Int. J. Prenatal and Perinatal Psychology and Medicine Vol. 6 (1994) No. 3, 355–372

Veiled Powers of Culture. Maternal Mortality and the Unborn Child in Yemen

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Abstract

Maternal mortality is one of the most serious public health problems in many developing countries today. Half a million women die every year from causes related to pregnancy and childbirth. The medical and socioeconomic dimensions of this problem have been investigated particularly during the last decade. In this paper the psychological dimension of maternal mortality is explored in relation to three generations. The possible link between a woman's knowledge of her own birth, the thoughts and feelings of the woman in relation to the birth of her own child and the prenatal communication with the unborn child is investigated from the focal point of the mother herself.

250 women in five districts of Yemen, a country with a maternal mortality rate of 1000 per 100 000 live births, were interviewed by means of a structured closed- and open-ended questionnaire. Results show that the themes of death, pain, complications and concerns with the sex of the baby were central in the mind of the mother and that these themes were the same from one generation to the next. There is also a link between generations through referrals to experience of the previous generation. The author suggests that the women who are born to mothers who die during childbirth should be considered a high risk group and receive special attention in antenatal care and that further research is needed to explore the role of the emotional residue of childbirth in relation to the already examined aspects of this serious problem.

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Zusammenfassung

Die Müttersterblichkeit ist heute eines der ernstesten Probleme im Gesundheitswesen vieler Entwicklungsländer. 500 000 Frauen sterben jedes Jahr im Zusammenhang mit Schwangerschaft und Geburt. Die medizinischen und ökonomischen Zusammenhänge bei diesem Problem sind besonders im letzten Jahrzehnt erforscht worden. In diesem Beitrag wird die psychologische Dimension der Müttersterblichkeit im Generationenzusammenhang erforscht. Ausgehend von der Mutter selbst wird der möglichen Verbindung zwischen mütterlicher Sterblichkeit und der eigenen Geburtserfahrung der Mütter nachgegangen, also der Frage, wie Gefühle und Gedanken der Mutter von ihrer eigenen Geburtserfahrung her das Erleben ihrer Geburt und der Schwangerschaft beeinflussen. 250 Mütter in fünf Distrikten im Jemen, wo jede hundertste Mutter bei der Geburt stirbt, wurden mittels eines halbstrukturierten Interviews und Fragebogens befragt. Die Ergebnisse zeigen, daß die Themen von Tod, Schmerz, Komplikationen und Sorgen um das Geschlecht des Kindes die Mutter beherrschten, und daß diese Themen sich von einer Generation zur nächsten fortsetzten. Es gibt auch innige Verbindungen zwischen den Generationen. Die Autorin folgert, daß Frauen, deren Mütter bei der Geburt gestorben sind als eine Risikogruppe betrachtet werden sollten, die während der Schwangerschaft einer besonderen Betreuung bedarf, und daß weitere Forschung notwendig ist, um die gefühlsmäßige Bedeutung der Erfahrung der Mutter bei ihrer eigenen Geburt für ihre Einstellung zur Mutterschaft zu erfassen.

Introduction

Maternal Mortality (MMR) remains a major public health problem in the developing world. In spite of intensified international and national action, half a million women die every year from causes related to pregnancy and childbirth and this figure has not changed since 1983[1]. The effect of maternal mortality on infant and child mortality is considerable: according to one study, 95 percent of all children born to mothers who die don't live beyond the age of five[2].

The Yemen Arab Republic is an example of a developing country with one of the highest or possibly the highest maternal mortality in the world, according to UNICEF statistics[3]. Accurate and comprehensive data is lacking, but the estimated official maternal mortality ratio is 1000 maternal deaths per 100 000 live births[4]. Approximately one third of all deaths of women of reproductive age in Yemen are maternal and the situation appears to have remained unchanged over the recent decades. No comprehensive statistics are available to enable a precise breakdown of causes of maternal mortality in Yemen. Observations from a recent study in former North Yemen[5] indicate that causes for maternal mortality in Yemen are dominated by jaundice, postpartum haemorrhage, pregnancy-related infection and toxaemia. Direct obstetric causes are responsible for about

sixty percent of all deaths. The actual cause of death is usually the cumulative impact of several life style factors, including poverty, early marriage, high fertility, births spaced too close to one another, heavy workloads, poor nutrition, poor environmental health conditions, low access to health care, low education levels, and the overall social status of women. Socioeconomic factors like women's education and income, residence and cultural influences are a broad group of determinants, and there is a higher ratio of maternal deaths reported from rural areas[6].

Estimates by various agencies and Government bodies of the Infant Mortality Rates (IMR) and Child Mortality Rates (CMR) vary, but all indications show that those rates are also among the highest in the world. Yemeni children are born and die at a faster rate than in almost any other country on earth[7]. According to a UNICEF estimate 1988 the IMR in Yemen was 123 and the CMR 204. Data on neonatal mortality are few. According to one survey[8] the neonatal mortality rate was 44 per 1000. A wide neonatal sex mortality differential in some surveys may depend on underreporting of female deaths. Large urban-rural IMR and CMR differences are also demonstrated by various surveys, which indicate higher IMR and CMR in rural as compared to urban areas. Factors significantly associated with infant and child mortality in Yemen are mother's age at birth, birth order, length of preceding birth interval, survivorship of previous birth and place of residence[9].

Yemen has adopted the Primary Health Care (PHC) strategy and the goal of Health for All (HFA). One of the main components of the Yemen National Population Strategy[10] is the Safe Motherhood Strategy, which aims at reducing the number of women who die in pregnancy or during childbirth by half from the estimated level of 1000 per 100 000 to approximately 500 per 100 000 by the year 2000. The objectives of the Child Survival Strategy for Yemen (YCSS), are identical to those of the 1990 Declaration of the World Summit for Children[11]. More than twenty national and international organisations are active in the field of health in Yemen[12].

