FACTORS AFFECTING THE USE OF MODERN PRENATAL AND MATERNITY SERVICES IN GOT AGULU SUB-LOCATION, WESTERN KENYA

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ABSTRACT A main goal of the Kenyan government's Safe Motherhood Initiative is to increase the number of babies delivered in modern health facilities. Mothers are encouraged to begin prenatal care visits early in their pregnancy and to continue care until the fortieth week. However, research carried out among the Luo people in Got Agulu, western Kenya, indicates that mothers may not actually initiate prenatal care early in pregnancy. This lack of use may be due to the Luo cultural belief that it is improper for childbirth blood to be spilled outside the father's homestead. Further, the Luo do not view pregnancy as an illness that should necessitate numerous prenatal visits. This paper analyzes factors behind the low use of prenatal and maternity services within modern health facilities in the Got Agulu sub-location of western Kenya.

Key Words: Childbirth blood; Luo; Maternity services; Placenta; Prenatal.

INTRODUCTION

Numerous studies have shown that most non-Western cultures do not view pregnancy as an illness. Instead, pregnancy is socio-culturally constructed as a normal condition associated with a woman's life cycle (cf. World Bank, 1993). These cultures view pregnancy as a necessary biological function as well as a very desirable and axiomatic component of human existence (McKinlay, 1972; World Bank, 1993). According to Sich (1981), non-Western societies tend to construct pregnancy as a cultural process that has the specific purpose of perpetuating for eternity the identities and personalities of individuals. This belief may partially explain why women in some developing countries may not seek prenatal care and maternity services at modern health facilities (cf. McKinlay, 1972; Karbo, 1987; Kaseje et al., 1987; Browner & Sargent, 1990; Jayawarden, 1993; Kawango, 1995). Other researchers have examined the various rituals and cultural injunctions associated with pregnancy and childbirth in non-Western communities. Some of these ritual prohibitions may bar expectant mothers from actively seeking prenatal services in modern health facilities (cf. Karbo, 1987; Kaseje et al., 1987; Browner & Sargent, 1990; Sargent & Rawlins, 1991; Jayawarden, 1993; World Bank, 1993; Sindiga, 1995).

Pregnancy may be a normal condition, but some diseases routinely afflict expectant mothers. According to Tinker (1994), pregnancy exacerbates anemia, protein-energy malnutrition, hepatitis, malaria, tuberculosis, sickle-cell anemia, diabetes, and heart diseases. Pregnancy-related complications can also cause long-term damage to a woman. For instance, the Hausa of northern Nigeria frequently suffer from serious maternity-related complications such as vesicovaginal vistula (cf. Rehan, 1984; Thaddeus & Maine, 1994; Murphy & Baba, 1981; Longhurst, 1982; Wall, 1998). Further, the World Health Organization (WHO, 1993) found that in 1990, 15 million women developed long-term disabilities as a consequence of maternity-related complications. Failure to diagnose and treat complications brought about by pregnancy contributes to the high maternal morbidity rates in non-Western countries. In fact, the World Bank and WHO have estimated that more than 500,000 women in the developing world die annually from pregnancy-related causes (cf. Tinker, 1994; Wall, 1998; Filippi *et al.*, 2000; Pittrof & Campbell, 2000; Shiffman, 2000).

According to the WHO (1994), 9-15% of pregnant women require medical care above the level of "minimum care," which is the care that produces the best results among a population if it is provided to all expectant mothers and their newborn babies (cf. Pittrof & Campbell, 2000). Bouvier-Colle et al. (1998) pointed out the now widely accepted belief that it is not possible to predict accurately which women will experience severe obstetric morbidities. However, Shiffman (2000) suggested several interventions that may be critical to reducing maternal mortality: family planning services, safe and legal abortion, trained medical attendants during delivery, prenatal care, and emergency obstetrics. According to Maine (1993), providing prenatal care can give medical practitioners the opportunity to treat existing conditions that could cause complications during pregnancy. For example, iron foliate pills may be provided to expectant women with anemia, a condition that increases the risk of hemorrhaging during delivery. Sedatives and bed rest may be prescribed for pregnant women with pre-eclampsia, a common precursor to some hypersensitive disorders that could lead to maternal deaths (Abou-Zahr & Royston, 1991; Wall, 1998; Pittrof & Campbell, 2000). Prenatal checkups can also help medical staff identify expectant mothers at high risk for complications during delivery. For example, practitioners can predict the likelihood of obstructed labor by measuring the size of the cervix.

