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SAFETY CULTURE TO PREVENT INFECTION IN NORMAL BIRTH CARE BY VILLAGE MIDWIVES ATEAST LOMBOK NUSA TENGGARA BARAT

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Abstract

Background: Normal birth care is one of midwife's competence within the most of risks to both women and midwife. Limited of health facilities and social culture are major problem of midwifery care. In fact, infection cases have been occurring and become a significant cause in maternal death. At East Lombok most of 93,33% birth was provided by midwife. It was a tricky to explain that midwife does not work as well. Aim to describe safety culture to prevent infection during normal birth care at rural area.

Method: qualitative study with focus group discussion and in-depth have done for 8 midwives from 6 sub-district at East Lombok. We selected midwife who have done at least 1 year and have experience in preventing infection during birth care.

Result: Midwives struggled to perform the rule of normal birth care with the limited facilities. Cultural sensitivity restricted to use personal protective equipment. To build safety culture in their work, social culture became an obstacles more than support system and policy. Lack of knowledge about safety care on rural area is one of problem they said.

Conclusion: Culture sensitivity is something to consider in safety care, although considerable to standard care is essential in midwifery care. Culture safety care concept particularly for prevent infection at remote area are needed to expand in the midwifery curriculum.

Keyword: safety culture, prevention of infection, normal birth care, midwifery care

1. Introduction

The infection is one of the main causes of death of the mother and newborn. Infections can actually be in barring. Internationally it's been holding to the Universal Precaution Standard in an effort to overcome various infectious diseases. Nevertheless, it is still a major problem in almost all health care facilities, including obstetrics. Addressing the situation of health service personnel is needed which are midwives, who can show working performance based on standard of healthcare services of whereever they served.

The Infection prevention is increasing complex by the development of HIV/AIDS cases. In Indonesia, by 2012 there are 253.785 people with HIV, and a third (30%) are women (Ministry of health of the Republic of Indonesia, 2013). As for the hepatitis B disease, Indonesia is the third country in the world which amounted to 13.3 million people infected. In East Lombok of Nusa Tenggara Barat, the number of cases of sexually transmitted infectious disease is still high: 60 cases and death from AIDS are 12 cases. The HIV/AIDS infection cases had a higher risk of transmission during the process of labor. The increasing HIV/AIDS infection and hepatitis is an example of the transmission of infectious diseases that can be prevented by a midwife during normal birth care.¹ While the data is the number of maternal deaths in East Lombok in 2012 is 25, where this figure was the highest number of counties in the other Province.

In Indonesia, the scope of delivery are rescued by health workers in 2012 by 89.68% and in Nusa Tenggara Barat Province amounted to 92.96%, whereas in East Lombok district is 93.33%.² See coverage of the delivery care that helped by health

workers is high then need for universal precautions that is an act of infection control is done by all health workers to reduce the risk of spread of infection through blood and body fluids that can potentially transmit a disease, whether derived from patients and health workers. Cross infections that occur within a health service center is one of the largest risks faced by health workers that exist in every health service center. So there happen to cross infection between patients and health workers as a result of the service provided the need for precautionary measures of infection. Infection precautions can minimize infection caused by microorganisms and decreases the risk of transmission of disease life-threatening such as hepatitis and HIV. The preventing infection such as washing hands, wear gloves, use of personal protective equipment, aseptic techniques, processing equipment, keep clean and sanitary environment. Overall these aspects should be carried out by midwives during childbirth, including managing risk in the area with many lack resources and amenities.

East Lombok District is one of the rural and remote area in Indonesia. Based on data from Indnesian association of midwives, the number of Midwives in East Lombok District 2013 is 187 Midwife. A preliminary study of done with interviews of 12 a midwife who worked as a midwife in the village, they submit that the prevention of infection remains they notice, for cases of HIV and other infection diseases are growing, but they convey a concern due to the lack of infrastructure in the regions lagging behind to be able to apply the constraint to a culture of prevention of infections is right. This is justified by the Chair of IBI (Indonesian assossiation of midwives) Nusa Tenggara Barat, that there was still a midwife who has yet to be implemented and to cultivate the infection prevention efforts in the service of obstetrics. Based on the description, researchers interested in conducting research with the headline 'Safety Culture For prevention of infection in normal birth care by a midwife in rural area East Lombok Nusa Tenggara Barat.

