

# Women's Experiences in Accessing Maternal and Child Health Services During the Period of the Armed Conflict in the North of Mali

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**Abstract:** *Background:* During the year 2012 armed conflict in the northern regions of Mali, health care services were no longer able to run in the normal way and women's access to health services became a critical issue in those regions. *Objective:* The aim of this study was to explore the women's experiences in accessing maternal and child health services during the period of the armed conflict in the north of Mali. *Methodology:* The interviews were conducted with 28 married women between September and October 2013. The women were recruited in Sévaré's refugee camp and by snowball sampling from the neighborhood village of Waïlirdré. *Results:* 27 multiparous women and one childless woman were interviewed. They were all married, between 20 and 56 years old. During the armed conflict, several health facilities were destroyed, the few that could offer some health services were lacking of medicines and personnel. Doctors, nurses and midwives have left. Some pregnant women have had severe complications, or miscarriages. Some died during the delivery at home or in the maternity clinics because they were brought too late. Newborns died during home delivery and also some children less than 5 years old died because of the lack of healthcare services. Some women were abused sexually by the Islamist Jihadists who forced them to submit fundamentalist Islamic rules and prohibited them to access to family planning services. During the armed conflict, women used more traditional medicines for child healthcare. They expressed their fear about their health and that of their children once they have returned home. *Conclusion:* Women had difficulties to access to healthcare services in the northern regions of Mali. The atrocities of Islamist Jihadists against the population and the destruction and looting of the healthcare facilities had considerably reduced access to health services during the armed conflict. There is urgent need for women's and children's healthcare services in these regions. Programmes to support sexually abused women also need to be the health care priorities.

**Keywords:** Armed conflict, child health, experiences, maternal health, northern Mali, women.

## INTRODUCTION

Mali is a West African country with 16 million inhabitants. The country is among one of the poorest developing nations in the world which faces huge social, economic, political and public healthcare challenges. Between March 2012 and January 2013, four northern regions: Tombouctou, Gao, Kidal and Douentza, were occupied by Islamist Jihadist groups. On 16 January 2012, the Jihadist groups began fighting against the Malian government, seeking independence for northern regions of the country [1]. During the occupation of these regions by the Islamist Jihadists; some cities such as Sévaré, Bankass, Koro and Bandiagara faced a massive influx of large populations, mostly women and children, creating a humanitarian crisis [2]. From various media sources, children's deaths, women's rape and deaths and the destruction of the medical infrastructure were reported in the occupied cities [3].

According to Malian Demographic and Health Survey, before the armed conflict, maternal mortality ratio was 464 maternal deaths per 100,000 live births. The mortality ratio of children less than 5 years old was 191 infant deaths per

1000 live births. In the context of reproductive health, Mali is characterized by a high fertility rate about 7 with a very low contraceptive use rate of 6%. In the rural areas, nearest health care centers are located at least 30 kilometers [4]. In the north of the country, there were 3 midwives per 1,000 live births and the lifetime risk of maternal death was 1 in 22, in some cases, there was no midwife present at the delivery and in rural areas, 14% of the mothers are 18 years old and uneducated [5]. Although pregnant women are provided 1-4 prenatal consultation visits, a large proportion of them are not visiting the maternity clinic before childbirth [6]. It has been revealed in previous studies that in Mali, women's attitudes to contraceptive use, high pregnancy rates, and maternal and infant mortality rates are associated to the country's poor health care services and the high cost to access to good health services. All those factors are contributing the use of traditional medicines [7, 8]. It is evident that, in a poor society where the use of hormonal contraceptives rate is low, the birth rate is obviously high and when the health care service is poor, maternal and child health mortality rate is obviously high.

According to UNICEF, nearly 70% of rural Mali women give birth at home with significant proportion of maternal and newborn deaths occurring within 48 hours after delivery and the proportion of women using hormonal contraceptives were only 2% [9]. Furthermore, there was not enough

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healthcare staff in the community health centers [10]. According to the International Committee of the Red Cross' report, the few local hospital staff who stayed in the medical facilities during the armed conflict, were backed up by a small team of the Red Cross's physicians, nurses and midwives that continued to provide day-to day care, particularly in the zones where the conflict was intense and medical facilities were destroyed and abandoned by their staff [11]

To our knowledge, no study has been done on the women's experiences in accessing healthcare services during the armed conflict in the north of Mali. The objective of this study was to use qualitative data to explore women's experiences in accessing maternal and child healthcare services during the conflict. In our views, the study is important because it has revealed that women's and children's healthcare must be addressed with the same urgency as political, security, economical and other issues related to the consequences of the armed conflict in the north of Mali.