The main goal of this study was to identify major factors associated with the low use of prenatal care and child delivery services in modern health facilities among expectant mothers in the Got Agulu sub-location of western Kenya.

THE SETTING

This research was carried out in 1997 in several villages of the Got Agulu Sub-location of the Bondo District, western Kenya, on the shores of a large lake. According to the 1999 Kenyan census, Got Agulu had a population of 4,490 (2,210 males and 2,280 females) in 1,181 households spread over 11.8 square kilometers, for a population density of 381 persons per square kilometer (Kenya, 2001a; 2001b; 2001c). This area is home to the Nilotic-speaking Luo.

Individuals from various ethnic groups from other regions of Kenya and neighboring countries who worked in public institutions in the study region, as well as married women from other ethnic communities of Kenya also lived in the area at the time of study.

The study region had a relatively poor health status, primarily because it contained only two health facilities: the Got Agulu and Got Matar Dispensaries. These two health facilities faced numerous constrains including a lack of technical staff, chronic shortages of drugs and relevant consumables, non-functional or lacking equipment, poor access and transportation, inadequate community participation, and poor management of existing services as well as the unfriendly attitude of some service providers (Kenva, 1989; 1994; 2000). Several researchers observed that a significant segment of the population in this area managed their ailments at home. According to Nyambedha et al. (2001), locals tended to consult community health workers (CHWs), injectionists, traditional healers, and drug retailers and to self-medicate when they felt unwell. Pregnant women within this and other rural areas in Kenya often resort to traditional medicine and traditional birth attendants who are mobile (cf. Okumu & Gachuki, 1996; Mulemi, 1998; Ouko, 1998; Ouko, 1999; Khayundi, 2000; Watkins, 2000; Mulemi & Nangendo, 2001). The government of Kenya (2000: 22) has reported that traditional birth attendants and other healers still play a significant but unquantifiable role, especially in rural areas.

STUDY POPULATION AND RESEARCH METHODOLOGY

Fifty pregnant and non-pregnant Luo women were interviewed during the field research. Interviews were conducted in the local Dholuo language, although some informants were proficient in Kiswahili and English. Interviews were carried out by three local research assistants affiliated with the Kenya-Danish Health Research Project (KEDAHR, n.d.). The interview guide consisted of both closed and open-ended questions designed to collect both descriptive and quantifiable data. Open-ended questions included queries regarding how the women perceived prenatal care and services, pregnancy, childbirth, and contraception. Thus, informants were asked about their obstetric history, whether they intended to have more children, and about their knowledge and use of both modern and traditional contraceptives.

RESEARCH FINDINGS

Socio-demographic Characteristics of the Study Smple

Informants ranged in age from 15–51. Of the total sample, 12% were 15–20, 26% were 21–25, 14% were 26–30, 36% were 31–35, and 12% were older than

36. All informants were currently married; most were in monogamous marital unions, although one 51-year-old informant was a second wife in a levirate relationship.

Knowledge and Traditions of Midwifery in Got Agulu

Some expectant mothers in Got Agulu relied on traditional birth attendants (TBAs; locally, *nyamureche*, sing. *nyamurerwa*). Of the women surveyed, 19% had sought prenatal care and child delivery services from TBAs. Prenatal services offered by these TBAs included massaging the backs and stomachs of pregnant women. Informants elaborated that massaging was normally accompanied by the use of traditional herbs locally known as *manyasi*. The medicinal herbs and massaging were intended to ensure that the fetus was resting in the proper womb position to allow normal fetal presentation during delivery. Many respondents were aware that normal fetal presentation is when the brow, or the back of the head, appears first. Some women said that they had personally experienced abnormal fetal presentation including initial presentation of an arm, leg, buttock, or face.

TBAs also boiled and administered various traditional herbs for pregnant women to drink. One of these traditional herbs was locally known as *nyath agulu*. Pregnant women were required to drink this herbal concoction in the mornings and evenings. Informants believed that this herbal mixture would make the growing fetus strong and healthy. The herb was also intended to protect the fetus from being infected by rashes and a skin infection locally called *yamo* (Mulemi & Nangendo, 2001). Apart from this herbal mixture, pregnant women were required to drink to avoid complications during delivery.

