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Key Success Factors in Maternity Waiting Home Implementation: A Qualitative Study in Rural Indonesia

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Abstract

Aims: Maternal mortality remains a major challenge to health systems in worldwide. One of main causes are limited number of health workers and facilities for pregnant women in rural areas. To reduce maternal mortality, Indonesia has instated policies to support the implementation of Maternity Waiting Homes (MWHs). Until now, Bulukumba District is area that already has a large number of established MWHs. Thus, the Bulukumba District was used in this study to investigate the key success factors in MWHs implementation.

Study design: This is a qualitative study with an exploratory approach.

Place and Duration of Study: This research was conducted in Bulukumba, South Sulawesi, a rural area in Indonesia, in 2020.

Methodology: Data was collected through in-depth interview involving public and civil parties (n = 5), government members (n = 5), professional organizations (n = 5), and local community members (n = 5). Criteria of Standards for Reporting Qualitative Research (SRQR) were applied for study design to target key success factors in MWH implementation. The NVivo Release 1.0 software was used in this study's analysis to code and categorize the transcripts.

Results: The majority of participants were female with employment experience of 5 -10 years and bachelor educational background. The educational background differed between the stakeholders' groups. Standardized interviews targeted personal, behavioral and environmental factors. Three themes were identified: stakeholders' experience including MWHs leadership and MWHs utilization, efforts to implementation including community socialization, capacity building and supportive policies, and stakeholder expectations including increasing collaboration and improved community support.

Conclusion: The key success factors in MWHs implementation to reduce maternal mortality number

Keywords: Maternity Waiting Homes (MWHs); Maternal mortality; Key success; Pregnant women.

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are leadership and collaboration with each stakeholder. It is needed collaboration between healthcare and non-healthcare stakeholders. Additionally, the stakeholders' experiences, efforts, and expectations of MWHs implementation can decrease the maternal mortality number in rural area, Indonesia especially in Bulukumba District there was a decrease from 14 cases (2014) to 11 cases (2017), 4 cases (2018) and 1 case (2019).

Introduction

Sustainable Development Goals (SDGs) number 3 is to ensure healthy lives and promote well-being for all at all ages, including the improvement of maternal health [1]. This target is related to the high maternal mortality rate (MMR) in developing countries, which is estimated at 415 maternal deaths per 100,000 live births, more than 40 times higher than MMR in Europe and almost 60 times higher than in Australia and New Zealand [1,2]. Approximately 295,000 women died during pregnancy and childbirth in 2017, and 94% of all maternal deaths occur in low- and middle-income countries [3]. Indonesia is a developing country with an estimated maternal mortality ratio of 177 per 100,000 live births [4]. Although the trend has decreased, it will not meet the Sustainable Development Goals (SDGs) target of <70 per 100,000 live births in 2030.[5] MMR in Indonesia is also still the third highest in Southeast Asia [6].

Globally, there are several causes of maternal death [7]. Maternal death can be caused by direct reasons such as hypertension (14%), sepsis (10.7%), bleeding (27.1%), abortion (7.9%), and embolism [7,8]. Indirect causes of maternal death include socio-cultural and socioeconomic factors, occupation, income level, access to health services, and delay in receiving treatment by health workers [9]. In general, poor women in remote and rural areas experience the most difficulties in obtaining adequate health services due to a low number of professional health workers and the inability to reach health facilities [5].

Since 2015, through the Minister of Health regulation number. 90, the Indonesian government has installed the Implementation of Health Services in Health Service Facilities in Remote and Very Remote Areas [10]. This regulation provides direction for the implementation of reducing maternal and child mortality in remote areas through health programs organized by the district health office. One of the proposed actions is the establishment of Maternity Waiting Homes (MWHs) that bring closer access for high-risk pregnant women to give birth at health service centers. MWHs are held in several provinces that have many remote and rural areas, namely Maluku, South Solok, West Sumatra, NTT, Central Sulawesi, South Sulawesi and East Lampung. Until now, South Sulawesi is a province that already has a large number of established MWHs [11,12]. In general, the MMR in South Sulawesi Province reached 129 per 100,000 live births in 2021. This figure is still high compared to the regional medium-term target of 90 per 100,000 live births [13]. In Bulukumba District, ten incidents of maternal death caused by delays in delivery assistance and limited access to quality health care facilities, especially for pregnant women in the 3T Regions (*tertinggal* = underdeveloped, *terdepan/terjauh* = remote, and *terluar* = frontier/outer) [13,14]. The number of health facilities in Bulukumba District consists of nine polyclinics and twenty public health centers (PHC). However, there is only one referral hospital and maternity home for pregnant women [15]. The barriers to giving birth in hospitals and maternity homes are influenced by long distances and the preference to give birth with a traditional healer based on aspects of local cultural understanding [16]. Due to limited access to maternal health care in Bulukumba District, the government is pushing for the enactment of South Sulawesi Regent Regulation Law number 44 of 2016 concerning MWHs [17]. Additionally, Bulukumba District is a strategic and representative area for Indonesia's mainland and ocean countryside. To date, implementation of MWHs has remained a health program in Bulukumba.

