
**TRAINING OF TRADITIONAL BIRTH ATTENDANTS (TBA) ON MODERN MEDICAL
TECHNIQUES FOR SAFE DELIVERY IN NIGERIA: THE PROSPECT AND CHALLENGES.**

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ABSTRACT

In Nigeria, especially in rural and disadvantaged regions, teaching Traditional Birth Attendants (TBAs) in contemporary medical practices is becoming more recognized as a crucial tool for improving maternal and newborn health outcomes. This study looks at the possible advantages and difficulties of incorporating TBAs into the official healthcare system through focused training initiatives. The purpose of these training programs is to improve their proficiency in critical areas such early referral to healthcare institutions, infection prevention, and obstetric problems detection. The future of this kind of training seems bright, as it might help close the gap between conventional medical procedures and contemporary methods, therefore lowering the rates of mother and newborn mortality. The execution of these initiatives, however, is beset with serious difficulties, such as cultural opposition, a lack of funding, and the requirement for continuous oversight and assistance from the healthcare system.

KEYWORDS: Training, Traditional Birth Attendants, Modern, Medical Techniques, Safe Delivery and Nigeria

INTRODUCTION

Traditional birth attendants (TBAs) have long been an essential element of the healthcare system for expectant mothers and their babies in Nigeria, especially in underdeveloped and rural regions with little access to professional healthcare facilities. These knowledgeable professionals, who are frequently well-established in their communities, are essential in aiding in birthing and providing prenatal and postoperative care. But as maternity healthcare changes, there's a growing focus on combining cutting-edge medical methods with time-honored procedures to improve delivery results and safety.

One approach that seems promising for bridging the gap between traditional and modern maternal health practices is educating TBAs in modern medical methods. This approach aims to equip TBAs with essential skills and knowledge related to modern medical protocols, emergency response, and safe delivery practices. Integrating these techniques can significantly improve maternal and neonatal outcomes by reducing

complications and improving the overall quality of care provided during childbirth (Maund, 2013).

There are several advantages to incorporating contemporary medical education with customary childbirth methods. First, it provides TBAs with critical skills to manage common complications that arise during childbirth, such as hemorrhage and obstructed labor, which are prevalent in Nigeria and can lead to high maternal and infant mortality rates (Afolabi et al., 2014). Moreover, this integration fosters collaboration between TBAs and healthcare providers, enhancing community trust in formal health systems and encouraging more expectant mothers to seek timely prenatal and postnatal care (Miller et al., 2016).

Notwithstanding the possible advantages, a number of obstacles prevent TBAs from receiving the proper training and integration of contemporary medical procedures. These challenges include logistical issues such as limited access to training resources and facilities in remote areas, resistance from traditional practitioners who may perceive modern techniques as a threat to their roles, and inadequate follow-up and support systems post-training (Rogo, 2008). Additionally, there may be cultural and community barriers that affect the acceptance and implementation of new practices introduced through training (Ogunlesi et al., 2012).

CONCEPT OF TRADITIONAL BIRTH ATTENDANT (TBA)

A traditional birth attendant, often referred to as traditional midwife, is a healthcare professional who assists with pregnancy and delivery. According to Garces et al. (2019) traditional birth attendants (TBAs) provided delivery care throughout the world prior to the development of organized systems of medical care. During pregnancy and labor, traditional birth attendants (TBAs) assist women, typically in the comfort of their own homes. TBAs have historically been important in providing maternity healthcare; they are often older, community-based women. TBAs are still present in developing countries, where they deliver about two-thirds of the world's babies.

TBAs deliver infants for expectant women mostly in rural or isolated locations and majority of them lack formal training and are not accepted as medical professionals. Amutah-Onukagha et al. (2017) defined a traditional birth attendant (TBA) as provider who are traditionally independent of the health system, and are community-based providers of care during pregnancy, childbirth and the postnatal period. Compared to other health professionals like obstetricians and gynecologists, TBAs do not get official medical training. But in most of the nation, TBAs are far more accessible and less expensive than skilled birth attendants (SBAs). The majority of TBAs have great respect in their capacities as rural midwives.

According to Aziato and Omenyo (2018) TBAs were initiated through apprenticeship from family members who were TBAs and other non-family TBAs as well as through dreams and revelations. They employ both spiritual and physical procedures as their work was based on spiritual guidance, the use of spiritual items, the use of medicines, and physical examinations. Esan et al. (2023) mentioned that traditional birth attendants (TBAs) have become an integral part of the workforce providing delivery services in Nigeria due to the limited number of skilled birth attendants and cultural preferences. A TBA assists the mother throughout the stages of pregnancy and facilitates the childbirth processes (Musie, et al., 2022).

