos inadecuados entre sus embarazos, abortos a repetición y en otros indecisión que a lo largo van mermando la salud de la mujer (Viel y Pereda 1991; Kizer et al. 1989; Martinez et al. 1992; Population reports 1987).

Las necesidades de practicar la anticoncepción son altas, sin embargo, existen limitaciones en la práctica y en el uso de los servicios de planificación familiar, dadas no sólo por la diferenciación biológica, sino también expresada por relaciones estereotipadas dentro de la necesidad insatisfecha de utilizar medios anticonceptivos eficaces, consejos que orienten la fecundidad compartida entre hombre y mujer, actitudes que deben ser apoyadas por los servicios de salud (Banco Mundial 1993).

Si se satisfaciera el deseo de las mujeres o su pareja de espaciar los embarazos, se calcula a nivel de las Américas se evitaría cada año hasta 100.000 muertes maternas y 850.000 muertes de niños menores de cinco años (Prada 1992). Desde siempre, el perfil de comportamiento sexual, ha puesto en evidencia el dominio del hombre en la unión sexual, estereotipo que establece la responsabilidad de la regulación de la fecundidad recaiga exclusivamente en la mujer (De los Ríos y Gómez 1991; Boletín IPPF 1992).

En el último quinquenio, en el Ecuador, la tasa de fecundidad ha descendido de 6 a 3.8 hijos promedio por mujer en edad fértil, asociado a factores relacionados con la incorporación de la mujer al mercado de trabajo y a la prevalencia del aborto provocado frente a la situación socio económica deficitaria que viven la mayoría de las familias en el país (CEPAR 1989; Ríos 1993).

Consecuencia de lo anterior, la demanda de servicios de planificación familiar, han ido creciendo pero integrados al programa materno-infantil, dando por sentado que la mujer está más motivada que el hombre para practicar la planificación familiar, (rol histórico que desempeña la mujer dentro de la
reproducción) y que la mayor parte de veces es el hombre quien toma la decisión (Gonzalez et al. 1991; Freeman 1991; CEPAR 1989; CEIMME 1993; CEPAM 1993; OPS 1990).

Este estudio se realizó en la ciudad de Quito capital de la República del Ecuador, que cuenta con 1'200.000 habitantes, (según proyección Censo 1990 INEC), a 2850 metros sobre el nivel del mar, la población en su mayoría es mestiza, la tasa global de fecundidad en el área urbana fue de 3.8 nacimientos por mujer en edad fetal (última encuesta de fecundidad 1989), la tasa de mujeres en edad fetal que utilizan un método cualquiera de planificación familiar fue del 42%, la población casada con necesidades insatisfechas de planificar fue del 24%, (mujeres casadas que desean limitar los nacimientos, o espaciarlos, pero no practican la planificación familiar), el 34% restante no se conoce las tendencias de accesibilidad (demanda potencial).

Los objetivos del estudio fueron:

- Caracterizar las diferencias de género en el uso de la p. familiar, sobre todo de la mujer, en relación a factores demográficos y culturales.
- Identificar las diferencias de género según factores socio-económicos, traducidos por: experiencias, percepciones, expectativas y creencias en la práctica de la anticoncepción y uso de los servicios de p. familiar.
- Identificar el rol de la pareja en la p. familiar, a través de la jerarquía en el hogar, responsabilidad y toma de decisiones en el tamaño de la familia.
- Conocer la desigualdad de género según criterios y actitudes de los proveedores del servicio de planificación familiar.

**Hipótesis**

La mujer con ocupación no productiva, es mayormente influenciada por el hombre para concurrir al centro de p. familiar, frente a la mujer con ocupación productiva. El sexo del proveedor es decisivo en la asistencia a la p. familiar más que la calidad de la atención.
**Materiales y Métodos**

Para el análisis de la demanda, se tomó una muestra representativa de 162 habitantes de la ciudad de Quito de 15 a 60 años, de los cuales 65 fueron mujeres (15 a 45 años) y 97 hombres (15 a 60 años), según Censo de población de 1990. La diferencia numérica entre mujeres y hombres se debe a la edad de la función reproductiva, frente a la misma función en el hombre y a la prevalencia del uso de anticonceptivos que fue mayor en la mujer que en el hombre, encuesta de fecundidad (CEPAR 1989).

Para el análisis de la oferta de servicios, se tomó una muestra selectiva de 10 establecimientos del sector salud en la Ciudad de Quito, con atención de p.familiar, fueron entrevistados 50 proveedores vinculados directamente con este servicio. Se aplicó un cuestionario que contenía las variables.

Para el análisis se calculó medidas de tendencia central y diferencia entre los datos X2 considerando significativo p<0.05, para prueba de hipótesis.

**Resultados**

La media de edad en las mujeres fue de 28 ± 8.3 años; para los hombres, la media fue 29.5 ± 10.8 años. La mayoría 46.9% (n=76) tuvieron instrucción media, el 27.7% (n=44) instrucción baja y el restante 25.9% (n=42) alta o superior.

Existió predominio de raza mestiza con el 94.4% (n=153). El 50% (n=81) fueron nativos, el 87.0% (n=141) de religión católica, la mayoría 84.6% (n=137) fueron de estrato socio-económico bajo, apenas el 15.4% (n=25) estrato medio. El 66% (n=107) fueron casados. El 74% (n=120) ocupación productiva, frente al 26% (n=42) no productivos.

El mayor porcentaje, 81.5% (n=132) de entrevistados, tuvieron su primera relación sexual a la edad de 12 a 19 años, de los cuales el 66.7% (n=88) hombres, el 33.3% (n=44) mujeres, el 18.5% (n=30) restante entre los 20 y más años, de ellos el mayor porcentaje 70% (n=21) fueron mujeres.

El 85% (n=138) desearon o desean formar una familia reducida con 2 a 3 hijos como número ideal. El espaciamiento entre los hijos (período intergenésico), en su mayoría fue mayor a los dos años 51.2% (n=42). El 74.4% (n=90) fueron hijos deseados. Se cuidaban para no tener hijos el 52.5% (n=85), de ellos el mayor lo hacía la mujer con el 52.9% (n=45), el 31.7% (n=27) el hombre y el 15.4% (n=13) la pareja.
Las 85 personas que se cuidaban, utilizaban en mayor porcentaje 77.6% métodos modernos (DIU, pildoras, condones, esterilización femenina, no hubieron casos de vasectomizados), el 22.3% métodos tradicionales (ritmo, coito interrumpido, calendario).

La fuente de información por la cual conocieron los diferentes métodos fue diferente para los dos sexos así: apenas el 17.9% (n=7) de los hombres se informaron por personal de salud, en cambio las mujeres, el 58.6% (n=27) por personal de salud.

En la Tabla 1, se identificó el rol de la pareja en la anticoncepción, considerando las jerarquías en el hogar como jefes de familia: el 53.3% (n=64) el hombre (padre) era el jefe del hogar (patriarcado), el 36.7% (n=44) la mujer (madre) era la jefa del hogar; respecto a la responsabilidad en el tamaño de la familia, el 64.6% (n=82) lo asumió el hombre, el 35.4% (n=45) la mujer.

Cuadro 1. Diferencias de Genero por Raza e Instruccin, Segun Rol de la Pareja en la Planificacion Familiar, Quito, 1994.

<table>
<thead>
<tr>
<th>Rol de la Pareja Planifi. Familiar</th>
<th>Diferencias de Genero</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raza</td>
</tr>
<tr>
<td></td>
<td>Mestiza n</td>
</tr>
<tr>
<td>Jefe del Hogar</td>
<td></td>
</tr>
<tr>
<td>Hombre</td>
<td>16</td>
</tr>
<tr>
<td>Mujer</td>
<td>105</td>
</tr>
<tr>
<td>Nivel Instruccin</td>
<td></td>
</tr>
<tr>
<td>Baja n</td>
<td>3</td>
</tr>
<tr>
<td>Media n</td>
<td>10</td>
</tr>
<tr>
<td>Super n</td>
<td>6</td>
</tr>
<tr>
<td>Decision que la Mujer Planifique</td>
<td></td>
</tr>
<tr>
<td>Hombre</td>
<td>3</td>
</tr>
<tr>
<td>Mujer</td>
<td>10</td>
</tr>
<tr>
<td>Ambos</td>
<td>6</td>
</tr>
</tbody>
</table>

Encuesta: Género, proveedor p.familiar *= diferencia significativa P<0.05
Por otra parte a pesar del patriarcado en el hogar y mayor responsabilidad masculina en el número de hijos la decisión de concurrir a la planificación familiar, aparentemente fue compartida en el 48.2% (n=41), el 38.8% (n=33), asumió la mujer y el 13% (n=11) el hombre, diferencia significativa según nivel de instrucción y ocupación, P<0.05.

Se detectó la necesidad de planificar la familia, encontrando en los 162 entrevistados que tanto hombres como mujeres el 61.7% (n=100) conocían que debían planificar al iniciar la vida sexual activa, sin embargo, en la práctica la mujer planificó después de tener 1 o más hijos, muchos de ellos no fueron deseados.

Por otro lado, apenas 85 personas entrevistadas del grupo total, se cuidaron para no tener hijos, de los cuales apenas el 40.0% (n=34) concurrieron a los centros de planificación familiar, siendo la mujer la que más concurre, p<0.05.

El 65.2% (n=30) mujeres, fueron clientes de los centros de planificación familiar, diferencia que fue más notoria al analizar por ocupación siendo las mujeres no productivas las que más concurrieron.

También se encontró diferencia significativa según estado civil, siendo las mujeres casadas las que más concurren, p<0.05.

En adelante nos referiremos a las 34 personas que concurrieron a los centros de planificación familiar (4 hombres y 30 mujeres), analizando las características socio-sicológicas traducidas por experiencias, actitudes, creencias y percepciones desarrolladas en el uso de estos servicios.

En la Tabla 2, tuvieron una imagen positiva del servicio por el buen trato recibido, la oportunidad de la atención (tiempo de espera corto), la efectividad (métodos efectivos), el 94.1% (n=32) de entrevistados de los cuales: 28 fueron mujeres y 4 hombres que asistieron a los centros de p.familiar.

<table>
<thead>
<tr>
<th>Caracteristicas Socio</th>
<th>Sexo</th>
<th>Total</th>
<th>Valor</th>
<th>Intervalo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hombre</td>
<td>Mujer</td>
<td>No. n</td>
<td>P&lt;0.05</td>
</tr>
</tbody>
</table>

**Actitudes Creencias: Necesidad Planificar**

<table>
<thead>
<tr>
<th></th>
<th>Hombre</th>
<th>Mujer</th>
<th>Total</th>
<th>Valor P&lt;0.05</th>
<th>Intervalo</th>
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<td>Iniciar Relaciones</td>
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<tr>
<td>Despues de los Hijos</td>
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<td>15</td>
<td>62</td>
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**Confianza Sexo del Proveedor**

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<th>Intervalo</th>
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<td></td>
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<td>Hombre</td>
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<td>6</td>
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**Percepciones: Trato Recibido**

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<tr>
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<td>32</td>
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<tr>
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<td>4</td>
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**Espera Larga**

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<th>Total</th>
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<tbody>
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<td>10</td>
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<tr>
<td>No</td>
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**Recetaron Efectivo**

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<th>Total</th>
</tr>
</thead>
<tbody>
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<td>30</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>2</td>
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</table>

**Espectativas**

<table>
<thead>
<tr>
<th></th>
<th>Hombre</th>
<th>Mujer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mejore la Calidad</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Mas Informacion</td>
<td>24</td>
<td>24</td>
<td>48</td>
</tr>
</tbody>
</table>

Encuesta: Género, proveedor p.familiar

* = diferencia significativa P<0.05

Otra actitud analizada fue la confianza que infunde el sexo del proveedor, en este sentido, el 73.3% (n= 22) mujeres, prefirieron ser atendidos por proveedores de sexo femenino, el 100% (n=4) hombres fue indiferente el sexo
del proveedor. No se encontró diferencia significativa según edad e instrucción de los entrevistados.

Entre las expectativas en el uso de los servicios, el mayor porcentaje de mujeres desearon mayor información sobre los métodos, en cambio los 4 hombres que planificaban prefirieron que mejore la calidad de la atención. p < 0.05.

En relación a la oferta, los 25 centros de planificación familiar sujetos al estudio, dieron atención preferencial a las madres, analizando según tipo de establecimiento: público, semipúblico y privado no existió diferencia (Tabla 3).

**Tabla 3. Que Sexo Planifica de Preferencia Según Tipo de Establecimiento. Quito. 1994.**

<table>
<thead>
<tr>
<th>Tipo de Establecimiento</th>
<th>Que Sexo Planifica</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mujer</td>
<td>Hombre</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Publicos</td>
<td>22</td>
<td>0</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Semipublicos</td>
<td>4</td>
<td>0</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Privados</td>
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<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>48</td>
<td>2</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

Fueron clasificados por edad y sexo los 50 proveedores entrevistados, encontrando 66% (n=33) mujeres y 34% (n=17) hombres, las edades estuvieron entre 20 a 51 años, la media fue 39 ± 8.3 años. Por tipo de proveedor, el 38% fueron médicos y médicas, 18% obstetricals, 10% enfermeras, otras profesiones con el 34% (auxiliares enfermería, educadores de salud, trabajadores sociales y sociólogo). La religión de los proveedores, de preferencia fue católica con el 90% (n=45).

Independiente del sexo, edad y religión, los diferentes tipos de proveedores tuvieron el mismo criterio sobre diferencias de género. El 96% (n=48), sostuvieron que la mujer debe planificar la familia, apenas el 4% (n=2) piensan que deben hacerlo la pareja (Tablas 4).

En relación a la prescripción de anticonceptivos, como la madre es la principal cliente, los métodos en un 92% fueron para uso exclusivo de ella, aunque se hizo promoción del uso del preservativo y la esterilización masculina, pero su demanda suele ser muy restringida. La información de los diferentes métodos, el 100% (n= 50) proveedores, dirigen exclusivamente los consejos a la madre que es la cliente exclusiva de estos servicios.

<table>
<thead>
<tr>
<th>Tipo de Proveedor</th>
<th>Quien Debe Planificar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mujer</td>
</tr>
<tr>
<td>Medicos (AS)</td>
<td>19</td>
</tr>
<tr>
<td>Enfermera</td>
<td>5</td>
</tr>
<tr>
<td>Obstetriz</td>
<td>9</td>
</tr>
<tr>
<td>Otros</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>48</td>
</tr>
</tbody>
</table>

Encuesta: Género, proveedor p.familiar.

Respecto a la autorización o consentimiento del compañero o pareja, que la cliente debe presentar cuando va a adoptar un método anticonceptivo, al respecto, se encontró que el 80% (n=41) de proveedores solicitan esa autorización, porque es "norma" del establecimiento.

Respecto al sexo del cliente que le gustaría atender y que tuviera mayor confianza, no existió diferencias significativas según sexo del proveedor puesto que se prestó atención prioritaria a las madres, situación que difiere de lo mencionado por las clientes que prefieren el sexo femenino del proveedor (Tabla 5).


<table>
<thead>
<tr>
<th>Percepciones y Experiencias del Proveedor</th>
<th>Sexo del Proveedor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hombre</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>El Hombre debe Participar en la p.familiar?</td>
<td>4</td>
</tr>
<tr>
<td>Siempre</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
</tr>
<tr>
<td>Le Gusta Atender un:</td>
<td></td>
</tr>
<tr>
<td>Hombre</td>
<td>14</td>
</tr>
<tr>
<td>Mujer</td>
<td>4</td>
</tr>
<tr>
<td>Cualquiera</td>
<td>18</td>
</tr>
</tbody>
</table>

Encuesta: Género, proveedor p.familiar.

* = Diferencia Significativa P<0.05
Discusión

El término género ha sido muy utilizado en recientes estudios, como una categoría de análisis que permite identificar a través de un proceso de construcción social, la red de rasgos actitudes, percepciones, valores, conductas y actividades que deviene en potencialidades y limitaciones para hombres y mujeres (Fernandez 1994). De las relaciones inter e intra-sexos, emerge un patrón de necesidades, roles, riesgos, responsabilidades y acceso a recursos según sexo.

De acuerdo a los resultados, la variable sexo permitió identificar diferencias significativas de género, (en la demanda real y potencial), en menor número lo hicieron otras variables.

Según características reproductivas de los entrevistados, las diferencias fueron significativas, puesto que el hombre mantiene el predominio en la reproducción, él comienza la vida sexual más precozmente, establece el tamaño ideal de la familia, (hijos deseados, número ideal de hijos) sin que la mujer pueda tomar decisiones sobre su propio cuerpo (Sanceda 1991), adquiere información anticonceptiva por fuentes diferentes a las del sexo femenino, usa menos métodos, manteniendo el estereotipo de su género.

Por otra parte las actitudes y creencias de los entrevistados, han ido cambiando en relación a lo que refieren otros estudios, puesto que existían creencias en las cuales el hombre fue contrario a que la mujer planifique porque podía serle infiel y desobedecer a su marido, sin embargo, la sometían a embarazos a repetición con los consiguientes riesgos que ello implica (Escalante 1983; Gomez 1993).

Actualmente, la mujer es la "que tiene que cuidarse para no tener hijos", ella es la que debe concurrir a los servicios de p.familiar, diferencia de género que cobró importancia analizando por ocupación, siendo la mujer no productiva (ama de casa, estudi ante), la que probablemente por la situación de dependencia económica que tiene en el hogar, su principal función fue la reproductora (OPS 1992).

Según resultados de este estudio, fue la pareja la que tomó la decisión para que la mujer planifique 48.2% (n=41), función que la mujer acepta para conservar su estereotipo femenino, cuidando del hogar y de los hijos. La planificación familiar no estuvo entre las percepciones de necesidades específicas de atención del hombre, pero sí de la mujer.
Estas prácticas y creencias, son reforzadas por los proveedores, quienes motivan preferentemente a clientes postparto para que se integren a la p.familiar, insuficientemente se ha trabajado en forma preventiva a nivel de grupos en riesgo, mujeres en edad fértil adolescentes, futuras esposas madres y sus respectivos compañeros, sobre todo cuando ellos comienzan su vida sexual.