2. Research Method

The research is qualitative descriptive research. The research done in East Lombok Nusa Tenggara Barat Indonesia, during September 2014 until March 2015. The data collected by focus group discussion and indepth interview at rural midwifery practice to directly learnt and documented how was done by village midwives in particular to prevent infection during normal birth care. The partisipans in this study is 8 midwives who have worked at least 2 year at 6 subdistrict in East Lombok Nusa Tenggara Timur. The ethical clearance was gained from academic ethical committe. The data analyzed by qualitative method, with explanatory building fromnarrative result to find the main themes about the effort to prevent infection in normal birth care at rural area.

3. Results and Analysis

One of the midwive's service is providing a normal birth care. This services is susceptible to the risks both to the women, baby and the midwife themself. On the process of childbirth, it can happen a variety of possible complications in the mother and the fetus, such as; case of bleeding, infection, shock and death. Likewise on her baby bad possibilities can emerge such as; aspeksia, infection and death. For midwives to help can also happen to the risk of transmission of infections due to exposure to maternal and fetal body fluids, as well as other non technical risk.

Interview against to midwives who served as village midwife in the 6 subdistrict in East Lombok, in this study, obtained data on how the village midwives, providing service to the community and various effort in prevention infection during normal birth. Qualitative data analysis generates some theme like this:

A. The transmission of HIV and Hepatitis when childbirth is the most warry risk

Interviewees interviewed are aware of the danger of transmission of infection from patients while helping labor. The risk of infection is the most feared of diseases HIV, Hepatitis and tuberculosis. Although the incidence of these cases is not much in some patients who had their help, but the midwife felt concerned against these diseases. Cases of HIV and AIDS became one of the issue in the community, due to a perception that social influence in major cities and even abroad are particularly vulnerable to HIV infection and the onset of AIDS. In East Lombok there are many women and men who became a labor of Indonesia (TKI) and labor women (TKW) abroad. This perception arises because it is usually long-separated/TKW TKI with her husband. They come back to Indonesia in the pregnant condition and childbirth in the village midwife. Midwives village feel worry against HIV infection.

"We usually anticipate if there are people who work abroad as a TKI/TKW returned with pregnant condition but not with her husband, definitely we suspect that they infected by HIV because it has been such a thing...the woman was also already diagnozed. "(interviewee- 3).

B. Limited of Facilities for prevention of infection

The majority of Interviewees in this study stated that the facilities and infrastructure of Government is extremely limited. Equipment at the polindes are usually disuplay Government through clinics, however if the equipment is not memadahi, a midwife in the village had to devise its own or normally share with another midwife.

"In my polindes the electricity sterilisator does not exist, I often borrow from my friends who already buy sterilisator. Birth set is also not complete. The IUD instrument also does not exist, is not complete I mean " (Interviewee 4).

The conditions of tools (instruments) to help normal birth from Governmentsupplied to midwives in the East Lombok villages are incomplete and some are rusting. Midwives must seek tools that have good condition and complete that is less complete. In addition tools support from the Government through healthcare center, the village Government where midwives are work also seeks improved of infrastructure for working midwives in the village through funding obtained by the Government of the village. One of the help that give to village is facilitating polindes with electricity. Although the electricity does not have a direct impact on the prevention of the infection, but this facility is very useful for improvement prevention of infection process. Before the electricity exists labor's help tool was stew, since there are electricity midwife can use sterilisator to do the strerilisation.

"...When I was working in my village there is PNMP program. So on the meeting I told them the need of health tools, so I can submit, including the needs of KWH (electric) proposed to the PNPM program (Interviewee-7)

C. Prevention of Infection atrural

Most of Interviewees interviewed, midwives conduct prevention efforts of infection in pregnant women and infant by sterilization tools. Sterilization by boil techniques is the most widely used, especially those that do not have sterilisator. Boil is done with pot called a steamer. Besides by boiled it is also done by steamed as has been learned during the lecture. For midwives who work in villages close to the public health center (PHC), usually the instruments is sterilized in the PHC. For

" Use this Mam..steamer..ehboilling. Because it is to far away from health center..." (Interviewee-3).

"For material like cotton, gauze sterile we usually retailing sterilized pack. Sometimes we just take it in the health center. (Interviewee-6).