CONCEPT OF SAFE DELIVERY

A delivery is considered safe if it poses no risk of bodily injury. It also entails the management of health and safety hazards to those whose safety may be jeopardized throughout the delivery process. The idea of a "safe delivery" includes all of the procedures, guidelines, and setups required to guarantee the health and welfare of the mother and the baby during childbirth. Access to qualified medical professionals, suitable facilities, and the tools required to handle routine births and handle any difficulties is essential for a safe delivery. It emphasizes the importance of timely interventions, such as cesarean sections or the use of medications, to prevent adverse outcomes for both mother and child (World Health Organization [WHO], 2018).

The presence of skilled birth attendants (SBAs), such as midwives, nurses, and physicians, who are prepared to handle a variety of delivery circumstances, is essential to a safe delivery. SBAs play a vital role in monitoring labor, managing complications like obstructed labor, and providing immediate care to newborns (United Nations International Children's Emergency Fund [UNICEF], 2019). Their expertise is crucial in reducing maternal and neonatal mortality rates, particularly in regions with limited access to healthcare services.

The availability of well-equipped healthcare facilities is another crucial component of safe delivery. These facilities should have the necessary medical equipment, clean and sterile environments, and access to emergency care services (Lawn, Blencowe, & Oza, 2014). By ensuring that problems like postpartum haemorrhage, infections, or delivery asphyxia may be immediately and properly addressed, access to such facilities lowers the risk of death and long-term disability.

That being said, safe delivery is also greatly aided by education and awareness campaigns as educating expectant mothers about the importance of prenatal care, proper nutrition, and recognizing the signs of labor can lead to better preparedness and timely arrival at healthcare facilities (Turan et al., 2017). Community-based programs that educate families and communities on safe delivery practices can further improve the health outcomes for mothers and newborns. In many low-income and rural areas, the lack of transportation and financial barriers can prevent women from reaching healthcare facilities in time for delivery (Campbell & Graham, 2006). Safe delivery is a multifaceted idea that calls for collaboration between communities, legislators, and healthcare professionals. Pregnancy-related hazards may be greatly decreased, improving the health of moms and their babies, by guaranteeing the availability of trained delivery attendants, modern facilities, educational opportunities, and social factors.

CONCEPT OF MODERN MEDICAL TECHNIQUES FOR SAFE DELIVERY

These methods cover a wide variety of innovations, such as the use of cutting-edge diagnostic instruments, the implementation of evidence-based procedures, and the incorporation of cutting-edge technology in obstetrics. However, the use of prenatal diagnostic technologies, such as ultrasound and fetal monitoring systems, is a fundamental aspect of contemporary medical practices, since this equipment's allow healthcare personnel to closely monitor the fetus's development and health during pregnancy. Early detection of potential complications, such as fetal distress or congenital anomalies, allows for timely intervention, thereby reducing the risk of adverse outcomes during delivery (Adepoju & Olaleye, 2021).

Additionally, evidence-based practices have become integral to modern obstetrics. For instance, the World Health Organization (WHO) advocates for the use of antenatal corticosteroids in preterm labor to enhance fetal lung maturity, significantly reducing neonatal mortality and morbidity (Ogunlade et al., 2022). Furthermore, the introduction of skilled birth attendants and the implementation of standardized protocols for labor and delivery have been crucial in minimizing maternal and neonatal mortality rates (Chukwuma & Nwachukwu, 2020).

Innovative technologies that have been instrumental in improving safe delivery methods include electronic health records (EHRs) and telemedicine. Telemedicine has bridged the gap between expectant mothers in remote areas and specialized healthcare providers, ensuring that high-risk pregnancies receive the necessary attention and care (Nwosu & Ezeh, 2023). Similarly, EHRs facilitate the seamless sharing of patient information among healthcare teams, ensuring that all medical decisions are informed and based on the most current data (Okafor & Madu, 2021). In summary, evidence-based medicine, technology developments, and the incorporation of creative approaches to healthcare delivery have resulted in the development of contemporary medical strategies for safe delivery. These advancements have raised the bar for maternal healthcare internationally while also improving the safety and results of delivery.