Informants explained that women face many complications when delivering babies at home, including prolonged or obstructed labor, antepartum and postpartum hemorrhaging, fainting, a fetus too large for normal vaginal delivery, abnormal fetal presentation, and stillbirth. Some of the other problems mentioned included the need for an operation or stitching and the umbilical cord being cut improperly. A few informants said that some TBAs sometimes used blunt knives or stalks of sorghum to cut the umbilical cord. Finally, more than three-quarters of informants mentioned that they had retained the placenta (locally *biero*) in their body for a long time. In the words of one informant:

When I gave birth for the first time I did it at home. I was writhing in labor for too long. The blood of childbirth did not come out. The placenta was also stuck for more than 12 hours. It refused to come out for such a long period of time. And even today I cannot give birth easily because that first baby was too big.

However, respondents also said that TBAs normally ensured that the placenta was not retained after delivery, that the mother did not bleed excessively, and that the umbilical cord did not choke the infant. They also stressed that the TBAs were very experienced and skilled in midwifery and respected by both men and women within the study area. Many of these traditional midwives lacked formal medical training in midwifery; their skills were "learned through family tradition and perhaps by assisting other midwives in the community" (Wall, 1998: 435).

Perceptions about Home Birth

Most informants (74%) said they had delivered most of their babies at home. The most common reason given was that labor came as a surprise. Another reason was that labor began at night, leaving pregnant women with no other option but to deliver at home. A considerable proportion of the same women added that delivering a baby at a modern health facility would violate Luo taboos regarding pregnancy and childbirth. They felt strongly that delivering a baby in the father's homestead (*dala*) obeyed the tradition of *ramogi* (cf. Nangendo, 2005). Within this culture, such a tradition must not be violated, as this would constitute a moral, social, and spiritual transgression. Specifically, the Luo strongly believe that childbirth blood must be shed in the father's homestead during birth to shower blessings on the infant, the parents, and the community at large.

More practically, informants pointed out that little money is required to deliver a baby at home. This is primarily because some TBAs only accept or demand token payments in the form of cooked foods, grain, chicken, salt, milk, or sugar. Alternatively, regardless of sex, a newborn baby could be named after the TBA, which would constitute payment for services rendered. Many TBAs are also neighbors, friends, and/or relatives of the mother, so may not charge anything for prenatal, maternity, or post-natal services.

A few informants mentioned that according to the tradition of *ramogi*, a TBA's services should be offered freely to community members. However, the data indicate that some TBAs in the study area did charge for prenatal, maternity, and postnatal services in amounts ranging from Kshs. 200–500 (1\$US is equivalent to Kshs. 75 at current exchange rates). Most respondents still considered these fees more affordable than the ones levied at the nearby modern health facility. Only one interviewee felt that the fee charged by TBAs was too exorbitant for a majority of women in Got Agulu. Some cases of tension have arisen between TBAs and mothers regarding non-payment of prenatal, maternity, and postnatal fees because some TBAs demand that the whole amount be paid upfront, while the women giving birth prefer to pay in installments.

The interviewed women indicated that the disadvantages of delivering a baby at home by far outweighed the advantages. One woman said delivering a baby at home should be completely discouraged because if a major complication arose, a woman would be rushed to a modern health facility anyway. Another was against delivering a baby at home because, as she said, Once a woman gives birth, she is required to start working immediately. This is to ensure that there is enough food in the house and the child is clean. I personally feel this is a great burden to women in our sub-location.

Perceptions of Hospital Birth

The women were asked how far the Got Agulu Dispensary was from their home. The dispensary was 8 km from the homes of 20 informants and less than 2 km from the homes of most; all the informants claimed that they lived within walking distance of this local modern health facility.

The respondents were also questioned about prenatal and post-natal clinic attendance and treatment. Of the informants, 80% said they usually sought both prenatal and post-natal services at Got Agulu Dispensary, 19% sought services from TBAs, and a minority (1%) relied on prayers and faith healing. Respondents were then asked about the advantages and disadvantages of delivering babies at the local health facility. While 80% of the women claimed there were absolutely no disadvantages, others mentioned disadvantages such as the cost for gloves, razors, and kerosene, as well as dispensary cards. They also mentioned other costs including admission and ward fees, community levy stamps, and charges for treatment/drugs. These costs ranged from Kshs. 200–500 per day. The majority (70%) of these Luo women considered these costs affordable, but two women claimed the costs were only affordable for affluent families within the Got Agulu Sub-location.

