Quality of maternal health care in Indonesia

Hanifatur Rosyidah ^{a,1,*}, Korrie de Koning ^{b,2}, Hermen Ormel ^{b,3}

- ^a Universitas Islam Sultan Agung, Kaligawe Raya Km 4, Semarang 50112, Indonesia
- ^b Royal Tropical Institute, Mauritskade 63, Amsterdam 1092 AD, Netherlands
- ¹ hanifa.r@unissula.ac.id*; ² k.d.koning@kit.nl; ³ h.ormel@kit.nl
- * corresponding author

ARTICLE INFO

Article history

Received 23^{-th} July 2019 Revised 23^{-th} July 2019 Accepted 25^{-th} July 2019

Keywords

Quality of care Quality assurance Midwives Maternal health Indonesia

ABSTRACT

Maternal Mortality Ratio (MMR) in Indonesia remains high, 190 per 100,000 live births in 2013. World Bank emphasizes that 60% of maternal death is contributed by poor quality of care. Lack of attitude, competence and compliance of midwives were found in Indonesia, which indicate poor quality of maternal health care.

The objective of this study is to analyze factors influencing the quality of maternal health care in Indonesia

The literatures from 2004-2014 were selected and reviewed. The latest framework of 2014 on quality maternal health care by Renfrew et al. was used as a guide.

The quality of maternal health care in Indonesia is influenced by lack of midwives' competence, inadequate supervision and monitoring, lack of drugs and equipment supply, lack of community involvement in health services.

In order to address the gaps in quality of maternal health care in Indonesia, six effective interventions are proposed; namely: maternal health audit and feedback, cultural competence, education, educational outreach visit, optimizing the role of lay health workers, group prenatal care and ensure adequate supply of drugs and equipment.

The interventions needs to be carried out through a collaborative approach, policy change, pilot study and strengthen activities in implementation level.

This is an open access article under the CC-BY-SA license.



1. Introduction

Maternal Mortality Ratio (MMR) is a key indicator to measure the Millennium Development Goals 5 (MDGs 5) (Broek & Falconer 2011). About 99% of maternal mortality took place in low- and middle-income countries and one third occurred in South Asia (WHO 2011). According to WHO (2014), Indonesia is one of ten countries that contributes to 58% of maternal death globally. WHO estimated MMR in Indonesia at 190 per 100,000 per live births in 2013 (WHO 2014). The country targets 102 maternal deaths per 100,000 live births by 2015 (Webster 2012).

Maternal morbidity and mortality bring impacts on economic growth. The Partnership for Maternal, Newborn & Child Health (PMNCH) study shows that maternal death affects the reduction of Gross Domestic Product (GDP) in Indonesia by 26 % (Amiri & Gerdtham 2013). According to cohort study (2012), women with severe complication have a high risk of depression and physical symptoms resulting difficulties in daily activities and financial constraints (Iyengar, Yadav & Sen 2012). The survival of children is also significantly influenced by maternal death. The chance to lose the child before 12 years old increased by 55% (Anderson et al. 2007). Thus, decreasing maternal morbidity and mortality could bring positive impact on economic growth and child survival.

Ensuring the availability and access to Skilled Birth Attendants (SBAs) could save mothers from the complication related to pregnancy (Natsir et al, 2014). Therefore, in 1989 the government of Indonesia launched Village Midwife Program (Bidan Desa). The purpose of the Village Midwife Program is to assign skilled birth attendants in every village to provide maternal health services, such as care before, during and after labour (Shankar et al. 2008). According to Shrestha (2007) fifty thousand midwives were trained and posted in villages by 1997. As a result, there has been a significant progress. The MMR decreased gradually and the coverage indicators on maternal health such as births attended by skilled providers, antenatal visit and postnatal visit have been increasing (MOH-RI & USAID 2012).

However, the challenges are remaining, particularly in the rural area. As reported, the responsiveness of the health care system to women's needs and friendly attitudes greatly influences the health seeking behaviour of a woman. The women give these reasons for the preference for a delivery attended by Traditional Birth Attendants (TBAs) rather than midwife (Titaley et al. 2010a). Moreover midwives are absent in the village due to frequent travel made by them to the cities. Furthermore, this leads to mothers preferring home delivery attended by TBAs who are available and more accessible.

Quality of care was found challenging in a study in rural West Java. This study found that midwives performed interventions without adequate indication, such as episiotomy and manual placenta removal (D'Ambruoso et al. 2009). The above evidence refers to poor quality of maternal health care. It also relates to the importance of staff attitudes and the availability of staff at the health facility.

A study revealed that to reduce MMR, the strategies are needed not only for increasing the coverage and utilization maternal health services, but also for improving the quality of maternal health care (Raven et al 2012). A study in Kenya found there was a strong relationship between the perceived quality of health care and the utilization of health services (Audo, Ferguson & Njoroge 2005). World Bank (2010) emphasizes that poor quality of care contribute to 60% of maternal mortality. Additionally, van den Broek and Graham (2009) found that in low and middle income countries, the quality of maternal health care seems to be neglected.

Hulton et al. (Cited in Raven et al. 2012) defined quality of care as "the degree to which maternal health services for individuals and populations increase the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights." This definition highlights two essential aspects of care; the quality provision of care and the quality of care that is experienced by clients. In addition, Graham and Varghese (2012) interpreted good-quality care as "care that is effective, safe and a good experience for the patient."

An effective approach is required in order to provide good quality of maternal health care to people. Renfrew et al. (2014) reveals that midwifery care is an essential component that contributes to improve quality of maternal health care.