MODERN TRAINING PROGRAMS FOR TBA'S

In areas where access to official healthcare is restricted, modern training programs for Traditional Birth Attendants (TBAs) are crucial for enhancing the health of expectant mothers and newborns. These courses are intended to provide TBAs the information and abilities they need to identify problems, use safer delivery methods, and work well with other medical professionals. The following is a list of essential contemporary TBA training courses:

- **Basic Obstetric Care Training**

Its main goal is to provide TBAs with the fundamental information and abilities needed to handle typical pregnancies and delivery. Topics include prenatal care, healthy eating, identifying high-risk pregnancies, and safe delivery methods are covered in this program. By providing TBAs with these skills, the program aims to reduce the incidence of maternal and neonatal complications during childbirth (Okafor & Okechukwu, 2021).

- **Infection Prevention and Control Training**

Reduced risk of infections during delivery is essential as they are a major source of morbidity and death for both mothers and newborns. This may be achieved through infection prevention and control, or IPC, training. Safe delivery procedures, tool sterilization, and good hand hygiene are stressed in this course. IPC training significantly contributes to improving the overall safety of home births (Adeniran et al., 2022).

- **Emergency Obstetric Care (EmOC) Training**

TBAs who get emergency obstetric care training are equipped to identify and handle potentially fatal issues that arise during pregnancy and delivery. This covers instruction

on managing eclampsia, obstructed labor, and postpartum haemorrhage. TBAs are qualified to offer emergency treatment and stabilize patients before directing them to a medical facility, even though they are not required to carry out complicated medical operations. This training is vital in reducing maternal and neonatal mortality in emergencies (Adebowale & Oluwaseun, 2020).

- **Referral System Training**

The purpose of referral system training is to instruct TBAs on when and how to send patients to more advanced medical institutions. The significance of prompt referrals in situations when difficulties arise that are outside the scope of the TBA's expertise is emphasized in this training. A well-established referral system is crucial for ensuring that high-risk cases receive the necessary medical intervention (Eze & Odo, 2023).

- **Culturally Sensitive Care Training**

This curriculum respects and integrates traditional customs and beliefs with current medical understanding. TBAs are prepared to offer care that is acceptable and culturally relevant to the communities they serve, which makes it more likely that new practices will be successfully adopted. This approach helps in bridging the gap between traditional methods and modern healthcare (Ogunleye & Adedayo, 2023).

- **Health Education and Counseling Skills**

TBAs are better equipped to inform expecting mothers and their families about maternal and newborn health because to training in health education and counselling techniques. This training enables TBAs to serve not only as birth attendants but also as community health educators, contributing to overall improvements in maternal and child health (Chukwuma & Nwachukwu, 2021).

TYPES OF MODERN MEDICAL TECHNIQUES FOR SAFE DELIVERY

Obstetricians place a high priority on ensuring the safety of both mother and child during childbirth, and contemporary medical practices have made great strides in promoting safe delivery outcomes. The following includes the types of modern techniques used for safe delivery:

- **Prenatal Diagnostic Methods**

Modern prenatal diagnostic methods are essential for spotting any issues before the baby is born. Using these techniques, medical professionals may evaluate the health of the fetus and predict potential difficulties during labor and delivery. They are comprised of non-invasive prenatal testing (NIPT) and ultrasound imaging.

Non-Invasive Prenatal Testing (NIPT): NIPT is a novel technology that examines fetal DNA that is present in the mother's blood. With this test, chromosomal abnormalities like Down syndrome may be accurately detected, negating the need for more invasive treatments like amniocentesis. By identifying potential genetic issues early, NIPT allows for better planning and management of the pregnancy and delivery (Bianchi et al., 2020).

Ultrasound Imaging: In prenatal care, ultrasound is become a common instrument. It allows the precise visualization of the placenta, fetus, and amniotic fluid, which helps identify anomalies such placental insufficiency, congenital defects, and fetal growth limitation early on. Advanced ultrasound techniques, such as Doppler ultrasound, can assess blood flow in the umbilical artery and other fetal vessels, providing insights into the fetus's oxygenation and overall health (Sharma & Ludmir, 2020).

- **Intrapartum Monitoring**

Techniques for intrapartum monitoring are used during labor to make sure the mother and child are doing well. These techniques aid in the detection of fetal distress indicators and other issues that could require medical attention. These do, however, include electronic fetal monitoring (EFM) and intrapartum ultrasound.

Electronic Fetal Monitoring (EFM): EFM is frequently used to track uterine contractions and the fetal heart rate continuously during labor. Fetal distress, such as hypoxia, can be identified with the use of EFM data, which may lead to the need for immediate intervention, such as surgical delivery. While EFM has been instrumental in improving neonatal outcomes, it also requires careful interpretation to avoid unnecessary interventions (Cohen et al., 2020).