MWHs are an intervention method that aims to aid pregnant women to be closer to delivery in facility services [18]. MWHs facilitate pregnant women to stay in a house during their last weeks of pregnancy so that they can be easily transferred to a health facility for delivery with health professionals and receive prompt emergency obstetric care when needed [18,19]. MWHs have been proven to reduce maternal mortality by 80% in developing countries. Additionally, more than 70% of stillbirths can be reduced in mothers who use maternity waiting homes.

Research Problem

Maternal mortality is related to sociodemographic characteristics and is higher in rural areas with less access to maternal health care. MWHs are a potential action for improvement, but related implementation barriers are not well understood.

Research Focus

This qualitative study examines key success factors in the implementation of MWHs in rural areas (Bulukumba, South Sulawesi). The analysis focuses on three main themes, namely stakeholders' experience (with two categories: MWHs leadership and MWHs utilization), efforts to implement (with three categories: community socialization, capacity building, and supportive policies), and stakeholders' expectation (with two categories: increasing collaboration and improved community support).

Research Aim and Research Questions

There is a diverse range of stakeholders who are responsible for establishing MWHs [20,21]. MWHs are integrated across various government sectors and policies to improve the quality of health workers and referral systems. Furthermore, management and maintenance of MWHs require support of non-governmental organizations or broad organizations [21]. Therefore, the implementation of MWHs requires the involvement of various sectors. Its implementation will greatly reduce maternal mortality in Bulukumba, South Sulawesi. This study aims to investigate the key success factors of MWHs implementation in rural areas, addressing the research question:

1. How does the implementation of MWHs successfully reduce the maternal mortality rate in Bulukumba?

Research Methodology

General Background

This study used the Standards for Reporting Qualitative Research (SRQR) to ensure the quality of reporting and assessment process of the study. The SRQR aims to improve the transparency of all aspects regarding qualitative research by providing clear standards for reporting qualitative research [22].

Researcher Characteristics and Reflexivity

Reflexivity was maintained by the research team through analysis and writing by recording and discussing established assumptions [23]. The author continued to reflect through forms of documentation, such as observation sheets and recordings that occur at every point in the research process. We aimed to document important interpersonal dynamics impacting participants and their data, recording, investigating decisions and constructing moments of analytic insight. All researchers have a background in maternal and child health. Due to the constructivist nature of this study, the role of the research team was to explore the key success factors of MWH implementation in rural areas.

Context

This research was conducted in Bulukumba District, South Sulawesi Province. Bulukumba District has a population density of 939,718 people, an area of 1154.58 km², and public facilities such as schools, markets, health centers, hospitals, and inns or hotels. There are 20 first-level health facilities in Bulukumba District and 9 Polyclinics. Bulukumba District can represent rural areas for Indonesia's mainland and ocean countryside. The long distance to the hospital has impacted maternal mortality rates due to delays in the delivery process [16]. Bulukumba Regency has recorded ten maternal deaths in 2021 [15]. This study involved 10 MWHs in Bulukumba District with financing through Jampersal. Jampersal is financial assistance from the government that can be claimed by pregnant, giving birth and postpartum women for 42 days. In addition, for babies, a maximum of 28 days after birth [24].

Table 1 shows the distribution of MWHs in Bulukumba District. These MWHs are scattered in the Ocean countryside and the Mainland countryside areas.

Table 1. Distribution of MWHs in Bulukumba District

No	Name of MWHs	Type of Rural Area
1	Harmonis	Ocean countryside
2	Asyifa	Ocean countryside
3	Kasih Ibu	Mainland countryside
4	Tanah Toa	Mainland countryside
5	Barania	Ocean countryside
6	Bonto Bahari	Ocean countryside
7	Tanete	Mainland countryside
8	Bonto Bangun	Ocean countryside
9	Balibo	Mainland countryside
10	Borong Rappoa	Mainland countryside

Sampling Strategy

This study used purposive sampling to achieve maximum variation in several characteristics such as education, age, length of work, and gender. Using a snowball approach, where the initial informant was asked to identify

additional informants who were eligible for the sample. In-depth interviews were conducted with a range of stakeholders, such as public and civil parties (n=5), government members (n=5), professional organizations (n=5), and local community members (n=5), resulting in 20 participants. Participants were selected based on inclusion criteria, which included stakeholders at the government level, village leaders, and common people. Stakeholder collaboration is needed to manage the empowerment and advocacy of a health program in a low-income country [25]. Two authors (SW and LF) conducted participant recruitment and conducted interviews with the assistance of the Bulukumba District Health Office. There was no established relationship between the researcher and the participants.