Therefore, I would like to analyse factors determining the quality of maternal health provided by midwives in Indonesia and identify interventions for improvement.

2. Method

2.1. Study Design

This study explores secondary literatures regarding the quality of maternal health care and analyse evidence to develop interventions for improvement. The information is collected through literature review.

2.2. Search Strategy

The search engines used for this review are, VU library as a library catalogue, as well as PubMed and The Cochrane library as databases. In additional, the data is gathered through specific websites such as WHO, UNFPA, ICM, World Bank, PMNCH, MOH of Indonesia, USAID. The Ministry of Health of Indonesia data reports, articles, and policy papers are also used. In order to provide more relevant evidence, the literatures selected are between year 2004 and 2014.

2.3. Keywords

In order to explore the information related to factors influencing the quality of maternal health care, the keywords quality, maternal, health, care, midwife, attitude, value, philosophy, assurance, education, promotion, screening, competency, perception, complication, delivery, training, accreditation, rural and Indonesia were used.

Keywords applied to find the most effective strategy to improve the quality of maternal health care are strategy, intervention, improve, quality, maternal, midwifery, health, responsiveness, mechanism, quality assurance, supervision, demand side, effective, competence, satisfaction, utilization, outcome, best practice, rural and care, evidence.

2.4. Conceptual Framework

A conceptual framework is important in every research to guide the process of the analysis and link to the thesis's objectives. This study utilizes the latest framework for quality of maternal health care (Renfrew et al. 2014). There are three main reasons for choosing this framework. First, this framework covers all dimensions of quality health care, which are effective, efficient, accessible, acceptable, equitable, and safe (WHO 2006). Second, this framework focuses on maternal health care, which is the topic of this study (Renfrew et al. 2014). Third, this framework can be applied in all settings, including Indonesia (Renfrew et al. 2014).

This framework highlights the care and services that women need which contribute to the quality of maternal health care (Renfrew et al. 2014). The framework will guide in by considering the client perspective as well as the health provider perspective. The framework will also help to take into account the need of health care provider for improving quality. There are five major components of this framework, namely practice categories, organization of care, values, and philosophy of health provider in the health system, as well as the characteristic of health care provider. All components are essential aspects of maternal health care and they are interrelated. The importance of practice categories is that it captures the essential activities in maternal health. For instance, health education is important for women to understand their needs and for decision-making (Renfrew et al. 2014).

As this study focuses on the primary care level of health facilities and, specifically maternal health care provided by midwives before, during and after delivery, the more advanced medical obstetric neonatal services provided by hospitals will not be discussed. The next chapter will discuss each level in detail.

Below is the conceptual framework:

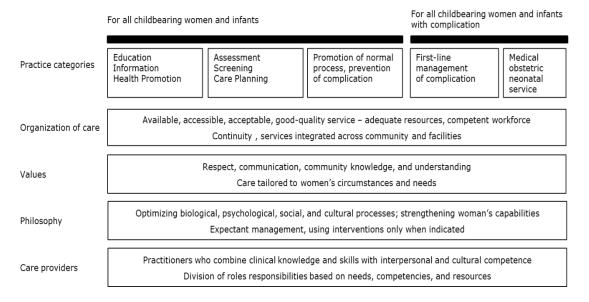


Fig. 1. The framework for quality maternal health care (Source: Renfrew et al. 2014)

3. Results and Discussion

There are five components described, namely practice categories, organization of care, value, philosophy of care and care providers.

3.1. Practice Categories

Practice category is related to technical care as a basic element of quality. Technical care is provided by applying knowledge and skills of health providers, which bring benefit to the client in terms of improving health status and reducing risks (Donabedian cited in Izumi, Baggs & Knafl 2010). According to the framework, this component highlights four aspects, namely: health promotion or education; assessment, screening, care planning; promotion of a normal process, prevention of complications; and first-line management of complication (Renfrew et al. 2014).

3.1.1. Education, Information and Health Promotion

WHO defines health promotion as "a process of enabling people to increase control over and to improve their health" (Groene & Jorgensen 2005). WHO (2013) provides a guideline of counselling for maternal and newborn health care. The handbook covers general care in the home during pregnancy, birth and emergency planning, danger signs in pregnancy, post-abortion care, support during labour and childbirth, post natal care of mother and newborn, family planning counselling, breastfeeding, women with HIV/AIDS, death and bereavement, women and violence, and linking with the community. Renfrew et al. (2014) interprets that health education and promotion are important to support women to understand their condition and to assist them in the decision making process.

According to a study in West Sumatra province, education level of women influences adequate maternal health care uptake (Agus & Horiuchi 2012). Health information and health promotion are not able to replace primary and secondary education, but can make a difference in understanding maternal health issues and improving health seeking behaviour. Several studies emphasize the importance of this service. For instance, providing health education of the importance of iron supplement and how to deal with its side effects can prevent anaemia in pregnant women (ElHameed, Mohammed & Hameed 2012). Another study in Central Java reveals that health education of safe birth is a recommended approach to reduce maternal mortality (Nuraini & Parker 2005). Furthermore, giving information about breastfeeding after delivery significantly increases exclusive breastfeeding up to 6 months (Rosen et al. 2008).

Particularly in rural setting, a midwife plays an important role to provide health information where the education level of the citizen is relatively low. However, a study in West Java province shows that midwives did not provide health promotion to the client, such as danger signs of pregnancy, birth preparedness, including safe place of birth, nutrition and breastfeeding (D'Ambruoso et al. 2009). As hypertension is the first cause of maternal death in Indonesia, education of danger signs during pregnancy is essential to prevent further complication and death. The possible reason of not providing health education is, probably they do not have enough time to provide those services as well as the lack of compliance to follow the guideline.

