Obstetrical Emergency Training Program for Traditional Birth Attendants in a Guatemalan Indigenous Community

短　報

Obstetrical Emergency Training Program for Traditional Birth Attendants in a Guatemalan Indigenous Community

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グアテマラ先住民地域における伝統的産婆への産科救急の教育

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〔Abstract〕

The author was dispatched to the Joyabaj District Hospital in Guatemala as a volunteer midwife through a program of the Japan International Cooperation Agency（JICA）from April 2019 to March 2020. The Quiché department where the hospital was located had a large indigenous population and was lagging behind in various fields but importantly in health care. Therefore, she conducted various activities to contribute to the improvement of the current status of maternal and child health. The maternal mortality ratio（MMR）of the Quiché department is among the highest in the country, and home births attended by traditional birth attendants（TBAs）still account for more than half of all births. TBAs are obliged to participate in monthly training sessions held at health centers. They would be expected to improve the knowledge and skills of TBAs, however, it did not appear to have fulfilled the objectives. In addition, the knowledge assessment test conducted for TBAs revealed that even important knowledge, including danger signs and obstetric emergency response, was lacking. Thus, a pilot obstetrical emergency training program was implemented based on the results of the initial assessment.

〔Key words〕Guatemala, Indigenous, Traditional birth attendant, JICA

〔要 旨〕

筆者は，2019年４月から2020年３月までの１年間，JICA海外協力隊の助産師隊員としてグアテマラに派遣された。大多数を先住民が占め，国内において様々な分野で遅れをとっているキチェ県ホヤバフ市のホヤバフ地域病院に所属し，母子保健にまつわる課題解決に取り組んだ。キチェ県の妊産婦死亡率は常に国内上位であり，今でも伝統的産婆（TBA）による自宅分娩が半数以上を占めている。TBAは，毎月開催される保健所・保健センター主催の講習会への参加が義務づけられている。講習会ではTBAの知識･技術向上のための教育プログラムを実施することが求められているが，現状の内容は十分でなかった。加えて，TBAを対象に実施した知識評価テストにおいても，危険なサインや産科救急への対応などの重要な知識が乏しいことも判明した。そのため，今回産科救急に特化した教育プログラムを試験的に実施した。

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Ⅰ. Introduction

The maternal mortality ratio (MMR) in Guatemala has still not met the target of the Sustainable Development Goals (SDGs)[1]. Therefore, in April 2019, through a program of the Japan International Cooperation Agency (JICA), the author was dispatched to Guatemala as a volunteer midwife until March 2020. At the Joyabaj District Hospital, the author worked with local health professionals and conducted various activities to contribute to the improvement of the current status of maternal and child health. Described in this report are the current situations and the activities for traditional birth attendants (TBAs) carried out in the course of the author's volunteer work in Guatemala.

Ⅱ. Country data

Guatemala, located in Central America, is divided into 22 departments and 340 municipalities. It is the most populous country in Central America, with a population of 17 million people. The majority of the population is 41.2% indigenous or Maya, and 56% non-indigenous or Ladino[2]. Guatemala has one of the highest indigenous populations in Latin America after Mexico and Peru[3]. It is classified as an upper-middle-income country based on its GNI per capita, and it is the largest economy in Central America[4]. However, Guatemala has had one of the highest poverty rates in Latin America and the Caribe, with 59.3% in 2014, and had sadly increased compared with 2006 (51.2%). About 80% of the indigenous population is categorized as poor in contrast to 46.6% of the non-indigenous, whereas 23.4% are extremely poor[5]. Inequality and inequity between ethnic groups exist.

Ⅲ. Dispatched area

1. Quiché department (Table 1)

The Quiché department is situated in the northwestern part of Guatemala. Here the indigenous population makes up 89.2%, with 67.5% speaking the K'iche' language. The fertility rate in the Quiché department is the highest in Guatemala at 3.6. The 0-14 age group accounts for 40% of the population[2]. Three-quarters (74.7%) of the population live in poverty and 41.8% live in extreme poverty[5], both of which are fairly high across Guatemala. In addition, 35.5% of the population is illiterate which is the highest in Guatemala[2]. The Quiché department shows poor indicators in various areas.