## METHODS

For this study, we have chosen the qualitative method to be the appropriate survey method for the following reasons like it is in qualitative research method [12]. The number of the women studied was small and therefore, it was easy to compare their opinions and experiences and interact with them; observe their actions but also keep our own opinions and beliefs distant from that of the interviewees. We understood the situations in which the women were, and the accounts they gave their lives. For example, by using this method, we understood the impact of poor literacy on their attitudes to certain issues in the interview discussions. Our concern was not only to observe their actions, but also to listen to them telling their experiences.

### Study Setting and Ethical Considerations

The survey was done in the refugee camp of Sévaré, a town of 40,000 inhabitants. Sévaré is situated at 10 kilometers from Mopti and 160 kilometers from Douentza. The Malian's National Ethical Committee for Health and Life Sciences approved the study. Verbal consent was obtained from all the women before the interviews. They were assured that their names will not appear in the report and the interview information would be used strictly for the study purposes.

### Sampling and Recruitment of the Women

The survey of this study was done between September and October 2013. Two women were recruited from the maternity clinic and twenty six from the refugee camp of Sévaré and the village of Waïlirdé. A volunteer midwife from the maternity clinic organized the interview meetings with the two women at the maternity clinic. The researcher assistant and the midwife explained the women in Bamanankan, (the predominant language in Mali), the objectives of the study and the reasons for asking them to participate the survey. The recruitment of women from the refugee camp of Sévaré and the village of Waïlirdé was done by another volunteer woman from the camp. She was herself a refugee from Gossi. She spoke French and knew almost all the women in the camp. She arranged the interviews' dates and venues

with the 26 women. She provided a framework within which the women felt secured, relaxed and talked openly about their experiences. Prior the interviews, the principal investigator and the study assistant explained to her the study's aims in order to identify potential women who could be willing to talk about their experiences. A snowball approach was also used to increase the number of participants.

The interview started by asking each woman's personal data, for example the age, place of residence, educational background, profession, marital status and number of children. The study's assistant interviewed individually 21 women in Bamanankan and the principal investigator interviewed 7 women who spoke also French. Altogether, there were six interview sessions. The first session was held in the maternity clinic, the second two sessions were held in the refugee camp and the last three ones were held at the female volunteer's home in Waïlirdé. Each individual interview lasted from 45 to 60 minutes. With the consent of the women, the interviews were audio-recorded. Snacks and soft drinks were served and at the end of the interview, each woman was given 2 pieces of washing soap and small gift for her participation.

### The Interview Guide and the Raisons for Using Structured Interview Questions

The open-ended interview questions were designed in the way we could make decisions about which information to pursue in greater depth. The first interview question was about the demographic characteristic of the participants. The questions were as followed:

- 1) *How old are you? Are you married? How many children do you have? Have you been to school? Where were you working before coming to Sévaré refugee camp? From which town, city or village do you come from?*
- 2) *What are your experiences in accessing maternal and child health care during this armed conflict period?*
- 3) *Which kind of methods have you used for child health care before coming to Sévaré?*
- 4) *What are your expectations after you have returned to your home?*

A standardized open-ended interview was appropriated method because even though more than one person was involved in the interview process; we could ask to each woman the same questions using the same words. This approach allowed us to enter the women's perspectives, when telling us their stories. The other rational for using the standardized open-ended interview was that it made it easier for us to organize answers by similarities.

### Analysis

The recorded interviews were transcribed from Bamanankan into French by the research assistant and translated into English by the first author. The promptness of transcription of the recorded tapes was important, so they were listened several times in order to get familiar to what the women said. They were identified by the letter F (which is the initial of "Femme", meaning woman in French) with their age (e.g. F24 or F38). The pauses and interruptions

during the interviews as the women needed time to collect their thoughts to issue being discussed or to do something else did not cause distraction in understanding what was discussed. Information from the observation notes were also added to the recorded information. Once the tape and note information were transcribed, we became familiar to the data. The second step was the coding, a process by which we created categories that facilitated comparison of the information. Similarities and differences of the women's responses were then grouped under each appropriated question. To generate the findings of this study, we employed creative and analytical reasoning as is usually done in qualitative data analysis [13]

## RESULTS

Three major findings emerged from the data of this study.

1. The women's experiences in accessing maternal and child health care services during the armed conflict.
2. The medical methods used for child health care during the conflict and
3. The women's expectations once they have returned to their homes.

### 1. The Women's Backgrounds

The women were diverse in many aspects such as age, place of residence in north of Mali, social- educational background and family structure. The characteristic they share was that, they spoke more or less Bamanankan and they were all married.