3.1.2. Assessment, Screening and Care Planning

WHO guidelines regarding the ANC (Antenatal Care) reveals that midwives should do an examination of complete general, obstetric, blood pressure, anaemia, fetal growth as well as screening of haemoglobin, syphilis, HIV, proteinuria, blood/Rh group and bacteriuria during the ANC visit (Lincetto et al. 2006). Similar to global guidelines, Indonesia has seven minimum standards of antenatal care which include measurements of weight, blood pressure, the height of fundus uteri, tetanus toxoid immunization, providing iron tablets, test of STI, HIV/AIDS and malaria, as well as counselling (MOH-RI 2007). Other than the seven minimum standards, in 2012, Ministry of Health adds additional examination, including examination of haemoglobin, blood group, urine protein, TBC, malaria and syphilis (MOH-RI & USAID 2012).

A study in West Sumatra found that only 6% of midwives checked protein urine during ANC visit. Moreover, only 60% of midwives conducted seven minimum standards (Agus & Horiuchi 2012). Additionally, considering PPH (Postpartum Haemorrhage) as the first cause of maternal death in Indonesia, haemoglobin test is a crucial service to detect anaemia in order to prevent PPH. However, some midwives were not able to do a haemoglobin test due to lack of skill and lack of resources such as reagent and dip stick (D'Ambruoso et al. 2009; Widyawati et al. 2014).

3.1.3. Promotion of Normal Process and Prevention of Complication

3.1.3.1. Partograph Use

In delivery care, using the partograph is recommended by WHO in order to monitor labour and identify the complication in order to prevent maternal death due to delay in receiving treatment. The policy of partograph use is also part of labour surveillance in Indonesia (MOH-RI 2012b).

However, studies in two provinces in Indonesia found that midwives did not fill in partograph regularly (D'Ambruoso, Byass & Qomariyah 2010; Fahdhy & Chongsuvivatwong 2005). They complained about too many details that have to be completed (Fahdhy & Chongsuvivatwong 2005). As a result, midwives could not make right care planning, as they were not able to do assessment properly regarding early detection for complication. Furthermore, 35% of women who were beyond the alert line were not referred to the hospital by midwives (Fahdhy & Chongsuvivatwong 2005). Most of midwives tried to handle it by themselves (Fahdhy & Chongsuvivatwong 2005). Lack of monitoring and supervision might be a factor determining the compliance of midwives in filling partograph and the appropriate intervention afterward (Shankar et al. 2008).

3.1.3.2. Normal Delivery

Unnecessary intervention during the normal process of delivery can increase the risk of complication. Romano and Lothian (2008) reveal six evidence-based care practices promote physiological birth: "avoiding medically unnecessary induction of labour, allowing freedom of movement for the labouring woman, providing continuous labour support, avoiding routine interventions and restrictions, encouraging spontaneous pushing in non-supine positions, and keeping mothers and babies together after birth without restrictions on breastfeeding". The evidence are interpreted in the guidelines of Normal Delivery Care (Asuhan Persalinan Normal - APN) in Indonesia.

In practice, the intervention such as episiotomy is only needed when the complication occurs. This intervention is indicated as potentially harmful intervention and should be restricted (Ho et al. 2010). It can increase dyspareunia and perineal pain after delivery (Sartore et al. 2004). In delivery care, midwives are allowed to do episiotomy, but should be with adequate indication. However, a study in rural Indonesia shows that some midwives conducted episiotomy in order to accelerate baby to come out (Agus, Horiuchi & Porter et al. 2012). Another reason is that the midwives found it easy to repair (Ho et al. 2010). In addition, a study in Java, Indonesia found that midwives tried to pull out the baby with inappropriate force which is not in line with the normal delivery care guidelines (Ambruoso et al. 2009).

3.1.3.3. Active Management of Third Stage Labour

Renfrew et al. (2014) reveals that active management of third stage labour is effective practice to prevent haemorrhage as the third cause of maternal death in Indonesia. The International Federation of Gynecology and Obstetrics - International Confederation of Midwives (FIGO – ICM) defines it covers three main interventions, which are the use of uterotonic drugs, controlled cord traction and massage immediately after delivery of the placenta (Stanton et al. 2009). These interventions are also provided in the APN guidelines in Indonesia (World Bank 2010). However, a study found that midwives did not follow the guidelines by trying to do the manual placenta removal without proper preparation and adequate indication (Ambruoso et al. 2009).

3.1.3.4. Early Initiation of Breastfeeding

Early initiation of breastfeeding can prevent bleeding during the fourth stage of delivery (Sobhy & Mohame 2004). Cochrane review shows the effectiveness of this intervention as well as bringing several benefits for mothers and babies, which are improving breastfeeding outcomes, cardio-respiratory stability and decreasing babies' crying (Moore et al. 2012). Yet a study in Nisa Island shows that only 39% of midwives promoted skin-to-skin and immediate breastfeeding after delivery of the baby (Inayati et al, 2012).

The evidence above shows that there is a gap between the actual practice and the guidelines. Similar to the compliance of partograph use, the monitoring and supervision might be the main factors that influence those practices.

3.1.4. First Line Management of Complication

Adequate referral mechanism is essential to manage complications appropriately and save the mother from death. In rural settings, midwives play an important role to ensure the referral system is going well. MOH of Indonesia collaborating with WHO, developed the guidelines of basic maternal health services and referral mechanism for health providers (MOH-RI 2013b). By understanding the guidelines and following the procedure, maternal death can be prevented on time.