Although several risk factors of maternal mortality are wellknown and have been defined in earlier studies[13,14,15], the nature and significance of other possible determinants are poorly understood[16].

This paper deals with the psychological dimension of maternal mortality. It investigates the possible link between a woman's knowledge of her own birth, the thoughts and feelings of the woman in relation to the birth of her own child and the prenatal communication with the unborn child. The mother thus is the primary focus and the previous and later generations are seen through the subjective lens of the mother. The potential role of modern Maternal and Child Health (MCH) in supporting pregnant Yemeni women will be discussed on the basis of what women express as their viewpoints about the nature of services today.

The first section of the paper focuses on the concepts of maternal, infant and child mortality among Yemeni women as a result of what they know of their own birth and the possible residue memory from that.

Section two focuses on women's expectations and thoughts about childbirth.

Section three focuses on the interaction of pregnant women with the unborn child.

Section four will cast light on what criteria Yemeni women are looking for in a good midwife, and consequently, how they experienced the antenatal care offered to them.

The discussion will focus on how women's experience and concerns related to the issues of maternal, infant and child mortality can be made visible in maternal and child health programmes and tackled in order to make a positive change in the lives of pregnant Yemeni women – and in the lives of pregnant women in similar situations in any developing or other country of the world.

Materials and Methods

Subjects

A series of closed and open-ended interviews were conducted with target groups of women in selected areas of Yemen. The total population of women with childbirth experience in 11 districts in Yemen was defined as the frame of the study. Five districts were sampled with the ambition of representing the widest possible range of geographical, cultural, ethnic and infrastructural characteristics. These target districts were Aden, Lahej, Seyoon, Taiz and Zabid.

A multistage (stratified-purposive-random) sampling process was chosen. The first stage in this process was to select two strata in each of the five target districts: one urban and one rural. The second stage in the sampling process was to purposively select a) an area in the immediate vicinity (up to 1/2 hour's walking distance) from the local MCH clinic and b) an area at a distance of at least two hours' walking from the same clinic. The third stage in the sampling process was a random selection of households for the interviews with women with childbirth experience. The households were defined as situated within the above ten clusters (i.e. five urban and five rural). The immediate target group for interviews was defined as the female head of each identified household.

A quota of 25 interviews was allocated to each of these clusters. Thus the target number of interviews totalled 250. The quota in each target cluster was filled through the following procedure: the first household was randomly selected as the most centrally situated in the cluster and additional households selected at an interval, ranging from five to ten. The interval was calculated on the basis of an assessment of the total number of households in the target area divided by the quota figure.

Questionnaire

The individual women with childbirth experience, sampled for the study, were interviewed by means of a structured, closed- and open-ended questionnaire. Questions dealt with the various phases of the most recent pregnancy, including health care seeking behaviour of the individual respondent, attitudes, knowledge and beliefs. The questionnaire was translated from English to Arabic.

Main Research Questions

In pretesting the questionnaire a number of central aspects of importance to women during the antenatal period could be distinguished : (a) cultural aspects, (b) aspects related to social relations, (c) psychoemotional aspects, (d) medical aspects, (e) metaphysical aspects, (f) economic aspects and (g) geographical aspects. Specific questions were formulated for each of these categories.

Interviewers

Interviews were performed by four national researchers with a long experience from MCH-related work in various settings in Yemen and one Sudanese researcher with experience from MCH-work in Yemen.

Interviewers were carefully selected for the study on the basis of a number of personal, educational, social and cultural criteria. Particular attention was paid to the need for a high degree of cultural concordance between interviewers and informants. Each individual interview session was reviewed and thoroughly discussed between the enumerator and the main researcher and in the peer group of interviewers and researchers.

Analysis of Data

The quantitative data was transferred and analysed in the statistical programme "StatView SE Graphic".

The open-ended questions were analysed by the author according to a qualitative method approach. Open-ended questions were categorized first according to urban and rural groups, corresponding to the urban and rural strata chosen in each of the five target districts. The material was then categorized according to each specific question in the questionnaire. After repeated readings of all answers to each question, the text was divided into main groups according to the predominant messages identified. A summary of the main messages identified in each group of answers formed the introduction to each description of findings in the urban and the rural groups. Sub-categories were formed in each main group according to the many varied answers or groups of answers that could be identified. Representative quotes were chosen to illustrate these various subgroups of answers in the correct proportion to their representation in the main groups of answers.

Results

Qualitative findings in the next three sections center around four special themes: death, pain, complications and concerns with the sex of the baby. For the flow of the presentation and because themes overlap, no separation of themes will be made in the text. Differences in the messages of urban and rural women will be indicated in the beginning of each section. However, since the similarity of what all women have said is far more evident and differences are of a quantitative rather than qualitative kind, the text deals with women's experience as a whole.

Maternal, Infant and Child Mortality and what Women Were Told About Birth

The majority of women had heard something about their own birth. The stories they were told were about death, pregnancy and delivery complications and about the reaction of the mother to the sex of the baby. The theme of death was by far the most common. Many women in the study group know that their mother died during labour with them, and guilt feelings about that are frequent.

"My mother died during labour and I stayed with my grandmother. She never talked about my mother, and she feels very bad about the fact that she thinks I killed my mother."

Other women say that their mother died delivering a child following them, or that they were the first child who was born alive, sometimes after many previous neonatal deaths. Accounts of surviving birth while a sister or brother did not are also common.

"I was born with a twin brother, I delivered first, then my brother followed me but he was too small, so he died after one day."