Table1 Statistical data of Guatemala and Quiché department

	Guatemala	Quiché
Maternal mortality rate (per 100,000)	113	134
Indigenous Population (%)	41.2	89.2
Major language (%)	69.9 (Spanish)	67.5 (K'iche')
Poverty rate (%)	59.3	74.7
Illiteracy rate (%)	19.2	35.5
Total fertility rate	3.0	3.6
Births attended by SBA (%)	65.0	30.6

2. Joyabaj District Hospital

Joyabaj District Hospital is located in Joyabaj city, Quiché department. The city has one health center, 15 community health centers and a public hospital. The hospital provides internal medicine, surgery, obstetrics/gynecology, pediatrics, emergency, sexual violence clinic, psychology and clinical laboratory[6]. Medical services are free. It had nearly 1,600 births in 2021 and about one-third of births were by women under the age of 19. Women who had a vaginal birth were hospitalized for 24 hours, while those who had undergone a cesarean section were hospitalized for 72 hours. At the national level, four antenatal care (ANC) visits are recommended, conducted by physicians in the hospital. Obstetricians are ordinarily engaged in surgery such as cesarean section or gynecologic surgery, thus, the management of pregnant and postpartum women in the hospital, and the assistance of normal vaginal birth are conducted by the general physicians. The obstetricians are only called in abnormal situations or emergencies. There are just a few nurses, and patients are looked after mainly by auxiliary nurses. Despite the fact that more than half the population speak the K'iche' language in the region, health professionals who speak K'iche' language are much fewer than those who speak Spanish. In October 2020, the *Casa Materna* (maternity home) which allows pregnant women who are close to their due dates to stay and have immediate access to health services[7] was completed. It would have helped remove a geographical obstacle for facility birth, however, due to COVID-19, it has been used differently from its original purpose.

Ⅳ. Activities for TBAs

1. Births attended by TBAs

The Quiché department was one of the regions with the highest MMR at 134 in 2018[8]. The MMR between regions and ethnic groups had a significant difference: it was higher in rural than in urban areas. Moreover, it was estimated to be twice as high among the indigenous population as in non-indigenous[8]. As part of the global efforts to reduce maternal mortality, births attended by skilled birth attendants (SBA) have been recommended[1]; however, the proportion of births with SBA was 65% for the entire country. Moreover, only about 46.5% of indigenous women gave birth with SBAs in contrast to 81.4% of non-indigenous women. As for the Quiché department, only 30.6% of births were with SBAs and more than 60% of women gave birth with TBAs at home[9], indicating that births assisted by TBAs exceeded those of SBAs. Globally, efforts to reduce maternal mortality that once focused on training TBAs, have been shifted toward increasing births assisted by SBAs. Nevertheless, the situation in Guatemala is such that women have no choice but to rely on TBAs, especially in rural settings.

2. TBAs in Joyabaj city, Quiché department

TBA is defined as "a person who assists the mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other traditional birth attendants."[10] However, they are not considered SBAs. There are no particular requirements to become a TBA. The TBA manual only states necessary qualifications, such as being healthy in body and mind, being of legal age, learning more every day to improve the care of women and newborns, and being able to read and write, which is even better, and so on. The functions of TBA range from assisting with birth and taking care of women and newborns after birth to facilitating ANC, teaching women, husbands, and family members about high-risk pregnancies and warning signs of danger so that women can receive care in the health facilities, and coordinating the emergency plan with women, husbands, family members, and community committee[11]. On becoming a TBA, one must first attend three training sessions conducted by the health centers, after which, they are then registered as a TBA. Afterward, the new TBA observes births assisted by a mentor TBA three times and assists with birth three times by herself under her supervision. Through this process, she is finally allowed to assist with birth alone. Moreover, participation in monthly training sessions is compulsory and if they do not follow it, they will be prohibited from assisting with births (Figure 1,2)[12]. Generally, from around 7 or 8 months of pregnancy, the family contract a TBA. Activities of TBA mainly include three prenatal visits, birth assistance, and continuous visits for seven days postpartum. Since assisting with breech birth at home is not permitted, abdominal palpation is conducted at the first visit to confirm fetal presentation. If it is determined that the fetus is in a breech position, the woman will be referred to the hospital. TBAs are paid for their work, which varies according to the gender of a newborn; Q500 (9321 Yen; 63.45 USD) for a boy and Q300 for a girl. This is a kind of local norm, not a uniform rule across the country. In the case that women were transported to the hospital due to

Figure1 A training session for TBAs conducted by the health center

Figure2 The ritual prayer that must be performed at the time of the training session

obstetrical emergencies, it is up to the family to decide whether or not to pay.