According to the guidelines, midwives should conduct adequate communication with the referral health facility; bring the essential documents such as form and patients' history; and bring certain equipment and drugs such as Doppler, diazepam and magnesium sulphate. However, a study conducted in West Java province indicated late and poor quality of referrals. In several cases, midwives did not follow the procedure and did not bring essential drugs and important documents when referring mother to the hospital (D'Ambruoso, Byass & Qomariyah 2010). It might be influenced by the midwives' knowledge and skill and the guidelines use.

3.2. Organisation of Care

The continuum of care and good quality of service are also influenced by the availability, accessibility, and acceptability of health care providers as well as policy, adequate resources and supervision (Renfrew et al. 2014). Even though Quality Assurance (QA) is not mentioned in the framework, it has to be in place. The mechanism of quality assurance in Indonesia has been described in the background, including equipment and supply, training, use of guidelines as well as supervision and monitoring.

3.2.1. Availability and Accessibility

Titaley et al. (2010a) found that midwives were often absent due to travelling out of village regularly. Nasir et al. (2014) revealed several factors that cause midwives in SW Sumba do not standby in their assigned village are the availability of basic facility such as clean water and electricity, as well as having a husband working elsewhere and lack of education facilities for their children.

3.2.2. The Acceptability of Midwife in Community

Acceptability and accessibility of midwives influence the interpersonal relationship between providers and clients, and the satisfaction of women, which leads to improve the health status of mothers (ICM 2013a).

ICM (2013a) states, three components regarding acceptability, namely: "a culturally appropriate physical environment; providers skilled in providing culturally competent care, information made available to women and families regarding facilities and service".

In the context of Indonesia, acceptability of midwives in the village are influenced by community perceptions. Village midwives are perceived to be too young and have little experiences (D'Ambruoso et al. 2009; Makowiecka et al. 2008). As a result, they get low acceptance, are seen as not trustworthy in their competencies and likely isolated in the community. Furthermore, this situation affects the retention, motivation and job satisfaction of midwives in villages (D'Ambruoso et al. 2009).

3.2.3. Policy

As per WHO, extraction using vacuum, manually removing the placenta and management of the sick neonate is the lifesaving procedures that can be safely performed by health workers who have midwifery skills. Countries have used this fact to review the policies at National level to perform these procedures (de Graft-Johnson et al. 2006). Similar to WHO, UNFPA indicates that midwives as an attendant in most of births should be trained how to operate vacuum that can be used to save the mother from death. Particularly, it is crucial in rural areas where the distance between midwifery clinic and referral hospital is quite far. However, the policy in Indonesia implied that midwives are not legally allowed to provide vacuum extraction (White, Patrice & Levin 2006).

3.2.4. Adequate Resources

According to the analysis of World Bank of Indonesia in 2010, the number of maternal deaths due to eclampsia doubled between 1995 and 2001. This complication can be prevented by using MgSO4 (Magnesium Sulphate) for pregnant women with hypertension (Duley et al. 2010). In

addition, however, a study in West Java shows that midwives did not use MgSO4 for treatment (D'Ambruoso et al. 2009). Another study emphasizes 80% of midwives did not have MgSO4 (World Bank 2010). Inadequate supply of drugs and equipment was indicated as the main cause of this issue (World Bank 2010).

A survey in West Nusa Province reports that only 10% of delivery facilities have steriliser and resuscitation equipment. While 89% report of availability of delivery kit only 61% report of a midwife kit being available. In terms of supplies, World Bank reports only 54% of private midwives having the Hepatitis B vaccine in stock. There are reports of the lack of emergency resuscitation drugs and equipments from the health centres of the Serang district (GHWA 2013).

3.2.5. Supervision

Supervision is essential to ensure quality of health care providers by assessing their poor performance in order to identify the needs for further development of competencies. In maternity care, supervision is needed to assess the performance of midwives and also ensure the supply of equipment and drugs. Management Sciences for Health (MSH) and United States Agency for International Development (USAID) (2006) provide international guidelines for supervision called Clinic Supervisor's Manual. This guideline was designed to assist clinic supervisors and clinic managers to reach objective improvements in the quality of health care.

The government of Indonesia has also developed the checklist for supervision; however the use of this guideline is unclear.

In the midwifery service, supervision of midwives is the responsibility of the health centre (Makowiecka et al. 2008). Particularly, the head of the nearest primary care clinic is often delegated in supervising the midwives. However, Shankar et al. (2008) stated that the supervision and monitoring of midwives in Indonesia was inadequate. Moreover, unclear job description and lack of supervision skill were identified as a difficulty to monitor midwives' performance (Hennessy, Hicks & Koesno 2006).

3.2.6. Continuity of Care

Continuity of care is defined as "fewer cares during pregnancy and the presence of a known midwife in labour" (Carolan & Hodnett 2007). This influences the quality of care in terms of satisfaction and support (Carolan & Hodnett 2007).

One of the purposes of the Village Midwife program is to ensure continuity of care provided by midwives. As seen in the figure below, according to MOH-RI & USAID (2012) there is a gap between utilization of various services. The coverage of birth attended by skilled providers was lower than the coverage of first ANC visit, and followed by much more decline coverage in postnatal care and family planning.