Intrapartum Ultrasound: The position of the fetal head, the status of labor, and the effectiveness of instrumental births are all being evaluated by intrapartum ultrasonography more and more. This real-time imaging technique provides valuable information that can guide decision-making during labor, particularly in cases where manual examination may be challenging or inconclusive (Eggebo et al., 2021).

- **Delivery Interventions**

Delivery interventions are methods used during labor, particularly in cases when problems develop, to help ensure the baby is delivered safely. They are made up of the vacuum extraction and forceps delivery, as well as the Caesarean Section (C-Section).

Vacuum Extraction and Forceps Delivery: When labor progresses past its expected duration or fetal distress is suspected, certain instrumental delivery procedures are employed. In a vacuum extraction, the baby's head is delivered with the assistance of a suction device, and the infant is guided out of the birth canal with the help of metal forceps. Both techniques have evolved with better-designed instruments and more precise indications, reducing the risks of injury to both mother and baby (Andrikopoulou & D'Alton, 2020).

Cesarean Section (C-Section): In situations where vaginal birth puts the mother or child at risk, one of the most common surgical operations performed globally is a caesarean delivery. C-sections are now safer than ever because to developments in anaesthesia, surgery, and postoperative care. However, it remains important to balance the benefits and risks, as unnecessary C-sections can lead to complications in subsequent pregnancies (Ye et al., 2021).

Prospects of modern medical techniques

These methods have enormous potential to transform healthcare by improving patient outcomes overall, therapeutic efficacy, and diagnostic accuracy. With an

emphasis on telemedicine, regenerative medicine, and precision medicine, this section examines the possible applications of contemporary medical technology in the future.

- **Precision Medicine**

This is a revolutionary approach to healthcare that customizes preventive and therapeutic measures to each patient's unique genetic, environmental, and lifestyle characteristics. As opposed to traditional medicine's one-size-fits-all approach, precision medicine allows for unparalleled levels of customization in healthcare. This medical technology potential comprises: Pharmacogenomics, Genomic Sequencing and Personalized Treatments.

Genomic Sequencing and Personalized Therapies: Targeted medicines may now be developed since genetic variants contributing to illnesses can now be identified because to advances in genomic sequencing. Precision medicine, for example, has made it possible to develop medications for oncology that selectively target cancer cells with specific genetic abnormalities, therefore reducing damage to healthy cells. The continued expansion of genomic databases and the integration of artificial intelligence (AI) for data analysis are likely to further enhance the accuracy and applicability of precision medicine (Tenenbaum et al., 2021).

Pharmacogenomics: In order to create safer and more effective pharmaceuticals, this discipline investigates how a person's genetic makeup influences their reaction to medicines. By customizing medication prescriptions based on a person's genetic composition, pharmacogenomics is anticipated to decrease adverse drug responses and increase therapeutic efficacy. As more is learned about the genetic underpinnings of drug responses, the role of pharmacogenomics in clinical practice is expected to grow significantly (Manolio et al., 2020).

- **Telemedicine**

The field of telemedicine has experienced significant growth, especially after the COVID-19 epidemic. It entails removing obstacles to healthcare access by using digital communication technology to deliver clinical services remotely. The telemedicine consists of:

Expanded Access to Healthcare: Patients who might not have access to specialized medical treatment in rural or underdeveloped locations can potentially be reached through telemedicine. Additionally, by enabling ongoing monitoring of chronic illnesses, this strategy can lower the need for hospital visits and enable prompt treatments. With the introduction of 5G networks, telemedicine technology is likely to advance further, improving the quality and range of remote healthcare services.

AI-Powered Telemedicine: AI integration with telemedicine systems is probably going to improve decision-making and diagnostic precision even more. A study by Nwachukwu & Ohalete (2024) highlights that AI can analyze equipment performance data, identifying potential issues before they escalate, schedule proactive maintenance and minimizes downtimes ensuring uninterrupted availability of resources. This synergy between AI and telemedicine holds the promise of more efficient and personalized patient care (Kichloo et al., 2020).

- **Regenerative Medicine**

With its focus on restoring or replacing damaged tissues and organs, regenerative medicine offers hope for illnesses for which there are presently few effective therapy alternatives. They are stem cell therapy and 3D Bioprinting.