Data Collection Methods

In-depth interviews were facilitated by researchers at the Hall of Bulukumba District Health Office, which lasted about 30 minutes for each participant and were conducted in the Indonesian national language. Only participants and facilitators took part in the in-depth interview activities. An in-depth interview was conducted for 4 days.

Table 2 shows the in-depth interview schedule that we conducted.

Table 2. Detail of in-depth interview activity

Day	Name of stakeholders	Number of participants	Name of Interviewers
Day 1	Public and civil parties	5	SW
Day 2	Government members	5	LF
Day 3	Professional organization	5	SW
Day 4	Local community members	5	LF

In-depth interview activities were documented through audio recordings, photos, observation and an attendance sheet. The process of in-depth interview began with a self-introduction where the researchers stated their names, local origins, and professions. Oral informed consent was also obtained by asking the participants whether they agreed to be documented via video and audio recording. After the participants understood the flow of the in-depth interview, the discussion continued with a series of guided questions set by the previous researcher.

Data Collection Instruments and Technologies

An in-depth interview guide was initially developed by the lead researcher (SW) and then refined after discussion with other team members. Then, they were piloted in other Sulawesi districts with similar social, cultural and demographic characteristics. The pilot results indicated that participants could understand and answer the researcher's questions correctly. This confirms that the in-depth interview guide does not require amendment. The questions are organized into categories such as stakeholders' experience, efforts, and expectations regarding the implementation of MWHs. Perspectives obtained were revealed using content analysis and participant-based perspectives to provide information about the key success factors of MWHs implementation in rural areas.

Data Processing and Analysis

An observation sheet was used to observe the interaction and expression of participants in providing information. Meanwhile, audio recording was used as a source for making transcripts of results. The audio recordings were transcribed verbatim by two researchers (AD, LF) who were fluent in the participants' language. The researcher received only sections of the audio recording for transliteration. Participants were given the opportunity to provide feedback regarding the findings by checking the transcripts. None of the participants proposed to change their answers. The aim was to ensure identification, safety, and integrity during the data processing. All the transcribed documents were password-protected to further ensure the confidentiality of the informants and the data. The principal investigator, who was also fluent in the participants' language, cross-checked the accuracy of the transcripts with the audio recordings. The data were coded by the principal investigator (SW). Coding and themes were double-checked by OE and JH to ensure the trustworthiness and credibility of data analysis. Disagreements did not occur at this stage. However, minor opinions regarding the analysis were discussed and resolved in meetings that involved the research team. After the transcript was available, data were analyzed using N.Vivo 1.0. Coding was obtained in the form of important points that were further discussed. Following this, themes and quotes were translated into English for publication by the principal investigator and double-checked using back translation by AD and LF.

Ethical Issue Pertaining to Human Subjects

This study was granted ethical approval from the health research ethics committee of Muhammadiyah University of Yogyakarta with No.267/EP-FKIK UMY/IV/2017 to investigate the key success factors of MWH implementation. This study's participants voluntarily participated and signed a written consent form before taking part in the in-

depth interview activities. In addition, the participants received incentives for transportation costs related to this activity.

Research Results

Table 3 below shows maternal mortality data from the period of the MWHs program implementation in the Bulukumba district.

Table 3. Data on reduction regarding the number of maternal deaths in the Bulukumba district during the implementation of MWHs

Year	Number of maternal mortality (case)
2014	14
2017	11
2018	4
2019	1

Source: Bulukumba Local District Officer of Ministry of Health

A total of 20 participants from 4 stakeholders were involved in this study. They are divided into public and civil representatives with 5 participants, including religious and local leaders, non-profit health associations, Government members, with 5 participants including provincial government, district government, university, and *Musrenbang* Members (Development Planning Conference). Professional organizations were represented by 5 participants, which included IDI (Indonesia Medical Association) and IBI (Indonesia Midwives Association). 5 participants, including civil sector-based association members and home companies (further referred to as 'Personal Group'). There was no objection from all participants during the in-depth interview activities. Figure 1 below shows the characteristics of the informants in this study by gender, with the majority being male.