Otra actitud analizada, demostró las preferencias por el proveedor femenino, sobre todo la madre, cliente directa del servicio de p.familiar, pocas mujeres han ido cambiando esta actitud probablemente influenciadas por las costumbres y prácticas modernas, mayor acceso a la educación y medios de comunicación, en quienes fue indiferente el sexo del proveedor, aparentemente se piensa que se ha logrado vencer los prejuicios o tabues que despierta el mismo sexo incluidos por la cultura machista que ha logrado generalizar conductas distorsionadas que a lo largo constituyen barreras de comunicación.

Por otro lado las experiencias en el uso de los servicios de p.familiar, han formado una imagen positiva de la prestación que se da en estos centros. Sin embargo, las expectativas de las clientas del servicio, estuvieron relacionadas en su mayor parte con la mejor información de los métodos, lo que lleva a una mayor aceptabilidad de la p.familiar y una práctica sostenida de la anticoncepción (Dever 1990; Boletín IPPF 1991; De los Rios 1992).

Por otra parte, se menciona que la existencia de los servicios de p.familiar, se apoya en supuestos como que la mujer es la responsable del bienestar de la familia y que la ayuda que se brinde para lograr un mejor desarrollo de los roles de madre y esposa van a contribuir sustancialmente a conseguir esos objetivos, sumándose, a ello la disposición del mismo proveedor de salud que estimula el mayor acceso promocionando de preferencia métodos para uso de las madres vinculadas estas actividades con el programa materno-infantil, dejando olvidada a la otra mitad que es el hombre (Villareal 1993; Boletín Médico de IPPF 1990).

En consecuencia, los servicios atendieron a madres, en muchos casos no permitió la presencia del compañero o esposo probablemente por no disponer de espacio físico, limitando el acceso del hombre quien debió interesarse por este tipo de actividades que tuvieron que ser compartidas.

Algunas sociedades, entre ellas la nuestra sigue apoyando la posición que el hombre debe controlar la fecundidad de la esposa situación que ha determinado desde el punto de vista legal (en hospitales y casas asistenciales), que la mujer
tenga el consentimiento del marido o compañero para someterse a la esterilización o para usar algún método anticonceptivo (Boletín IPPF 1990; Population Reports 1987; Boletín Médico de IPPF 1990).

La mujer estuvo directa o inmediatamente vinculada a la idea de maternidad, de cuidado de los niños, a la práctica de la anticoncepción y uso de los servicios de p.familiar, incluso ella por sí misma está convencida que es su responsabilidad, comportamientos que también fueron estimulados por el sistema de salud de p.familiar manteniendo las brechas entre lo masculino y femenino.

**Conclusiones y Recomendaciones**

- Persisten las brechas de género en la práctica de la anticoncepción y uso de los servicios de p.familiar, relacionados con variables demográficos, culturales, reproductivas y socio-sicológicas, conservando los estereotipos femenino y masculino.
- Asimetrías de género que los proveedores salud de los servicios de p.familiar, mantienen por su propia formación, asociado a la estructuración y organización del sistema de salud que trata de apoyar a la madre responsable del bienestar familiar, sin dar acceso al hombre para que comparta con la otra mitad de esta obligación.
- Los servicios de p.familiar, deberían implantar estrategias que tomen en cuenta no sólo las diferencias biológicas o el rol de madre reproductora, sino también las diferencias de género entre hombres y mujeres y la forma que ellos se relacionarían con el sistema de salud.
- Se propone extender las coberturas de atención de planificación familiar a los dos sexos, promocionando la paternidad responsable, promoción de métodos anticonceptivos para uso del hombre (condón, vasectomía).
- Extender este tipo de estudio a sectores rurales donde el problema de género debe ser más evidente.

**Bibliografía**


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Intention to Deliver and Delivery Outcome

Godfrey S. Lule and Margaret Ssembatya

Summary

Lack of antenatal care and lack of attendance or attendance by non trained personnel during child birth are important risk factors of maternal and perinatal morbidity and mortality in Malawi related to obstetrical causes. Although many mothers attend antenatal clinics at various health units in Malawi, less than one quarter of them actually deliver at the health centre. A questionnaire was completed by 390 women who were followed up from an antenatal clinic at Nankumba health centre, Mangochi district, Malawi, to post delivery. About 85% of the respondents had passed their sixteenth week of pregnancy by their first booking. Over 90% of the women expressed a desire to deliver at the health centre. However, less than 25% of these mothers did actually deliver at this health centre. The majority of those who delivered at home cited long travelling distances and unkind health centre staff as the main reasons for delivering at home. The labour outcome of the mothers who did deliver at the health centre was much better than that of the mothers who delivered at home ($X^2 = 16.89, P<0.001$). While it was very encouraging to note that the majority of the mothers desired to deliver at the health centre, the lack of actual deliveries occurring there was very much a cause for concern. Health education on the benefits of trained personnel assistance during labour is urgently required.

Introduction

Every year, an estimated half million women die of causes related to pregnancy and childbirth (World Health Organization 1991). Experience in other countries has shown that strategies most likely to produce a significant decline in maternal morbidity and mortality are those which include the assurance that women in labour can receive the skilled care they require (Safe Motherhood Newsletter 1994). In Malawi, the maternal mortality rate is estimated at 500 per

1 Department of Community Health, College of Medicine, University of Malawi.

2 Our Lady of Wisdom, Limbe, Malawi.
100,000 births (Chipangwi 1989). A 1989 community study which analyzed maternal death data from 12 hospitals identified many direct causes of this very high maternal mortality, but the primary roots of the problem were found to be much deeper (Chipangwi 1989). One of these is the lack of trained assistance available during the majority of deliveries. It is estimated that at present in developing countries, 45% of births are either not attended or attended by non-trained personnel (Voorheove et al 1987). Awareness of the factors which may bring about this lack of attendance or attendance by non-trained personnel during childbirth is a precondition for improving women’s use of health services.

Malawi’s health service delivery is based on the National Health Plan 1986-1995 (UNICEF 1993). The main objectives of this health plan include extension of peripheral and community-based health services. This health service system has, however, been constrained by a lack of financial and human resources. Although gravely short of resources to offer optimal health services, the government of Malawi has done all that it can to provide antenatal services to pregnant mothers.

Among the steps taken to improve maternal health care services in Malawi is the training of traditional birth attendants (TBAs). Most TBAs, if not all, are elderly women who are already known to attend to mothers during labour in rural settings. These women are well known in their localities. They are identified, and given a two week training course consisting of theory and practice on simple and safe obstetrics. They are taught how to identify at-risk mothers, how to carry out hygienic deliveries, including care of the cord, and how to promote appropriate health education to the mothers. At the end of the course, in addition to the certificates of attendance, they are provided with delivery kits free of charge.

Antenatal clinic attendance in Malawi is good, and many mothers express the wish to deliver in a health unit (Mponda and Mwafulirwa 1993); in reality, the majority of them end up either not being attended or attended by non-trained people (the majority of whom are family members) during delivery. In Mangochi district, not more than 40% of pregnant women deliver in health units or with a traditional birth attendant (Mponda and Mwafulirwa 1993).

Why do so many women who wish to deliver their babies under the most ideal conditions available end up not doing so? In an attempt to answer this question, this study examined antenatal attendance, intended place of delivery, the
actual place of delivery, and the delivery outcome of a cohort of pregnant
mothers attending an antenatal clinic at Nankumba health centre in Mangochi
district of Malawi.

Subjects and Methods

The study population included all mothers who had attended antenatal
clinics at the Nankumba health centre during the months of September and
October 1993, and who came from one of the following villages: Binali, Chamba,
Chilonga, Kala, Makokola, Nankumba, Saidi, or Sosola. These villages were
selected through a multi-stage method (Baker 1982). First, each village in the
Nankumba health centre catchment area was put into a cluster based on distances
of 10, 20, and more than 20 kilometres from the health centre. The maximum
distance was 30 kilometres. Three villages were then randomly selected from
each cluster.

Information collected on each woman included name, age, marital status,
educational background, gestation age, and expected date of delivery. In
addition, the women's addresses were recorded to facilitate after-delivery follow-
up.

In April-May 1994, a follow-up was undertaken, and additional
information was obtained from the women. This information was collected by
means of a questionnaire which had been developed after a pilot study in the same
geographical area. Due to the high illiteracy rate among these women, the
questionnaire was administered to individual mothers in their homes by the
researchers. All the participants were clearly informed that the purpose of the
survey was to examine their antenatal histories, places of delivery, and delivery
outcomes. In addition, the women were asked to state the reasons for their
choice of intended delivery place, and the factors which determined the actual
place of delivery. Also included in the questionnaire was an inquiry into the
labour outcome, which relates to the mother's and baby's physical condition 24
hours after delivery, as reported by the mother. When delivery took place at the
health centre, the mother's reported labour outcome was cross-checked with the
health centre's records.

All data were coded and analyzed using the Statistical Package for Social
Scientists-x (SPSS-x) and BioMedical Programme (BMDP) software. Following
calculation of Mantel Haenszel chi-square statistics, a multivariate analysis was
conducted on those variables which had a high statistical significance of association with place of delivery. A logistic-regression model was used to determine the independent contribution of these variables to the place of delivery.

**Results**

Using the addresses provided by the participants, 396 of the 432 women who had been recruited were traced to their homes between September and December 1993. As six had not yet delivered, the questionnaire was completed by 90.3% of those who had been recruited into the study.

The respondents had a mean age of 17.4 years (SD 7.9). Eighty percent of the respondents were married or living with a regular partner. Nearly 90% of these women had never been to school, and therefore were illiterate. Eighty-five percent of the women reported attending antenatal clinics during previous pregnancies. The remainder were primigravidae. The respondents’ mean gestational age at first booking was 22 weeks (SD 3.8), with almost 65% at 24 weeks or more. Only 3% of the women were at less than 16 weeks of gestation at first booking.

The reasons given by the respondents for attending antenatal during the present and/or previous pregnancies are shown in Table 1. For both present and previous pregnancies, about 90% of the respondents reported that they had attended the antenatal clinic to either get an obstetric check, for a tetanus toxoid shot, or to ensure that they would not be sent away when in labour. More than 50% of the primigravida women and 40% of non-primigravidae women reported that their husbands had instructed them to attend the clinic. Fewer than one third of the women in each group attended the antenatal clinic to receive medication, and only 1% of all respondents indicated that they had just followed friends to the clinic.

Almost half of the respondents (47%) had already given birth to five or more children; 5% had delivered 10 or more. The highest parity was twelve. Eighty-three per cent of the women who had delivered two or more children had not seen any of their children die. Despite the respondents’ late booking for the antenatal clinic, more than one third not fulfil all the appointments given to them.

The majority (86%) of the mothers walked to the health centre, while the remaining 14% were carried by their husbands to the health centre on bicycles. The mode of transport appeared unrelated to the distance one had to travel to the health centre, to gestational age, or to the mother’s parity. The respondents spent
a mean time of 7.7 hours (SD 4.3) travelling from home to the health centre and back. The time spent was directly related to the distance from the health centre, with those who had to travel over 20 kilometres spending well over 10 hours.

**Table 1 Reasons Given for Attending Antenatal Clinics**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Present Pregnancy (%) (n = 390)</th>
<th>Previous Pregnancy (%)</th>
<th>X²</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For obstetric check</td>
<td>91</td>
<td>92</td>
<td>0.07</td>
<td>NS</td>
</tr>
<tr>
<td>For tetanus toxoid</td>
<td>87</td>
<td>88</td>
<td>0.14</td>
<td>NS</td>
</tr>
<tr>
<td>To avoid being sent away when in labour</td>
<td>90</td>
<td>94</td>
<td>3.85</td>
<td>0.05</td>
</tr>
<tr>
<td>Husband requested attendance</td>
<td>55</td>
<td>39</td>
<td>18.79</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>For haematenics and antimalarials</td>
<td>31</td>
<td>24</td>
<td>3.95</td>
<td>0.05</td>
</tr>
<tr>
<td>Was not feeling well</td>
<td>24</td>
<td>29</td>
<td>3.32</td>
<td>NS</td>
</tr>
<tr>
<td>For health education</td>
<td>20</td>
<td>25</td>
<td>0.70</td>
<td>NS</td>
</tr>
<tr>
<td>To accompany friends</td>
<td>1</td>
<td>0</td>
<td>1.73</td>
<td>NS</td>
</tr>
</tbody>
</table>

*Some respondents mentioned more than one reason

NS = difference not statistically significant

Ninety-five percent of the respondents indicated that they wanted to deliver at the health centre; four percent preferred to deliver at a trained traditional birth attendant’s place. Only one per cent stated that they would like to deliver at home. Of those who indicated that they liked to deliver at the health centre, two-thirds said that it was because they could be quickly referred to the hospital in case of complications. Only four respondents indicated that they would deliver at the health centre because the nurse said to (Table 2). On the other hand, all the mothers who preferred to deliver at a trained traditional birth attendant’s place gave the long distance to the health centre as the reason for saying so.

Regarding the actual place of delivery, only 90 (23%) women delivered at a health institution. Eighty-four delivered at the health centre, and six delivered at Mangochi District Hospital where they were referred due to labour complications. Of the remaining 300 mothers (77%) who delivered outside a health institution, 68% were not attended to or were attended to by non-trained personnel during child birth; the other 32% were attended to by trained traditional birth attendants (TBAs). Taken as a whole group, 52% of all respondents were
not attended to or were attended to by non trained personnel during child birth. This included 11 primigravidae and five women who had delivered 10 or more children.

Table 2 Reasons for Wanting to Deliver at the Health Centre

<table>
<thead>
<tr>
<th>Reason</th>
<th>Respondents (#)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick referral to hospital</td>
<td>245</td>
<td>66</td>
</tr>
<tr>
<td>Safe delivery</td>
<td>97</td>
<td>26</td>
</tr>
<tr>
<td>Health centre near home</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>It is free</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Husband said to</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Nurse said to</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>371</td>
<td>100</td>
</tr>
</tbody>
</table>

The reasons given by the 300 women for delivering at home are shown in Table 3. The majority (53%) said that by the time they realized they were in labour, they could not make it to the health centre or to the nearest trained traditional birth attendants’ place in time. A surprisingly large percentage (21%) indicated that they delivered their children at home because their own experience or that of others had shown that certain midwives were very unkind to mothers during labour. Another 10% mentioned that an old female relative had refused to let them go to the health institution or to a TBA’s place when in labour.

Table 3 Reasons Given for Delivering at Home by Those Who Had Done So

<table>
<thead>
<tr>
<th>Reason</th>
<th>Respondents (#)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realised too late that she was in labour</td>
<td>108</td>
<td>53</td>
</tr>
<tr>
<td>Unkind health centre staff</td>
<td>43</td>
<td>21</td>
</tr>
<tr>
<td>Older female relative refused to allow delivery in health centre</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Too long distance to travel to health centre</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Sent back (date not due)</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>100</td>
</tr>
</tbody>
</table>
The number of mothers who delivered at the health centre was indirectly related to their distance from the health centre. For example, 90% of those who lived within one kilometre of the health centre delivered there, while only 10% of those who lived more than 20 or more kilometres away did the same. Similarly, the number of mothers who presented at the health centre during the second or third stage of labour increased proportionately with the increase in their distance from the health centre.

Labour outcome was best for those mothers who delivered at the health centre, compared to those who delivered with trained traditional birth attendants, and to those who delivered at home (P < 0.001). Of the 36 mothers who reported to have had a poor labour outcome, one delivered with a midwife at the health centre, six with trained traditional birth attendants, and 29 at home. Regarding the babies' reported physical condition 24 hours after delivery, there were two stillbirths (one delivered at home and the other at the health centre), and one baby was reported as having been in poor condition. This latter child was delivered at the health centre.

A logistic regression model was established using 8 variables which showed a significant association with a mother being assisted by a trained personnel during delivery. Table 4 shows that five of the variables emerged as being independently associated with a mother being assisted by a trained personnel during delivery. The strongest association was a positive attitude to the health centre staff. Patients who approved of the behaviour of the health centre staff were 2.8 times more likely to have delivered at the health centre or at a TBA's place than those who did not.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>X²</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive attitude toward health centre staff</td>
<td>2.8</td>
<td>1.6-4.7</td>
<td>17.5</td>
<td>0.001</td>
</tr>
<tr>
<td>Lack of objection from elder</td>
<td>2.4</td>
<td>1.0-5.8</td>
<td>4.6</td>
<td>0.030</td>
</tr>
<tr>
<td>Education</td>
<td>1.7</td>
<td>1.2-2.5</td>
<td>20.4</td>
<td>0.001</td>
</tr>
<tr>
<td>Distance</td>
<td>1.6</td>
<td>1.1-2.4</td>
<td>5.0</td>
<td>0.020</td>
</tr>
<tr>
<td>Received health education about it</td>
<td>1.5</td>
<td>1.1-2.1</td>
<td>6.0</td>
<td>0.010</td>
</tr>
</tbody>
</table>

CI = confidence interval
Discussion

Although the sample size in the study was relatively small, and limited to a catchment area around one rural health centre in Malawi, it was sufficient to fulfil the objectives and to provide reliable information. The findings of this study bring out some important points which can be of value in the future planning and management of maternity services, particularly as regards the factors which facilitate or inhibit women's use of the health services during labour in Malawi as a whole, and in the Mangochi district in particular.

The loss to follow-up was due to several factors. Some mothers had emigrated from the villages, while others were farm workers and were therefore not known by the indigenous members of the villages.

The great majority of the respondents appeared well aware of the reasons why one should attend an antenatal clinic. However, while about 90% indicated that they attended the clinic for an obstetric check, only one percent was influenced by her peers. The other reasons given for attending the clinic, such as securing a place so that they could be attended to when in labour, were also reflected in their gestation age at the time of first booking. Almost two-thirds of the respondents' gestation age at first booking was 24 weeks or more, and despite their late booking for the antenatal clinic, more than one third of them did not fulfil all the appointments given to them. The general lack of knowledge about the benefits of the proper attendance of antenatal clinic needs to be addressed very quickly.