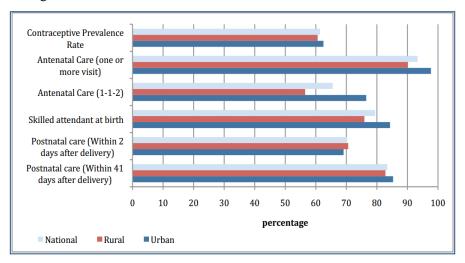


Fig. 2. The continuum of care

A study shows that geographic factors influence the continuity of care. It is related to barriers, such as distance and costs of services to access the health facility which has been discussed in the background. The continuity of care is also determined by the relationship between health providers and clients as well as the availability, accessibility and acceptance of the providers (Alazri et al. 2007).

The continuity of care provided by health providers is most likely falling short in rural areas. The absence of midwives in the village is the main cause of this issue. As a result, continuity of care throughout pregnancy is not optimal. Pregnant women could not visit for antenatal care frequently and sometimes missed midwives in delivery and post-natal care (Titaley et al. 2010a). In some cases, antenatal care and postnatal care were often provided by different midwives. Moreover, the absence of midwives also affects women to seek for TBAs in delivery care.

3.3. Values

Patients' perception of care quality influences patient satisfaction with services (Raven et al. 2012). The attitude of the health providers significantly influences the satisfaction and compliance of clients with advice suggested (Kim, Kaplowitz& Johnston 2004). A study in Lombok showed that there was a significant association between perception of quality care and the compliance and utilization of health facilities (Saimi 2006).

Some women feel safe if their delivery is attended by a midwife. According to interview data, the midwives were perceived as providing interventions immediately when a prolonged delivery occurred. In contrast, the TBA was only waiting and could not do anything. They also perceived that delivery attended by TBA was not safe, as they delivered a baby without gloves (Agus, Horiuchi& Porter 2012).

Another study found that women had bad experience during visiting the midwifery clinic. They felt that a midwife ignored and neglected them, as they are poor. According to the interview with the clients, the midwife did not really care for the poor people compared to people who paid directly. Poor people do not need to pay for the service, because the midwives will get incentive from the government toward health insurance. However, midwives complained that the reimbursement of health insurance is delayed many times. It might influence the attitude of midwives in their service of delivery (D'Ambruoso, Byass & Qomariyah 2010). Additionally, women regarding their attitude while delivering service, such as lack of respective, less attentive, intentional humiliation and verbal abuse (Widyawati et al. 2014), had negative perceptions about the midwives. The factor that influences the attitude of midwives was not found. The skill of midwives in terms of interpersonal communication might be a factor determining their attitude.

3.4. Philosophy of Care

Midwifery philosophy is defined "as a statement of beliefs about the nature of midwifery practice or midwifery education" (ICM 2011). The midwife's view of midwifery philosophy influences how midwives provide the maternity service. For example, in normal birth, midwives should not give intervention, such as induction and refer for caesarean section (Lavender & Chapple 2004). However, D'Ambruoso et al. (2009) found that midwives tried to speed the delivery by pulling the baby to come out.

A study in West Java reveals that pregnancy, as viewed by women is a part of the normal cycle of life; it is not sickness and every problem or complication, even death during this period is believed as fate of God (Agus, Horiuchi & Porter 2012). Particularly for multiparous women, who had more experience than primiparous women (Finlayson & Downe 2013). Therefore, they tend to rely on TBA who supports normal birth (Agus, Horiuchi & Porter 2012). Furthermore, they perceive that midwifery clinic and other health facilities are only needed for complicated cases (Titaley et al. 2010).

Considering the role of TBAs since long time ago, they have a strong cultural understanding in the community. Women fear if they do not follow TBAs. The emotional closeness between TBA and community builds trust and creates loyalty among them. Therefore, dukun (TBA in Bahasa) are perceived to have more experience, more kind, tolerant and patient (Agus, Horiuchi & Porter et al. 2012; Titaley et al. 2010b). A study conducted by Titaley et al. (2010b) showed that midwives left the women after delivery, while TBA waited patiently and accompanied the woman all along.

The perception by women about good interpersonal response of TBAs leads to women not wanting to get service from health facility by a midwife. This leads to low coverage of care in a health

facility. A study shows that some women in West Java province felt comfortable with TBAs as they gave massage after delivery in order to restore the woman's body like before pregnancy. The TBA also took care of the baby's cord and bathed the baby (Agus, Horiuchi & Porter 2012). Nasir et al. (2014) reveals that lack of flexibility among health providers in providing local practices such as massage and hot bath influences the poor perception of service quality. Cultural competence among midwives seems to be the factor that influences midwives to not be responsive to cultural tradition.

3.5. Care Providers

According to Renfrew et al. (2014), the component of care providers covers "practitioner who combines clinical knowledge and skill with interpersonal and cultural competence."

ICM has developed essential competencies for basic midwifery practice in 2010. The document reveals seven competencies which include "competencies in social, epidemiologic and cultural context of maternal and newborn care; competency in pre-pregnancy care and family planning; competency in provision of care during pregnancy; competency in provision of care during labour and birth; competency in provision of care for women during the postpartum period; competency in postnatal care of the newborn; competency in facilitation of abortion-related care" (ICM 2013b). To ensure the quality of care, midwives should bring varied competencies including clinical knowledge and skill with interpersonal and cultural competence. The evidences related to those competencies have been presented in previous components, practice categories, values and philosophy.