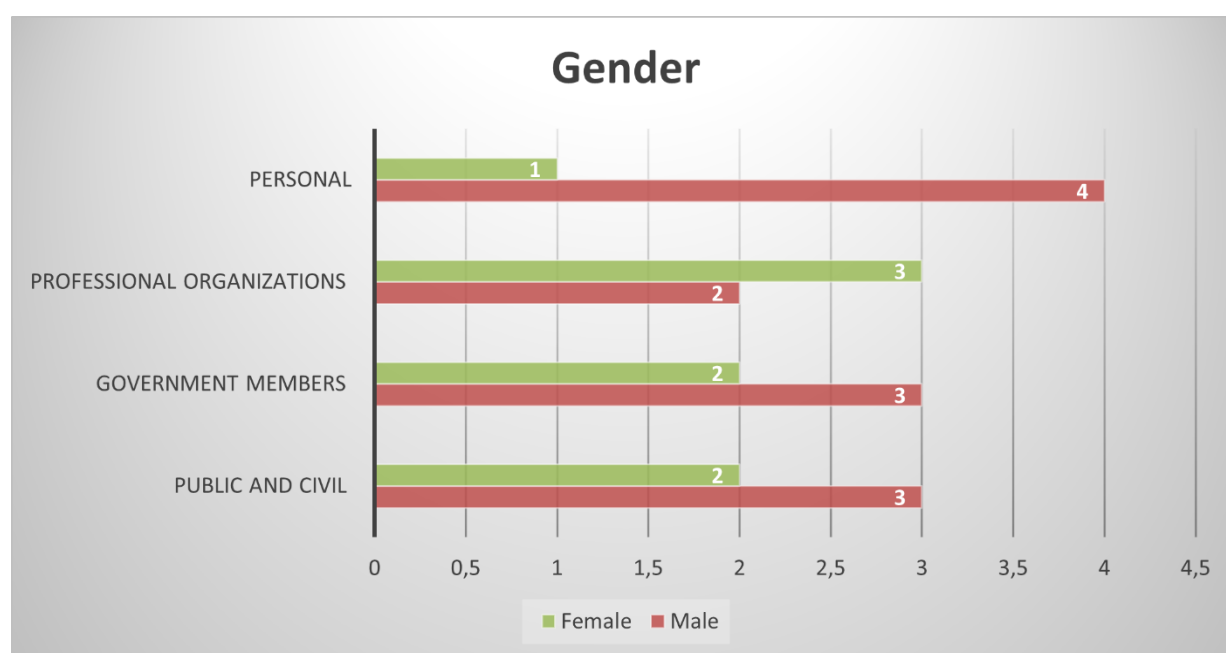


Figure 1. Characteristics of stakeholders.

Meanwhile, Figure 2 shows the characteristics of the informants based on their length of work at the MWHs, where the majority have worked for 5-10 years.



Figure 2. Length of work.

Figure 3 shows the characteristics of the informants by educational level, dominated by bachelor level graduates.

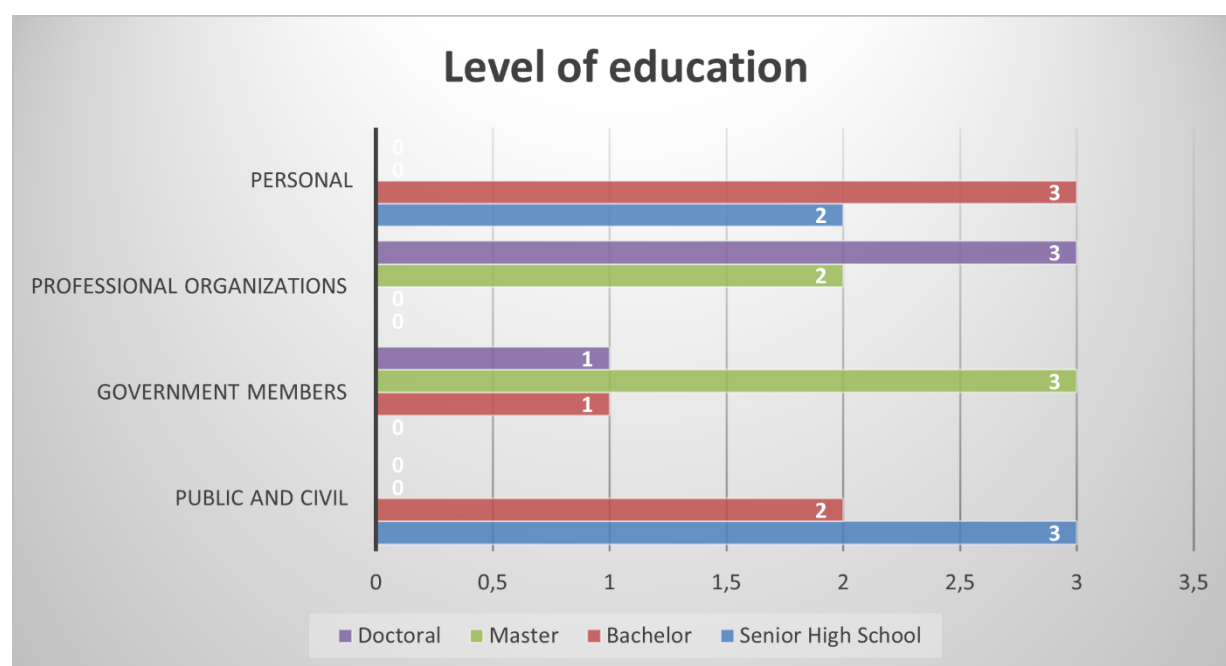


Figure 3. Level of education

Below, Table 4 shows 3 themes including Stakeholders' experience, Efforts to MWHs implementation, and Stakeholders' expectations.