This study demonstrated that antenatal attendance in and around Nankumba Health Centre is good, and many of the mothers expressed a wish to deliver in a health unit. In terms of provision of antenatal care as a means of preventing maternal mortality and morbidity, this relatively high antenatal attendance and the expressed wish to deliver at a health facility gives some ground for optimism, and it is indeed a sign of the success of the antenatal services provided by the Malawi government.

Paradoxically, however, when they were asked to give the reasons for wanting to deliver at the health centre, 90% of the respondents indicated that they could be referred to Mangochi hospital much more quickly. This may be a reflection of lack of confidence by these mothers in the services offered by the health centre during labour.
The finding that almost 95% of the women expressed the wish to deliver at the health centre but only 23% ended up actually doing so is less than the figure for the whole district, which is about 40% (Mponda and Mwafulirwa 1993). The respondents in this study could have had less clearer views on the value of being attended by trained people during delivery, and this may also have been a reflection of the low levels of literacy among the mothers in this study. A majority of those mothers (68%) who delivered outside the health centre ended up either not being attended or attended by non-trained people during delivery. This lack of assistance by trained personnel during delivery continues to provide countless opportunities for an increase in maternal morbidity and mortality, as well as perinatal morbidity and mortality. In this respect, the findings of this study compare very well with the UNICEF report on the situation of children and women in Malawi, in which it was reported that antenatal attendance in Malawi is good, and many of the mothers express the wish to deliver in a health unit (UNICEF 1987). Similarly, in a study of service-related factors contributing to maternal mortality in hospitals in Malawi, it was found that many mothers continue to deliver at home and only come to a health facility when problems have developed (Phoya et al. 1992).

Many of those who delivered at home were either primigravidae or grand multiparas. Although the reasons given for not being attended or being attended by non-trained people during delivery appeared genuine, for example that of the long distances from the health centre, the risks taken particularly by the grand multiparas remain disturbingly high. These mothers who take the trouble to attend the antenatal clinics are among those in the district who should be assumed to have been motivated to use the health facilities. While it appears from the list health education topics given in the antenatal clinics that most of these mothers should have had sufficient knowledge about the signs of the onset of labour, and many of them were multiparas, apparently many of them did not put that knowledge into practice. Indeed, 53% of those who delivered at home said that they did so because by the time they realised they were in labour they were no longer able to walk to the health centre. The health education given at the health centre seems to be failing.

From this study it is clear that the role played by family members and relatives must not be underestimated. Thirteen percent of the women who delivered at home said that they did so because they had either been forbidden to go to the health centre, or advised to stay at home by an older female relation. This suggests that health education about the advantages of delivering a baby
under the care of a trained person should not be limited to only the pregnant women, but through the village health committees to the whole communities. On the other hand, although only two percent of the women who attended the antenatal clinic did so on the instruction on their husbands, it does appear that at least some men have started to realise the importance of the maternity services offered.

Our findings that there was a big difference in terms of the labour outcome depending on the place of delivery is not surprising, considering the maternity knowledge levels of those who assist in the deliveries at home, and the generally unclean environment under which some of these deliveries take place. The trained birth attendants may have fared well with regard to the labour outcome because these trained traditional birth attendant could have been more selective in the choice of their patients and insisted on sending all problem cases to the health facilities.

Distance from the mothers’ home to the health centre affected antenatal attendance and the place of delivery. As a result, of the mothers who lived 8 kilometres or more away from the health centre, only those who had complications during a home "trial of labour" resorted to going to the health centre. This could also explain why the labour outcome was bad for some mothers who delivered at the health centre.

Given the relatively small proportion of mothers who deliver at a health facility, and the possibility that those who go there go after the home "trial of labour" has failed, leading to a poor labour outcome, health education on the signs of the onset of labour and the benefits of delivering in a health facility must be re-emphasized. Given that many mothers delivered at a trained traditional birth attendants’ and the labour outcome was relatively good, many more trained traditional birth attendants should be made available at the village level.

To its credit, the Malawi Government has already taken steps towards the training of traditional birth attendants. However, much more needs to be done at this stage of high maternal mortality and perinatal mortality in Malawi if more mothers are to be attended by trained personnel during child birth.

We were encouraged by the finding that the women who had a positive attitude to the health centre staff were almost three times more likely to deliver their children under the assistance of a trained person. We were similarly encouraged that those who received health education about the advantages of being assisted by a trained person during labour were one and one-half times more likely to be assisted during labour by a trained person. This also suggests
that the maternal health public education campaigns have somewhat succeeded in influencing attitudes. On the other hand, one should not forget that 20% of the women who delivered at home did so because they had either from past experience or from being told learned of bad attitudes among the health centre staff towards them.

Our analysis showed that the woman’s education was a very important factor in her decision to deliver her baby under good care. This compares very well with other findings and recommendations that to reduce maternal mortality and morbidity one needs to improve female literacy (USAID 1991).

It is therefore clear from this study that to improve women’s use of the available maternity services during labour, the government of Malawi and private organisations are confronted with serious challenges. It is evident that women’s education in general and about the use of health facilities in particular requires considerable emphasis and strengthening in order to reach a broad segment of the female population. Increasing the demand for maternity services through education should go hand in hand with extending access to these services.

References


Dai and Midwives: The Renegotiation of the Status of Birth Attendants in Contemporary Bangladesh

Santi Rozario

Introduction

World Health Organization (WHO) policy for some years has emphasized the use of traditional birth attendants (TBAs) as the best means of improving the appalling level of maternal and child mortality and illness in much of the Third World. Recently, however, some doubts as to the universal appropriateness of this strategy have begun to surface (Scheepers 1991; Stephens 1992).

My initial research on the question of childbirth and women’s health (1991-92) was conducted in several villages in Rupganj (Dhaka district), an area where I had previously carried out research on women, development, and social change (Rozario 1992). In several forthcoming papers (Rozario in press; Rozario forthcoming) arising from this research, I discuss in detail the typical characteristics of childbirth in rural Bangladesh.

These characteristics include the low status attributed to, and the apparent lack of expertise of, traditional birth attendants (in Rupganj, these women are usually called dai), the lack of significant ante-natal or post-natal care for the mother, and the heavy emphasis placed on birth pollution and vulnerability to spirits (bhut). This pattern is essentially the same as that found by Banchet (1984, 1991) and Islam (1981, 1989) elsewhere in Bangladesh, and by researchers in much of rural India (Jeffery et al. 1988; Stephens 1992).

Childbirth among many other Third World societies, however, is a markedly different process. One could compare, for example, traditional midwives among the Maya Indians of Central America (Paul and Paul 1975; Jordan 1980), in rural Jamaica (Kitzinger 1978), or, closer to Bangladesh, among Malay villagers (Laderman 1983). In each of these cases, traditional midwives are respected members of the community whose skills are generally valued and

1 Department of Sociology and Anthropology, University of Newcastle, NSW, Australia.

2 I use the term "midwife," here as do the authors I am citing. As explained below, this term, with its implications of distinct group of women possessing a valued and specialized skill, seems inappropriate for most South Asian TBAs.
whose right to take charge of the care of the birthing woman is clearly recognized. In addition, their involvement with the birthing mother generally begins early in pregnancy and continues well after the actual birth. None of these things are true for traditional birth attendants in rural Bangladesh.

The "low status trap" in which most rural South Asian TBAs are caught limits the viability of the WHO strategy. In the present paper, I explore these issues further on the basis of recent fieldwork (1994-95) in a number of villages in Noakhali in Southern Bangladesh, said to be one of the more religiously conservative regions in the country. In particular, I want to look at the way in which a small number of Christian-trained midwives seem able to avoid the "low status trap," and to ask whether there is potential for real change in rural Bangladeshi birthing practices.

Identifying the Traditional Birth Attendants

The most common term used to refer to TBAs in rural Bangladesh is dai. However, as Blanchet's (1984) and my findings (forthcoming, 1) show, dai is by no means the only term used to refer to TBAs. Terms such as dhatri and dhoruni (literally, one who catches the baby) are also used variously in different parts of the country. In Noakhali, I found that village women avoided using the term dai, but, although no specific term was used to refer to TBAs, they had no difficulty in identifying those local women who assisted at births. It is these women to whom I refer to in this paper as "TBAs," as distinct from the smaller number of trained "midwives," mostly associated with the mission clinic.

It is worth noting that the term dai is also commonly used in India, although the word itself appears to be of Arabic origin. In North India, the term is used to refer to women, generally of low-caste Hindu groups, but sometimes also Muslim, whose primary function appears to be dealing with and removing the "pollution" associated with birth (see Jeffery et al. 1988).

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3 There are suggestions that the TBA's status is higher in parts of South India, at least among the marginal low-caste fishing population of the Mukkuvar (Ram, forthcoming and personal communication), and in Nepal, among the tribal Tharu of Dang (Krauskopff 1989: 159).

4 My informants came from Hindu and Christian as well as Muslim backgrounds. However, my descriptions apply more directly to the Muslim majority than the Hindu and Christian minority groups except where I explicitly refer to Hindus or Christians.
The reason for the avoidance of the term *dai* is of interest. For Noakhali villagers, *dai* were a specific group of women who were historically called in especially to cut the umbilical cord. This is regarded as one of the most polluting aspects of birth, and would not be performed by anyone else.

There was a set fee in cash and kind for the *dai* who performed this task. Apparently, these *dai* no longer exist in Noakhali district, although some of the older community members do remember them⁵. The task of cutting the umbilical cord has consequently become problematic. Sometimes the birthing mother is made to cut the umbilical cord herself. On rare occasions, the TBA will do it provided she is appropriately paid for the task⁶.

Women who assist at births in Noakhali today go out of their way to avoid being identified with the despised *dai*. Thus, most Muslim TBAs I interviewed told me without my asking, "I do not cut the cord." Similarly, when I enquired about the cutting of the cord, a Hindu woman who regularly assists at births told me that she will cut the cord only for her daughter but not for others. She said "if I cut the cord, will I not become a *dai*?" Her 20 year old daughter, who was present during the interview, said that the *dai* who used to cut the cord "are a separate *jat* [caste or sub-caste], there are no other *jat* below them."

The lack of a label given to TBAs in Noakhali⁷ also indicates that these women do not see delivering babies as a viable profession. It is something they do when people need their assistance. It may also be an irregular source of material gain, but it certainly does not yield a regular or substantial income. For these reasons, I shall avoid the term *dai* in this paper, and refer to the women who assist at births simply as TBAs.

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⁵ Thus a trained Christian midwife in her early 50s told me that a *dai* was called to cut the umbilical cord when she was born. I was told on several occasions that babies might remain lying on the floor attached to the placenta for long periods of time until the *dai* arrived to cut the cord.

⁶ The payment is a real issue. Thus, trained Christian midwives such as the woman referred to in the previous note generally cut the umbilical cord themselves when attending a birth, but many families do not let them cut the cord since this is perceived to entail a separate expense.

⁷ They may call themselves *dhatri* if a label is needed. *Dhatri* is a literary term, which would be used to translate the English word midwife. Thus Shamima Islam (1989) notes that the term *dhatri* is used elsewhere in Bangladesh to refer to better-off and educated women who assist with birth only in few select houses.
Options for Birthing Mothers

Assistance with birthing is a problematic issue in the Noakhali region, as indeed it is elsewhere in Bangladesh. Because birth is considered to be extremely polluting, middle class families will generally employ a TBA to deliver the baby, clean up all the birthing substances, and bathe the baby before anyone in the family touches it. However, most rural families cannot afford to employ a TBA to perform these polluting tasks, and thus do not receive any assistance during birth from TBAs, trained midwives, or the hospital. At most they may be assisted by some family members (such as the mother, mother-in-law, sister-in-law, and so on). Sometimes a neighbour may be called in. The number of women who give birth entirely on their own in Noakhali, as elsewhere in rural Bangladesh, is thus significant.

When expert attention is needed (and can be afforded), rural families have two main options: (i) to call a TBA, who receive little or no payment, have low status and may have been involved in a limited training scheme, or (ii) to take the women to the government hospital or to a private clinic in the nearby town.

In some areas, including the Noakhali region, there is also a third option: to call one of the few properly trained midwives, most of whom are associated with a clinic run by the Catholic mission.

The Traditional Birth Attendants

The Question of Status and Payment

Although traditional birth attendants are readily resorted to by most middle class rural families, they themselves have very low status within village society. They are called at the onset of the labour pains, and are not looked to for medical advice. They merely come to "catch" the baby, or as the village women commonly use the term, to relieve (khalas) the birthing woman's travails by pulling the baby out. Although it is recognised that the TBAs have reasonable experience in assessing how the labour is progressing, which they do by inserting their left hands into the birthing woman's vagina, the elderly female guardians of

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8 Blanchet (1984), on the basis of her own findings and research by other health workers, suggests that village TBAs "do not attend more than a third of births in Bangladesh." She argues that the use of a TBA's services "has to do with maintaining social prestige or purity of caste and is only sometimes related to medical needs."
the birthing woman do not usually heed any advice the TBAs may provide. It is these guardians who decide, based on the TBA’s assessment of labour progression, whether to bring *pani para* (blessed water), *chini para* (blessed sugar), homeopathic or allopathic drops to bring on the labour pains, whether to call a trained midwife, or whether to take the woman to the hospital.

When I asked the TBAs about how the villagers regard them, they each had stories to tell to illustrate the point that "*dhatri* do not even receive honour equivalent to half a paisa [a small coin; 100 paisa = US0.02c]." A typical comment was "when in danger they call you, but when the danger is over, get lost." Most of the TBAs linked the issue of status to the lack of any real recognition of their services in the form of payment.

They are usually given a bar of soap and a small bottle of *attar* (a special perfume used by Muslims before saying prayers), but neither money nor a sari (which is a standard gift in many parts of Bangladesh). The soap is given so that the TBA can purify herself thoroughly after delivering. The *attar* is given so that the TBA can use it before saying her prayers (*namaz*) for 45 days after the delivery. Some TBAs may receive a small amount of money, between Tk10 and Tk50 (US0.25c to $1.25). On the whole, however, they cannot expect to be paid as delivering babies is something they can do to gain spiritual benefit (*sowab*). It is said that the spiritual benefit from 101 deliveries is equivalent to a *haz* (pilgrimage to Mecca).

In fact, however, only a minority of the TBAs actually said that they do the job because of *sowab*. Even these, I suspect, said it because they felt it was the right thing to say, especially when speaking in front of other women. Most of the TBAs, on the other hand, vehemently complained about the lack of payment. At one Muslim delivery, several women were discussing how TBAs "should not take money because this is something done for *sowab*. If they take money for their service, then they cannot have any *sowab*." This statement was made in front of a Muslim TBA attending the birth, who did not reply directly. Rather, she made her point indirectly by saying "these days a *dhatri* [TBA] will not come unless she is paid Tk100.00 [about US$2.50]." Another Muslim

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9 The term *sowab* (Arabic *thawab*, reward, recompense) refers to the Quran, Sura 3, v.195: "I shall forgive them their sins and admit them to gardens watered by running streams as a reward" (David Waines, personal communication).

10 When another woman joined her and said, "A trained *dhatri* will take a lot more", the TBA in question made sure that she was understood properly by saying, "No, a *dhatri* like me [i.e untrained] won’t sit for any less than Tk100.00." Another Muslim TBA who
TBA, who was complaining about the rich being particularly stingy, told how one family, who lived in a brick house (which indicates considerable wealth) gave her a mere Tk10.00 note, in addition to the customary soap and attar, after she had attended a birth for one of its women. She said "I felt like pushing the baby back into the stomach."

Many other Muslim TBAs told me that they do not or cannot ask for any money, because people say "why do you ask for money, this is something you do for sowab." Hindu TBAs do not fare any better in terms of remuneration. Thus one Hindu TBA, Chenu Rani, told how a woman whose baby she delivered tried to dissuade her husband from giving her any payment by saying, "Has she touched me [dhorey nai] that you should pay her? Has she inserted her hand inside me?" The implication was that the TBA was paid only to compensate for the pollution, and that she had not been polluted enough to require payment. Chenu Rani's angry comment was, "Blood equivalent to a full water-pitcher [kalash] came out, and I delivered the baby, hasn't that any value?" She added "they call me non-stop when in danger, when danger is over they say tumi amar ki bal falaichha [a derisive village idiom implying 'what have you done for me']?"

There is clearly a conflict of interest here, but also a conflict of perspectives. Chenu Rani feels that she should be paid because she delivered the baby, but the mother argues that she should not be paid because she did not have to insert her hand inside her or deal with other specifically polluting aspects of the birth. The implication that the TBA is paid to compensate for the pollution is also present in relation to the conflict over cord-cutting. Most TBAs say they do not cut the cord, which is the most polluting task of all, because they would not be paid the large amount associated with doing so.

There is no doubt that most TBAs attend births in expectation of some form of payment. My understanding is that, even though they generally say that they are not paid at all, they are in fact paid by at least some families. It is clear that these women are in a bind. They need the money, and once a woman becomes acknowledged as an experienced TBA, she usually must be ready and willing to assist a family in delivering if called, because as everyone says in the village "this is the job of sowab." Yet, it is only in time of need that village society is prepared to recognise their value. Beyond the oshot [evil] and oshouch [polluted] ghar [hut, room] where birth takes place, these women have no value.

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lived in another district for some years before moving back to Noakhali said, "In Noakhali, dhatris are worth nothing. In Jessore, my suitcase would fill up with saris."
The rhetoric of gaining sowab from delivering babies and the common practice of handing out of soap and attar to poor TBAs after they attend births but not actually paying them for their services are linked by a simple logic. The rhetoric of sowab prevents TBAs from demanding or even expecting any renumeration; at the same time it justifies the use of their services without payment by the more well-off section of the village society. But every family at least hands out soap and attar, and so reinforces the notion that the TBAs should do deliveries for sowab and not for money.