Special circumstances around the mother's childbirth are often referred to and described in great detail. Giving birth under a tree, in the field, on the way to get wood and water, or sometimes having to go to the hospital at the last minute because of complications are some examples. Fairly many women had heard about their mothers' complications during pregnancy and/or labour with them. As a result of bleeding during the pregnancy, several mothers thought that the baby had died but in spite of this fear had been able to go through with the pregnancy.

"My mother thought I was going to be a stillbirth. She went to the toilet and in a short time I came out, she took me and she was happy to have a small baby without pain."

"When my mother gave birth, she suffered a lot. I was born not breathing, so the women who attended my mother thought I was dead, wrapped me in a cloth and put me aside. But one old woman crushed an onion and put it in my nose, and that was when I cried out – I lived."

Fairly many women had heard stories about their mother's reaction to them being a female baby, which in cases of not having a girl in the family before had caused happiness. In most cases, however, the opposite reaction had occured and this had sometimes been the cause for guilt.

"My mother said that she was very happy during the pregnancy because she thought the baby was male. So no pain during pregnancy and birth, but then I feel bad because of me."

Some mothers never talk about what happened in the past and some, as in the case of many Nomad mothers, were too busy to talk since they were always moving with their animals from place to place. Several women pity the lives of their mothers.

"My mother told me that I was the first and she suffered a lot of pain. She delivered me alone away from home and I was born in a village near the sea."

Mothers and Mothers-to-be: Expectations and Thoughts About Childbirth

Most women said they were afraid of childbirth and give three main reasons for this: fear of death, delivery complications and pain. A fairly large group of rural women mention fear of the hospital and of the hospital procedures.

Fear of death is frequently mentioned, and can concern the death of the woman herself, the baby or both. Delivery is the sister of death, these women say and point out that there really is no distinction.

"I always feel it is the worst moment, as if I have to choose between life and death."

Many women refer to their mothers who died at childbirth. They have also experienced or heard about other women who died and mention examples of neighbours or friends.

"My mother died when she had a baby in her abdomen."

"Because pregnancy means that you may die, I hope I will never become pregnant."

"I'm afraid, because my sister died at delivery last year."

Several women refer to prior experiences of stillbirths, and mention it happening two, three, five or more times.

"I'm afraid of the baby, I want to have a healthy alive baby."

Fear of death in relation to birth complications are frequently mentioned, and particularly in cases of illness, the fear is strong. Prolonged labour in particular but also past caesarian sections, retained placenta, vaginal infections, fainting, illness and vaginal tears are commonly referred to. Difficult positions of the baby are mentioned by several women.

"Of course one feels afraid, because it's something unknown to me, one never knows if I'll deliver breech, normal, abnormal, a human being comes into this world."

The worst thing imaginable to several women in this group is delivery complications which will take them into the operation theatre.

"Because of bad history I am afraid. The first baby was stillbirth, the second caesarian operation, also the third baby operation."

Pain in itself is mentioned as a reason for fear by a large group of women, who mostly state this fact simply and shortly. Others relate the pain to specific complications, among which the most common is bleeding.

"In every delivery, I used to be afraid of death, and this time I was afraid of pain and any complication as bleeding."

Some women say that it's the pain from the back that they fear, especially in cases of prolonged labour, or the pain connected with the difficult part of delivery when the head is crowning. A few women say that, at birth, they remember all the pain from previous deliveries, and that they feel like running away to escape from the pain.

Fear of the husband's disappointment of the sex of the baby can completely stop the process of labour.

"I had nine daughters, my husband wants a son, so I was so frightened it's a girl and started to have fever and shivering from fright."

A rather large group of rural women express fear of the hospital, of the people in the hospital and of hospital procedures. Delivery complications are here mentioned as an indirect fear of the stronger fear of going to hospital.

"Of course I was afraid of bleeding or other complications, I was praying that I wouldn't need to go to the hospital."

"I was afraid of any complications which might take me to hospital."

Rural women particularly also express fear of being in the hospital. Fear of the loneliness of a hospital delivery is frequently described and women express feelings of unsafety to be in a place they experience as foreign to them.

"I'm afraid of severe pain and the new people and the new place."

"This was the first time I was delivering without my mother's prescence. I felt lonely."

Definitions of Birth

Women's definitions of birth as painful, difficult and a threat to life were the same regardless of who attended their delivery. The definitions that rural women make are often stronger and more extreme in their expression.

"Birth is a load to me, and through the process I get free of this load."

"Very dangerous position for every woman."

"Fear – something between life and death."

"It is a fright."

"Birth is suffering, one doesn't believe that one can deliver safely."

Women's fear of childbirth is illustrated in Fig. 1. From this figure can be seen that all women in the study group, regardless of delivering their child at home or in an institution, express the same fear of childbirth.

The percentage of mothers with delivery at home and in an institution in the urban and rural areas respectively is illustrated in Fig. 2.

The attendance of the most recent childbirth in the study population is illustrated in Fig. 3.

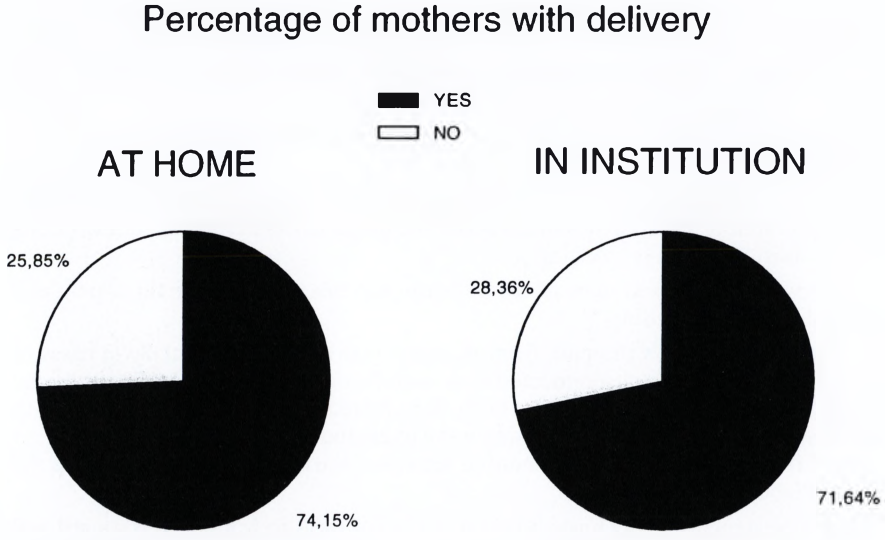

Fig. 1. Women's fear of childbirth.