Table 4. Summary of theme analysis

No	Themes	Categories	Sub-categories
1	Stakeholders' experience	MWHs leadership	• Collaboration • Coordination
		MWHs Utilization	• Positive mindset

			• Successful of implementation
		Community socialization	
2	Efforts to implementation	Capacity building	• Procurement of facilities
		Supportive policies	• Health workers • <i>Jampersal</i>
3	Stakeholders' expectation	Increasing collaboration	• Monitoring and Evaluation
		Improved community support	

Figure 4 below shows a diagram of three themes related to the interaction or overlap.

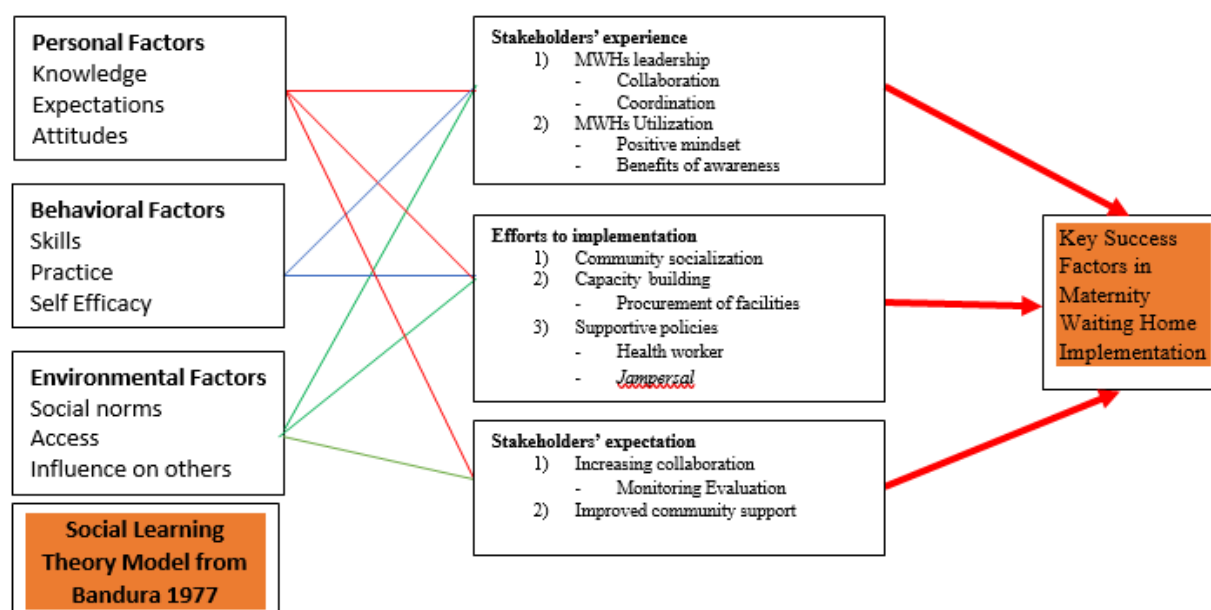


Figure 4. A diagram of themes

Theme I. Stakeholders' experience of managing MWHs in a rural area

MWHs leadership

Collaboration. Stakeholder collaboration from the provincial, district, village, and individual levels to strengthen MWH implementation.

"In fact, we have worked together for the implementation of the Maternity Waiting Home program...starting from establishing policies at the provincial and regional levels...first socialization support was provided by regional leaders, then followed by field implementation for pregnant women. I am sure... without this collaboration, this program will be difficult to implement"... (Informant G).

"From the civil sector... our involvement has been since the establishment at the regional level... yes, we are overseeing the implementation of this program... more as a coordinator also in the field..." (Informant P)

The involvement of each stakeholder group from the central to the local level can be used to advocate and participate in health policymaking [20].

Coordination. Stakeholders conducted accountability reporting through regular meetings.

"We have a regular agenda for monthly meetings for advocacy and monitoring. Usually... for example, if there are problems or suggestions from the community... we convey them to the leadership. So, in essence... we have to make an accountability report every month" (Informant G).