Problems with TBA-Assisted Births

The medical problems associated with TBA-assisted births can mostly be understood in terms of their low status and marginal position in the birth process.

- No ante-natal care is provided by the TBAs nor is it expected of them. The TBA's involvement begins when she arrives for the delivery and ends as soon as the birth is completed.

- At least 90% of the TBAs I interviewed said they do not wash their hands before delivery. When I asked whether they are given soap and water to wash hands before the delivery, they were usually very surprised at my question. Several responded by asking in turn, "Why soap and water before? It is after the delivery that we need to clean ourselves."

- There are usually too many women and children crowding inside the delivery room. Some TBAs complained that it may be difficult to concentrate because too many people are saying too many different things, making the TBA or the birthing woman confused and worried. Yet it is not the TBA's place to decide who comes in and who does not. The common feeling among Muslims is that the presence of many adult women means more courage and more ideas. Also, "who knows with whom the feresta [angel or guardian spirit] will enter the delivery room?" The feresta comes to help relieve the woman's suffering [khalas kora].

Thus a Muslim woman whom I came to know very well, said "people

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11 This term khalas kora [to relieve, to deliver of a burden or a difficulty] is used commonly to refer to the actual moment of the baby's delivery, until which the birthing mother is perceived to be in danger. The TBA may also be referred to as relieving [khalas kora] the birthing woman. Revealingly, TBAs said to me that they were treated well by their clients and made very welcome until the mother had been "relieved" by them but after that they are nobody to the client's family.
sometimes say when 'luck has opened up [becomes favourable], the mother has been relieved quickly because a particular woman has entered the delivery hut."

- The TBAs are unable to examine the birthing woman properly. TBAs will not uncover a birthing woman to see the vaginal area as it is considered most polluted and shameful. One woman said "There is a big dabi [demand for money] if a dhatri sees it [the vagina]". She added "it is gunah [sinful]". It is not good for the dhatri or for the birthing woman to see the vagina, and it may be harmful.\footnote[12]{Eta dhekley bachhar khoti, dhatriro khoti. "If you see it, it is harmful for the baby, it is harmful for the dhatri too."} Due to the polluting nature of birth, TBAs use their left hand to assess how labour is progressing and use the right hand only at the last moment to draw the baby out.\footnote[13]{Many TBAs made comments to me about how bad they felt about the smell of birth, how they were unable to have food after deliveries, had to have several baths to clean themselves etc.}

- The cutting and tying of the cord generally takes place under unhygienic conditions. Many said a bamboo slip is used for cutting of umbilical cord, saying it is better than a metal blade. At one birth I attended, a bamboo slip was used and the family did not seem to have a blade anywhere. The thread used was not boiled. The TBAs also smear ash on the navel area of the baby. This is believed to help the area to heal after cutting the cord. As explained previously, the cutting of the umbilical cord, which is seen to be most polluting of all the tasks associated with birth, is in any case not necessarily done by the TBA. Often it is done by the birthing woman herself or by her mother or mother-in-law in order to avoid the large payment associated with this task.

**TBA Training Schemes**

A few of the TBAs are now receiving training by various government and non-government organisations. In addition to the government's training programme, almost all of the NGOs working in the area of family planning in the Noakhali region offer similar training to existing TBAs.

The training involves two or three short courses, each lasting for several days. These are followed by refresher courses for one day each month for 36 months. The training involves giving the TBAs some lectures and information,
sometimes with pictorial booklets, on cleanliness (i.e. the importance of washing hands before delivery and the need to boil the blade and the thread), the need for the TBAs to cut the cord, the need to refer women to Family Welfare Visitors, trained midwives or the hospital when they perceive difficulty, and other such issues.

There are no practical components to the training. It is generally believed that the TBAs know how to deliver, and that they need training only about hygiene and how to refer cases to the hospital when they cannot deal with the case. They are usually given delivery kits. This delivery kit plays an ambiguous role in the TBA's career. If a TBA carries a delivery kit with her to a birth, she may be considered as trained; in other words, the delivery kit is a symbol of training and status. Yet in many instances a trained TBA will not carry her delivery kit to a birth because "people [will] make fun of me." Another consideration is that if a TBA carries a kit, people may assume that she is paid by the government and fail to give her even the minimal payment she might otherwise receive.

It is worth considering what type of women attend these training courses. I went to a refresher course session attended by some thirteen TBAs on a government scheme. Most of the women were in their early 30s, and only three were over 40 years old. Most of them had small children. Two of the women had four or five years of education, while the rest could only write their names. It was clear to me that they were all very poor and desperate for a job. A few had never delivered a baby before their training. Three of the women were widows, one's husband "had become mad," and three women had two or three co-wives and were therefore not looked after by their husbands. One woman's husband had a tea stall, five women's husbands are rickshaw-pullers. The women were paid Tk40 (US$1) per day to attend the course, which seemed to be an inducement in itself.

The TBAs do gain some awareness about hygiene and other matters from their training, which no doubt slightly improves the kind of services they can provide the village women. However, their ability to insist on using the ideas and knowledge they have gained from their training in an actual situation remained very weak. The amazement of the women at the training session when I sat next to them on a bench brought home to me anew the significance of the

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14 For instance, with reference to a Muslim TBA (Halima), who was trained through a government scheme of the kind described above, I was told by a Christian female informant, "Halima is not trained, because she does not carry a delivery kit".
rigid status hierarchy in Bangladesh and South Asia in general. Society at large does not accord these women any status or honour. Nor do the village people with whom they have to deal with on a day to day basis. The rural society's image of these TBAs as poor, illiterate, women without suitable male guardians, and therefore of lowly status, undoubtedly has a detrimental effect on them. The situation is not helped when TBAs are only given minimal training, and not paid a proper salary by either the government or the people they assist. These minimal training programmes can have little impact by themselves on the traditional birthing practices of the village. The village people must value the TBAs' opinion and judgement; this, however, will not happen because of their poverty and the low status attributed to these women. At present, they are laughed at should they suggest new ideas or even bring their delivery kits. This "low status trap" in which the TBAs are caught is the central problem with TBA-assisted births in the village.

The Hospital

The local government hospital in Noakhali was built during the period of Pakistani rule, but inaugurated in the early 1970s. While it apparently had a good name in its early years, its reputation now is very poor. Many of the TBAs told me stories of their experiences when they accompanied a complicated delivery case to the government hospital. Not a single person - TBA, trained midwife, or any of the village people in general - had anything positive to say about the place. People referred to it as the "slaughterhouse". No-one wanted to take their birthing women there unless it was absolutely unavoidable.

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15 Status hierarchy is rigidly maintained at the training centre. I was offered a chair to sit next to the Family Welfare Visitor when I arrived. But afterwards when some of the trainee TBAs left, there was some room on the bench next to other trainee TBAs. So I sat there to chat with the women more informally after their training session was over. The women seemed most impressed that I should consider sitting next to them on the same bench. One woman said "No-one ever sits like this with us, the way you are mixing with us, it never happens with us." Blanchet (1984:149) also notes that, in the S.C.F. project, upper-class women, those who sometimes assisted in the delivery within their extended families and the immediate neighbourhood but did not accept any payment, refused to sit "on the same benches as poor, low-class dais, and for a long time they refused to attend any training session unless it were carried exclusively for them."
I visited the delivery section\textsuperscript{16} of the government hospital on several occasions. What I saw was simply horrific. It is overcrowded, mattresses are placed directly on the floor, the ward is littered with old bandages.

Only a very small minority of women are taken to the hospital before a TBA or and/or a trained midwife has been tried at home. The vast majority arrive when the TBA (or the trained midwife) decide they cannot handle the birth at home.\textsuperscript{17} Problems with the hospital centre around the expense involved in making use of it, and the mistreatment and lack of treatment of patients.

\textit{Expenses Associated With Using the Hospital}

The government hospital is supposed to be free for the patients: bed, services, food, and medicine are all supposed to be provided without charge. In reality, the case is otherwise. I have numerous stories of people telling me how much it cost them when they took their birthing women or other patients to the hospital. A trained midwife told me "it is as if every brick of that hospital building opens its mouth for money." The cumulative costs incurred from entering a hospital and being treated by doctors and nurses are very high in village terms. Some of these costs, none official, are: the entrance fee to the hospital, medicine, charge for doctor, charge for nurses, and charge for ayah. To this must be added food for relatives staying with patients 24 hours a day (up to three per patient are necessary since the hospital itself provides no services), travel back and forth to the hospital by relatives, and so on.

\textsuperscript{16} i.e., the women's section in general - there is only one ward for women, so that obstetric cases are placed in the same ward as all other cases. Of the present 150 beds in this government hospital, only 30 beds are set aside for women. The rest of the hospital is for men. Beside the 25 beds in the main ward, there are a few beds in separate rooms which women's families can use if they pay for them. Apparently there is talk of increasing bed numbers by 100, but no one knows whether this is a realistic expectation.

\textsuperscript{17} TBAs are often accused of waiting too long before referring the patient to the hospital, or of using homeopathic or allopathic drops to bring on the labour pains prematurely, leading to severe tearing of the uterus or other complications. Such comments about the TBAs are made by hospital staff (nurses and doctors) as well as by the trained midwives based at the village level, who are often called by village families when a TBA cannot handle a birth. Ivy, the midwife based at the missionary clinic in Noakhali, told me of several instances of her attending birth after a TBA had been called, or after a birthing woman had been in labour for two or three days, resulting in all kinds of complications.
Entrance fee

A family may arrive at the hospital at any time with a serious delivery case. They will not be allowed to pass the main gate of the hospital building unless an entrance fee is paid. As this entrance fee is not official, the guard charges whatever he thinks fit from clients, from Tk5 to 50 [US12c to $1.25].

Medicine

A major cost that no one can avoid is that for medicine. Patients are given prescriptions and their guardians are expected to go to one of the numerous pharmacies immediately outside the hospital gate to get the medicine at their own cost. Many villagers commented that the pharmacies are owned and run by the hospital doctors, and that the medicine on their shelves usually comes from the hospital stock (which is supposed to be distributed freely to the patients). While I have no evidence to support these statements, it was interesting that when I took some photographs of these pharmacies I was confronted by a shopkeeper who enquired whether I was a journalist and asked why I was taking photos. His suspicion about me made me think there may very well be some truth in what village people say.

Doctor's, Nurses' and Ayah's charges

If the delivery entails a Caesarian or other surgical procedure, the doctor apparently makes a contract with the birthing woman's family as to the amount he would be paid - the amount can vary from Tk4000.00 to Tk12,000 (US100 to 300). Again I do not have any evidence to prove what village people told me, but such statements were made by numerous people, including TBAs and trained midwives, as well as village people, which makes me think that there is some truth in the rumour.

Even when a straightforward delivery does not entail a direct charge for the doctor, there are various other costs. The doctor does not usually handle normal deliveries; these are handled by the ward nurses who are fully-trained, including a year of midwifery. A certain amount has to be paid to the nurses who attend the delivery and mind the ward. In addition, payment has to be made to the ayah who is supposed to do the general cleaning after the delivery, as well as washing the birthing woman's clothes and changing the sanitary pads. She will
not lift a finger until she has been paid in advance for each of these tasks. When I asked the birthing women’s female relatives, they did not know exactly how much was being paid, but they knew that something would be paid to the nurses and the doctor, including providing several morning and afternoon teas (with snacks of savouries and sweets).

**Travel**

The costs for village people also include trips back and forth from their home to the hospital on a daily basis. Since no services are provided by the hospital staff except for the actual delivery, every patient needs at least two to three people to attend her all the time. These relatives have to buy their own food from the food stalls outside, which can cost quite a lot of money, especially in cases when a patient needs to remain at the hospital for a long period of time.

**Mistreatment of and Lack of Treatment for Patients by Hospital Staff**

Here I summarize my observations from my first day at the hospital, which proved, from subsequent visits and from the numerous stories I heard from patients, to be quite typical. I arrived at the women’s ward at 9:30 am and found a woman, who was brought into the hospital about midnight and had a forcep delivery. She was half-sitting on a bed on the floor and looking lost. She had her mother with her. They were wondering what they should do with the baby, whether to feed it or not. At home, they normally would have used some honey or mustard oil, neither of which they had with them. The two women were feeling quite lost, and were waiting for the birthing woman’s father to arrive with some mustard oil. They were scared to ask the nurse for anything.

The birthing woman was in pain and needed to go to the toilet. She was wondering whether she should get up to walk to the public toilet. I volunteered to ask the nurse in charge whether it was OK for the woman to go to the toilet.

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18 The sister of a birthing woman told me that she got tired of having to pay Tk50.00 (US$1.25) to the *ayah* each time a little job had to be done for her sister. So she started to do everything, including changing her sister’s pads. I witnessed an argument between an *ayah* and the father of a birthing woman about the amount she should be paid for cleaning up after the delivery. She refused to accept Tk30, or even 40, saying "ask the doctor". Later she added, "what will the doctor say?" Such statements from *ayah* imply that everybody knows that they charge fees, and more importantly perhaps, it suggests that they may actually have to divide up their earnings with the nurses and maybe the ward doctor. The amount paid to the nurses is not set and varies from family to family.
The nurse said yes. After the woman’s mother and I helped her to walk to the toilet she nearly fainted on the toilet seat. She needed to be changed, including her sanitary pads, but no-one was there to help her, so I helped her. Then I went to the nurse again to ask for a bed-pan. She told the ayah to give us one. Without prompting, the birthing woman and her mother started to complain how rude the nurses were, how they refused to talk to them, and so on. I again went to ask the nurse what is to be done with the baby. The first time she ignored me. I asked again and then she turned around to the new mother and said she should feed the baby, "it is their fault, why come so late to the hospital, we had to use forceps; of course it will be difficult for the baby."

Then the doctor came to do his rounds - it took him about 10 to 12 minutes, no more, to go around 26 patients. His rounds consisted of merely making a hand gesture to the attending nurse with a few words like "discharge this one", or "let her be for another day", or taking an old bandage off Caesarian patients and putting on a new one, throwing the old one on the floor. There was hardly any interaction with the patients. Sometimes patients would call to him as he turned away, but he simply continued to the next patient. A few patients I spoke to before the doctor arrived had many questions they wanted to ask the doctor, but they could not. The women were overwhelmed, clearly feeling out of place. I was told that if a patient’s guardians pay a large sum of money to the doctor and the nurses, they usually keep an eye on the patient. Otherwise there is no guarantee that the patient is going to be attended to when needed.

Both trained midwives and TBAs had numerous stories to tell me. When they take patients to the hospital, the women were often left on their own in the delivery room. There were cases where the baby was born more or less by itself, and nearly fell onto the floor.

\[^{19}\] And yet these were not uneducated or poor women. Most of the patients would have come from middle-class backgrounds. Their husbands ranged from bank clerks to building contractors and the women themselves had education up to matriculation, year 12 and even B.A. Very few women came from relatively poor backgrounds. This is understandable because as already discussed the hospital is extremely expensive and therefore inaccessible to the poor.

\[^{20}\] In one case, the baby nearly fell down on the floor, but fortunately the ayah was close by to catch it. In another case, a TBA took her sister to the hospital, but noticed another woman who had been left in the delivery room by herself. When she went in, the baby was born, but the nurse came only about an hour later. The TBA was hanging around and when the nurse came she scolded her for being beyadap [one who does not know etiquette]. Apparently the TBA replied "you are beyadap, you left the woman on her own without any clothes on."
Well over 50% of the patients in the hospital had Caesarian deliveries. Many of them also had eclampsia. This was largely because women are brought to hospital in emergencies, when there is a need for a Caesarian delivery, or because they have high blood pressure or other symptoms of eclampsia.

The infection rate after Caesarian is quite high, which may be linked to the unhygienic situation of the hospital. The toilets often do not have water for women to clean themselves, and both the toilet and the delivery ward floor are littered with old bandages.

Every patient has two other women staying with them who must bring their own bedding and sleep on the floor. The patients themselves are provided only with minimal bedding; some of their bedding, such as a quilt, will also be brought from home.

The impression I got of the women being treated in the hospital was that they were in limbo. They thought they were in the hands of the experts, and that they could leave all decisions to them, but this was not the case. Each woman I spoke to had many questions for the doctors and because the doctor would not even listen to them, they asked me, who knew no better! It is not surprising that no one wants to go to the hospital if they can help it. The TBAs do not want to go there because they are always accused of doing something wrong by the hospital staff - usually for not bringing women to the hospital before they tried to deliver themselves.

There are several private clinics where the service is much better. However, the charge is much too high for anyone except for the very rich. In fact, because of the very high costs involved, most of the women brought even to the government hospital for delivery-related reasons are also from middle to upper middle class background. The very poor cannot afford the hospital or the clinic. Emergency or no emergency, they have no choice but to rely on the good will of God.

The Trained Midwives

Trained midwives are perhaps the most hopeful element in this generally very discouraging situation. The midwives in this region were trained by the nuns from the missionary clinic system. Most received their training some thirty to forty years ago; new midwives have been trained for at least fifteen years. Women trained under this system have spent at least 18 months at a missionary training centre, receiving getting practical and theoretical training on midwifery.
There are several missionary clinics around the country, usually part of a Catholic church complex. Clinics are usually also run by the nuns (as in the case of Rupganj, where I did my previous fieldwork). In Noakhali, however, the clinic (the Moriam Health Centre) is run by a lay midwife, Ivy, who was trained by a nun-midwife some 35 years ago. The mission had trained many other women (Hindu, Muslim, and Christian), some of whom still practice in the region. The Noakhali clinic used to be staffed by several nurses until some time in the 1980s. Because of lack of funding, most were retrenched.

There are also a few trained midwives who received their training by working with Bangladeshi doctors in their private clinics. Their experience in these clinics lasted between 6 months to 10 years. For various reasons, they took up midwifery as a profession after leaving the clinic.

Some of the trained midwives have finished matriculation, while others have had at least seven to eight years of education. The most highly regarded midwife is Ivy, the chief midwife at the missionary clinic, who also has paramedical training. People usually pay her Tk500 (US$12.50) per delivery. In addition to the payment, some families may also give a sari to these midwives.