Women's Influence on the Unborn Child

Most urban women and more than half of the rural women thought that they influence the baby during pregnancy. This influence is described as physical, emotional or mental or a combination of these, and is thought to carry the same importance for the unborn child.

Physical influence happens when a woman works very hard and becomes tired. This may cause a bleeding and abort the baby. A lesser consequence is that the baby will not grow well and remain small. When a woman has no appetite and feels weak, this affects the growth of the child. On the other hand, when the mother is resting, the baby is well and born healthy. Women notice different responses from the baby depending on her physical status.

"The baby feels everything, because when I was ill I could feel my baby not moving, and when I'm well, I feel the movement of the baby faster."

"The baby's movements are limited during the period I am exhausted, and this means that the heavy load affects the baby's health."

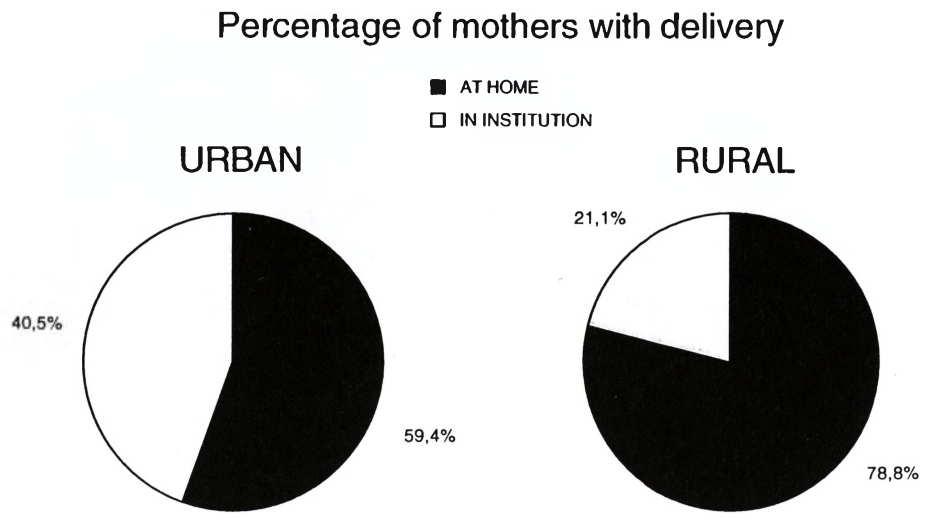

Fig. 2. Location of the most recent childbirth in the study population.

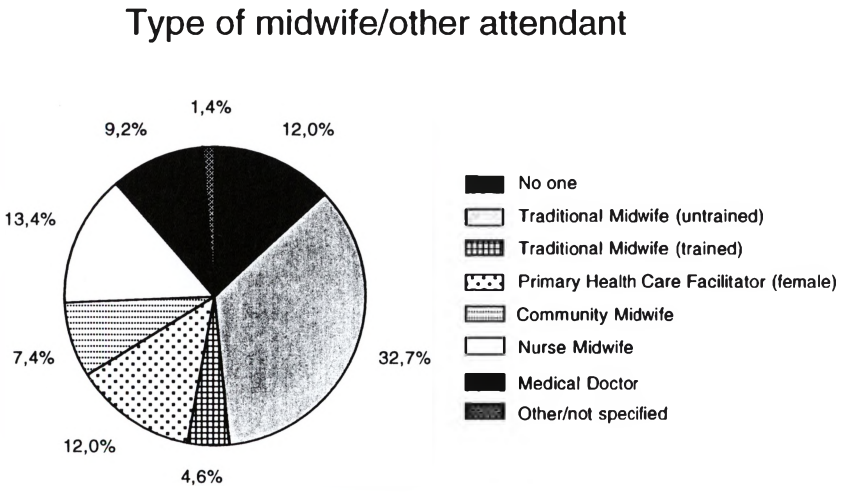

Fig. 3. Attendance of the most recent childbirth in the study population.

"At times when I feel I am going to die, the movement inside me stops, and I feel that the baby is in the same condition."

Emotional and mental influence on the baby can occur in a variety of ways. And communication can also happen in the other direction: fetal movements from the baby can produce relaxation and enjoyment for the mother. Primarily, women describe the importance of their own emotional wellbeing for that of the baby.

"If the mother has problems, the baby is born weak and always crying, so I think whatever happens to the mother affects the baby."

Her own feeling of non-authority in life was believed by one woman to be the cause of the kicking responses of the baby. The status of her relationship with the husband also affects the baby, and women worry about how the baby is going to be as a result of a marital relationship that is not good.

"When I fight with my husband I feel that the baby does not move or grow well."

Feelings of guilt toward the baby are mentioned by some women, who felt that the baby understood that he was not welcome and responded by not moving and disturbing her. Emotional upsets are thought by women to cause a nervous and tempered baby. If a woman is frightened or receives sad news, it hurts her inside as well as the baby. If a pregnant woman has a shock, it is up to God to help her deliver normally. One woman describes the character of her babies as a result of the emotional atmosphere surrounding her pregnancy.