"Yes... if we from the village... Of course as village leaders we have to make a report too... for example how many pregnant women are using maternity waiting home? and how are the births healthy or not? We are also monitoring

the babies... so we definitely have the data. report to the public health center to proceed to the health department..." (Informant PC)

"So, we don't only socialize of course...but we also report to the Central IDI to evaluate the implementation of MWHs" (Informant PO)

The involvement of traditional institutions, government, religious leaders, and the general public is a positive way to support the continuous implementation of the MWH program [21].

MWHs Utilization

Positive mindset. The District Government has developed a positive mindset that Maternity Waiting Homes are one of the keys to controlling maternal mortality in Bulukumba District.

"Yes, it is very innovative and has a great opportunity to reduce maternal mortality... the important thing is that all pregnant women must be given the capacity to take advantage of this... (Informant PO)

MWHs have been proven to reduce maternal mortality by 80% in developing countries [17]. Nevertheless, this positive mindset needs to consider the mother's knowledge factors,

subjective norms related to women's perceptions, and behavioral control to decide the use of MWHs [22].

Successful of implementation. The success of the MWHs program is demonstrated through the positive impacts that emerge after implementation

"This program has great opportunities... apart from trained health workers, we have prepared comfortable facilities... and a fast referral process if pathology cases occur" (Informant PO)

"Yes, in the past... the maternal mortality rate here reached 14 cases in 2014... Well, after the government built the MWH there was a very drastic decline... According to central data, in 2017 it had decrease to 11 cases, then in 2018 there were 4 cases and the peak of success in 2019, we only had 1 case of maternal death. ...This is a fantastic number and we should be grateful.... (Informant G)

A study proved that awareness of the benefits for pregnant women increases their positive attitude toward participating in using MWHs. The benefits of MWHs are reduced maternal mortality rates, fewer complications, and better access to maternal health services and information [23].

Theme II. Efforts to increase the implementation of MWHs by stakeholders

Community socialization

Health Workers continuously provide socialization on the implementation of MWHs in various villages and during ANC visits.

"So far... doctors and midwives have socialized the importance of using Maternity Waiting Homes to prevent maternal deaths and emergency deliveries. Usually... we target various corners of the village... and mention this during ANC visits" (Informant PO).

"The main thing is that we have carried out our efforts to prepare for emergencies well, since pregnant women use maternity waiting homes until they arrive at home, we are still monitoring them" (Informant G)

Socialization was associated with the increased use of the MWH after controlling for the influence of family support [24]. Health workers can also modify socialization materials to include MWHs to reduce maternal mortality rates and emergency deliveries.

Local leaders conduct MWH socialization through village association activities.

"Yes, routine socialization starting from the sub-district, continuing to the village down to a small part of the community" (Informant P)

"Usually, we socialize it at community gathering activities... which we routinely carry out once a month. The hope is that residents who are pregnant or have pregnant relatives can invite each other to take advantage of maternity waiting homes... (Informant PC)

The utilization of MWHs requires different parties to have specific roles and responsibilities to foster a sense of community ownership. Cross-sector collaboration is needed with a community-based approach through the role of local leaders [25].

Capacity building

Procurement of facilities. Describing MWHs as a facility resembling a house is generally done to make pregnant women feel comfortable and secure.

"If in the description of the Maternity Waiting Home, it includes a house in general... there is a bed... there is a kitchen and bathroom. Mothers can stay there until after delivery. Family members can also accompany the mother." (Informant P).

"Maternity waiting homes facilities are clear like the original home...from the start of the room management it has been designed to make mothers feel at home...but because the goal is to prevent emergencies, of course it's 24 hours under the supervision of health workers..." (PO informant)

Health facilities are an important element that supports the smooth running of a health program in any region and country. Recently, the convenience and completeness of healthcare facilities have been the main elements of community interest [26].

Health workers have standard operating procedures for delivery assistance and emergency referral pathways to ensure that pregnant women feel safe.

"We have established standard operating procedures for delivery assistance and emergency referrals. With the aim... of course to ensure safety and comfort during birthing" (Informant PO).

"The health workers on duty are of course from regional hospitals who have been confirmed to have passed the competency test... and have professional experience in their field..." (Informant G)

Coordination within the health sector has resulted in SOPs presenting the steps that health workers must follow in the delivery room. The SOP also elaborates on the points that must be considered to ensure good maternity care is provided at all levels to pregnant women in district hospitals [27].

Supportive policies

Health workers. The government guarantees that healthcare workers have qualifications, abilities, registration certificates, and receive appropriate incentives.

"Yes, we always try, of course... and optimize to recruit human resources who have passed the competency test, are skilled, and are experienced. In addition... we require health workers to attend training regularly... Of course to update their knowledge. In addition, we ensure that health workers receive incentives according to standards." (Informant G).