The Moriam Health Centre: The Catholic Mission Clinic in Noakhali

Within the present scenario, the Catholic mission clinic (Moriam Health Centre, henceforward MHC) is the only place where women can expect to receive good attention and health care during pregnancy at a relatively cheap price. While a visit to a private doctor’s chamber may cost anywhere between Tk70-100 (US$1.50 to 2.50), plus costs of medicine, the MHC charges no fee, only the cost of medicine.  

The usual practice is for women to start visiting the MHC clinic as soon as they can after they become pregnant. They can visit the clinic every month on a Wednesday to have regular check-ups. The cost involved to them is a single admission fee of Tk30 (US$0.75) which covers all their visits throughout the

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21 Apparently they used to give free medicine at an earlier stage, when the MHC clinic was run by the Canadian and American nuns. They were then funded by some donor agencies, including UNICEF. However, all funding has been stopped for the clinic, staff have been scaled down to two - one, Ivy, an experienced and trained midwife and paramedic, and the other an assistant with 23 years experience of working at the MHC. These days, the two women working at the Clinic receive a nominal salary from the mission funds, and Ivy may now and then earn something from her attendance at births.
pregnancy. They also have to pay for whatever medicine, including vitamin and calcium tablets, they receive. Of course, women living a long distance from the MHC often have to resort to hiring a rickshaw, an additional cost.22

I observed these midwives at work, and felt they were very thorough and caring in the way they treated the women. At every visit, each woman receives a series of tests to determine if everything is progressing smoothly with the pregnancy.23 Towards the advanced stage of pregnancy, the woman is usually advised whether she can expect to have a normal delivery or whether she should seek expert help by going to a hospital or a private clinic.24

Only some of the women who attend the MHC clinic will eventually call Ivy to attend the birth. Her charge for a delivery is Tk500 (US$12) and very few can afford her services. The clinic staff only receive a nominal salary from the mission for their services and their charge for attending deliveries somewhat makes up for a lack of full salary.25 In any case, as Ivy's services at the clinic are relatively cheap, these are more accessible to women who at least are told beforehand whether they can have a home delivery with a TBA or a trained midwife, or whether they should consider seeking more expert help.

22 Sometimes at a very advanced stage when a woman may not be able to travel to the Clinic due to some complications her family may ask Ivy to call in for a private visit. In this case, the family pays for the rickshaw, and sometimes also a nominal fee varying between Tk20 to 50 (US$0.50 to 1.25).

23 These include a blood test, in which the level of haemoglobin and water is checked, taking blood from a prick on the finger and checking it against a coloured chart of blood types. The midwives also check blood pressure, check whether hands and feet show signs of too much water, check the woman's weight and whether it is proportionate to expected weight gain, urine test (if it turns creamy after heating it over a spirit lamp then it may mean the woman has problem of leukuria), and finally they perform an abdominal check up.

24 Ivy told me that the way they conduct their services at the Clinic was established by Sister Monica, a Canadian nun, who many trained midwives always talk about. Sister Monica was a trained and experienced midwife, who took the initiative to send groups of women (Hindu, Muslim, and Christian) to a special training centre on midwifery in Barisal (southern Bangladesh). Several of the local trained midwives received their training through her. The older Bangladeshi doctors in the region also remember her for her expertise as a midwife. It has been said that often she knew better than the MBBS doctors at the hospital.

25 Moreover, Ivy has also hurt her knee joint (which apparently needs a complicated operation costing upto Tk40,000, US$1000) four years ago and this interferes with her work in a bad way. She cannot sit on the floor - which would be the case in most poor households. She cannot walk more than half a mile at most and the poor cannot afford to pay for rickshaws either.
The village women living within several miles distance from the MHC thus have access to regular check-up during pregnancy (including urine tests, blood pressure, and general physical condition), and advice from Ivy on how to manage oneself during pregnancy. Moreover, through weekly EPI (Expanded Programme on Immunisation) sessions at the Clinic, run by the government, and funded by UNICEF, women and babies also have access to immunization as a safeguard against eclampsia, and various infants’ diseases such as diptheria, tuberculosis, polio, measles, and whooping cough.

**Some Points of Contrast between TBAs and Trained Midwives**

It may be useful to summarize some of the differences between the services provided by the trained midwives (TM) and the TBAs.

- If women go to the clinic beforehand, they receive regular pre-natal care. TM usually visit the new mothers and babies for several days after birth.
- The trained midwives are much more competent. They are well trained about the importance of hygiene in birth care and perform their deliveries accordingly. They carry their own delivery kits with the relevant implements. They wash their hands and use gloves, and change the birthing woman into clean clothes.
- TM use both hands for delivering, not only the left hand employed by the TBAs.
- Although TMs, being local women, are sensitive to the modesty rules and avoid taking off all of the birthing woman’s clothes, they take off her sari and place it over her bosom. More importantly, they carry out a pelvic and vaginal examination in order to assess the labour situation. We have seen that this is not done by TBAs.
- TMs perform enemas (douche) on the birthing woman and check her blood pressure. Again, TBAs are not in a position to do this.
- Because often Ivy may be called after the birthing mother has been in labour for two days or so, if she feels the case is complicated and needs clinical attention, she tells the woman’s guardians to arrange to take her to the hospital. Often she may accompany them. In contrast, most TBAs would find it difficult to establish the causes of long labour and by waiting in ignorance may endanger the lives of the birthing mother and the baby.
Most TMs, especially Ivy, do not allow too many women and children to crowd around the delivery room. However they allow one or two women (mother, mother-in-law or sister-in-law) to stay and help.

- TMs cut the umbilical cord as a matter of course after delivering a baby. They use scissors which they carry in their delivery kit and which they boil before and after each usage. They also carry sterilised thread in their delivery kit.
- Ivy gives a warm bath to the baby, sponges the mother, and puts on a sanitary pad or uses the pieces of clean old sari to make into a pad. (She says she does not do the cleaning.) She also goes for follow-up visits to see how the baby and the mother and progressing. However, she admitted that because they are so busy at the Centre, she cannot always go back regularly.

**How do the Trained Midwives Fare in Terms of Status?**

From the above list we can see that Ivy, the MHC clinic midwife, and other trained midwives perform their task of delivery quite differently than do the TBAs. In particular, TMs use both hands for deliveries, uncover the woman for internal examinations, and cut the umbilical cord. If TBAs did the same thing, they would risk polluting themselves unnecessarily and committing *gunah* [sin].

Ivy was not at all concerned about these issues, and yet she clearly commanded much respect from the village society. For example, she was away on holidays for a few weeks and when she returned everyone seemed very pleased to see her. When she went to the schoolyard, some young mothers came and touched Ivy’s feet asking for her blessings, a common way of showing respect to older women in this culture. Walking on the streets with her, I observed that the menfolk (of all religious backgrounds) stopped to speak to her, ask about her well-being and so on. While all TMs enjoyed higher status than the TBAs, no one commanded as much respect as the clinic-based midwife Ivy. This was also reflected in the different amounts paid by families to different TMs. Ivy’s rate was Tk500 (US$12.50), while others could earn anything from Tk150 to Tk500 (US$3.75 to $12.50).
Conclusion

In considering the relationship between trained midwives and TBAs, a good starting point is the question of Ivy’s high status in the community. How can we explain Ivy’s status? She carries out all the "polluting" tasks, including the most polluting one of all, cutting the cord, yet she enjoys higher status than the TBAs who avoid doing these tasks. Is it because of her education (matriculation), her training, and her association with the mission clinic? Is it because she has a continuing relationship with the women through the ante-natal services at the clinic? Is it because her expertise, including her paramedic training, is sufficiently recognized and her services enough in demand to enable her to charge Tk500 for a delivery, a quite considerable sum in local terms?

I think that all of these factors play a part. However, there does not seem to be a stream of educated and middle class women ready to follow in Ivy’s footsteps. In part this is because the mission system which supported her training no longer has the resources or (in post-colonial Bangladesh) the political strength to maintain its training programme. There are, however, other ways to obtain training if women are determined.

A key issue is the lack of payment, which ensures that only very poor and uneducated women with no real alternative will take up this career. Undoubtedly, if TBAs received a government salary, or if they were able to demand a reasonable fee from the families they assisted, this would help. Thus in the past, nursing was an occupation which was taken up by women in marginal situations (particularly Christians), while these days increasing numbers of women from all religious groups are taking up this profession as it commands a respectable salary in the present times of economic crisis. Again, women from middle class families who work with family planning NGOs now travel wearing a veil and walk long distances. A few years ago, this would not be done by a middle class woman. The low status of the village TBAs is closely tied up with the lack of payment for their services. If they received a respectable salary in local terms, I have no doubt that the job would become much more attractive and its status would rise.

So it seems that there is room for change, provided the government and relevant NGOs are prepared to take sufficient notice of the need for it. However, as long as TBAs are the poorest women in the community, exploited for little or no payment, there is unlikely to be significant change. Here the ideology of sowab continues to play an important part, legitimating the exploitation of TBAs.
by the wealthier villagers, and maintaining their low status. It would be useful if Islamic authorities could come out against this ideology, as they have in the case of traditional opposition to family planning. This might be an important step in restructuring the whole network of social relations which keeps TBAs locked in a "low status trap". It is only if TBAs somehow gain the status and the income appropriate to the vital work they perform that the work will gradually attract young and educated women who will in their turn be able to make a real impact for the better on the nature of the birthing process in rural Bangladesh.

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Malaria Prevention During Pregnancy: An Antenatal Intervention Strategy Whose Time Has Come

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Summary

In sub-Saharan Africa, infection with Plasmodium falciparum during pregnancy is a major contributor to both maternal morbidity and perinatal morbidity and mortality. However, because maternal malaria infection is one of the few contributors to morbidity and mortality that is amenable to intervention once a woman becomes pregnant, effective antimalarials should be provided as part of an antenatal care package. In Malawi and in the Kisumu district of western Kenya, women’s knowledge and attitudes, delivery of services at antenatal clinics (ANCs), and utilization of ANCs to assess the opportunities for and obstacles to delivery of antimalarials and other selected interventions were examined. In both settings, approximately 90% of women perceived malaria as a health threat during pregnancy and believed that antimalarials could be an effective treatment. In Malawi, where the antenatal program included weekly chloroquine (CQ) prophylaxis, over 25% of women reported that they had not received any CQ. Antimalarials were not routinely delivered through ANCs in Kenya, resulting in 96% of women not receiving CQ. Delivery of other key antenatal interventions, including tetanus toxoid (TT), hematinics, and syphilis testing and treatment, was also poor, despite the finding that over 85% of pregnant women attended antenatal clinics at least twice during their pregnancy. Pregnant women are therefore accessing ANCs, yet health care systems are failing to deliver appropriate interventions. Efforts to improve antenatal care must therefore concentrate on the delivery of interventions known to be effective.

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Introduction

Approximately one half million women die each year during pregnancy or childbirth. Ninety-nine percent of these deaths occur in developing countries (WHO 1991). Pregnant women in sub-Saharan Africa experience the highest risk, with reported maternal mortality rates ranging from 500-700 per 100,000 live births, a rate approximately 200 times greater than for women in developed countries (WHO 1991). Similarly, stillbirths and neonatal deaths (deaths within the first 28 days of life) are common and occur disproportionately in developing countries; reported perinatal mortality rates in sub-Saharan Africa range from 45-75 deaths/1000 births (Greenwood et al. 1987; Nordbeck et al. 1984; Steketee et al. 1994) compared to approximately 9 deaths/1000 births in developed countries (Booth 1979; National Center for Health Statistics 1992). Reduction of maternal and perinatal morbidity and mortality needs a focused effort to deliver effective antenatal care, which is one of the four critical strategies of the Safe Motherhood Initiative (Mahler 1987).

In sub-Saharan Africa, *Plasmodium falciparum* malaria is an important contributor to maternal morbidity and perinatal morbidity and mortality. During pregnancy, particularly among primi- and secundigravidas, women are at increased risk of malaria parasitemia, malarial illness (McGregor 1984; Keuter et al. 1990; Steketee et al. 1988), and anemia (Kortmann 1972; Gilles et al. 1969; Fleming et al. 1986). Furthermore, maternal *P. falciparum* parasitemia may result in placental parasitemia, which in turn can compromise placental function and increase the risk of low birth weight (LBW) (Steketee et al. 1994; MacGregor and Avery 1974; Brabin 1983). Neonatal and early infant mortality is a common consequence (McCormick 1985).

Effective antimalarials have recently been demonstrated to reduce the effects of malaria infection during pregnancy (Steketee et al. 1984; Greenwood et al. 1989; Schultz et al. in press). In sub-Saharan Africa, where women often do not seek antenatal care until mid-pregnancy, administration of antimalarials represents one of the few interventions which could be given during the second and third trimesters, still effectively promote maternal health, and reduce the incidence of LBW and prematurity (Steketee et al. 1984).

Similar to other interventions which should be included in the package of antenatal care services (such as tetanus toxoid, syphilis testing and treatment, and iron and folate supplementation), antimalarial intervention requires appropriate patient behaviour and beliefs, proper utilization of services, and adequate service
Figure 1  *Antenatal Services Model Illustrating Some Key Services Which Should Be Available to Pregnant Women in sub-Saharan Africa*

<table>
<thead>
<tr>
<th>Service provided</th>
<th>Visits required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal risk assessment</td>
<td>each visit</td>
<td>screening for small pelvis, high blood pressure, twins, abnormal presentation, etc.</td>
</tr>
<tr>
<td>Risk management</td>
<td>variable</td>
<td>should include referral to facility for delivery for primigravidas, grand multigravidas (5 or more pregnancies) and other high risk pregnancies</td>
</tr>
<tr>
<td>Tetanus toxoid (TT)</td>
<td>twice</td>
<td>dose 1 - first visit&lt;br&gt;dose 2 - 1 month later&lt;br&gt;(if previously vaccinated, one dose at first visit)</td>
</tr>
<tr>
<td>Ferrous sulfate/folate (Fe/fo)</td>
<td>monthly</td>
<td>monthly supply dispensed for daily self-administration at home</td>
</tr>
<tr>
<td>Syphilis testing &amp; treatment</td>
<td>twice</td>
<td>test - first visit&lt;br&gt;treat positives - second visit</td>
</tr>
<tr>
<td>Antimalarial</td>
<td>twice</td>
<td>dose 1 - first visit&lt;br&gt;dose 2 - 1 month later</td>
</tr>
<tr>
<td>Record keeping (ANC card)</td>
<td>each visit</td>
<td>standard recording form recommended</td>
</tr>
<tr>
<td>Patient education</td>
<td>variable</td>
<td>rotating schedule of messages is often provided. Identified high risk patients should be counseled individually about their condition and delivery at a health facility</td>
</tr>
</tbody>
</table>

High risk pregnancies: first pregnancy, 5th or greater pregnancy, and women with other identified risk factors.
delivery to ensure program effectiveness. To support this assumption, we examined client and health worker practices and health system support in Malawi and Kenya to identify opportunities for and obstacles to delivery of an antimalarial intervention within antenatal service packages.

Background

Studies document lower maternal and perinatal mortality rates among women receiving antenatal care (U.S. Congress 1988; Greenberg 1983). Early onset of antenatal care and appropriate frequency of visits is also associated with improved pregnancy outcome (Gortmaker 1979; Ryan et al. 1980). A minimum number of services have been accepted as standard practice for developing countries. Figure 1 provides an example of service delivery.

For an antenatal intervention to be effective, services must be available and women must utilize ANCs. Assuming the first visit occurs at the beginning of the second trimester, women should complete a minimum of five visits to ensure that they receive the full antenatal care package. Many countries in sub-Saharan Africa do have high rates of ANC attendance; for instance, ANC attendance has been reported to be as high as 95% in Tanzania (Moller et al. 1989), and greater than 80% in Zambia (Ratnam et al. 1982), The Gambia (WHO 1991), Togo, and Zaire (Steketee et al. 1994). Service delivery, however, is often inadequate. It was discovered during one study in Zambia that fewer than half the women were screened for anemia, and that only one-third of the anemic women received Fe supplementation (Ransjo-Arvidson et al. 1989). Although high-risk women should be identified at antenatal clinic visits and referred to facilities for delivery, home delivery rates are often as high as 73% (Voorhoeve et al. 1984), with more than 60% delivering at home without the assistance of trained personnel (WHO 1991). The high proportion of home deliveries may be due to a variety of determinants, including distance from the facility and socio-behavioral factors.

Despite recommendations by WHO that pregnant women living in *P. falciparum* endemic areas should receive an initial treatment dose followed by regular prophylaxis with an effective and safe antimalarial drug (WHO 1986), few African countries have a formal policy concerning maternal malaria control. Even fewer have operational programs for the delivery of antimalarials through antenatal clinics (USAID 1994). This programmatic inertia may be attributable
in part to the emergence and spread of chloroquine (CQ) resistance, resulting in difficulties in identifying an efficacious, safe, and affordable antimalarial for use during pregnancy.

Studies in Malawi have established that a highly efficacious antimalarial administered during the second and third trimesters of pregnancy significantly decreased LBW among primi- and secundigravidas (Steketee et al. 1994). More recent work has demonstrated that an antimalarial regimen consisting of 2 treatment doses of sulfadoxine-pyrimethamine (SP/SP), the first administered during the second trimester and the second administered at the beginning of the third trimester, was highly efficacious in reducing the prevalence of peripheral and placental parasitemia, well-tolerated (Schultz et al. in press a), and more economical than the commonly recommended regimen of CQ in both total cost and cost per infant death prevented (Schultz et al. in press b). Similarly, in The Gambia, chemoprophylaxis with another sulfa-pyrimethamine combination (Maloprim4) was efficacious in preventing placental malaria, decreasing LBW, and was well tolerated (Greenwood et al. 1989). When viewed together, these studies identify antenatal antimalarial strategies that are efficacious, safe, affordable, and practical to deliver.

Methods

In Malawi and in the Kisumu district of western Kenya, a series of investigations were conducted to examine women’s knowledge, attitudes, and practices regarding malaria illness, treatment, and prevention; evaluate the opportunity for delivery of an intervention within the current ANC system; and examine women’s utilization of the current ANC programs in Malawi and Kenya.