The risk of transmission of infection during childbirth care, especially from a very risky disease carried out by using the tool of self protection glove (handscoon), even while helping birth the midwife uses two gloves at the same time. Most of the midwives say that at least the gloves are worn to protect themselves, while other means of self-protection rarely or even never worn.

" If we realized that the pregnant mother is TKI/TKW from overseas we just directly use the double handscoon" (Interviewee-1).

The process of childbirth often happened suddenly. Pregnant women come to polindes after feel any strong contractions and feel will bear. Signs of labor as regular abdominal pain, mucus blood or fluid coming out will be felt the mother, but the mother's durability against labor pain differently on each expectant mother. A time of expectant mothers come to polindes in emergency situations where the baby's head was already in the pelvic floor, or almost born. In these conditions, sometimes the midwife wasn't ready to help, especially the readiness to use selfprotection.

"waah..It was..so, when the baby's head already pops up and the mother is no longer strong..already in the front door..I yell quickly raise to the mattress ..then I help her ..I didn't get to wear the gloves,, I only use the mother's fabric..the important thing is the baby safe.." (Interviewee-7).

"ehmm..here we always help the delivery in the mattress, not in the ground, because there are mattress in the polindes. When help in the house it also on the mattress, although it short and the leaders I take it with me".

After help childbirth without the readiness, midwife felt worried against transmission of infection even though patients who rescued are unidentified infectious disease. Midwife felt it should prevent the occurrence of infection by performing disinfection of the skin and cleanse theirself with soap.

"Ya although the patients is normal and looks healthy honestly we feel worry..so after we help them we always wash our hands very clean..or even take a bath...If there is blood in my hand or anywhere, I just wash it with soap or alcohol.." (Interviewee-1)

D. Personal Protective Equipment against infections

Personal Protective Equipment (PPE) is used when the midwife helped birth. The Interviewee said not all PPE may be used. PPE often used is the Apron (apron), Handscoon, and slippers. All midwives interviewed said that they really have to understand the various PPE should be used completely, such as: cover head, goggles, masks, gloves, aprons, and high shoes (booth). A real experience in the village midwife turned out all types of PPE can not be used maximaly. "yahandscoon, apron, sandal, but not booth..thats it". (Interviewee-6).

PPE that never be worn or rarely used is the mask, glasses and shoe booth. Most midwives actually have a mask, but do not want to wear it. A midwife who did not have a mask did not immediately seek the willingness of the mask because for them the use of masks is no need because the health worker even do not use mask in the health center. While conveying the completeness of PPE looks less serious response, it appears from the expressions of the Interviewee who described an apparent contradiction between the theories that they have learned.

"Mask is never used...sometimes there are no mask Mam, in the health center I never use mask. Actually we feel worry if we sprayed if we do not use glasses and mask. But the patient is health.. That's it Mam..he..he, mask is never used..moreover booth ha..ha" (Interviewee-2)

E. Prevention of Infection to the patient

Patients' prevention of infection in as a result of the normal birth care by a midwife in the village is done by using a sterile tool and disposable. In detail the Interviewee said that the used disposable gloves, an instrument made of metal are sterilized by boiled or steamed and the use of sterile syringes and disposable. Interviewees convey that syringe especially syringe needle always changed by each patient.

"ya disposable handscoon, then the instruments are boiled. Also the spuit Mam..especially the needles.." (Interviewee -7).

"The spuit usually can be used again, depend on..if it too often used not comfortable..but the needle always changed for each patient" (Interviewee-3).

The probability of infection may occur either to a midwife who helps as well as on the patient or mother who helped. The source of transmission also can occur from mothers who have contracted infectious diseases as well as midwives and tools that used by midwife to help labor. Interviewees interviewed said that midwives work well in delivery help care in the village. As health workers they understand helper self hygiene, so that they assume their condition is safe for patients while helping labor.

"We rarely think that patient infected by us, at least we sure that our hands is clean..after deliver we also give antibiotic" (Interviewee-2)

F. Sensitivity to culture become constraints to use PPE

Prevention of infection faced Obstacles for the use of the PPE is the social culture in the rural community of East Lombok District. Community cultures that build social interaction between its citizens appear to be assimilated society. East Lombok society appears as a heterogeneous society (because it consists of some groups of people of different ethnic origin, occupation, social economy and education level) but mixed or blended in equal interaction.