Another complaint shared by a majority of respondents concerned medical staff at Got Agulu Dispensary. One woman summarized the collective opinion:

The behavior of the nurses and other dispensary staff really makes many pregnant women in Got Agulu shun the services there. The nurses are rude, harsh, abusive and quarrelsome. Oftentimes the nurses are absent from duty or when they are there they simply ignore patients. This is actually not very good when one is expecting a first child. Also, nowadays girls start giving birth when they are still very young. And it is only at the local health facility where they can get proper services and care yet the nurses do not just care.

Finally, some informants complained that the amount charged was exorbitant, and that women were expected to remain in the maternity ward for three days following a normal and uncomplicated delivery. The following section describes in detail how this three-day period greatly violates Luo traditions surrounding pregnancy and childbirth. Still, several women confessed that prenatal care offered them an opportunity to learn from medical practitioners about nutrition, personal hygiene, and symptoms that might indicate pregnancy-related complications. To verify the consistency and validity of the answers, these women were asked to explain why a majority of women still delivered at home instead of at the nearby Got Agulu Dispensary. The most common explanation was that generally pregnant women in Got Agulu Sub-location fear modern health institutions. This fear is intimately associated with Luo cultural prohibitions surrounding pregnancy and childbirth.

One member of the Legio Maria Christian faith remarked that modern health institutions will never offer proper prenatal and child delivery services. This particular respondent normally consulted TBAs and also used Luo traditional medicine. She said that some of her friends, neighbors, and relatives did the same. This choice was based on the belief that Luo TBAs and indigenous medicine are more efficacious than the personnel and medicine at Got Agulu Dispensary. Other women stated that staunch believers in the Legio Maria faith should never utilize either biomedicine or Luo traditional medicine because Legio Maria followers are expected to believe in the potency and efficacy of prayers and faith healing.

Cultural Prohibitions

The goal of this study was to determine whether there were any cultural injunctions against delivering a baby in a modern health facility. The data indicate that 26% of respondents claimed there were no cultural restrictions, while 1% said they were not aware of any prohibitions. However, 73% said they were aware that among the Luo, a number of cultural injunctions prohibit delivering babies in hospitals. The most crucial cultural prohibition concerned the symbolism of the placenta (biero) in Luo culture. Respondents said that in their tradition the placenta must never be buried outside the father's homestead. Cohen and Atieno-Odhiambo (1989: 25) reported similar findings: "the weak and awkward are those whose placentas were buried outside their homesteads. Such individuals are referred to as outsiders (or locally jooko)." Specifically, Luo culture demands that the placenta of a girl must be buried on the left-hand side of her mother's house, while the placenta of a boy must be buried on the righthand side of the house. Within the Luo's cosmological and symbolic systems, the left symbolizes weakness, impermanency, and vulnerability, while the right is a symbol of strength, permanency, and authority. Thus, girls because of their impermanency will move outside the homestead after marriage but boys will remain (cf. Kibiti, 1996; Nangendo, 1996a; 1996b; 1998; Ocholla-Ayayo, 1976).

Informants also explained that in Luo culture, the blood of childbirth must always be spilled in the homestead. Specifically, individuals not related to the couple must not see this blood. In addition, this blood and all other items used during the delivery must subsequently be buried in a secluded location that other people will not see. This practice is based on the Luo belief that witches and evil spirits (locally *juogi*) could use the blood of childbirth for malevolent intentions such as bringing magical harm and misfortune to a particular couple (cf. Mulemi & Nangendo, 2001; Acholla-Ayayo, 1976).

Informants also noted that among the Luo, a couple's first-born child must be delivered in the father's homestead; ignoring this cultural imperative means that if this couple has any other children, they must also be born outside the homestead. Indeed, the Luo believe that if this cultural prohibition is violated, any child born in the homestead will not survive. Some informants later revealed that in Luo culture, it is definitely an impropriety for any child to be born outside the father's homestead.

Responses also revealed that if the first wife did not spill the blood of childbirth in the homestead, no other wife should be allowed to deliver within the homestead. Among the Luo, the first wife must initiate an activity before any other wife may follow suit. Finally, informants revealed that after childbirth, traditions require that a mother remain secluded indoors. This seclusion depends on the sex of the baby. The mother is secluded for three days if the baby is a girl, or four days if the baby is a boy. Further, the umbilical cord of an infant girl is traditionally tied three times while that of a boy is tied four times (cf. Kibiti, 1996; Acholla-Ayayo, 1976).