Malaria Knowledge and Attitudes

In 1992, a nationwide survey examining malaria knowledge, attitudes, and practices (KAP) was conducted in Malawi. A modified Expanded Program for Immunization cluster-sampling methodology (Henderson and Sundaresan 1982) was used to select a total sample of 1531 households, in 30 clusters of 51 or 52 households. One section of the survey focused on women who had completed a pregnancy within the past 5 years. Questions regarding antenatal clinic use,

4 Use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.
services received, and place of delivery were asked, in addition to malaria treatment and prevention. A similar survey focusing strictly on women pregnant within the past 5 years was conducted in the Kisumu district in 1994. A total of 216 women in 30 clusters of 7-8 women each were interviewed. In both surveys, interviews were conducted by female nationals of childbearing age and efforts were made to conduct the interviews in the first language of the woman interviewed. When this was not possible, interviews were conducted in the national language.

Delivery of Antenatal Services

As part of the KAP surveys, women were asked about services received during antenatal clinic visits. Reported rates of TT immunization and administration of Fe/fol and CQ were compared with antenatal care record cards, among the women still possessing them, to verify reporting accuracy. Facility assessment was performed to verify available supplies and medicines. A sample of women attending ANC was followed through the clinic, and health care worker practices were recorded.

Utilization of Antenatal Clinics

Using reported initial and return ANC attendance rates, estimates were made of the proportion of women available for delivering various interventions to pregnant women. We examined antenatal clinic use and place of delivery for high-risk women to assess the need for more effective referral. For Malawian women, age categories were used as a surrogate for parity. Previous studies documented that 89% of women less than age 18 years at delivery were primigravidas, while 93% of women at least 35 years old were grand multigravidas (5th pregnancy or greater) (Steketee, personal communication). We defined women in these age groups as high risk and compared them to women delivering at 20 to 34 years of age. Kenyan women were classified as high risk on the basis of parity. The number of women available to receive the full benefit of antenatal services and referral for hospital delivery was estimated.
Results

In Malawi, 809 recently pregnant women were interviewed. The mean age of the Malawian women was 29 years, and 669 (83%) reported being currently married. In Kisumu district, the mean age of the 216 interviewed women was 27 years, of which 118 (87%) reported being currently married. Figure 2 shows further demographic characteristics of the pregnant women in the two countries. Most women in Malawi reported their principal occupation as farming, and most had little formal education.

Figure 2  Characteristics of Recently Pregnant Women Interviewed in Community Surveys

Malaria Knowledge and Attitudes

Malaria was considered a problem during pregnancy by 87% and 96% of pregnant women in Malawi and Kisumu, respectively. Detrimental health effects of malaria reported by respondents in both countries included maternal illness, spontaneous abortion, and illness in the baby. Antimalarial medication was perceived to be potentially harmful to a pregnant woman or her unborn child by
37% and 74% of women in Malawi and Kenya, respectively. Most women in both countries reported that antimalarials were effective for treatment and prevention of malarial illness.

**Delivery of Services**

Over 95% of antenatal clinic attenders reported receiving an ANC card; however, only 26% of Malawian attenders and 13% of Kenyan attenders could produce a ANC card for examination. Correlation between reported number of visits and number recorded on the ANC card, when available, was high (Schultz et al. 1994). Reported receipt of TT immunization was common in both countries. Among primigravidas, however, fewer than 80% in Malawi and 60% in Kenya reported receiving two doses TT. More than 70% of women in Malawi and more than 90% in Kenya reported having received Fe and/or fol from the ANCs. With prevalence of anemia (defined by WHO as haemoglobin < 11 g/dl) as high as 82% and 79% in the study areas (Brabin 1983), coverage with Fe and fol is important. Syphilis testing was not routinely available in Malawi (Steketee et al. 1994). In Kenya, a policy existed for syphilis testing; however, testing was often unavailable for months at a time because of shortages of reagents (Schultz, unpublished). Reflective of the difference in malaria control policy between the two countries, 73% of Malawian women reported receiving CQ, compared with 4% of Kenyan women. Of the Malawian women, however, only 61% of those receiving CQ reported taking the recommended dose of two tablets weekly.

**Utilization of Antenatal Clinics**

In both Malawi and Kenya, over 90% of women reported attending an ANC at least once. The total number of reported visits was similar in Malawi and Kenya, with 87% and 92%, respectively, attending two or more times. More than 40% of the women in both countries reported attending five or more times. ANC attendance rates were applied to the model in Figure 3 to estimate the proportion of women available for interventions during pregnancy. In both Malawi and Kenya, more than 85% of pregnant women were available to benefit from a two-dose antimalarial regimen, coverage with two-dose TT, syphilis testing and treatment, initial Fe/fol supplementation, and risk assessment with one follow-up. In contrast, fewer than 45% were available for continued risk management and Fe/fol coverage throughout their pregnancy.
8679/10,000 (87%) and 9215/10,000 (92%) of women in Malawi and Kenya, respectively, were available to receive two doses tetanus toxoid, tisk assessment, antimalarials, and syphilis testing and treatment.
Fifty-six percent of Malawian women and 37% of Kenyan women delivered in a hospital or clinic setting (Figure 4). In both countries, women who attended ANCs were significantly more likely to deliver at a hospital or clinic than women who had never attended an ANC. For those delivering at a health facility, 68% of Malawian women and 52% of Kenyan women walked to the facility; 80% of Malawian women and 95% of Kenyan women reported waiting until the onset of labour to travel to the facility. Only 55% of women with high-risk pregnancies in Malawi and 33% in Kenya gave birth in a health care facility. In both countries, rates of ANC attendance and hospital delivery were similar among high- and low-risk pregnancies.

![Figure 4](image)

**Location of Most Recent Delivery Among Recently Pregnant Women in Malawi and Kisumu, Kenya**

Discussion

The recent identification of an efficacious, safe, affordable, and cost-effective antimalarial intervention represents a technologic advancement for improving maternal and infant health. However, its identification alone does not ensure its delivery. Malaria has long been recognized as a health problem during
pregnancy, yet few African countries have implemented an antimalarial strategy with wide coverage among pregnant women. Our study showed that in Malawi, which has a national policy of administering CQ during pregnancy, more than 25% of women attending ANC failed to receive chloroquine. Many more received it irregularly or at an inadequate dosage. In Kenya, where a clear policy does not yet exist, only 4% of women received an antimalarial drug. These findings are consistent with community-based surveys of seven regions in four other sub-Saharan African countries which showed that although 34%-68% of women reported attending ANCs, only 1%-18% reported using weekly antimalarial prophylaxis (Steketee et al. 1994). These findings suggest that a clear policy for antimalarial use in pregnancy is needed but is not sufficient to ensure appropriate antimalarial drug use in pregnancy.

In recent years, antimalarial interventions may not have been actively promoted because of the lack of an identified efficacious and safe drug in the face of widespread CQ-resistance. However, prevention of malaria is not the only intervention that is not being delivered to pregnant women. While most women in sub-Saharan Africa appear to be accessing antenatal clinics, the health care system is failing to uniformly provide basic services which could greatly reduce the risk of pre- and perinatal complications. We observed that 16% - 38% of primigravidas failed to receive two doses of TT, and that few women underwent testing and treatment for syphilis, despite visiting an ANC two or more times. Similar findings have been reported elsewhere: in Zambia, although the mean number of ANC visits was more than five, only 50% of the primiparous women received two doses of TT (Ransjo-Arvidson et al. 1989); 72% were tested for syphilis, and almost 25% of women testing positive for syphilis did not receive appropriate treatment (Henderson and Sundaresan 1982).

Our investigations in Malawi and Kenya identified certain opportunities for the delivery of antimalarial interventions. The finding that women recognize malaria as a health threat during pregnancy and believe medicine is capable of preventing malarial illness will help to ensure acceptance of an antimalarial intervention. Although compliance with antimalarial home-dosing has limited program effectiveness for previous regimens (Heymann et al. 1984), the recent identification of a two-dose SP regimen which can be administered during ANC visits in the second and third trimesters should eliminate the obstacle of low compliance. An additional opportunity exists in linking the two-dose SP regimen to an existing program, such as tetanus toxoid immunization, that has similar
timing for its two-dose schedule among primigravidas. The existing widespread support of immunization programs for antenatal packages could offer the necessary support for a linked delivery program with antimalarials.

The provision of quality antenatal care is one strategy aimed at reducing the high risk of maternal mortality among African women and perinatal mortality among their infants (WHO 1991). While further efforts to find new or improved methods of promoting both maternal and infant health should continue, the fact remains that a package of antenatal services already exists which is not being delivered. For sub-Saharan Africa, this package includes providing effective antimalarials. Understanding specific health problems, the necessary interventions, patient attitudes and behaviours, and the ability of the ANC system to deliver interventions is essential to design and implement a successful antenatal care package. Data that identify opportunities for delivery of antenatal interventions, such as these presented here, should enable programs to better focus efforts at improved antenatal care. Program effectiveness can, in part, be judged by our ability to provide and women's choice to use these services. Application of current technology can decrease maternal and infant mortality through affordable, effective, and deliverable antenatal interventions -- and pregnant women are accessing the health care system. We must seize the opportunity to improve the delivery of antenatal services lest we fail to reach women at the threshold of safe motherhood.

References


An Epidemiological Study of Gynaecological Morbidity in a Rural Community of Haryana, India

Alka Sehgal, Amarjeet Singh, Rajesh Kumar, and Indu Gupta

Abstract

A cross-sectional, population-based study was conducted among rural women in two villages of Haryana State (India), to determine the estimated prevalence of gynaecological morbidity. A total of 225 women underwent complete general and gynaecological examinations. Of these, only 55% reported complaints related to sexual organs, although in fact 72.7% were found to be suffering from some form of gynaecological disease. Menstrual irregularities and genital tract infections were two major causes of gynaecological morbidity. Eighty-two percent of the women believed that their family planning method was the root cause of their ill health; 60.4% percent felt that their problem was an abnormal phenomenon, although their perception of the cause of their disease was unscientific. Consultation is sought infrequently for gynaecological problems; when it is sought, health personnel often have little knowledge of gynaecological disease. The majority of patients take either no treatment or partial treatment, which may further be nonspecific in nature. More concentration on obstetrical care and neglected aspects of nonpregnant reproductive health has compounded, increasing gynaecological morbidities in rural areas.

Introduction

Maternal and child health care is one of the eight basic components of primary health care in the Alma-Ata Declaration, and its provision to the community is an essential perquisite for "Health for All by the Year 2000" (WHO/UNICEF 1978). Because of the continued high maternal mortality rate in developing

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countries, including India (Sai 1987), there is increasing international concern about the provision of health care during pregnancy and child birth (Conable 1987). The Safe Motherhood Program is currently in the process of upgrading maternity care services in India. This indicates the high priority that national and international agencies are giving to the prevention of maternal mortality.

In comparison, scant attention has been paid to the reproductive health of nonpregnant women. In India and other third world countries, women usually do not consult physicians or gynaecologists, due either to a lack of perception of disease causation, or to inhibition. Their only contact with the health care system are the health workers for family welfare programs (Bang 1987).

This lack of concern by health care planners for the prevention of gynaecological abnormality can be traced to a lack of adequate information about rural health problems. The majority of data on morbidity among non-pregnant women are either hospital-based (Wahi et al. 1972; Mali et al. 1984) or selective for a particular disease (Bali and Bhujwala 1969; Sharma et al. 1984). Occasional studies among the rural population in India have pointed out that gynaecological morbidity may be present in 92% of the women (Bang et al. 1990).

In the present study, we sought to determine

• the prevalence of gynaecological diseases among rural women of reproductive age,
• the awareness and perception of women regarding causes of disease, and
• the current role played by health workers in management of such complaints.

Materials and Methods

Study Area and Sample Population

The study was carried out in two villages of Haryana State (North India). These villages were a part of the Raipur Rani community development block in the District of Ambala. The first village, Ramgarh, had a population of 3000, of which approximately 550 were females between 15-45 years of age. This village had a health subcentre. The second village, Kot, had a population of 1290, of
which about 280 women were of reproductive age. This village has a Primary Health Centre (PHC) with a female doctor as a medical officer. Both villages are approximately 20 km from the state capital town of Chandigarh, and are well connected by regular metalled roads.

Investigations

Field camps were set up in both villages (on different days) after repeated visits and distribution of pamphlets by local health workers regarding the date of camp. All patients coming for check-ups were interviewed by female doctors specialized in the field of obstetrics and gynaecology.

Detailed histories, including personal details, socio-economic status, education, perceptions of disease, practices regarding gynaecological symptoms, any treatment taken (obstetrical and gynaecological), and sexual histories, were noted. A complete general physical examination, including haemoglobin and urine analysis, was completed for each patient. A pelvic examination, including a perspeculum examination, was also conducted. Cervical smears were taken from 100 patients. Patients requiring special investigations/treatment were referred to the Postgraduate Institute of Medical Education and Research, Chandigarh, to the Civil Hospital, Ambala, or to the Civil Hospital, Naraingarh. At a later date, the women were followed-up at home or at the subcentre/PHC with the help of a local leader or the health workers.

Results

A total of 225 women were interviewed and screened for gynaecological problems. One hundred fifty-five were from Ramgarh, and 70 were from Kot. On average, the women attending the camps were aged 29 years; 41% were illiterate. Sixty-two percent of the women were of low socio-economic status.

Overall, 55% of the women had gynaecological complaints. Most of the gynaecological complaints were related to menstrual irregularities (32.4%); the other common complaint was vaginal discharge (11.1%). Other complaints are outlined in Table 1.
Table 1 Gynaecological and Sexual Complaints

<table>
<thead>
<tr>
<th>Complaint</th>
<th>Positive Cases (%) (n = 225)</th>
</tr>
</thead>
<tbody>
<tr>
<td>vaginal discharge</td>
<td>25 (11.1)</td>
</tr>
<tr>
<td>irregular periods</td>
<td>19 (8.4)</td>
</tr>
<tr>
<td>childlessness</td>
<td>17 (7.5)</td>
</tr>
<tr>
<td>pain in lower abdomen</td>
<td>14 (6.2)</td>
</tr>
<tr>
<td>infrequent periods</td>
<td>13 (5.7)</td>
</tr>
<tr>
<td>profuse periods</td>
<td>13 (5.7)</td>
</tr>
<tr>
<td>pain while passing urine</td>
<td>11 (4.8)</td>
</tr>
<tr>
<td>scanty periods</td>
<td>9 (4)</td>
</tr>
<tr>
<td>amenorrhea</td>
<td>7 (3.1)</td>
</tr>
<tr>
<td>painful periods</td>
<td>6 (2.6)</td>
</tr>
<tr>
<td>pain during intercourse</td>
<td>6 (2.6)</td>
</tr>
<tr>
<td>prolapse</td>
<td>6 (2.6)</td>
</tr>
<tr>
<td>post menopausal bleeding</td>
<td>3 (1.3)</td>
</tr>
<tr>
<td>other</td>
<td>11 (4.8)</td>
</tr>
<tr>
<td>total</td>
<td>160</td>
</tr>
</tbody>
</table>

On examination, 72.7% of patients were detected to have one or more gynaecological disease (Table 2). The mean average number of these diseases per women was 1.6.

Table 2 Gynaecological and Sexual Diseases in Women Examined

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Positive Cases (%) (n=225)</th>
</tr>
</thead>
<tbody>
<tr>
<td>erosion</td>
<td>30 (13.3)</td>
</tr>
<tr>
<td>pelvic inflammatory disease (chronic)</td>
<td>24 (10.7)</td>
</tr>
<tr>
<td>menorrhagia</td>
<td>16 (7.1)</td>
</tr>
<tr>
<td>polymenorrhagia</td>
<td>15 (6.7)</td>
</tr>
<tr>
<td>trichomonas vaginitis</td>
<td>14 (6.2)</td>
</tr>
<tr>
<td>mixed vaginitis</td>
<td>14 (6.2)</td>
</tr>
<tr>
<td>cervicitis</td>
<td>14 (6.2)</td>
</tr>
<tr>
<td>prolapse</td>
<td>13 (5.8)</td>
</tr>
</tbody>
</table>

132
<table>
<thead>
<tr>
<th>Condition</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>oligomenorrhoea</td>
<td>13</td>
<td>5.8</td>
</tr>
<tr>
<td>fibroid</td>
<td>11</td>
<td>4.8</td>
</tr>
<tr>
<td>polymenorrhoea</td>
<td>11</td>
<td>4.8</td>
</tr>
<tr>
<td>irregular periods</td>
<td>11</td>
<td>4.8</td>
</tr>
<tr>
<td>candidiasis</td>
<td>10</td>
<td>4.4</td>
</tr>
<tr>
<td>functional uterine haemorrhage</td>
<td>8</td>
<td>3.6</td>
</tr>
<tr>
<td>hypomenorrhoea</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>dysmenorrhoea</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>infertility primary</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>infertility secondary</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>dyspareunia</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>secondary amenorrhea</td>
<td>5</td>
<td>2.2</td>
</tr>
<tr>
<td>atrophic vaginitis</td>
<td>5</td>
<td>2.2</td>
</tr>
<tr>
<td>primary amenorrhea</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>pelvic inflammatory disease (acute)</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>ovarian cyst</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>condyloma</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>leucoplakia</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>carcinoma cervix</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>carcinoma ovary</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>carbuncle</td>
<td>1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Some 40% of the women accepted their ill health as a normal phenomenon, while almost 50% felt they did not require any treatment. The women’s perceptions of the causes of their diseases were very unscientific, with most attributing their condition to their use of contraception (see Table 3).

It was observed that patients seek consultation for general complaints more often than for gynaecological disease: 63% of the women sought consultation for general complaints, whereas only 47.2% sought consultation for gynaecological diseases. The majority of women sought consultation from an unqualified local practitioner or from a health care clinic. The nonavailability of a female doctor was the most common reason given for not seeking consultation (Table 4).