Including the position of midwives in the villages, are required to blend in with the community, understand community and align midwifery care with the cultural community. Sensitivity to culture is one reason midwives use PPE while normal birth care. In addition to cultural sensitivity to local people, less familiar of PPE in health workers environment atPHC also encourage midwives to not use full

PPE. Midwives reveal that full PPE is hard to use and troublesome while helping labor and worry to be called as a freak, because beyond the habbit.

"the community are easy to offended..moreover for certains community group, if we use mask, they feel that they are stinky" (Interviewee-7).

"they feel more sensitive when we use mask, they think that we are freak, even when I was work in the health center never use mask.." (Interviewee-8).

" ha..ha ..lf complete PPE from bottom to top never used Mam..just like freak people..it is complicated and we worry to break patient's feeling....he..he" (Interviewee-2).

Communities in East Lombok never complain if midwives using complete PPE. This is because midwives also have not used the full PPE yet. The proximity of the midwives and the community lead midwife felt more sensitive understanding of society and not using PPE full hope can appreciate the community well.

"Not yet..the community do not angry if we use complete PPE, *yaaa..to* make us getting closer with community..so we full of sacrifice.."

G. Knowledge and skills that already learned does not support to be carried out in the remote area

From the Focus group discussion, Its deliver that they are actually feeling worry against the transmission of infections as they have learned during the lecture. But while working in the village, not all can be done well. Midwife said that as long as this theory gained are not specific to the conditions in the village or rural areas. Midwives can implement prevention of infection especially in the use of the PPE well when they work in a hospital. The conditions are very different when they are in the village.

"Mam..it is very different theoretically and in the field. We are impossible to theoretically work and act when in the village. The tools are not complete. But one hand technique when injecting, disposable needle, whasing hand although not 7 steps, steril tool we still done.."(Interviewee-3).

"The problem when was on the college we never learned that if there are no tools how if the community do not want to. We only learned that the simple strerilisator are boiled or steamed. On the exam the complete PPE have to wear..So we just like an astronot..he..he if do not the lecturer will be angry..Actually in the village there are no one use the complete..so we worry Mam.." (Interviewee-7)

H. Disscusion

Working as a midwife in the village with rural area requires sensitivity to culture in the midwifery service. Midwifery care in normal birth by midwife is done in accordance with the standard of service and the theory and skills have been acquired. Infection prevention efforts is an important thing that midwife should be focused on during working in the village. Village Midwives in East Lombok District reasonably against the transmission of the HIV virus, Hepatitis and tuberculosis. Responsiveness to societal behaviors required midwives in the initial screening especially the transmission of HIV transmission. The dynamics of the social community will usually bring the influence of the society. In East Lombok District is

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known for the large amount of women TKI who work in the cities and even abroad. Social influence during wandered this is what gives to the perception of HIV disease, moreover supported by data such as pregnancy and not their mate. Sex behavior is the highest cause of the HIV/AIDS transmission. According to a study mentioned that Efforts on HIV screening of pregnant mother has been carried out with the socialization of PMTCT and the blood taking sero survey conducted on a group of high risk and 747 pregnant mothers and presumtive treatment. Obstacles faced in tackling HIV/AIDS are the stigma and discrimination, in addition, migration and population mobility is high.³ Other studies mention that social support from people around for 78.6% of women infected with HIV/AIDS increases the chance of 19.8 times higher to utilize health services. The influence of social support on women who are infected with HIV/AIDS will provide a secure feeling, feeling not own and felt cherished.⁴

Infection in childbirth could be caused by bacteria, viruses, and parasites, while transmissions can occuredinsimanation, at the time of childbirth or after the birth. Infections that can be transmitted between a patient and midwife on labor are hepatitis and patient with sexually transmitted diseases.⁵ Infection prevention efforts for helping the labor performed midwife to prevent transmission to her and her patients. Midwife activities in the rural village for prevention of infection is carried out by; washing hands, wear gloves, using aprons, second-hand equipment processing with klorine before being dumped, always replace the disposable syringes, keeping hygiene and sanitation environment while helping labor. This infection prevention activity has been conducted with reference to the normal delivery service standard and the prevention of infections acquired during midwives learning process. According to the self-protection tool for helper in childbirth is a head cap, glasses, mask, apron, gloves and footwear. All those equipments will protect the helper from the transmission of infectious diseases during the process of labor help.⁶ However, in the setting of service in rural areas, all self-protection tools are not able to use entirely.