Young girls who have not yet reached menarche are responsible for cooking food for a mother who has just given birth. These girls must be virgins because the Luo believe that sexual intercourse can have a ritually polluting effect on a newborn and the mother. Therefore, food cooked by sexually active and experienced women is considered polluting. However, some respondents pointed out that herbal remedies (locally *manyasi*) can be administered to rectify the condition of an individual who is deemed to be ritually polluting. If midwives or TBAs have not attained menopause, the Luo believe they might ritually pollute the mother and newborn. Also, TBAs should be related to either the husband or wife because the Luo believe that non-kin TBA could also pollute the mother and infant. These cultural restrictions associated with pregnancy, childbirth, the placenta, and the blood of childbirth may explain why many pregnant Luo women within the research had not made optimal use of the prenatal and child delivery services at Got Agulu Dispensary.

DISCUSSION AND CONCLUSION

A majority of informants said that home births should be discouraged completely in Got Agulu Sub-location, citing pregnancy-related complications that had occurred. Many of the informants had experienced pregnancy-related complications, including prolonged and obstructed labor, antepartum and postpartum hemorrhaging, fainting, a fetus too large for normal vaginal delivery, or an incorrectly positioned fetus. Some of these complications can be addressed during prenatal checkups and emergency health care during child delivery in a modern health facility.

However, the study results indicate that women attended prenatal clinics only intermittently. Some informants stated that during their pregnancy, they did not feel that they were suffering from any serious ailment that would warrant constant hospital visitations. In the Luo culture, pregnancy is not seen as a sickness even though both men and women in other societies might view it in this way. Similar beliefs could explain why few expectant mothers frequent prenatal clinics throughout Kenya.

Okumu and Gachuki (1996) found that in general, Kenyan women tend to seek help for disease and illness at clinics and hospitals after the problem is too advanced. Part of the reason for this is the extreme demands on women's time, especially in rural areas; Kenyan women rarely have time to frequent modern health facilities that may be far away (cf. MacCormack, 1982; 1989; Sargent & Rawlins, 1991; Sindiga, 1995; Khayundi, 2000).

Many pregnant women in Got Agulu still prefer TBAs. In many rural areas of Kenya, these TBAs are very important in providing much-needed obstetric services to expectant mothers. TBAs nevertheless need to be trained and equipped with simple instruments and drugs to carry out their services effectively (Kenya, 1989). However, MacCormack (1989: 685–686) suggested that in developing countries the training of traditional midwives has been under-funded and blighted by professional rivalry. Very few traditional midwives are taught allopathic technological skills related to childbirth and childcare, even though traditional midwives provide substantial health care in most areas of developing countries. Many local people in non-Western countries also highly respect TBAs for their experience in obstetrics as well as their knowledge of traditional remedies for medical conditions other than pregnancy (cf. Bouchier-Colle, 1984; Ityavyar, 1984; Jeffrey *et al.*, 1984; Wall, 1998; Bianco, 1991).

Finally, a number of Luo beliefs and injunctions concern pregnancy and childbearing. The Luo strongly believe that it is a cultural impropriety for any Luo child to be born outside the father's homestead. The blood of childbirth must be spilled within the homestead, the placenta must be buried at the homestead, and the mother and infant must be secluded. The Luo feel that if any of these injunctions is violated, magical harm and misfortune from supernatural entities may result. Therefore, the combination of these beliefs and cultural prohibitions could prevent optimal use of obstetric services and care at modern health facilities. Any outside medical intervention with the goal of encouraging use of public health facilities by expectant mothers such as those in Got Agulu must first address these cultural beliefs and taboos.