3. Current training program for TBAs

There are around 270 TBAs in the region. The monthly training sessions for TBAs are mainly provided by health professionals in community health centers. Themes are conveyed from the health center to all the community health centers and they vary from signs of danger to gender inequality. Materials are not provided, and contents and methods are left to each community health center. It is not uncommon for the training session to be canceled, and even if it was conducted, training programs were provided without preparation or materials, just verbal instructions by health professionals.

4. Knowledge and skills of TBAs

TBAs play an important role in this region, however, there are no organized programs or systems for assessment and evaluation to know their knowledge and skills. Although the actual activities of the TBAs are unknown, at times the author had the opportunity to catch a glimpse of their activity in the hospital.

One day, a TBA was with a woman in the first stage of labor in the hospital. Her cervix had not yet fully dilated, however, she had been feeling the urge to push. At the time, the TBA repeatedly was pushing hard on her abdomen in the labor room.

The fundal pressure known as the Kristeller maneuver, which is not recommended by WHO[13], was being applied on a daily basis in the hospital. In the region, TBAs are allowed to accompany women to the hospital, although it may not be the case in other areas. While attending births in the hospital can be a good opportunity for TBAs to learn from health professionals, it can also have the detrimental effect of learning bad care. It can be easily imagined her performing the same thing when assisting with births at home.

5. Knowledge assessment test for TBAs

The monthly training session did not provide enough information about the updated knowledge from evidence or from the WHO as proof. Therefore, it was considered necessary to grasp the TBAs' knowledge before providing their training program. A brief assessment test for TBAs had been planned, however, it was not easy to conduct the assessment test because a large number of TBAs were illiterate as a consequence of not finishing primary education or never at all going to school. Thus, the author developed illustrated three-choice tests (**Figure 3**). Prior to conducting the assessment test, the author visited the community health center several times and also attended monthly training sessions to establish a relationship with TBAs because it was considered impolite to conduct the assessment test abruptly. The assessment test was administered with local health professionals using the K'iche' language (**Figure 4**). The contents included signs of danger, an obstetrical emergency requiring referral, and so on, which was something that those who were involved in birth should have known. However, the majority of the TBAs who took the assessment test could not answer the questions correctly. Through this attempt, it became clear that they did not even know about the

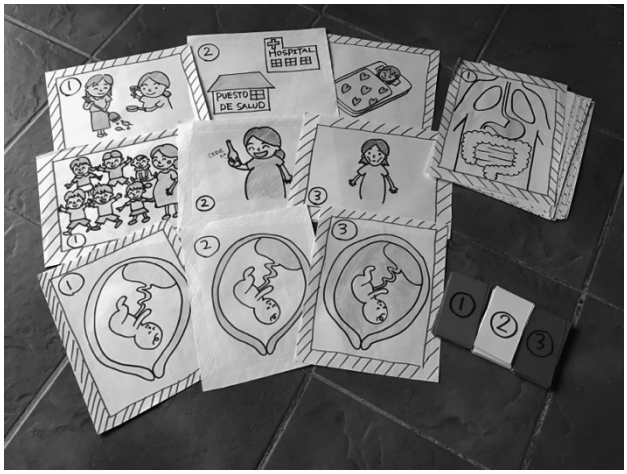

Figure3 Materials for the knowledge assessment test

Figure4 Conducting the knowledge assessment test for TBAs

obstetrical emergency requiring referral to the hospital.

6. Training program for obstetrical emergencies

Through the assessment test, it has been recommended that health professionals who provide training programs to TBAs focus only on the most essential elements instead of providing a wide range of knowledge. TBAs have to detect signs of danger and respond to an obstetrical emergency where it is necessary to refer women or newborns to the hospital (Figure 5). The previous study conducted in local settings of Guatemala shows the effectiveness of the training program for TBAs[14], however, this program was organized and conducted by an NGO, and the program was also well designed. However, health centers are usually understaffed and their workload is large. The challenge is how to provide adequate training programs and ensure knowledge retention in this situation. As a first step, it was considered that materials that were available for every health professional should have been developed. Above all, visual materials using illustrations, photos, and videos would be easier for TBAs who cannot read and write to understand.

Figure5　Obstetrical emergency training program for TBAs

Ⅴ. Conclusion

The existence of TBAs is indispensable in the region where a large number of women give birth at home with their assistance. However, what became clear through this knowledge assessment test was that they did not have sufficient knowledge. Despite the fact that monthly training sessions, which are mandated by the government, are great opportunities for TBA education, it seemed that the chances have not been effectively utilized. It is crucial that TBAs have sufficient knowledge and skill, especially for an obstetrical emergency. Thus, sustainable and affordable training programs for TBAs are needed.

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