Healthcare providers, hospitals, and primary care institutions must continue improving their healthcare workers' quality. It is expected that by improving their quality, they will be able to meet society's demands and provide optimal health services. Moreover, applying good knowledge management will generate ideas and creativity from the workforce in creating healthcare innovations.

Jampersal. Utilization of Maternity Waiting Homes can be accessed free of charge for Jampersal users and additional regional allocation funds.

"Certainly... We make it easier for the general public to access Maternity Waiting Home facilities for free... of course by using Jampersal. We hope that all pregnant women can give birth safely and comfortably. Moreover, we provide additional regional allocation funds to support the implementation of this program (Informant G).

The analysis discovered that health insurance coverage had a significantly positive effect on at least two of the four measures of maternal health care utilization in each of the three countries. If compared, Indonesia has the most systematic effect on health insurance. According to the findings, expanding health insurance to include poor people with low or no copayments can increase the use of maternal health care [28].

Theme III. Stakeholders' expectations

Increasing collaboration

MWH requires collaboration across sectors from local to central level.

"Of course... in the implementation of this program must consider the collaboration of stakeholders... local leaders motivate pregnant women to participate in the maternity waiting home program... healthcare workers provide quality services... the government provides policies that make it easier for the community. I think... this makes for a great collaboration" (Informant PC).

"So, it is very important that there is synergistic follow-up from the center to the regions.... yes, of course, so this cooperation produces maximum output... having regular communication through reporting from the regional level to the center is very helpful for us to evaluate and monitoring... (Informant G)

Stakeholder collaboration is required for the successful implementation of a health program. From the central level to the individual level, this collaboration must be conducted in an integrated manner. This collaborative synergy enables the program to stay on track [20,21].

Monitoring and evaluation. The use of telemedicine facilitates access to consultation and supervision of pregnant women quickly and effectively.

"Yes, hopefully telemedicine can be here as soon as possible... because it can be a quick solution for monitoring pregnant women..." (Informant P)

The evaluation involves various stakeholders and uses feedback mechanisms to ensure the constant improvement of the impact of their contribution [20].

Improved community support

There is a new and open way of thinking about participating in the MWHs program.

"In my opinion... I hope all pregnant women can support and are willing to take advantage of this program... for that we continue to try to make approaches from various health and non-health sectors..." (Informant PO)

Efforts to increase women's awareness by providing sustainable health service strategies and health education have an impact on new thinking for their intention to use MWH [22].

There is a target of increasing the utilization of MWHs.

"We hope...this program can be used by all pregnant women... yes, because the access and procedure for using it is very easy... it's free... so we try to keep it growing for the better..." (Informant PO)

Knowledge sharing of MWHs implementation experiences would provide a better understanding to support women to utilize MWHs [18].

Discussion

This research investigated stakeholders' experiences, efforts, and expectations in implementing MWHs, as well as the role of leadership and collaboration among stakeholders. The success and sustainability of MWHs require strong commitment and support from all stakeholders, especially from the community, and are supported by government policies [25,26]. According to previous studies, successful leadership in the health workforce will require interdisciplinary coordination and a culturally diverse work environment [27]. Collaboration can be raised through communication, consultation, and participation that diverse stakeholders consider accessible, timely, and able to exert positive influence [25,28,29]. The monitoring and evaluation (regularly conducted) of the health system focuses on the results of stakeholder contributions, including ensuring the availability of healthcare workers, quality health services, utilization of health facilities, coverage of health services, and subsequent relevant health impacts such as morbidity and mortality [30].

Several studies have proved that MWHs can reduce maternal mortality rates due to delays in treatment and emergency birthing [18,20,26]. In 2014, prior to the implementation of MWHs in Bulukumba District showed maternal mortality number data reached 14 cases. After evaluating the implementation of MWHs, up to the third year, it showed a very significant reduction in maternal mortality[15]. Some supporting evidence has helped stakeholders to accept that MWHs is a strategy that can be used to reduce maternal mortality rates in Bulukumba District. The collaboration between stakeholders is very dominant in the program's implementation [12]. The rise of public awareness regarding MWH usage is one of the positive impacts of MWHs' socialization by stakeholders [25]. This is in line with research which revealed that socialization is associated with increased use of MWHs [31].