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REFERENCES

- Abou-Zahr, C. & E. Royston 1991. Maternal Mortality: A Global Factbook. WHO, Geneva.
- Bianco, B.A. 1991. Women and things: Pokot motherhood as political destiny. American Ethnologist, 18(4): 770–785.
- Bouvier-Colle, M.H., A. Prual & L. de Bernis 1998. *Morbidite Maternelle en Afrique de l' Ouest*. Ministere des Affaires Etrangeres Cooperation et Francophonie, Paris.
- Bouchier-Colle, V.A. 1984. Maternity care in the Sudd Southern Sudan. *Trop. Doct.*, 14: 32–33.
- Browner, C.H. & C.F. Sargent 1990. Anthropology and studies of human reproduction. In (T.M. Johnson and C.E. Sargent, eds.) *Medical Anthropology: Contemporary Theory* and Method, pp. 215–229. Praeger Publishers, New York.
- Cohen, D.W. & E.S. Atieno-Odhiambo 1989. Siaya: The Historical Anthropology of an African Landscape. Heinemann, Nairobi.
- Filippi, V., C. Ronsmans, T. Gndaho, W. Graham, E. Alihonou & P. Santos 2000. Women's reports of severe (near-miss) obstetric complications in Benin, *Studies in Family Plan*ning, 31(4): 309–324.
- Ityavyar, D.A. 1984. Traditional midwife practice, Sokoto State, Nigeria. *Social Science and Medicine*, 18: 497–501.
- Jayawarden, R. 1993. Illness perception: Social cost and coping strategies of malaria cases. *Social Science and Medicine*, 37(9): 1169–1176.
- Jeffrey, R., P. Jeffrey & A. Lyon 1984. Only cord-cutters? Midwifery and childbirth in rural North India. *Socio. Action*, 34: 229–250.
- Karbo, T.K. 1987. Traditional midwifery in Sierra Leone. In Proceedings of a Conference on African Medicine in the Modern World, 10–11 December 1986, pp. 87–114. University of Edinburgh, Edinburgh.
- Kaseje, D.C.O., E.K.N. Sempebwa & H.C. Spencer 1987. Malaria chemoprophylaxis to pregnant women provided by community health workers in Saradidi, Kenya: Reasons for non-acceptance. *Annals of Tropical Medicine and Parasitology*, 81 (Supplement): 77 –82.
- Kawango, E.A. 1995. Ethnomedicine remedies and therapies in maternal and child health among the rural Luo. In (I. Sindiga, N. Chacha & M.P. Kanunah eds.) *Traditional Medicine in Africa*, pp. 80–93. East African Educational Publishers, Nairobi.
- KEDAHR. n.d. Kenya-Danish Health Research Project Phase 2. Draft Report. KEDAHR, Nairobi.
- Kenya, Republic of, 2001a. The Eighth National Development Plan for the Period 1997– 2001. Office of the Vice President and Ministry of Planning and National Development. Government Printer, Nairobi.
 - 2001b. The 1999 Population and Housing Census: Counting Our People for Development, Vol. 1. Central Bureau of Statistics, Ministry of Finance and Planning. Government Printer, Nairobi.
 - 2001c. *Siaya District Development Plan, 1997–2001*. Office of the Vice President and Ministry of Planning and National Development. Government Printer, Nairobi.

2000. Sessional Paper 1 of 2000 on National Population Policy for Sustainable Development. National Council for Population and Development, Ministry of Finance and Planning. Government Printer, Nairobi.

- ------ 1994. *Health Information System Report. Ministry of Health.* Government of Kenya and UNICEF, Nairobi.
- —— 1989. *National Development Plan for the Period 1989 to 1993*. Central Bureau of Statistics, Ministry of Finance and Planning. Government Printer, Nairobi.