Results of interviews indicate that the midwife keep working to prevent transmission of infection during childbirth help by always washing their hands and using gloves, even clean hands with a disinfectant solution is done to help mothers who are risky of infectious diseases. Midwives, village in East Lombok District have understood that maintaining cleanliness of hands by washing hands with soap is a permanent procedure that should not be left out when help labor. This survelance is also showed that hand hygiene is very effective based on the real proof in the practice of the infection prevention. The combination of education part with effect from the activities of survey can enlarge its contribution in preventing the risk of infections associated with health workers in the ICU.⁷ Hand hygiene of health workers established as the most important measure in preventing the spread of infections associated with health care (Heath care Assosiate Infections), and has been established as the standard health care setting by the CDC (Center Desease Control and Prevention), WHO and The Joint Commission, as a critical component of the prevention of infection program. As the standard commands that to promote hand hygiene, the resources to maintain the cleanliness of the hands must be made accessible on the critical location, and behavioral change must be supported include the use of multimodal strategies including education, training, monitoring and mutual organizational support.⁸

The support from the Government both health department local village Government still felt less; like childbirth aid equipment that is less and less nice conditions, also no electrical facilities to help sterility tool after use. It is quite different with a study that concluded that the limitation when working in hospitals in rural areas is the lack of skilled staff, especially midwifery services. The less of service delivery by trained personnel in the village.¹⁰ In addition to the less of facilities such as self-equipment protection tools, a habit of the officer at the health facility or culture of safety still needs to be improved. Risk management has to be improved. Understanding patient safety needs to be improved, especially in rural regions setting or in the village. Earlier studies reported that 20 midwifes who examined on the research on patient safety in obstetrics, found 2.5% possibility of incidents concerning the safety of each patient. This is a relatively small percentage of safety incidents. However, this is not supposed to happen this way, but it is accepted as a safe reference to a simple midwifery care, due to the increased specific measurements can further reduce the change of patient safety incidents.¹¹ The close relationship between midwives and pregnant women make confidence of pregnant women to the midwife. Screening is done by midwives and references complication case to the hospital is very significant. The most important thing in the aspect of safety is that pregnant women actively role in their health screening during pregnancy to the midwife. They believe and rely their midwife to diagnose and manage the potential risks that may arise.¹²

vacum device and long gloves in several CHPS in rural village inhibits preference of

The main barriers in the implementation of a culture of Safety Culture by midwives during childbirth in the rural village East Lombok District, West Nusa Tenggara is appreciate society culture in East Lombok so cannot use self-protection maximally. In addition, from previous health workers seemed not accustomed to using the self protection tools. Unusual working on this situation form a culture that does not support patients prevention of infection, the Interviewee said that in the health center health workers rarely use masks or suitable PPE when helping labor. Cultivate aspects of safety against spread of infection are needed in the development of midwifery services organization. In manifesting a culture of safety need the support from all the personnel involved so that everyone (midwife) feel comfortable deliver and concerning to potential dangers or real failures without fear or reproach from management.¹³ Safety culture mostly seems like a local phenomenon, where its application is very different at each healthcare organization.

The theory about the framework in midwifery practice emphasizes the existence of partnership between midwives and women (mothers). This theory is known the existence of cultural safety which will support the creation of a good relationship between midwives and mothers. Cultural safety is an effective practice for midwives to provide obstetric care to the mother and her family with cultural differences. At the beginning, the application of this theory must be aware with the cultural (cultural awareness) henceforth be more sensitive to the cultural (cultural sensitivity) and as a result is a safety service and acceptable to society (cultural safety).¹⁴

Sensitivity to cultural and social environmental is roles while working in rural areas. Focus on the concept of health services in rural areas is social relationships. A social relationship here is as interaction and community action in a specific rural area. More than a definition of the type of action and interaction, all social relationships including the conversation (among consumers), individual behaviour (how to walk, smoking), community group activities (in raising funds for care in hospitals), networking among individuals who have an impact on the smooth information and community activities in rural. Therefore social relations (knowledge,

understanding, interaction, networking and activities) among residents in rural areas/suburbs where they lived with their daily life are focused on local norms and patterns of behavior which allows and inhibit health. A social relation on local society is the response from local health workers which sharpen health services devoted to health care in rural.¹⁵