4. Conclusion

The evidence indicates that the quality of maternal health care in Indonesia is poor. The lack of competence, lack of compliance and lack of supply of drugs and equipment are the main factors influencing inadequate service delivery, particularly in clinical practices. Those factors are considered due to inadequate supervision and monitoring. On the other hand, the satisfaction of clients is mostly determined by the lack of responsiveness among health providers who do not combine the skill competence with the interpersonal and cultural competence. Lack of community participation influences health seeking behaviour and the absence of particular service provision such as health promotion due to overload tasks of village midwives.

Several effective interventions are identified to address those gaps in quality of maternal health care in Indonesia. Providing training of cultural competence education could improve the responsiveness of midwives in service delivery. Conducting group prenatal care could improve the satisfaction of clients and the continuum of care. Implementing education, outreach visit and maternal health audit and feedback as part of supervision and monitoring could improve the compliance and competence of midwives. Optimizing the role of lay health workers through task shifting could improve health seeking behaviour. Ensuring adequate supply of drugs and equipment could address the lack of resources in midwifery clinic.

References

- Agus, Y & Horiuchi, S 2012, 'Factors influencing the use of antenatal care in rural West Sumatra, Indonesia', BMC Pregnancy and Childbirth, vol. 12, no. 9, doi:10.1186/1471-2393-12-9.
- Agus, Y, Horiuchi, S & Porter SE 2012, 'Rural Indonesia women's traditional beliefs about antenatal care', BMC Research Notes, no. 5, pp. 589, http://www.biomedcentral.com/1756-0500/5/589.
- Alazri, M, Heywood, P, Neal, RD & Leese, B 2007, 'Continuity of Care: Literature review and implications', Sultan Qaboos Univ Med J, vol. 7, no. 3, pp. 197–206.
- Amiri, A & Gerdtham, Ulf-G 2013, 'Impact of Maternal and Child Health on Economic Growth: New Evidence Based Granger Causality and DEA Analysis', The Partnership for Maternal, Newborn & Child Health (PMNCH), viewed 11 May 2014, http://www.who.int/pmnch/knowledge/topics/201303_mnch_impact_on_economic_growth/e n/
- Anderson FWJ, Morton, SU, Naik, S & Gebrian B 2007, 'Maternal Mortality and the Consequences on Infant and Child Survival in Rural Haiti', Matern Child Health J, vol. 11, pp. 395–401.

- Audo, MO, Ferguson, A & Njoroge, PK 2005, 'Quality of health care and its effects in the utilisation of maternal and child health services in Kenya', East African medical journal, vol. 82, no. 11, pp. 547-553.
- Broek, van den, NR & Falconer, AD 2011, 'Maternal mortality and Millennium Development Goal 5', British Medical Bulletin, vol. 99, pp. 25–38.
- Carolan, M & Hodnett, E 2007, "With woman'philosophy: examining the evidence, answering the questions, Nursing inquiry, vol. 14, no. 2, pp. 140-152.
- D'Ambruoso, L, Achadi, E, Adisasmita, A, Izati, Y, Makowiecka, K & Hussein J 2009, 'Assessing quality of care provided by Indonesian village midwives with a confidential enquiry', Midwifery, vol. 25, no. 5, pp. 528-539, doi: 10.1016/j.midw.2007.08.008.
- D'Ambruoso, L, Byass, P & Qomariyah, SN 2010 "Maybe it was her fate and maybe she ran out of blood": final caregivers perspectives on access to care in obstetric emergencies in rural Indonesia, J Biosoc Sci., vol. 42, no. 2, pp. 213-241, doi: 10.1017/S0021932009990496.
- de Graft-Johnson, J, Kerber, K, Tinker, A, Otchere, S, Narayanan, I, Shoo, R, Oluwole, D & Lawn, J 2006, 'Continuum of care', in PMNCH, Opportunities for Africa's Newborns, World Health Organization (WHO), Geneva, pp. 23-36..
- Duley, L, Gülmezoglu, AM, Henderson-Smart, DJ & Chou, D 2010, 'Magnesium sulphate and other anticonvulsants for women with pre-eclampsia', doi: 10.1002/14651858.CD000025.pub2.
- ElHameed, HSA, Mohammed, AI & Hameed, LTAE 2012, 'Effect of Nutritional Educational Guideline among Pregnant Women with Iron Deficiency Anemia at Rural Areas in Kalyobia Governorate', Life Sci J, vol. 9, no. 2, pp. 1212-1217.
- Fahdhy, M & Chongsuvivatwong, V 2005, 'Evaluation of World Health Organization partograph implementation by midwives for maternity home birth in Medan, Indonesia', Midwifery, vol. 21, no. 4, pp. 301–310.
- Finlayson, K & Downe, S 2013, 'Why do women not use antenatal services in low-and middle-income countries? A meta-synthesis of qualitative studies', PLoS medicine, vol. 10, no. 1, e1001373.
- Global Health Workforce Alliance (GHWA) 2013, 'Indonesia Case Study' in GHWA, Mid-level health workers for delivery of essential health services: A global systematic review and country experiences, Global Health Workforce Alliance.
- Graham, WJ & Varghese, B 2012, 'Quality, quality, quality: gaps in the continuum of care', The Lancet, vol. 379, issue 9811, pp. e5-e6.
- Groene, O & Jorgensen, SJ 2005, 'Health promotion in hospitals—a strategy to improve quality in health care', The European Journal of Public Health, vol. 15, no. 1, pp. 6-8.
- Hennessy, D, Hicks, C & Koesno, H 2006, 'The training and development needs of midwives in Indonesia: paper 2 of 3', Human Resources for Health, vol. 4, no. 9, doi:10.1186/1478-4491-4-9.
- Ho, JJ, Pattanittum, P, Japaraj, RP, Turner, T, Swadpanich, U & Crowther, CA 2010, 'Influence of training in the use and generation of evidence on episiotomy practice and perineal trauma', International Journal of Gynecology & Obstetrics, vol. 111, no. 1, pp. 13–18, doi:10.1016/j.ijgo.2010.04.035.
- ICM 2011, Global Standards for Midwifery Regulation, viewed 21 July 2014, http://www.internationalmidwives.org/what-we-do/global-standards-competencies-and-tools.html
- ICM 2013a, Symposium: Addressing Challenges of Midwifery Care, News 27 May 2013, viewed 30 July 2014, http://www.internationalmidwives.org/news/?nid=65.
- ICM 2013b, Essential competencies for basic midwifery practice 2010 Revised 2013, viewed 27 July 2014, http://www.internationalmidwives.org/what-we-do/education-coredocuments/essential-competencies-basic-midwifery-practice/