"I have twins who are born on January 17, 1986 during the war, and they became afraid of everything."

Thinking about the sex of the baby can also make a difference in how the mother feels.

"I was thinking all the time about having a baby girl again, and I felt all the time sad."

Women's Communication with the Unborn Child

Most urban women and more than half of the rural women say they communicate with their unborn child. Communication among urban women centers around different ways of welcoming the baby and making him feel safe. The baby is asked to come into the world safely and help the mother to an easy delivery. Prenatal communication among rural women centers around two main themes: to have the baby be born alive and to become a future support for his mother. That rural women have lost many children is reflected in some main messages.

"I asked the baby to be alive."

"I always talk to myself and the unborn baby, and I tell her that I am alone and I need her to come out as an alive girl, so she may help me."

The baby is asked not to move when the mother feels pain. Sometimes the baby is asked to become only a small burden for his mother.

"Every time I'm pregnant I feel afraid of twins, so I sometimes talk to the unborn baby and say: please be one only, I can't look after two."

There are special songs created for the unborn baby, telling it to come out soon and be a good support for the parents. Several women describe the help they need when they get old. Others want the baby to help them to a more favourable position vis-a-vis the husband.

"I always touch my abdomen and talk to myself like a madwoman, and I say: please be a boy, so that your father will be happy and I will also be called a mother of boys."

The theme of the baby's sex is a common one for prenatal communication. Through singing to the baby, sometimes special songs which were created for pregnancy and which describe the desired characteristics of the baby, women and their husbands sing or talk to an unborn boy or a girl – but sometimes not to the same.

"I sing for the baby always, and I and my husband were talking to the baby every night, touching my abdomen and telling the baby to be what each of us want. I like her to be a girl, and the father wants a boy."

Expectations of what the baby will be able to do for his mother sometimes come through.

"I was talking to the baby, and I used to ask her to be a girl and bring new clothes."

Women enjoy touching the abdominal area to feel the fetal movements from outside and some women think that their emotions affect the baby all the time.

"I always try to be happy during the pregnancy, so that my children are happy as well."

"I feel very sorry for the children who are brought into this world unwanted, and I touch my abdomen saying to them that they are there by God's will and not my will."

A Nomad woman says:

"Sometimes I talk with the unborn baby, and I feel that the baby heard me well, as if I'm not going from place to place alone."

Infant and Child Mortality Among the Women in the Study Group

The cumulative number of deliveries of live children in the study group of women was 1653 (range 1–20). As 215 women answered this question the fertility rate in the study group is calculated at the level of 7.7. The cumulative number of deliveries in the study group is illustrated in Fig. 4.

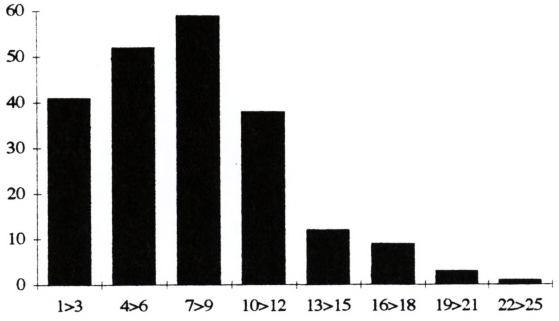

Fig. 4.

The cumulative number of living children in the study group was 1281. The crude mortality rate in the study population of children (age 0–14) was 225/1000, which should be seen against the background of the UNICEF CMR estimate (1990) of 187/1000 for the country. The cumulative number of living children (age 0–14) in the study population is illustrated in Fig. 5.

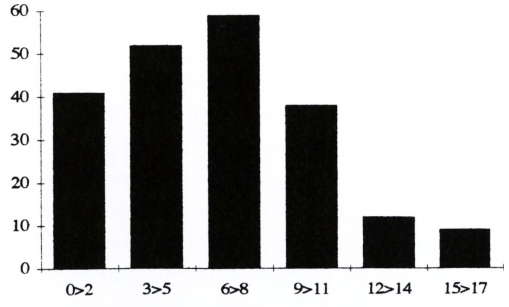

Fig. 5.

The percentage of women in the study with ongoing pregnancy on the interview occasion was 22.4.

Women's Opinion of Antenatal Care

Women in both urban and rural areas of Yemen use the MCH services to fulfil social and emotional needs primarily and medical needs secondarily and have evaluated the care accordingly.

As a primary reason for appreciation of modern MCH services, urban women generally express the view that the clinic serves as a good meeting place and a place of refuge in stressful situations at home. Giving their opinion about the care itself, women first appreciate the health talks given to them in groups, dealing with woman's health in broad terms of wellbeing in relation to her work situation and breastfeeding possibilities. Secondary to these two functions are mentioned the individual medical check-ups in the clinics. It is the comparatively well educated urban women in the study group who felt comfortable visiting the modern antenatal clinics while a large majority of the uneducated rural women found the contact dissatisfactory.

"I will stay in my house and not visit any midwife."

Rural Yemeni women will even in acute states of emergency seldom voluntarily seek help from the modern MCH sector, which in their view offers a limited system of antenatal care. In their contact with the MCH clinic in times of illness these women felt alienated and discriminated against by the modern midwives. The traditional health practitioners on the other hand, who are generally so integrated into women's daily life that they are hardly defined as professionals by the women, are appreciated for their antenatal care where counselling and psychoemotional day-to-day support form the basis of the practise.

"She is from the same village, the only one who had training. She is good, treating all people equally."

"A good midwife is one who is well with the people."

Discussion

Maternal mortality is one of the most serious public health problems in developing countries today. It affects not only the mothers at risk but the children of those mothers as well. The size of the problem is almost inconceivable, and moreover, each maternal death represents a great tragedy for the individual family concerned.