Stakeholders perform socialization in an integrated collaboration to recognize the importance of MWHs for mothers who give birth [25]. Healthcare providers play a key role in care for pregnant women with limited health literacy, which rely on them as sources of health information [32]. Midwives in PHC provide education on the use of MWHs through ANC visitation [33]. The health education strategy of health workers is considered to be an important factor in the success of health programs [32]. Furthermore, local leaders and village midwives also have a role in formulating policies and outreach at the village level regarding participation agreements on using MWHs for pregnant women and prohibiting giving birth with traditional birth attendants [34,35]. One of the related measures is the specific interaction via the *Musrenbang* (Development Planning Conference) which involves stakeholders to improve the quality of village, regional, and national planning for health systems [36]. The role of village midwives, in particular, is important for a family-based approach to obtaining support for MWH utilization [34]. Meanwhile, the government greatly contributed by establishing policies related to MWH implementation, such as eliminating fees for Jampersal users [37,38]. Support for providing additional allocation funds for the implementation of MWHs in Bulukumba is also part of the local government's efforts to reduce maternal mortality rates [16]. Therefore, people who do not have Jampersal can still receive MWH services. Moreover, the government provides standard incentive money for health workers [15].

Another finding is that stakeholders collaborated to increase capacity building by ensuring that MWH's facilities have met standards [39]. In addition to the completeness of the facilities, it is necessary to pay attention to the

psychological comfort of pregnant women, which is influenced by the details of MWHs furniture, including color, lighting, layout and circulation, selection of furniture, as well as ventilation [40]. Therefore, to realize pregnant women's comfort and interest in MWHs requires non-health human resources [30]. Comfort and safety during birthing are of particular concern for pregnant women. Thus, healthcare workers implement an SOP to ensure that they provide birth care according to standards [32]. The referral system for emergency delivery cases is also a critical point that needs to be improved [41,42]. Guidelines for referral and use of primary services are key factors in the successful use of health service infrastructure for achieving effective and efficient universal health coverage in Indonesia [43]. Positive birthing experiences provide a positive attitude toward the use of MWHs [18,21,27].

In general, people in rural areas tend to have more limited access to health service resources than those living in urban areas [3,16]. For patients living in rural areas, telemedicine offers opportunities to access health services and other resources [44]. Accuracy and speed of decision-making in referrals will reduce the chances of maternal morbidity and mortality in rural Indonesia [8,26]. The last finding concerns stakeholders' expectations regarding increased collaboration from the central to the local level [38]. It has been widely proven that collaboration between stakeholders is the key to utilizing MWHs to reduce maternal mortality rates [18,20,28]. Collaboration can be conducted with interdisciplinary health and non-health stakeholders [30]. The WHO revealed that strengthening collaboration among multilateral organizations can be done to accelerate each country's progress toward health-related Sustainable Development Goals [45]. Collaboration on the monitoring and evaluation system for each stakeholder is useful for tracking target achievements and constraints during the implementation of MWHs [46]. Community support is also necessary for implementing MWHs [20,26,29].

Conclusions and Implications

The key success factors in Maternity Waiting Home implementation are leadership and collaboration with each stakeholder. Collaboration is not limited between healthcare stakeholders but extends to non-healthcare workers from central to regional levels. Overall, the experience, effort, and expectations of MWH implementation by stakeholders can decrease maternal mortality number in rural area, Indonesia especially in Bulukumba District there was a decrease from 14 cases (2014) to 11 cases (2017), 4 cases (2018) and 1 case (2019).

Suggestion for Future Research

The limitation of this study is that it is a qualitative study that was only conducted in 1 district. Further research could be conducted in several districts across Indonesia with more diverse regional characteristics, thereby enabling a multi-district comparison, as Indonesia is a country where local cultural wisdom varies by region and may have implications for the success of a program. Furthermore, the research can be conducted using a mixed-methods approach, combining quantitative and qualitative methods through focus group discussions (FGDs) with relevant stakeholders and involving pregnant women and their families as beneficiaries of MWHs services to ensure a more comprehensive analysis of program implementation.

Declarations

Author Contributions

S.W. contributed to Concept, Data Provision, Data Analysis, Data and Result in Interpretation, Writing and Discussion. A.D. contributed to Data Provision, Discussion. O.E. contributed to Concept, Discussion. L.F. contributed to Data and Result in Interpretation, Writing and Discussion. J.H. contributed to Concept, Discussion. All authors contributed to the article and approved the submitted version.

Data Availability Statement

The datasets used and/or analyzed during the current study available from the corresponding author on reasonable request.

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Ethics Approval and Informed Consent to Participate

This study was granted ethical approval from the health research ethics committee of Universitas Muhammadiyah Yogyakarta with No.267/EP-FKIK UMY/IV/2017 to investigate the key success factors of MWH implementation. This study's participants voluntarily participated and signed a written consent form before taking

part in the IN-DEPTH INTERVIEW activities. Informed consent was obtained from all participants. All data collection were performed in accordance with relevant guidelines and regulations (Declaration of Helsinki). In addition, the participants received incentives for transportation costs related to this activity.

Conflicts of Interest

There was no conflict of interest in this study.

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