The 28 women were between 20 to 56 years old. One woman did not have children, the other 27 were multiparous. Two women were pregnant at the time of the survey. In terms of educational background, only one woman completed professional school and two completed the primary school, 25 could not read and write. The majority of the women (24) came from Gossi and Bourem (in Gao region) and Gourma-Rharous (in Tombouctou region). One was from Djénné (in Mopti region), another one from Latiwell's district. Two women from the Sévaré refugee camp were living in the camp with their husbands.

### 2. Women's Experiences in Accessing Maternal and Child Health Care During the Armed Conflict

This first major finding of this study revealed the impact of the armed conflict on the women's lives, violence against them including rape and the problems in accessing maternal and child healthcare services.

Out of the 28 women studied, 21 were at reproductive age, 19 reported that they had delivered at the time of the armed conflict. Among the women who gave birth, seven experienced severe complications during their pregnancy; some of them were bleeding and some could not go to the maternity clinic because there was no nurse or midwife available. Three of their babies had died. The women reported that, there were a lot of gunshots in the streets and also the Islamists were arresting women who were not veiled. The health infrastructures were looted and devastated,

health services did not exist anymore. Physicians, nurses and midwives had left, because they were afraid to be killed by the Islamists. The Islamists were against family planning methods, so they burned contraceptives and condoms and closed down the pharmacies providing these services. One of the women whose daughter experienced the situation, said:

*When the Islamists allowed my daughter to see the nurse, she said, two men with big bear, head covered of black ribbon came to the consultation room, one of them told in Bamanankan to the nurse not to give my daughter the contraception to prevent pregnancy because the use of contraceptives is forbidden in Islam. (F53)*

The Islamists were imposing Sharia law rules on the populations and ordering women to be veiled and should be accompanied by their husbands, while going out. Douentza referral health centre was the Islamist Jihadist groups' military base, where men and women who have failed to obey Islamic sharia were detained. While men were beaten, some killed or forced to join the Islamist militants, women were raped in the custody. Fear to be arrested and raped, the pregnant women did not want to go to the maternity clinics for medical visits. Sexual and other abuses were common punishments to women and girls who were not complied with the Islamic law. The only way a woman could avoid Islamists' punishment was to be totally veiled. One participant said this:

*I know three women who were arrested by the Islamist Jihadists and were taken to custody. One of them was pregnant and she was also sick. She got afraid so that she started to bleed and she died at the custody. (F35)*

All the women expressed similar view saying that, the Islamists' occupation of towns and villages was a scary period, everybody was afraid.

*The Islamists were shooting everywhere to scare the population, taking the young men into their army to fight for them against the Malian army. They were arresting women and sent them in their tents for interrogations or to rape them. The Islamists did not care if the women were under age or pregnant. (F30)*

Women reported that in many villages, pregnant women with severe complications lost their lives, some delivered prematurely because they got panic of the situation, and some of them said their babies died because they gave birth at home. To illustrate the situation, one of the women said this:

*The time the Islamists entered into our village, I was pregnant. They started to arrest men and women in the streets, so I was afraid to go to the maternity clinic. When they started to shoot everywhere, I panicked and started to have pains in my stomach, then gave birth prematurely my baby who died after few days. (F33)*

### Another Woman Told the History of her Friend

*Before the Islamist Jihadists occupied our village, all the medical services were functioning very well. My friend went to medical checkup and did not have any problem with her pregnancy but when the Islamist Jihadists came to occupy our village, she got afraid of the situation and gave birth*

*prematurely to twin children who died, straight after the delivery. (F33)*

### **Two Women who have Lost their Babies said this**

*I lost my fifth child (baby) in the car on my way to the maternity clinic when I saw the Islamists stop us; I got afraid and give birth in the car. Unfortunately my baby died in car before we arrived in the clinic (F26)*

*My baby died because the Islamists did not want the male doctor to come to the clinic to help me giving birth, so finally when the baby was born with difficulties, he died in few minutes after the delivery (F30)*

Six women who were brought to Sévaré refugee camp by Red Cross and Médecins sans Frontière, also admitted that, the armed conflict was period was terrible moment for women, children and old people. The Islamists took men into the mountains or the men run away leaving women and children in the villages. It was difficult for pregnant women and sick children who were unable to access healthcare centers, because the Islamists made the centers their headquarters. The Red Cross staff brought some pregnant women secretly to Sévaré refugee camp. The Islamists allowed some women to go to see a doctor, a nurse or midwife if there was one, because they were in a critical situation. For several non-pregnant women and their children, walking for many kilometers to the refugee camp was the only way to save their life. Two women, who were not pregnant but escaped from the village to the refugee camp, told this:

*I am lucky; I did not have problems to go to the clinic. Some Islamist Jihadists were kind with pregnant women who were really sick, like me. They took them in their cars and brought them to the hospital, but they did not want male doctor to treat those women. Sometimes, they could allow the male doctor, if the women were in a critical situation. (F37)*

*I did not have too much problems with Islamists to go the clinic, because they saw that I was really sick, so they let me go there to see the doctor and the nurse of Médecins sans Frontière, until I gave birth. It is later the Red Cross brought me in the Sévaré's refugee camp for better treatment (F39).*

### **3. Methods Used for Child Health Care During the Period of the Armed Conflict**

In this third finding, a large majority of the women has revealed that they were using traditional medicines to treat or to protect children from diseases. Poverty, destruction of health facilities, lack of modern medicines and insecurity for women to go alone to the maternity clinic increased the use of traditional medical methods during the armed conflict. For the women, the impact of the war was strongly associated to the use of traditional medical methods for child health care.

Out of the 20 women with children, 19 were using traditional medicines to treat or to protect their newborns and children from illness and infections before coming to the Sévaré refugee camp. Among these women, seven were using both traditional and modern medicines. The most traditional remedies that were used by mothers were: herbal medicines administered orally or anally to their babies, a mixture of Shea butter and leaves to be rubbed at forehead,

at middle of chest, abdomen, toes or other herbal remedies given as drop into the eyes. The other preventive methods were worn around neck, wrist or waist of the newborn, of the infant or of the child. Women revealed that, the impact of the war on the health services was one main reason for them to use traditional methods for children's health needs. The other reason was that, they did not have money to buy the medicines prescribed by Red Cross or Médecins sans Frontière's physicians. One of the women made this claim:

*Look, before the conflict, the hospitals and clinics did not have enough medicines and the war has made things worst. Hospitals or maternal and child care clinics have been devastated, the health care providers have left, and there was nowhere we could get medicines for our children. Medicines that women were receiving from Red Cross or Médecins Sans Frontière doctors and nurses were not enough or not always the right medicines, so only methods available to treat or prevent our children from illness, diseases or infections were the traditional medicines. (F35)*

### **A Younger Participant Added**

*Women and men were afraid of the Islamists. They could not take their children to the hospital, because the Islamists were shooting and arresting people in the street so when the baby or the other children were sick in the family, parents were locked up in their home and treated their sick children with traditional medicines. (F20)*

The findings revealed that, 18 women considered conventional medicine effective and secure for child health care, compared to 10 women who were considering both traditional and conventional as complementary methods. One of the elder women said this:

*Beside modern methods of child health care, in the urban areas, traditional herbal methods are always used in Malian society to protect the newborn, the infant or the child from vulnerable illness, or disease caused by evil eye, evil spirits, witchcraft because children have delicate bodies and soul. (F55)*

### **4. Women's Expectations**

All the women expressed their concern about the medical infrastructure that have been destroyed or looted, the lack of health care providers and medicines in health centers and maternal clinics. They strongly expressed their fear to return to their homes.

The women believed that the lack of health professionals, medicine and medical equipments in the medical facilities could jeopardize their health conditions and that of their children once returned to their homes. About their expectations, they mentioned the accessibility and affordability of the health care services to improve their lives and health. In their opinions, although food and clean drinking water were very important for their health and everyday life, they were expecting better health care services that can improve the health conditions and those of their children. Health centers and maternity clinics to be built near them with qualified health providers, good medical equipments and affordable medicines.

**One of the Women Said:**

*We need nearby health care centers and maternity clinics, well equipped with good doctors and nurses and free medicines or at least cheap for everyone to buy. It is that way, there will be less maternal and child deaths in our villages. (F38)*

**DISCUSSION**

We have chosen qualitative method for this first explorative study of women's experiences in accessing maternal and child healthcare services during the period of the armed conflict in the northern regions of Mali. This study has some limitations warranting mention. First, our sample was relatively small, because many women have left the refugee camp to go to other cities like Mopti, Bla, Segou and to Bamako, so this research included only 28 women who were still in the refugee camp of Sévaré and the village of Waïlirdré. Although this number was small, we assumed that, the women's stories and their experiences in accessing maternal and child health care services during the armed conflict did not differ from those who have left the camp. Second, this study was done in the north of Mali where the situation was not yet stable because the fight between the Islamists and the French armed forces was going on. For this reason, we could not get access to other cities in the north. Third, though this research explored women's experiences in accessing maternal and child healthcare services during the armed conflict; unfortunately, the psychological or psychosocial effects of the war on the women's mental health were not studied. We speculate that, in the long or in short term, the impact of the war can have some serious health implications on mothers and children. We do believe that the findings of this study could be applied to all the women who have lived in the war zones.