Maternal mortality has been subject to intensified international research during the last decade particularly[17], and a number of causes of a direct and indirect nature have been identified. Medical, socioeconomic and to a certain extent cultural and other indirect causes of maternal mortality have been discussed[18,19,20,21]. Surprisingly however, no study has tackled the psychological dimension this problem. Just like the other dimensions, the psychological dimension must be understood in context with all others, but also constitutes a dimension in itself. The findings of the present study will here be discussed in relation to already identified causes of maternal mortality and to Yemen.

The sociocultural and economic vulnerability of Yemeni women has been referred to in the forward-looking strategies and policies for health development in the country[22] as well as in the national adopted strategies for safe motherhood[23]. The physical stress that women are subjected to on a daily basis and which usually starts at the age of five or six, is a significant burden on their physical wellbeing alone. The average Yemeni woman receives less health care as an infant than

her brothers, is more likely than her brothers to die before the age of five, is less educated than her brothers, marries at an early age, starts bearing children quickly and has anywhere between five and nine children in rapid succession, suffers from chronic anemia, is unlikely to have easy access to health facilities, works at home or in the fields for an average of twelve to sixteen hours a day and remains illiterate all her life[24]. It is not difficult to see maternal mortality in Yemen as a reflection of women's broader condition within the entire social framework. The need for horizontal intersectorial programs to combat maternal mortality has long been emphasized in international research, and an approach to women's health which aims at improving the economic and educational resources available to them has been recommended[25,26,27].

A recent study which investigated maternal mortality in hospitals in North Yemen from a broad perspective[28] identified a number of long and short term interventions. The abolishment of illiteracy and the promotion of awareness of the dangers and risks of early pregnancy through a long term educational programme were recommended. The author concluded that further research is needed to look at maternal deaths in the community and, in relation to the utilization of health services, to identify the reasons behind women's delay in seeking medical care.

The findings of the present study indicate that there are yet other variables which need to be focused in the broad context of maternal and child health in Yemen and that these variables may prove important in the above contexts as well.

As early as 1982 research was carried out in South Africa with direct relevance to the theme of this paper. In an effort to understand the link between stressful life events and pregnancy complications a large number of medical, social and psychological variables with relevance to the recent life history of the pregnant mother were examined[29]. Very little of the total variance of the complication score, however, was explained by the many variables best predicting pregnancy complications. The author concluded by calling for future research to examine whether subjective and affective life events might not be a better predictor of "breakdown" than hitherto objective events and emphasized the need for psychological aspects of pregnancy to be incorporated in the training of all professionals associated with expectant mothers[30]. The possibility of much earlier occuring life events to influence the outcome of pregnancy was also discussed[31].

Findings from the present study suggest that a woman's experience of being born to a mother who dies at childbirth could constitute a risk in itself. I am suggesting that the birth experience of the individual woman herself be viewed as a stressful life event with possible implications for her own childbirth, both in relation to birth complications in general, to specific birth complications in particular and indirectly, to maternal mortality. The group of mothers whose mothers died at childbirth, either with them or with brothers and sisters but particularly with them, should be considered a highrisk group and receive special attention during the pregnancy. Not only because of the likelihood of these women to belong to the same vulnerable socioeconomic group of women as their mothers in the previous generation, but also because of the personal and emotional residue of

this traumatic event per se. Comments from many Yemeni women also reveal feelings of guilt being born a female child, and this is additional reason for the special attention that this group of future mothers require.

There is plenty of international research in psychology and medicine supporting the fact that early experience such as prenatal experience and childbirth can constitute stressful life events with further, even life-long consequences for the health[32,33,34,35,36]. The comparatively new lines of medical research, psychoneuroendocrinology and psychoneuroimmunology, give substantial evidence for the primary importance of the early dialogue between mother and child on the physiological as well as the psychological level and of the impossibility to divide these two levels of communication[37].

To believe that this would not be true for Yemeni women would be to think that culture and economics make people intrinsically different. Many Western development aid organisations have taken the view, openly or concealed, that there is a hierarchy of needs that must be fulfilled in good antenatal care and consequently concentrate on what they perceive are the most imperative ones, which more often than not deal with the purely physical aspects of care. Counselling services tend to be viewed as a luxury item for the more well-off in the society, and have attracted little attention in regular health programmes. Ironically enough, the viewpoints formulated by Yemeni women indicate that it is precisely those elements they value, and precisely because they perceive it as an act of solidarity between health practitioners who are equal and the women they serve.

The Convention on the Rights of the Child[38], which was adopted by the United Nations in 1989 and ratified by the Government of Yemen in 1991, recognizes all human rights as equally important regardless of fulfilling the economic, social or cultural needs of a child[39]. In relation to the findings, it is imperative to recognize the rights of the Yemeni child to the kind of comprehensive care desired by Yemeni women during the antenatal period. The mother interviewees themselves are in fact often little more than children, since the marital age in Yemen can be as low as twelve years, particularly in the rural areas, and the average age of marriage is seventeen-eighteen[40].

The main criteria that Yemeni women were looking for in a good midwife during the antenatal period: empathy, friendship, high ethical standards and solidarity with the least privileged are rated high on the list, especially among the least privileged. Medical and professional competence followed and were emphasized particularly among those groups in the urban areas who were not in the risk category. These viewpoints formulated by possibly the most vulnerable group of women in the world must lead us to examine our perspective. We must ask ourselves whether in fact the very inability to effectively lower the maternal mortality in Yemen and in other developing countries is not a result of our inability to be really equal and to extend to women the kind of solidarity that they also need: a sharing of their feelings.