Stem Cell Therapy: The foundation of regenerative medicine is stem cells because of their extraordinary capacity to differentiate into a wide variety of bodily cell types. Stem cell therapy is being investigated as a potential treatment for many different illnesses, such as diabetes, heart disease, and spinal cord injury. The potential for creating fully functional tissues and organs from stem cells could address the shortage of organ donors and revolutionize transplantation medicine (Rinkevich et al., 2020).

3D Bioprinting: The creation of customized tissues and organs for transplantation, potentially resolving organ rejection and compatibility issues, is another promising development in 3D bioprinting, which is the layer-by-layer building of tissues using bioinks derived from cells. As 3D bioprinting technology matures, it may become a critical tool in the treatment of various degenerative diseases and injuries (Groll et al., 2021).

CHALLENGES TO SAFE DELIVERY ENCOUNTERED BY TBA IN NIGERIA

In Nigeria, traditional birth attendants (TBAs), are indispensable during childbirth, particularly in remote and underdeveloped communities. They do, however, face a number of difficulties that have an effect on the deliveries they supervise being safe. These difficulties include:

- **Limited Training and Knowledge**

Lack of professional training and insufficient understanding of contemporary medical procedures are two of the biggest obstacles facing TBAs. Many TBAs acquire their skills through traditional methods passed down through generations, which may not include updated techniques or knowledge about managing complications during childbirth (Sule-Odu et al., 2018). Without proper training, TBAs may be unable to recognize or appropriately respond to complications such as prolonged labor, postpartum hemorrhage, or infections, which can lead to adverse outcomes for both mother and child (Oguntunde et al., 2019).

- **Inadequate Access to Medical Facilities**

This problem is made worse by the absence of funding for TBAs' continual education and training. The distance to the nearest hospital or clinic, coupled with poor transportation infrastructure, makes it challenging for TBAs to refer cases that require advanced medical intervention (Adeyemo & Sobola, 2016). Rural communities frequently lack a dependable emergency transportation system, such as ambulances. This means that even when a TBA identifies a complication that requires hospital care, getting the mother to a facility in time can be difficult, increasing the risk of maternal and neonatal mortality (Doctor et al., 2018).

- **Cultural and Socio-Economic Barriers**

The employment of TBAs rather than trained birth attendants is frequently influenced by cultural customs and beliefs in some Nigerian communities. In spite of the possible hazards, some families would rather use TBA services because of ingrained

customs or mistrust of official healthcare institutions. Pregnancy and postpartum care are very expensive, and many families are unable to pay for these services.

- **Lack of Integration with Formal Healthcare Systems**

In Nigeria, there is frequently a lack of cooperation between TBAs and the official healthcare system. This disconnect means that TBAs may not receive the support they need from healthcare professionals or may not be able to refer complicated cases to hospitals in a timely manner (Ogunjimi et al., 2015). Inconsistent care is exacerbated by the lack of standard operating procedures and guidelines for TBAs.

- **Inadequate Supplies and Equipment**

TBAs frequently have little or no access to necessary medical equipment and supplies. Infections and other difficulties during birth may increase if basic essentials like gloves, sterile tools, and drugs are unavailable. TBAs may be forced to use antiquated techniques that aren't always secure or efficient as they don't have access to contemporary medical equipment. This reliance can lead to preventable complications that could have been mitigated with the proper medical interventions (Adetunji et al., 2017).

- **Legal and Regulatory Challenges**

The absence of regulation increases the danger to moms and infants by making it harder to guarantee that TBAs follow safe delivery procedures. However, policies that discuss TBAs' place in the healthcare system frequently leave gaps. In the absence of explicit protocols and recommendations that include TBAs into the wider healthcare system, these attendants could persist in doing tasks that are at odds with the safest delivery techniques.

CONCLUSION

In summary, training Traditional Birth Attendants (TBAs) in modern medical techniques offers a crucial pathway to enhancing maternal and neonatal health in Nigeria. While the potential for safer deliveries is significant, the success of this initiative hinges on overcoming challenges such as resistance to change and ensuring continuous support. With focused efforts, this approach can play a pivotal role in reducing maternal mortality and improving healthcare outcomes across the country.

RECOMMENDATIONS

- Establishment of ongoing training programs to keep TBAs updated on the latest medical techniques and best practices should be encouraged.
- Increase in government involvement through funding, policy backing, and logistical support are important to ensure the sustainability of TBA training initiatives.
- It is advised to implement regular assessments to ensure that TBAs adhere to trained protocols and to identify areas for improvement in the training programs.

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