**Women's Experiences in Accessing Health Care Services During the Armed Conflict**

Armed conflict has a devastating impact on women's and children's health conditions. Particularly in rural areas, where accessing to suitable maternal and child healthcare is a major determinant in mothers' health outcome [14] In armed conflicts, women are usually exposed to sexual coercion, but also they are denied access to health care. Like it has been indicated in previous studies [15], this current study has clearly shown that the women have had difficulties in accessing health care services but also have been victims of several forms of abuses. The women came mainly from the regions of Tombouctou, Kidal, Gao and Douentza where the armed conflict was intense and medical facilities were destroyed and abandoned by the local medical staff. The few centers that were still running were unable to obtain medicines because pharmaceutical warehouses were no longer operating and maternal and infant death rates had increased because of the lack of perinatal healthcare [16]. Other reasons of maternal and infant deaths as women explained, was the inaccessibility to maternity clinics for delivery because of the Islamists' brutalities in the streets. Women were exposed to act of violence such as rape and some were wept publicly. A senior United Nations' official has reported such violence against women in the northern parts of Mali [17].

Other studies have also indicated that violence against women such as mass rape was used as an instrument of war [17, 18]. Strict Islamic law of conduct was imposed to the populations by the Islamists. Women and girls were forced to wear "djellabas" full-body dress to cover them totally. It was too risky for them to access to healthcare services because of the Islamists' violence against them, if they were not wearing the djellabas.

This exploratory study revealed how accessing healthcare service in the northern Mali was a challenge for women during the armed conflict. Despite certain normalization of the situation in the northern regions of Mali, access to healthcare services is still a problem for people in those regions. In order to make sure that population and particularly in rural areas have access to proper health care, we recommend the national and international health community to increase efforts to rebuild hospitals, referral and community health centers but also supply medicines and recruit medical professionals.

**Use of Traditional Medicines for Child Health Care During the Armed Conflict**

The findings of this study have shown that both modern and traditional medicines were used to treat illness or diseases of children during the armed conflict. The evidence seems to indicate that traditional healers, herbalists and birth attendants in African societies [19], have always maintained this tradition. Similar studies have concluded that traditional methods of protecting infants/children from diseases were still common in developing countries [20]. The analysis of our data suggests that Mali has a pluralistic medical system where biomedical and traditional medical systems coexist. Cultural values, attitudes, beliefs and behaviors affect life style and health, so culture is considered as a dynamic factor, which plays an important role in health and diseases<sup>21</sup>. While the traditional childcare practices vary from culture to culture, mothers' cultural attitudes to pregnancies, births, education level and social resources play an important role in their children's health practices. In social and cultural context, traditional medicine has always been the first-choice for Africans, particularly in the rural areas where the western type of health institutions are out of reach of the population. Traditional medicine practices have been socio-cultural heritage in the African society for hundreds of years [21].

This study confirmed that mothers' traditional childcare practices have always been used in Mali. According to the women, generally some of these traditional medicines were commonly given orally, anally, rubbed on the different parts of the body or given as a drop into eyes. Other study has also revealed that some traditional medicines were used to bath babies or massage them to protect their skin [22].

**CONCLUSION**

Women had difficulties to access to healthcare services in the northern regions of Mali. The atrocities of Islamist Jihadists against the population, the destruction and looting of the health care facilities had considerably reduced access to health services during the armed conflict. The findings have implications on post-conflict rebuilding better healthcare services, replacement of qualified health care staff

and meeting women's expectations to accessible and affordable health care services. There is urgent need for their healthcare services in these regions. Programmes to support sexually abused ones also need to be the health care priorities.

#### RECOMMENDATION FOR FUTURE STUDY

We are suggesting that in the northern regions of Mali, which are in the large majority poor regions, should be of high priority for the Mali government and the international community to meet women's expectations. Rehabilitate and equip health facilities, recruit qualified medical staff in providing health services that are closer to women. Further study exploring the war's psychological and psychosocial implications on women's, adolescents' and children's health in the northern Mali is recommended.

#### CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

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#### AUTHORS' CONTRIBUTIONS

All the authors have contributed to this study and agree to submission to International Journal of the Open Public Health Journal for publication.

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