The Yemeni women in the study group have clearly stated that, during the antenatal period in particular, they would be in favour of more counselling. In fact the need for counselling services is so great that women, particularly in the

urban areas, attend modern MCH services for the sheer opportunity to discuss their life and problems with other women, who also attend the clinics for the same reasons. Yet, counselling services of the more comprehensive kind as defined by Yemeni women and administered by the medical personnel per se are almost nonexistent. Instead, counselling focuses on the traditional narrowly defined sphere of medicine.

There are differences, often subtle, sometimes clear, in the messages of women in urban and rural areas respectively, which reflect the higher ratio of deaths in the rural areas. These differences are important when designing appropriate programmes of intervention for the high risk groups. The fact that only the more privileged groups of women have been offered counselling in the first place and that women from less privileged positions who attended modern MCH often in an acute condition have not been offered such counselling adds another dimension to the picture. This situation may be a reflection of the values and attitudes behind modern training programmes, which in turn are based on modern medical tradition grown out of the ideologies of privileged groups in Western society[41]. The solution to meeting the counselling needs of women in structural terms must involve the traditional sphere of maternal and child health care, not least for the reason of the fear that rural women often express in relation to modern hospital procedures. In a South African study which focused on the behavioural associations of pregnancy complications[42] the acknowlegment of the many fears that surround the experience of pregnancy and which often are denied expression in modern Western societies[43] was viewed as an opportunity to improve programmes to prepare women for the experience of pregnancy and labour. The recent study from Yemen[44] identified the final and strongest risk factor for maternal mortality as being the seriousness of condition of the mother at admission to hospital. The fact that a high proportion of women delayed seeking medical care at an appropriate time was identified as the reason for this situation.

If Yemen is a country with very serious problems to tackle in the area of maternal and child health, it might also prove to be a country with exceptional resources to tackle these. The Yemeni social structure is characterized by a strong communal spirit, which can provide a platform for community mobilization[45]. Women interviewed for the present study emphasized the fact that women's community networks play a significant role in alleviating the otherwise difficult situation. Studies of the effects of life events have shown that the ill-effects of serious life changes can be modified by "resistance resources"[46] of which community ties are one of the most important factors. Experience from Kenya[47] shows that women's informal networks can play an important role in identifying maternal deaths.

Conclusion

The present study, although preliminary in nature, has raised questions about the relationship between women's experience of being born to a mother who died during childbirth and the potential influence of this experience on women's own

future childbirth. Further research covering several generations of women must be undertaken and the emotional residue of childbirth as well as mechanisms for possible carry-over between generations of women be examined carefully in relation to both obstetric complications and to maternal mortality. This should be done with the help of epidemiology as well as indepth qualitative studies. Findings of the present study also revealed that pregnant Yemeni women are of the opinion that they need comprehensive counselling during the antenatal period, covering their total life situation, their fears as well as their practical circumstances, work situation and support systems. Ways to especially support the pregnant women whose own mothers have died delivering them should be investigated as well as potential avenues of collaboration between the traditional and the modern spheres of maternal and child health care by establishing optimal platforms for sharing the concerns of pregnant mothers at risk.

It is the mother who is the central focus of the "Safe Motherhood picture" – or should be. Yet, the figure of the mother is still shadowy. If people are helped to focus on the mother herself, Safe Motherhood problems, realities, and possible solutions begin to emerge more clearly[48].

Acknowledgments. I dedicate this article to my grandmother, whose first baby died at childbirth.

The Yemeni women interviewees are thanked for their generous sharing of matters of deep concern to them. Feroza Hamman, Fatoom Ali Nooraldin, Sarwat al Attas, Zinab Joober Dhman and Fatma Salih Khider, who made the interviews, are thanked primarily for their sensitive empathetic mirroring of women's inherent powers to cope.

The financial support of Rädda Barnen to the study in Yemen is gratefully acknowledged. The original research was carried out by the author 1990–1993 and focused on women's experience of modern antenatal, delivery and neonatal care[49,50].

Concepts brought forth in this paper and conclusions arrived at are those of the author.

Commentary. It is my belief that, as researchers, we are often motivated by memories, beliefs and thought-patterns far beyond our conscious perception. The simplicity of the truth escapes us since sometimes, it requires maybe too much of a flexibility of mind.

In the process of writing this article, I have come across information which I believe has served as an unconscious drive behind the present research.

While living with my grandfather in New York during the early part of this century, my grandmother expected her first child. She lost her baby at childbirth because of the negligence of the male doctor who attended her. From my grandmother I know that she never resolved the grief about this unfortunate event, and the memory of the death of grandmother's first baby became unresolved material, for her and for the rest of the family.

Suppressed memories have a tendency of coming to the surface in similar situations as when they were first created and the issue of time seems to play no significant role in this as I have come to understand it. Thus, at her first childbirth, my mother carried the memory of loosing a baby, but I was saved by the male doctor in attendance.

If my grandmother had received professional help to resolve her traumatic experience, would my mother and I have needed to repeat the fear of death and suffocation? I believe not.