- Khayundi, F.E. 2000. Local Peoples' Response to Malaria in Pregnancy in Bar Chando Sublocation, Siaya District, Kenya. Unpub. M.A. thesis, Institute of African Studies, University of Nairobi.
- Kibiti, R.N. 1996. Culture and gender. Mila (N.S.), 1: 60-73.
- Longhurst, R. 1982. Resource allocation and the sexual division of labour: A case of a Moslem Hausa village in northern Nigeria. In (L. Beneria, ed.) Women and Development: The Sexual Division of Labour in Rural Societies, pp. 95–117, Praeger, New York.
- MacCormack, C.P. (ed.). 1982. *Ethnography of Fertility and Childbirth*. Academic Press, London.
- 1989. Technology and women's health in developing countries. International Journal of Health Sciences, 19(4): 681–692.
- McKinlay, J.B. 1972. The sick role: Illness and pregnancy. *Social Science and Medicine*, 6: 561–572.
- Maine, D. 1993. *Safehood Programs: Options and Issues*. Center for Population and Family Health and School of Public Health, Faculty of Medicine, Columbia University, New York.
- Mulemi, B.A. 1998. Bamako Initiative and its Relevance to Malaria Control in Bar Chando Sub-location, Bondo Division, Siaya District, Kenya. Unpub. M.A. thesis, Institute of African Studies, University of Nairobi.
- Mulemi, B.A. & S.M. Nangendo 2001. Therapeutic strategies and traditional medical knowledge of the people of Bar Chando Sub-location, Bondo District, Kenya. *Curare*, 24: 47– 56.
- Murphy, M. & T.M. Baba 1981. Rural dwellers and health care in northern Nigeria. *Social Science and Medicine*, 15A: 265–271.
- Nangendo, S.M. 2005. The tradition of *ramogi*: Beliefs and practices of the levirate amongst the Luo in Bondo Division, Bondo District, Western Kenya. *Mila* (*N.S.*) (6): 23–32.
 - 1998. The heartbeat and rhythm of life: The cardinal points in the socio-cultural construction of Bukusu personhood. *Nordic Journal of African Studies*, 7(1): 39–62.
 - 1996a. Pottery taboos and symbolism in Bukusu society, Western Kenya. *African Study Monographs*, 17(2): 69–84.
 - ——— 1996b. Twinship among Babukusu of Bungoma District, Western Kenya: A misfortune or blessing? *Mila (N.S.)*, 1: 16–27.
- Nyambedha, E.O., S. Wandibba & J. Aagaard-Hansen 2001. Policy implications of the inadequate support systems for orphans in Western Kenya. *Health Policy*, 58: 83–96.
- Ocholla-Ayayo, A.B.C. 1976. *Traditional Ideology and Ethics among the Southern Luo*. The Scandinavian Institute of African Studies, Uppsala.
- Okumu, D.A. & P. Gachuki 1996. *Country Gender Profile for Kenya*. Swedish International Development Cooperation Agency, Stockholm.
- Ouko, G.A. 1999. Potential of a Local Community in HIV Preventive Strategies and Care: The Case of Nyoluoro in Usigu Division, Siaya District. Unpub. M.A. thesis, Institute of African Studies, University of Nairobi.
- Ouko, S.A. 1998. The Influence of Socio-cultural and Economic Factors on Health-Seeking Behaviour: The Case of Measles in Children in Rarieda Division, Siaya District. Unpub. M.A. thesis, Institute of African Studies, University of Nairobi.
- Pittrof, R. & O. Campbell 2000. *Quality of Maternity Care: Silver Bullet or Red Herring?* Maternal Health Programme, Department of Infectious Diseases, London School of Hygiene and Tropical Medicine, London.
- Rehan, N. 1984. Knowledge, attitude and practice of family planning in Hausa women. *So-cial Science and Medicine*, 18: 839–844.
- Sargent, C. & J. Rawlins 1991. Factors influencing prenatal care among low-income

Jamaican women. Human Organization, 50(2): 179–187.

- Shiffman, J. 2000. Can poor countries surmount high maternal mortality? *Studies in Family Planning*, 31(4): 274–289.
- Sich, D. 1981. Traditional concepts and customs on pregnancy, birth and postpartum period in rural Korea. *Social Science and Medicine*, 15b: 65–69.
- Sindiga, I. 1995. Managing illness among the Luo. In (I. Sindiga, C. N. Chacha & M.P. Kanunah eds.) *Traditional Medicine in Africa*, pp. 64–79. East African Educational Publishers, Nairobi.
- Thaddeus, S. & D. Maine 1994. Too far to walk: Maternal mortality in context. *Social Science and Medicine*, 38: 1,091–1,110.
- Tinker, A. 1994. *Women's Health and Nutrition: Making a Difference*. World Bank Discussion Paper 256. World Bank, Washington, DC.
- Wall, L.L. 1998. Dead mothers and injured wives: The social context of maternal morbidity and mortality among the Hausa of northern Nigeria. *Studies in Family Planning*, 29(4): 341–359.
- Watkins, S.C. 2000. Local and foreign models of reproduction in Nyanza Province, Kenya. *Population and Development Review*, 26(4): 735-760.
- WHO 1993. Investing in Health: Investing in Health. WHO, Washington, DC.
- WHO 1994. Mother Baby Package: Implementing Safe Motherhood in Countries, WHO/ FHE/MSM/94.11. WHO, Geneva.
- World Bank 1993. World Development Report 1993: Investing in Health. Washington, DC.

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