This research showed that an understanding of the characteristics of the local population is very important. For village midwives in East Lombok, this understanding can be built with good relationship and mingling with the community activities. This is in accordance with the research on the application of cultural safety in midwifery practice encourage midwives to reflect and evaluate strength, distinction and its impact on what they were doing in the village. This encourages the courage to clarify anything they can do on the midwifery practice in the village. The example is practices which is not suitable with the standards of health services to women because they understand the culture of the community in the village. In Australia, every woman who access midwifery services should be examined or identified their need based on their culture to ensure correct fulfillment of their needs.¹⁶

The presence of a midwife in the village is very helpful for community in accessing the services of midwifery. Good relationship with pregnant women and families and also government support helps the existence of village midwives in villages. On childbirth help in the village, risk management needed including the necessary in prevention efforts during the infection process of delivery. Midwives have a strong commitment to ensure the normal process in every midwifery care to delivery mother. This is an attempt to prevent medical intervention in the midwifery care. The next problem for midwife is a system and midwifery service standard and that prioritizes safety risks in the process of birthing mothers are often different from the conditions and situation of the people in the village.¹⁷

The negative perception of health workers in rural areas is one of the biggest challenges faced by health workers in rural areas i.e. on independence in making decisions and assessing risk, where there is not a skill that can be trained at the same level in the service unit with the support of specialist personnel. Compared with midwifery ward in urban areas, village midwives feel less of confident and feel less of competent at some labor procedures. Midwives who work in health care centres in rural areas are hampered by the risk assessment capability and high capability in making decisions with limited technology.¹⁸

Midwives are health workers who are at the front line in the health service to the community. They should have an understanding of patient safety should be more in depth. The high incidence of post-birth infection causing morbidity and maternal mortality should be prevented. The need of midwives in implementation of a safety culture, especially in terms of the prevention of infection during labor help in rural area in East Lombok District West Nusa Tenggara is the knowledge and skills about prevention of infection and the manejemen of risk also in midwifery services especially for work in rural area. It can be fullfilled by educating midwifery students with the curriculum that facilitates a learning experience about the implementation of patient safety in the setting in village or rural area. Midwife in this research said that the curriculum being taught when they were in college different from what they experienced in the field, in other words, they learn with the hospital oriented not rural community oriented.

Learning Method in most of midwifery school in Indonesia has not optimized yet the methods that develop critical thinking in the way of examining the safety of patients. PSMMC (patient safety morbidity and mortality conference) is a new method developed in doctoral education at Columbia. The method is evaluated by performing the survey response from the study case-oriented to improve the quality 142

of care/treatment. The survey results indicate the method is able to promote opportunities for partisipans (medical student) to express focus on secure setting, increase sensitivity to the unsafe conditions and make participants more active in interventions-interventions increased care system/treatment that focuses on patient safety.¹⁹ A study in Colorado resulted in 3 big themes. ICPs (Infection Control Professionals) in the village have identified training, exchange of information and increased communication from CDPHE (Colorado Department of Publich Health and Enviroment) is a priority. In this study the respondents suggested a regional meeting, the information they can get from the internet, newsletters, and guides the implementation of good practices to be implemented in the hospital in rural areas.²⁰

4. Conclusion and Suggestion

Village midwives at East Lombok Nusa Tenggara Barat were done some activities to prevent of infection in normal birth by washing hands, wearing gloves, wearing aprons, processingtoolsusedwithchlorinebefore discharge, using disposable syringe. They struggled to perform the standart of normal birth care and prevention of infections.

The main obstacle in the implementation of safety culture by midwives in normal birth care at East LombokNusa Tenggara Baratisthe cultures ensitive to rural women and family that could notuse personal protective equipment completely.

Midwives need an advanced knowledge and risk management skills to apply safety culture, especially in terms of prevention of infections during normal birth care at East Lombok Nusa Tenggara Barat.

Village midwives at East Lombok ought to acknowledge to social culture, although regarding to standard care is essential in midwifery care. Culture safety care concept particularly for prevent infection at remote area are needed to expand in the midwifery curriculum.

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