References

1. World Health Organisation – WHO (1991). New estimates of maternal mortality. *Weekly Epidemiological Record* **47**, 345–352 Geneva, World Health Organisation
2. Chen, L. (1974). Maternal mortality in rural Bangladesh. *Stud. Fam. Plann.* **5**, 334–42
3. United Nations Children's Fund – UNICEF (1991). *The State of the World's Children.* Oxford University Press
4. Ministry of Health (1986). *Annual Statistics Report for 1985.* Department of Vital and Health Statistics, Sana'a, Yemen Arab Republic (Arabic)
5. Abdulghani, Nagiba (1993). *Risk factors for maternal mortality among women using hospitals in North Yemen.* Ph. D. thesis, London University. London School of Hygiene and Tropical Medicine
6. UNICEF, Sana'a (1993). *The Situation of Children and Women in the Republic of Yemen 1992*
7. see 6.
8. Beatty, S., van Dijk, R. (1988). *Childhood malnutrition in rural Dhamar and mortality survey.* Dhamar Rural Health Project, Dhamar, Yemen
9. Suchindran and Adbakha (1985). Findings based on *Yemen Fertility Survey*, 1979
10. Central Planning Organisation (1990). *The National Population Strategy, Yemen Arab Republic*
11. United Nations (1990). World Declaration on the Survival, Protection and Development of Children and Plan of Action for implementing the world declaration on the survival, protection and development of children in the 1990's. *World Summit for Children, UN, New York, September 30, 1990*
12. Jumaan, A. (1991) Personal Communication
13. Kwast, B. (1991). Maternal mortality: the magnitude and the causes. *Midwifery* **7**, 4–7,
14. Kwast, B. (1991). The hypertensive disorders of pregnancy: their contribution to maternal mortality. *Midwifery* **7**, 157–161
15. Kwast, B (1991). Postpartum haemmorhage: its contribution to maternal mortality. *Midwifery* **7**, 64–70
16. see 5.
17. see 1.
18. see 13.
19. Fauveau, V., Stewart, K., Khan, S. A., Chakraborty, J. (1991). Effect on mortality of community-based maternity-care programme in rural Bangladesh. *Lancet* **338**, 1183–1186
20. Fiander, A. (1991). Obstetric mortality and its causes in developing countries. *British Journal of Obstetrics and Gynaecology* **98**, 841–842
21. Paul, B. K. (1993). Maternal mortality in Africa: 1980–87. *Soc. Sci. Med.* **37**, 745–752
22. Ministry of Public Health, Yemen Arab Republic (1994). Forward-Looking Strategies and Policies for Health Development in the Republic of Yemen. *Report from First National Conference on Health Development, Sana'a, Yemen Arab Republic*
23. Ministry of Public Health, Yemen Arab Republic (1992). *The Yemen Child Survival and Safe Motherhood Strategy*
24. see 6.
25. Rosenfield, A., Maine, D. (1985). Maternal mortality – a neglected tragedy. Where is the "M" in MCH? *Lancet* **326**, 83–85
26. Bergström, S. (1988). *Mödrahälsovård i u-land.* Scriptor, Uppsala
27. Frazer, W. (1990). Maternal Health Services – The Developing World. *Canadian Journal of Public Health* **81**, November/December
28. see 5.

29. Chalmers, B. (1983). Psychosocial factors and obstetric complications. *Psychological Medicine* **13**, 333–339
30. Chalmers, B. (1983). Stressful life events and pregnancy complications: a summary of research findings. *Humanitas, RSA* **8**, 1
31. Chalmers, B. (1982). Stressful Life Events: Their Past and Present Status. *Current Psychological Reviews* **2**, 123–138
32. Fedor-Freybergh, P., Vogel, V. (Eds) (1988). *Prenatal and Perinatal Psychology and Medicine. Encounter With the Unborn – A Comprehensive Survey of Research and Practice*. The Parthenon Publishing Group
33. Wiberg, B. (1990). *The First Hour of Life. Description of the early reciprocal interaction. Mother-infant behaviour and development of their mutual relationship*. Ph. D. thesis. Department of Applied Psychology, University of Umeå
34. Kennell, J.H., Klaus, M. (1988). The effects of continual social support during birth on maternal and infant morbidity. In: Fedor-Freybergh, P., Vogel, V. (Eds.) *Prenatal and Perinatal Psychology and Medicine*. The Parthenon Publishing Group
35. Odent, M. (1986). *Primal Health – A Blueprint for Our Survival*. Century Hutchinson Ltd
36. Chamberlain, D. (1988). *Babies Remember Birth – And Other Extraordinary Scientific Discoveries about the Mind and Personality of Your Newborn*. Jeremy P. Tarcher, Inc., Los Angeles
37. Fedor-Freybergh, P. (1993). Prenatal and Perinatal Psychology and Medicine: A New Approach to Primary Prevention. *Int. J. Prenatal and Perinatal Psychology and Medicine* **5**, 285–292
38. United Nations (1989). *The Convention on the Rights of the Child*
39. United Nations/Rädda Barnen (1994). *Legislative History of the United Nations Convention on the Rigths of the Child 1978–1989*
40. see 6.
41. Staugård, F. (1985). *Traditional Medicine in Botswana. Traditional Healers*. Gaborone: Ipelegeng Publishers
42. Chalmers, B. (1984). Behavioural Associations of Pregnancy Complications. *Journal of Psychosomatic Obstetrics and Gynaecology* **3**, 27–35
43. Kitzinger, S. (1978) *Women as Mothers*. Fontana, Glasgow
44. see 5.
45. see 5.
46. Antonovsky, A. (1974). Conceptual and methodological problems in the study of resistance resources and stressful life events. In: B.S. Dohrenwend, B.P. Dohrenwend (eds) *Stressful Life Events: Their Nature and Effects*. New York: John Wiley, pp. 245–258
47. Boerma, J.T., Mati, J.K.G. (1989). Identifying Maternal Mortality through Networking: Results from Coastal Kenya. *Studies in Family Planning* **20**, 5
48. Feuerstein, M.-T. (1993) *Turning the Tide. Safe Motherhood. A District Action Manual*. Save the Children.
49. Kempe, A. (1990). *Empowerment, Pregnancy and the Rights of the Child*. Unpublished. Rädda Barnen.
50. Kempe, A., Staugård, F. (1994). *The Quality of Maternal and Neonatal Health Services in Yemen – Seen Through Women's Eyes. An assessment of problems identified by Yemeni women in their encounters with modern antenatal, delivery and neonatal care in the clinics*. Rädda Barnen.