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Only 54% of the women took any form of treatment for their disease; of these, only 52% completed their full course of treatment. The reasons given for not completing the course of treatment are given in Table 5.

**Table 3 Perceptions of Causes of Disease**

<table>
<thead>
<tr>
<th>Woman relates her symptoms to</th>
<th>Positive Cases (n=225) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General weakness</td>
<td>63 (25)</td>
</tr>
<tr>
<td>Contraception</td>
<td>50 (22.2)</td>
</tr>
<tr>
<td>Food habits</td>
<td>34 (15.1)</td>
</tr>
<tr>
<td>Sexual habits</td>
<td>31 (13.7)</td>
</tr>
<tr>
<td>Child birth</td>
<td>30 (13.3)</td>
</tr>
<tr>
<td>God’s will</td>
<td>25 (11.1)</td>
</tr>
<tr>
<td>Age</td>
<td>9 (4)</td>
</tr>
<tr>
<td>Bad spirits</td>
<td>5 (2.2)</td>
</tr>
<tr>
<td>Hygiene</td>
<td>0</td>
</tr>
</tbody>
</table>

**Table 4 Reasons Given for not Seeking Consultation for Gynaecological Problems**

<table>
<thead>
<tr>
<th>Reasons given:</th>
<th>Total number (n=163) (%)</th>
<th>Village with subcentre</th>
<th>Village with female medical officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>No consultation</td>
<td>86</td>
<td>66</td>
<td>20</td>
</tr>
<tr>
<td>Re-availability of proper health services</td>
<td>28</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>expense</td>
<td>22</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Re-availability of female doctor</td>
<td>30</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>distance</td>
<td>10</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>other</td>
<td>11</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 5 Treatment History and Reasons Given for Non Completion of Full Course

<table>
<thead>
<tr>
<th>Consultation taken</th>
<th>77 (of 163)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment taken</td>
<td>42 (of 77)</td>
</tr>
<tr>
<td>Treatment completed</td>
<td>23 (of 42)</td>
</tr>
</tbody>
</table>

Reasons given for noncompletion:

- expense: 11
- relief gained with partial treatment: 10
- no relief gained with partial treatment: 1
- non-availability of injectable drugs: 0
- other: 3

Discussion

Our study may not reflect the actual prevalence of gynaecological morbidity in the community, as only 25% of the females of reproductive age attended the camps. In addition, the majority of women attending the camps came with more gynaecological complaints than general complaints. This may be due to their motivation, to their less orthodox characters, or perhaps to the advertisement which was posted regarding the camps offering women a chance to receive specialist medical advice.

The number of women who presented gynaecological complaints was actually less than those who actually had problems on examination. This may be due to the women's perception of the problem, as up to 40% of the women considered their problems to be a normal phenomenon. This discrepancy is obvious in women complaining of vaginal discharge and menstrual irregularities.

Some 40% of the women had no specific perception of disease causation, while the rest related it to some abnormality. Fifty percent of the women thought that no treatment was required for these problems. Concepts of hygiene were very poor. Scanty periods were deemed to be an important issue, as the washing away of "bad blood" (menstrual blood) is believed to be a pre-requisite for good health. On the other hand, post menopausal bleed was thought to be a normal part of sexual activity. One alarming finding was that 82% of women blamed the
use of contraception directly or indirectly for their disease(s), irrespective of the type of contraception adopted and the duration of its use. This percentage is higher than in previous reports, in which 66% of women attributed their problems to contraceptive use (Bang et al. 1990).

Very few women blamed supernatural powers for their complaints. This may be attributed to awareness created by health workers. However, one cannot overgeneralise this finding: orthodox women may not have attended the camps. Menstrual problems and vaginal discharge are commonly associated with food habits.

Less than half the women in villages sought consultation for their problems. The majority went to either unqualified village practitioners (22%), auxiliary nurse midwives (42.8%), or to private doctors (23.3%), all of whom have limited knowledge of gynaecological problems. Only 4% of such women received a vaginal examination. The reasons for this lack of consultation are multifactorial: lack of proper health facilities and non-availability of female doctors. Even in the village where a lady doctor was available, however, a lack of motivation and lack of proper examination made the facility redundant.

Of the 47.7% women who took consultation, only 54% were prescribed treatment/took treatment; of these, only 52% completed the course. The most common reason given for not completing the course was the non-affordability of the treatment. The majority of the prescription slips which could be screened were either non-specific or were given only for symptomatic relief.

Some glaring examples of nonspecific treatment prescribed included haematinics for cases of cervical and uterine cancer with bleeding. Nonspecific haemostatics were also given for cases of fibroid uteri with excessive bleeding; in one case, ovarian cancer resulting in a distended abdomen was managed as a pregnancy; local steroids were prescribed for condyloma lata or cephalosporins for vaginal discharge, and so on.

References


Problems of Utilization of Nutritional Rehabilitation Services by Mothers of Malnourished Children in N’Djamena (Chad)

Kaspar Wyss¹ and Monique Nandjingar²

Summary

This paper reports on a study which explores the difficulties mothers of malnourished children face in utilizing nutritional rehabilitation services in N’Djamena, Chad. The objective, using focus group discussions, was to understand perceptions of malnutrition, to gather information on interactions between the health care workers and the women, and to determine the reasons women abandon the services. The paper then suggests ways to improve the utilization of nutritional rehabilitation services by mothers.

Most women identify diarrhoea and vomiting as the principle causes of malnutrition illness. Quantity and quality of food are rarely mentioned as important elements of health. Other factors mentioned in connection with malnutrition are repeated pregnancies, bitter milk, teething, inflammation of the uvula, and measles; witchcraft and evil spirits are also implicated. Mothers choose multiple treatment options, and often use both "traditional" and "modern" health care, either in parallel or consecutively.

The length of the rehabilitation programme (three months) was rarely mentioned as a problem. On the other hand, long waiting times and the time of day when nutritional supplements are provided are seen major obstacles to utilization, since the women feel that it takes too much time away from their other essential tasks. Some appreciate the nutritional supplements, but others complain that the enriched porridge causes diarrhoea.

Since the children often need treatment for disease as well as nutritional supplements, the lack of drugs available in N’Djamena is perceived as a major problem. The women also complained about the amount and costs of the

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prescriptions. Furthermore, the women are dissatisfied with their reception by the health services personnel, and the incorrect distribution of nutritional supplements.

Principle causes for abandoning the services include the social and economic position of women, difficulties of geographical accessibility, the long waiting periods, unsatisfactory contact with the personnel, and the high costs for drugs.

Health services can improve the utilization of nutritional rehabilitation services by making drugs available through the establishment of a cost recovery system, and by promoting participatory approaches which can establish better communication and exchanges between the women and the personnel of health facilities.

Introduction

For several years, food aid - mainly under famine conditions - has been a frequent topic of discussion, debate, and publication. The "drama" of a hunger catastrophe in a Southern country, often related to a situation of crisis or war, attracts public interest in the North and in international organizations. Apart from these crises, however, persistent malnutrition continues in many countries, particularly among young children. Two anthropometrical studies carried out in N'Djamena, Chad, revealed that malnutrition rates were as high as 8.5% - 10.3% among children aged six months to five years (Ministère de la Santé Publique 1987, 1989). These studies were carried out during a critical period in the year, just before the rainy season, when the availability of food is low and prices high.

In Chad, as elsewhere, first level health centres are responsible for delivering a core package of curative, preventive, and promotional services, including the detection and treatment of child malnutrition (Ministère du Plan et de la Coopération 1993). In N'Djamena, the admission of malnourished children to nutritional services began in 1991 in four of the city's eleven health centres.

Children are enrolled in the rehabilitation programme when their weight-for-height ratio falls below 80% of the international standard median of NCHS (United States Public Health Service 1976; Waterlow et al. 1977). The duration of treatment is twelve weeks. During the first six weeks, the children must be brought to the health centre each day by their mothers. While there, they receive preparations of milk and a porridge enriched with oil and sugar. During the
following six weeks, if the child's progress is deemed satisfactory, follow-up continues at home. The mother brings the child to the centre once a week for weighing, and to receive the nutritional supplements.

During 1992, 542 children were admitted to the nutritional rehabilitation programme; 31% were withdrawn from treatment before the end of the programme and 14% died during the treatment period (Ministère de la Santé Publique et des Affaires Sociales 1993). Of the children who finished the programme, only 31% fulfilled the criteria for a complete cure (weight/height ≥ 80% of median NCHS standard) after the twelve week period. Similar results have been observed in other African countries (Beau and Sy 1993; Hennart et al. 1987; Van Roosmalen-Wiebenga et al. 1987).

The relatively high percentage of withdrawal - nearly one third of the children - indicates that accessibility of nutritional services is only partially guaranteed. What are the problems with which the women of the children using the services are confronted? Are they related to the socio-cultural acceptability of health centres in general and of malnutrition programmes in particular? Or are the barriers tied to the behaviour of health service personnel (reception, communication, and so on)? In this study we set out to answer some of these questions, trying to understand the problems that mothers of malnourished children face in utilizing nutritional rehabilitation services. The objectives were to look at the way women perceive malnutrition in children; to obtain information on the interactions between the health care provider and the patients; to investigate the reasons for the abandonment of rehabilitation services; and to suggest means of improving the accessibility of nutritional rehabilitation services for the mothers of malnourished children.

**Methods**

To understand women's problems related to the utilization of health services, focus group discussions were used (Basch 1987; Dawson et al. 1992; Khan and Manderson 1992). In focus groups, participants are assembled on the basis of a topic of common interest, with the intention of promoting discussion between them. The interactions within the group are considered to be an important element for comprehending the way they think about the topic.

In all, eight groups were formed, six with women using the centres and two with personnel providing the services. Of the women's groups, two were composed of mothers who had continued with the treatment of their child until
it was finished, and two with mothers who had abandoned the treatment. Two groups were heterogeneous, with some women who had terminated treatment and others who had abandoned it.

The discussions took place between December 1992 and March 1993. Mothers of malnourished children were identified by nutritional assistants at the health centres or from the consultation register, and were invited to participate. The discussions were held at a place completely independent of the health centre, usually in the courtyard of the compound where one of the mothers lived. Attempts were made to ensure that there was no direct connection with the health centres - none of the persons present during the discussion worked in a centre - and that a stimulating ambience for a free exchange was present. The discussions with the personnel took place at their place of work. In each group, between 6 and 12 women participated. The duration of each discussion was between one and two hours. and they took place in the local languages, Arabic, Sara (or N’Gambaï, a local dialect of Sara), or in other languages. The discussions were later translated into French.

The discussions were guided by a female animator, who raised the questions and tried to ensure a natural conversation. The questions were focused on perceptions of children's malnutrition, the centre's treatment programme, and the reasons for abandoning the treatment. The animator used a pre-prepared interview guide which was oriented towards the principle questions to be raised during the discussion.

At the beginning of the discussion, the animator showed two photographs, one of a malnourished child and one of a child in good health. The participants were asked to describe what they saw in the pictures. The animator then guided the discussion towards the reasons for abandoning the centres. In addition to the animator and the participants, a woman observer was present during the discussion. Her task was to note the exchanges between the participants (attitudes, gestures) and the principal topics of the discussion. She was also responsible for tape-recording the conversation.

The discussions were analysed on the basis of the transcription, as proposed by the Focus Group Manual (Dawson et al. 1992): the elements of the text were classified, and the terms or topics used by the participants were identified. The content of the speeches was then examined.
Results

Living Conditions

Women participating in the discussions were living in different neighbourhoods of N'Djamena (principally Farcha, Madjorio, Moursal, Chagoua, Dembé) and in villages around the city. They had different ethnic (Arab, Gabi, Haoussa, Bornou, Ouaddai, Sara, N’Gambaï, Lélé, Gore) and religious (Islamic, Protestant, Catholic) backgrounds, and were aged between 18 and 40. The length of time they had lived in N’Djamena was also variable; some were born in the city and others had arrived recently. Most of the women had never been to school, though some had received some primary education.

The women using the nutritional rehabilitation services are confronted with problems common to most women in N’Djamena: the general living conditions are poor and their socio-economic situation is difficult. The gender division of work - still present even in the urban context - allocates to women the domestic tasks and the care of the children. At the household level the woman has multiple duties: she is responsible for the availability of water, the cleanliness of the household, the organisation of marketing, the preparation of food, and the health of the children. "A housewife doesn’t lack work." Furthermore, many women are in a situation where the husband (if there is one) is earning nothing, or not enough to guarantee a minimal basis for existence. The incomes of women therefore become indispensable to the functioning of the household. The women have various coping mechanisms; often they engage in petty trade, frequently in the food sector. "If I got a small scale trade, I could give my child what he needs; what his heart desires."

A multitude of extra tasks arises with the illness of one or several of the children. The responsibility for health and care of the children places new demands on the mother. These demands are considerable for severe or long-lasting conditions such as malnutrition. "When a mother has a very sick child, she has no rest day and night."

Although the female staff members of the health centres live and work under similar conditions, they showed little or no understanding of the social and economic situation of the mothers. As one social worker expressed:

Women like that always have problems. A child gets sick, then maybe they don’t sleep peacefully at night; they aren’t at their husband’s side but are disturbed by that child and preoccupied with it. So they always have a problem - basically, it’s all psychological.
The views of the medical staff about the patients are often dominated by the conviction that ignorance is at the roots of disease. "The mothers of malnourished children are negligent mothers". There is very little recognition on the part of the health personnel of the mother's functions and obligations.

The Child's Illness

When the photograph showing the malnourished child was presented to the mothers, they recognized the child as being sick, as suffering from the same disease as their own. "That child really has a wicked illness. He is between the hands of death. My child was exactly like this one." Even though the child in the picture was perceived as being gravely ill, the term "malnourished" was never used by the women. In fact, it is a word that does not exist in the vernacular languages of Chad.

Some mothers do talk about nutrition and vitamin deficiency in connection with the child: "It's the hunger. When a child is sick and his mother doesn't give him enough to eat, he will suffer from hunger on top of the illness. That can kill a child." As another mother explains: "But just being hungry doesn't make a child look like that. There has to be diarrhoea and vomiting at the same time."

In fact, diarrhoea and vomiting are identified by the women as the main causes of malnutrition. The mothers complain that diarrhoea and vomiting are accompanied by additional problems. "She had diarrhoea and vomiting. She suffers a lot. She's more than a year old, but she's never been healthy. She has all kinds of problems." Other factors such as measles, teething, and inflammation of the uvula are also identified as sources of childhood malnutrition.

Several women said "Bitter milk is my problem; my milk is not good." However, not everyone accepts the idea of "bitter milk". "The women talk about amboula (bitter milk) but in medicine this doesn't exist. The old people say that it is the bad milk that gives the child diarrhoea." Sometimes a new pregnancy is seen as the cause of the milk being bitter. "The child has diarrhoea and vomits because the milk doesn't belong to it, and because its mother is pregnant with another baby." The negative consequences of frequent pregnancies are connected with malnutrition. "You have a child in your arms, you're pregnant again, and the other child has diarrhoea all the time. Repeated pregnancies are bad."

Sometimes the women ascribe malnutrition to supernatural forces: angry spirits of the ancestors, evil spirits, and the effects of witchcraft. They are thought to have a negative influence on the health of the child.
In contrast to the mothers, the health professionals describe the malnourished child as an object, using technical and technocratic expressions. "This child is dehydrated /marasmic/ has kwashiorkor. It has oedema, it's a malnourished child, dehydrated."

**The Quest for Therapy**

The women often have recourse to several forms of therapy, and both "modern" and "traditional" forms may be used either consecutively or in parallel. "There are children who are lucky enough to be cured rapidly, and there are others you are forced to take to the marabout. It may be witchcraft." The health personnel confirms that "[t]here are mothers who disappear and then appear again saying «I did a traditional cure, now I think your porridge is better»".

The quest for therapy for the malnourished child takes the mothers on a pilgrimage from one health facility to another until they finally arrive at the nutritional service.

This child! I went with him to the Central Hospital - no improvement; to Asiam Vantou - no better; to the Polyclinic - still no improvement. And I was tired. Finally I took him to the nutritional rehabilitation service until he was able to walk. If I had got tired on the road to the porridge, my child would have died.

The mothers of the malnourished children had rarely known about the nutritional rehabilitation services beforehand. Sometimes it was a neighbour who had made the suggestion. "My child was so sick, that he even couldn’t sleep at night. One day, one of my neighbours came and advised me take him to the centre. I was accepted at the centre and I went there morning and evening." The referral system between the different health facilities of the city and those offering nutritional rehabilitation services is not well established. "I waited around in the hospitals for several months before I discovered the centre where my child could be treated." The situation is the same concerning the relationship between preventive consultations for children and the rehabilitation services: malnourished children are not identified and not referred correctly by the city’s health services. Finances pose a serious constraint to women who are forced to go from one service to another. They often they have to pay for consultations and for drugs.

*Every time you have to pay 100 francs for this, 100 francs for that. If you multiply these 100 francs by the number of times you go to hospital, you are not able to find the necessary money. And so we are obliged to make debts.*
Admission and Waiting

The three month treatment programme seems to many staff to be too long, believing that it poses a barrier to some mothers. "This duration of twelve weeks is much too long, because some women live far away." The women, however, rarely criticize the programme’s duration. Several women, in fact, express the wish to stay longer. "I thought I would be at the centre for two years." The women are puzzled that no follow-up is guaranteed after the end of the treatment. "When the centre let us go, all the children got ill again." Relapses are frequent, as has been reported in other studies (Beau and Sy 1993; Hennart et al. 1987; Van Roosmalen-Wiebenga et al. 1987). Several women mentioned that they had stayed twice for three months at the rehabilitation service. "After three months at the centre the treatment is terminated. But when the child is weighed and he is too weak, we go for another three months."