- Inayati, DA, Scherbaum, V, Purwestri, RC, Hormann, E, Wirawan, NN, Suryantan, J, Hartono, S, Bloem, MA, Pangaribuan, RV, Biesalski, HK,
- Iyengar, K, Yadav, R & Sen, S 2012, 'Consequences of Maternal Complications in Women's Lives in the First Postpartum Year: A Prospective Cohort Study', J Health Popul Nutr, vol. 30, no. 2, pp. 226-240.
- Izumi, S, Baggs, JG & Knafl, KA 2010, 'Quality nursing care for hospitalized patients with advanced illness: Concept development', Research in nursing & health, vol. 33, no. 4, pp. 299-315.
- Kim, SS, Kaplowitz, S & Johnston, MV 2004, 'The effects of physician empathy on patient satisfaction and compliance', Evaluation & the health professions, vol. 27, no. 3, pp. 237-251.
- Lavender, T & Chapple, J 2004, 'An exploration of midwives' views of the current system of maternity care in England', Midwifery, vol. 20, no. 4, pp. 324-334.
- Lincetto, O, Mothebesoane-Anoh, S, Gomez, P & Munjanja, S 2006, 'Antenatal Care', in PMNCH, Opportunities for Africa's Newborns, World Health Organization (WHO), Geneva, pp. 51-62.
- Makowiecka, K, Achadi, E, Izati, Y & Ronsmans C 2008, 'Midwifery provision in two districts in Indonesia: how well are rural areas served?', Health Policy Plan, vol. 23, no. 1, pp. 67-75, doi:10.1093/heapol/czm036.
- MOH-RI & Maternal and Child Health Integrated Program-USAID 2012, Petunjuk Kerja Pelayanan Antenatal Terpadu, Persalinan and Paska Persalinan Terpadu, Ministry of Health Republic of Indonesia, Jakarta.
- MOH-RI 2007, Pedoman Pelayanan Antenatal Antenatal Care Guideline, Ministry of Health Republic of Indonesia, Jakarta.
- MOH-RI 2012a, Indonesia Health Profile 2011, Center for Data and Information, Ministry of Health Republic Indonesia, Jakarta.
- MOH-RI 2012b, Integrated Antenatal Care Guideline (Pedoman Pelayanan Antenatal Terpadu), Edisi kedua, Dirjen Bina Gizi and KIA, Ministry of Health Republic of Indonesia, Jakarta.
- MOH-RI 2013b, Pelayanan Kesehatan Ibu di Fasilitas Kesehatan Dasar dan Rujukan: Pedoman Bagi Tenaga Kesehatan, Ministry of Health Republic of Indonesia, Jakarta.
- Moore, ER, Anderson, GC, Bergman, N & Dowswell, T 2012, 'Early skin-to-skin contact for mothers and their healthy newborn infants', Cochrane Database Systematic Reviews, issue 5, Art. No. CD003519. DOI: 10.1002/14651858.CD003519.pub3.
- MSH & USAID 2006, Clinic Supervisor's Manual, Management Sciences for Health, Cambridge.
- Nasir, S, Ahmed, R, Kurniasari, M, Limato R, De Koning, K, Tulloch, O & Syafruddin D 2014, Context analysis: Close-to-community maternal health providers in South West Sumba and Cianjur, Indonesia, REACHOUT Consortium.
- Nuraini, E & Parker, E 2005, 'Improving knowledge of antenatal care (ANC) among pregnant women: a field trial in central Java, Indonesia', Asia Pac J Public Health, vol. 17, no.1, pp. 3-8.
- Raven, JH, Tolhurst, RJ, Tang, S & van den Broek, N 2012, 'What is quality in maternal and neonatal health care?', Midwifery, vol. 28, no. 5, pp. e676-e683.
- Renfrew, MJ, McFadden, A, Bastos, AH, Campbell, J, Channon, AA, Cheung, NF, Silva, DRAD, Downe, S, Kennedy, HP, Malata, A, McCormick, F, Wick, L & Declercq E 2014, 'Midwifery and quality care: findings from a new evidence informed framework for maternal and newborn care', Lancet, viewed 24 June 2014, http://dx.doi.org/10.1016/S0140-6736(14)60789-3.
- Romano, AM & Lothian, JA 2008, 'Promoting, protecting, and supporting normal birth: A look at the evidence', Journal of Obstetric, Gynecologic, & Neonatal Nursing, vol. 37, issue 1, pp. 94-105.
- Rosen, IM, Krueger, MV, Carney, LM & Graham, JA 2008, 'Prenatal Breastfeeding Education and Breastfeeding Outcomes', American Journal of Maternal Child Nursing, vol. 33, no. 5, pp. 315-319, doi: 10.1097/01.NMC.0000334900.22215.ec