In contrast to the total duration of the treatment programme, the time spent each day waiting for the distribution of the porridge and the milk is a frequently-mentioned problem. "It’s not that it takes so long, but having to wait till 11 o’clock makes it seem a terribly long time." With the women’s numerous obligations, waiting poses a series constraint to the morning’s smooth organisation, and few can afford to wait for several hours. "What we receive is fine. But why so late? We’ve got other children at home waiting for us. They have to go to school and we have to go to the market." The fact that it is impossible for the women to wait for a long time leads to conflicts with the personnel, who have very little appreciation of the women’s daily tasks. "They would like to be here at 8 a.m. to leave again at 9 a.m. for the market. This is their real problem."

The Lack of drugs and the Quality of the Porridge

One of the most sensitive points for the women is the lack of drugs available through the health services of N’Djamena. "Hospitals were created for the children and when we visit them there are no drugs." The women also make complaints about the prescriptions.

If you don’t take your sick child to the hospital, the family thinks you are negligent. And if you go to the hospital, there are plenty of problems. Always a prescription. To go to the hospital and then to come back to purchase the drugs isn’t worth the effort.
Women have to spend huge sums to purchase the drugs. Within a context where money is lacking, prescriptions are absolutely not appreciated. "A man to whom you present every day a prescription will get tired. Furthermore, when he has no work…"

The health professionals face a difficult problem: despite the lack of drugs and other materials, they are expected to offer continuous, high-quality care. In the absence of drugs, the staff are doubtful of the efficacy of care they can provide for the malnourished children:

*There are women who say «my child is sick; giving him just porridge is not enough, you also have to cure him. » The mothers haven't the financial means to purchase the drugs. We can't offer any antibiotics in the health centre and this delays the success of the treatment.*

The staff may go to some lengths to satisfy the women.

*There are mothers who are satisfied. But sometimes there are mothers who say that their children are sick, and if they don't get any treatment they will be disappointed. Given the porridge without anything, they aren't satisfied. So we take some vitamins and put them into the porridge and the mothers think it's a drug.*

The porridge and the milk offered by the nutritional rehabilitation services cannot fill the crucial role played by drugs, to which the women attribute the efficiency of the therapy. Opinions on the quality of the porridge are ambiguous. Some women appreciate it, "*My child gulps down the porridge*"; others think there is a connection between the consumption of the porridge and the child's diarrhoea. *"The porridge makes my child swell up and increases the diarrhoea."* Sometimes the women just speak about the bad taste of the porridge. *"My child thought the porridge at the centre was disgusting."* Several times the women mentioned the lack of variety of the food.

During some discussions, the mother's demands focused on material assistance. *"Because it's cold, the centre has to give us pullovers so that we are able to protect our children."* For these women, the nutritional rehabilitation service's purpose is to distribute nutritional, material, and economic hand-cuts.

*Relationships with the Health Personnel*

The women's feelings about the personnel of the health centres were divided. The reception by the nutritional rehabilitation centre staff is a topic of intensive discussion. Some mothers are satisfied: *"There is no problem. We are received kindly. there is an awning to sit down under..it's OK."* Other women deplore the attitudes of the health personnel.
The centre is supposed to be here to accommodate the sick children. But then the staff just say mean things. How can the child get better? When we leave the centre we grumble about it on the way home.

The women don’t hesitate to accuse the personnel. "Several children have died because of the behaviour of the staff." A woman who spoke the Haoussa dialect said about the attitude of the personnel: "I don’t understand either French or Arabic. So how can I understand the insults? I'm going there for my child. Even if they strike and beat me I'll still go, to get the porridge for my child."

The women also complain that service staff show them no respect. They feel that the relationship between them does not correspond to the kind of contract that should exist between one who has the power to cure and one who is asking to be cured. "They are like our godparents, who profit from us".

The personnel, on their side, rarely discuss the importance of the reception of the mothers and their social relationships with them. The person in charge of one centre said:

[Concerning the reception, we ourselves are trying to make things better. If the attitudes of the staff have not been good, we will try and improve them. However, no woman has ever left the centre because of the reception...]

The strained relationships between the mothers and the personnel is aggravated by the fact that some staff members do not hand over all the nutritional supplements to the beneficiaries. They are accused of not providing the right quantity of porridge or tins of sardines (given by the "Programme Alimentaire Mondiale" (PAM)). The women say that the personnel distribute just a fraction, and that they give the rest to their own family members.

To those they called, they gave four spoonfuls of porridge, but to us they gave just a little bit, just one spoonful. To their family members they hand over masses of tins of sardines, but for us they keep only a few.

The women are aware how much should be distributed to them, and are very observant of any malpractice. "On the day of distribution, the traders come to buy the food in big quantities. To us they hand over just one tin."

During 1992 and 1993, repeated strikes immobilized the health facilities, including the nutritional rehabilitation services. However, this temporary stoppage of health care provision did not arise as an element in the discussions.

Reasons for Abandoning Treatment

The women gave diverse reasons for abandoning treatment: the quality of the porridge, the duration of waiting, the distance to the health centre, the expenditures for drugs, and the socio-economic obligations of the women.
Sometimes the quality of the porridge is considered to be so bad that it is an argument for abandoning treatment. "I was asked to stay for three months. After one month my child refused to eat the porridge. I don't know whether she just began to find it disgusting."

During the discussions, the lack of drugs for the treatment of malnourished children appeared as an argument. "When you have got a sick child, no drugs are given, and every day you have to go to the health centre. Then it's normal that you're getting tired. Because of this, some women refused to return."

The situations under which the women live may make it impossible for them to make use of the nutritional rehabilitation services. "We refused to go to the centre because we have to much do at home." The women must consider whether the benefits they hope to gain from using the centre justify the expenditure of time and energy that are badly needed for other essential activities. "I'm trader and they want that I lose my time at the centre - and meanwhile other children wait at home. My commercial activities are more important."

The personnel confirm that withdrawal is often due to the social obligations of the women:

Generally mothers say that they are busy, that they aren't able to come, that they have to travel or that they are traders. They also say that their business nourishes the whole family and that they cannot neglect all the children just for one.

The staff members also believe that the main reasons for withdrawal focused on the poor geographical accessibility of the services and the long duration of waiting.

The women have to get up early, to prepare the breakfast and then come here and go home again. It really is hard work. They think that all this going to and fro takes so much energy that it's tiring for the child. They think that if they are making all this effort just to get a few spoonfuls of porridge, it would be better to keep the child at home and treat it there. Often the women don't like to stay from 8 a.m. to 11 a.m. every day for several weeks. So they abandon the treatment.

It is interesting to note that the women rarely mentioned distance as a barrier to health centre accessibility. The staff also believed that a preference for "traditional" therapies was a cause for withdrawal by some women from the programme. "Some mothers come two or three times, and then say that the illness of their children is not malnutrition. They want to go to the marabout, because they say it's witchcraft."
Conclusions

One of the problems of the nutritional rehabilitation services for malnourished children is, in N’Djamena as elsewhere, that the mothers of malnourished children frequently abandon the centre before the treatment is finished. It is important to understand the reasons for this in order to increase the effectiveness of the services. In public health and tropical disease research, an increasing interest is being shown in rapid assessment methodologies (Anker 1991; Vlassoff and Tanner 1992; Manderson and Aaby 1992), and especially in the methodology of focus group discussions (Khan and Manderson 1992). In Chad, focus group discussions have rarely been used. Only one study, in fact, has used this methodology to investigate the demand for family planning services, the perceived benefits, and barriers against their utilization (Ministère de la Santé Publique 1988). Elsewhere in Africa, focus groups have been used to study problems related to AIDS (Irwin et al. 1991), barriers to the utilization of obstetrical emergency services (The Prevention of Maternal Mortality Network 1992), and perceptions of goitre (Andrien et al. 1993).

The discussions in N’Djamena highlighted that the domestic situation and the socio-economic environment of the women utilizing the health centres is difficult. The division of work by gender allocates a multiplicity of tasks to them, and they are often also responsible for the family’s income. With the illness of a child, the women’s obligations increase. Most women identified diarrhoea and vomiting as major causes of malnutrition, and realized that they should seek treatment. However, the final decision about whether to use a nutritional rehabilitation service or some other kind of therapy results from the interaction between the desired benefits and a variety of social, spatial, financial, and cultural constraints.

A more detailed analysis of these constraints would require quantitative as well as qualitative techniques. The findings of focus group discussions alone are not a sufficient basis for making a detailed situational appraisal of the problems of women and their malnourished children in the urban context of N’Djamena. A more comprehensive assessment would encompass both quantitative and qualitative analyses, including gender roles, the food available for the household, and living conditions as a whole. Quantitative data could be obtained through household surveys focusing on the social, environmental, and economic situation of women, on gender roles and family structure, and on the food available for children. Qualitative methods (observations, interviews) could supply indepth
information on attitudes to child nutrition. It would also be interesting to assess in detail the frequency of relapses in N'Djamena, which are reported from studies in other countries to be quite high, in order to evaluate the efficacy of the nutritional rehabilitation services. Nevertheless, the present study shows that the focus group technique can provide insights into the perception of malnutrition by the mothers of malnourished children, their interaction with health care providers, and the causes for their abandoning treatment.

Though nutritional interventions can be implemented through vertical programmes (Pelletier and Shrimpton 1994), they are most effective if they are integrated into the country's PHC provisions. In Chad, the integration of nutritional rehabilitation services into the globality of health care offered is not satisfactory. The detection and referral of malnourished children is the task of first level health centres, but communication between the curative and preventive services of health centres is weak, and most women have to pass through several different health facilities to find therapy for their child. An operational referral system, including referrals from preventive to curative services, could facilitate the utilization of rehabilitation centres.

The abandonment of treatment once started is another problem. Principle causes in N'Djamena are loss of time, which is needed for other household duties and for economic activity, the behaviour of the personnel, and the availability of drugs. The time of distribution of supplementary food, and the long waiting period are also major problems for the mothers. The three month duration of the programme is rarely mentioned as a barrier for the nutritional rehabilitation.

The lack of drugs available through the public health services in N'Djamena is perceived as an immense weakness; the women disapprove of the frequency of prescriptions for drugs that they have to buy at great expense from private suppliers, and the staff members are dissatisfied because they are expected to provide health care without being in a position to supply drugs. Some women are satisfied with their reception by the health centre staff, but others find the attitude of the personnel unsympathetic or even insulting.

Improved utilization of nutritional rehabilitation services by women could be achieved by diminishing the daily time of waiting, by improving the availability of drugs, and by promoting better communication between the providers and the women. A reduction of the waiting time could easily be achieved through a quicker distribution of the nutritional supplements. Drugs could be made available through the establishment of a cost-recovery system. Finally, communication could be improved through the promotion of participatory approaches. Communication between the providers and the users of health
services must to be perceived as a resource and an opportunity which will allow better management of health for all. A rehabilitation centre, where the mothers attend regularly for a long period, offers excellent opportunities to increase understanding and cooperation between the health professionals and the women who carry a large amount of the responsibility for the health of their families.

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References


Journeys and Voices

A Collection of Excerpts
Availability of Health Providers to Female Clients

Daisy Tin Tin Saw

In the South East Asian region...there are still areas where, because of their gender, women are at a disadvantage.

In a recent conversation with a Cambodian mother, I learned that her six month old baby is suffering from severe pneumonia and is very marasmic. The baby is bottlefed; the mother explained that she could not nurse the baby as her breasts are 'shrivelled and dried up'. She is a forty-year old mother of eight children; the oldest five were breastfed. She has observed that the three younger children have health problems which she attributes to the lack of breastfeeding.

She has had access to a health clinic and was introduced to 'the pill' but when her supply ran out, she could not afford to buy more and found it difficult to return to the health clinic... She does not want any more children, but knows she will conceive a few more.

She has not received any antenatal care for her three youngest children. They were all born at home with assistance from TBAs or neighbours... Here is a woman with some knowledge of antenatal services, contraceptive pills and the importance of breastfeeding, yet because of environmental and social constraints is deprived of health services that are within reach.

No matter what are the underlying psycho-physical problems, attendance at the health clinics and out-patient clinics is mostly by women and children... The relationship between the health provider and the patients is related to the health provider's interest... This determines the quality of care, attention, trust, and support the patient receives.

Further away from the city, as one approaches the periphery, the facilities and support services dwindle. Communication becomes difficult and most things have to be done manually. This results in a feeling of being overburdened, which causes health workers' positive attitudes to slacken. Service becomes superficial.

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Education, Gender, and Relationships Between Female Clients and Health Providers

Tehseen Iqbal²

...our experience reveals that the attitude of the health provider helps to mitigate the apprehensions of the female client and her family, helps to establish a proper client-provider relationship, and gives a good reputation to the health provider. For example, since certain relationships are sacred in Pakistani society, calling every female client by respectable names such as "sister", "mother", or "daughter", according to her age group, alleviates much apprehension.

... in cases where young unmarried women go to a female health provider, suspicions may be aroused in the minds of relatives and neighbours about the character or the reproductive capacity of the woman, in both cases affecting the her future marriage propositions. In this case, women may go to a male health provider to alleviate these suspicions, as it is generally believed that women go to a male health provider for minor, non-gynaecological problems.

It is a well documented fact that educated women visit their health providers more often than do uneducated women, as education increases self-respect and self-confidence in women. Educated women also have more knowledge of the health care system. The effect of education extends beyond her, to the attitudes of others around her, including health providers who will treat her with more respect and consideration. Education improves communication between the female client and the health provider. As a result, the educated woman's experience with the health provider may be more favourable than that of the uneducated woman.

In countries like Pakistan, where strong religious, social and cultural taboos make the contact between unrelated males and females forbidden, the gender of the health provider is of prime importance.

² Multan, Pakistan.
Los Proveedores de Salud y su Relacion con las Pacientes Alcoholicas en el Ecuador

Saul Pacurucu-Castillo

Una investigacion realizada por el Centro de Plantificacion y Estudio social (CEPLAES), (17) revela que de 98 mujeres consultadas el 60.2% admitio haber sido agredida por lo menos una vez por su pareja.

Mi marido me pego, porque le conte que estoy esperando otro hijon, manifesto una encuestada. Existe una soar de razones que se antojan muy extranas: No servirle la comida, salir de la casa sin permiso, mentir, chismes de la familia y amigos, por creerse el super hombre, ser frigida, no ayudar a la suegra, ser vaga. Otros golpean a sus mujeres por los efectos del alcohol, de la ira o de los estupefacientes.

El Codigo Penal ecuatoriano excusa de culpa a las persona que mata, hiere o golpea a una mujer, a la que se encuentre en acto carnal ilegimito o al hombre que se encuentre con ella (18) y prohibe la denuncia y acusacion particular entre conyuges, imposibilitando la sancion penal para aquellos que maltratan en forma fisica psicologica y verbal a sus parejas.

3 Universidad de Cuenca-Ecuador. Cuenca, Ecuador.
The Female Client and the Health Provider: Using Poliomyelitis as a Marker

H.V. Wyatt

There are marked gender differences in immunization and acute polio statistics. These gender differences grow larger with the age of the children and with the intensity of care received.

Data from rehabilitation centres and polio camps show gender differences; these differences are very large in some villages, and are reflected in the marked absence of girls with polio from these villages. These differences may be due to lack of health care for girl babies, to neglect of girls with polio, and to high mortality of girls with polio.

Since 1945, there have been several hundred papers published on the topic of polio in India, covering immunization, prevalence of acute and residual paralysis, and rehabilitation. Yet no paper discusses differences relating to gender. Even data which might have been analyzed by gender is always presented as a total. WHO manuals detail how to collect records for immunization: boys and girls are recorded, but later simply added together. Following WHO practice, many surveys have looked at the reasons mothers give for missing immunizations of their children. This data is presented with no breakdown by gender. Non governmental organizations (NGOs) carry out extensive house to house surveys to locate disabled children - and then file their results in such a way that differences related to gender cannot be examined.

Maternal Mortality in a Rabat Maternity Hospital

Arjowan S.M. Al Dhabi

Between January 1990 and January 1993, 68 maternal deaths occurred in our hospital; during the same period there were 33,274 deliveries. The resulting maternal mortality rate (MMR) is 204/100,000 deliveries. Most deaths (85.3%) were the direct result of complications during pregnancy and delivery.

This is a catastrophic figure when compared to maternal mortality rates in industrialized countries, where the figure does not exceed 10/100,000 deliveries. Our figure is also very high when compared to other third world countries, such as Malaysia, where the rate is 73/100,000, and Brazil, where it is 45/100,000.

Effective prevention of maternal mortality and morbidity will require improving all aspects of women's health and health care, and incorporating a life cycle approach. In addition, the following recommendations could reduce maternal mortality:

- improve the status of women by increasing the enrolment of girls in schools; through education, women could be made more aware of health issues;

- increase effective family planning, as an estimated 25-40% of maternal deaths could be prevented if women could avoid unwanted pregnancies;

- redistribute trained personnel throughout the country; and

- improve antenatal programs through the increase of antenatal centres, particularly in rural and remote areas.

3Rabat Maternity Hospital. Rabat, Morocco.

Adnan Hazza Rasheed

Obstetric fistulae produce serious, long-term social, psychological, and physical consequences for women. An obstetric fistula is a hole torn, often during prolonged, obstructed childbirth, between the vagina and the bladder (and rarely the rectum). The affected woman will be continuously incontinent, with an offensive smell. Through advances in medicine and improvement of socioeconomic improvements, obstetric fistulae have been eradicated completely from developed countries. Unfortunately, however, they are still quite common in less developed countries. Some authors, in fact, consider the condition to be a tropical disease (Lawson 1989).

In this study, 33 patients (87%) had fistulae that were caused by a prolonged, obstructed labour which had been conducted at home in the presence of an unskilled midwife or traditional birth attendant (TBA). Eight percent (three patients) had fistulae caused by badly managed instrument deliveries (forceps) at small isolated peripheral maternity hospitals. The other two patients (5%) had fistulae which followed urgent hysterectomies performed because of uterine rupture.

This terrible problem can impede the living and working conditions of the affected woman, who usually smells so strongly of urine that she is not welcome in society. She usually becomes an outcast. In addition to their smell, these women may also have vaginal stricture, which causes their husbands to reject them. In this study, 40% of the patients were living away from their husbands and rendered social outcasts.

6 Rabat, Morocco.
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