- Saimi 2006, 'Faktor-Faktor yang mempengaruhi pemanfaatan pelayanan persalinan gratis di puskesmas Kabupaten Lombok Tengah Provinsi Nusa Tenggara Barat', Medical Faculty, University of Gadjah Mada, Yogyakarta.
- Sartore, A, De Seta, F, Maso, G, Pregazzi, R, Grimaldi, E & Guaschino, S 2004, 'The Effects of Mediolateral Episiotomy on Pelvic Floor Function After Vaginal Delivery', Obstetrics & Gynecology, vol. 103, no. 4, pp. 669-673, doi: 10.1097/01.AOG.0000119223.04441.c9.
- Shankar, A, Sebayang, S, Guarenti, L, Utomo, B, Islam, M, Fauveau, V & Jalal, F 2008, 'The village-based midwife programme in Indonesia', Lancet, vol. 371.
- Shrestha, R 2007, 'The Village Midwife Program and the Reduction in Infant Mortality in Indonesia', paper prepared for the 2007 Meeting of the Population Association of America, New York, 29–31 March 2007.
- Sobhy, SI & Mohame, NA 2004, 'The effect of early initiation of breast feeding on the amount of vaginal blood loss during the fourth stage of labor', J Egypt Public Health Assoc., vol. 79, no. 1-2, pp. 1-12.
- Stanton, C, Armbruster, D, Knight, R, Ariawan, I, Gbangbade, S, Getachew, A, Portillo, JA, Jarquin, D, Marin, F, Mfinanga, S, Vallecillo, J, Johnson, H & David, S 2009, 'Use of active management of the third stage of labour in seven developing countries', Bulletin of the World Health Organization, vol. 87, pp. 207-215. doi: 10.2471/BLT.08.052597.
- Statistics Indonesia (BPS), National Population and Family Planning Board (BKKBN), Ministry of Health & ICF International 2013, Indonesia Demographic and Health Survey 2012, BPS, BKKBN, MOH, and ICF International, Jakarta.
- Titaley, CR, Hunter, CL, Dibley, MJ & Heywood, P 2010a, 'Why don't some women attend antenatal and postnatal care services?: a qualitative study of community members' perspectives in Garut, Sukabumi and Ciamis districts of West Java Province, Indonesia', BMC Pregnancy and Childbirth, vol. 10, no. 61.
- Titaley, CR, Hunter, CL, Dibley, MJ & Heywood, P 2010b, 'Why do some women still prefer traditional birth attendants and home delivery?: a qualitative study on delivery care services in West Java Province, Indonesia', BMC Pregnancy and Childbirth, vol. 10, no. 43, doi:10.1186/1471-2393-10-43.
- Truong, M, Paradies, Y, & Priest, N 2014, 'Interventions to improve cultural competency in healthcare: a systematic review of reviews', BMC health services research, vol. 14, issue 99, DOI: 10.1186/1472-6963-14-99.
- UNFPA, Midwives, viewed 14 July 2014, http://www.unfpa.org/public/mothers/pid/4384#moms.
- Utomo, AJ 2014, 'Marrying Up? Trends in Age and Education Gaps Among Married Couples in Indonesia', Journal of Family Issues, doi: 10.1177/0192513X14538023.
- Van den Broek, NR & Graham, WJ 2009, 'Quality of care for maternal and newborn health: the neglected agenda', BJOG: An International Journal of Obstetrics & Gynaecology, vol. 116, no. s1, pp. 18-21.
- Webster, PC 2012, 'Indonesia makes maternal health a national priority', The Lancet, vol. 380, issue 9858, pp. 1981-1982.
- White, Patrice & Levin, L 2006, The Potential of Private Sector Midwives in Reaching Millennium Development Goals, Bethesda, MD: Private Sector Partnerships-One project, Abt Associates Inc.
- WHO 2006, Quality of care: a process for making strategic choices in health system, World Health Organization, Geneva.
- WHO 2008, WHO country cooperation strategy 2007-2011: Indonesia', WHO Country Office for Indonesia.
- WHO 2011, PMNCH Fact Sheet: Maternal mortality, World Health Organization, viewed 11 May 2014, http://www.who.int/pmnch/media/press_materials/fs/fs_mdg5_maternalmortality/en/

- WHO 2013, A Handbook for Building Skills: Counselling for maternal and newborn health care, World Health Organization, Geneva.
- WHO 2014, Trends in Maternal Mortality 1990-2013: Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division, WHO, Geneva.
- Widyawati, W, Jans, S, Bor, H, Siswishanto, R, van Dillen, J & Lagro-Janssen, AL 2014, 'A randomised controlled trial on the Four Pillars Approach in managing pregnant women with anaemia in Yogyakarta-Indonesia: a study protocol', BMC Pregnancy Childbirth, vol. 14, no. 1, pp. 163, doi: 10.1186/1471-2393-14-163.
- World Bank 2010, "...and then she died": Indonesia Maternal Health Assessment, No 2837, World Bank Other Operational Studies, The World Bank, viewed 14 July 2014, http://EconPapers.repec.org/RePEc:wbk:wboper:2837.
- Yamin, AE, Boulanger, VM, Falb, KL, Shuma, J & Leaning, J 2013, 'Costs of Inaction on Maternal Mortality: Qualitative Evidence of the Impacts of Maternal Deaths on Living Children in Tanzania', PloS one, vol. 8, issue 8, e71674, DOI: 10.1371/journal.pone.0071674.