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ORIGINAL RESEARCH ARTICLE

The role of health workers in implementing of childbirth planning and complication prevention program

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Abstract

The Maternal Mortality Rate (MMR) in Indonesia especially in achieving ²⁴ the target of the Sustainable Development Goals (SDGs) in 2030 is still a concern. ¹⁰ The Indonesian Demographic and Health Survey (IDHS) in 2012 showed a significant increase in Maternal Mortality Rate (MMR), which was 359 maternal deaths per 100,000 live births. ¹ South Sulawesi Province is one of the regions experiencing high maternal mortality problems, especially in the Gowa Regency. The Program ¹⁸ Childbirth Planning and Complication Prevention (P4K) is a program launched to accelerate the decline in MMR. The purpose ¹ of this study is to explore the role of health workers ¹ in implementing the P4K program so that it can become an input for health workers. The research was descriptive qualitative using purposive sampling technique ¹ 33 informants of 6 pregnant women, 4 husbands, 5 health cadres, 3 midwives, 1 midwife coordinator, 8 environmental heads, and 6 urban village heads. The role of health workers in implementing the P4K program has been carried out but not maximally, P4K sticker installation, data collection on pregnant women, home visits, not prospective blood donors, no village ambulance, saving for maternity only for socialization, no socialization of maternity funds and the health of both mother and child forum has not yet been formed. This study is the improvement of the implementation of the P4K program, and its implications for science by implementing management functions well.. (*Afr J Reprod Health* 2022; 26[9]: 142-152).

Keywords: Delivery planning, health workers, prevention of complications, program

Résumé

Le taux de mortalité maternelle (TMM) en Indonésie, en particulier pour atteindre la cible des objectifs de développement durable (ODD) en 2030, reste préoccupant. L'enquête démographique et sanitaire indonésienne (IDHS) de 2012 a montré une augmentation significative du taux de mortalité maternelle, qui était de 359 décès maternels pour 100 000 naissances vivantes. La province de Sulawesi du Sud est l'une des régions connaissant des problèmes de mortalité maternelle élevée, en particulier dans la régence de Gowa. Le programme de planification de l'accouchement et de prévention des complications (P4K) est un programme lancé pour accélérer le déclin du RMM. Le but de cette étude est d'explorer le rôle des agents de santé dans la mise en œuvre du programme P4K afin qu'il puisse devenir une contribution pour les agents de santé. La recherche était qualitative descriptive utilisant une technique d'échantillonnage raisonné, 33 informateurs de 6 femmes enceintes, 4 maris, 5 cadres de santé, 3 sages-femmes, 1 sage-femme coordonnatrice, 8 chefs environnementaux et 6 chefs de village urbain. Le rôle des agents de santé dans la mise en œuvre du programme P4K a été réalisé mais pas au maximum, installation d'autocollants P4K, collecte de données sur les femmes enceintes, visites à domicile, pas de donneurs de sang potentiels, pas d'ambulance de village, épargne pour la maternité uniquement pour la socialisation, pas de socialisation des fonds de maternité, et le forum de la santé de la mère et de l'enfant n'a pas encore été formé. Cette étude est l'amélioration de la mise en œuvre du programme P4K, et ses implications pour la science en mettant bien en œuvre les fonctions de gestion. (*Afr J Reprod Health* 2022; 26[9]: 142-152).

Mots-clés: Planification de l'accouchement, agents de santé, prévention des complications, programme

Introduction

1 The maternal mortality rate (MMR) is one of the important indicators of public health. AKI describes the number of women who die from a cause of death related to pregnancy disorders or treatment (excluding accident or incidental cases) during pregnancy, childbirth and during the puerperium (42 days after delivery) regardless of the length of pregnancy per 100,000 live births.

2 The maternal mortality rate (MMR) in Indonesia is particularly in achieving the target of Sustainable Development Goals (SDGs) in 2015, namely MMR of 102 / 100,000 live births and by 2030, the MMR target in Indonesia can be reduced so that maternal mortality rates are below 70 / 100,000 births life. However, 3 the Indonesian Demographic and Health Survey (IDHS) in 2012 showed a significant increase in MMR to 359 maternal deaths per 100,000 live births. AKI again showed a decline to 305 maternal deaths per 100,000 live births based on the results of the 2015 Intercensal Population Survey (SUPAS). This is a quite difficult 9 challenge for the Government of Indonesia. The maternal mortality rate (MMR) in Indonesia is still high compared to AKI in other Asian countries¹.

According to the Indonesian Ministry of Health (2016), several breakthroughs in reducing MMR and IMR in Indonesia have been carried out, one of which is the Maternity Planning and Complication Prevention Program (P4K). The program emphasizes the care and role of families and communities in making early detection efforts, avoiding health risks for pregnant women, and providing basic obstetric and neonatal emergency access and services at the public health center level (PONED) and comprehensive obstetric and neonatal emergency services in hospitals (PONEK). In its implementation, the P4K is one of the elements of alert village. The P4K was introduced by the health minister in 2007².

The implementation of P4K needs to be ensured to be able to assist families in making good birth planning and increasing family preparedness in the face of 23 danger signs of pregnancy, childbirth, and childbirth in order to take appropriate action. So from that the need for adequate education so that

families can be more alert in facing the danger signs of pregnancy, childbirth, and childbirth.

Health workers play a role in determining maternal health status. The Program for Maternity Planning and Prevention of Complications (P4K) is a program launched in an effort to accelerate the decline in MMR by monitoring, recording and marking every pregnant woman with stickers which is a "breakthrough effort" in 6 accelerating the reduction of maternal and newborn mortality through increased activities access and quality of service, which is also an activity that builds the potential of the community, especially community care for preparation and action in saving mothers and newborns.

South Sulawesi Province has become one of the regions experiencing high maternal mortality problems, especially in Gowa Regency, namely in 2018 there were 17 cases of maternal deaths, the highest cases of which were found in the Somba Opu Public Health Center area, which were 5 cases which were shared responsibility , so that it is necessary to analyze the Implementation of the Maternity and Complication Prevention Planning Program (P4K) 1 in the working area of the Somba Opu Health Center in Gowa Regency³.

Method

The research design was qualitative with an explanatory descriptive design⁴. The informants were 33 people consisting of 6 pregnant women, 4 husbands, 5 Integrated Service Post cadres, 3 village midwives, 1 midwife coordinator, 8 ward heads, and 6 village heads. These people were interviewed because they know the best information to answer the purposes research. Researchers feel that the informants taken were best known about the problem that will be examined. Because pregnant women, husbands, Integrated Service Post cadres, village midwives, midwife coordinators, ward heads, and village heads were directly involved in the Implementation of the Maternity Planning and Complication Prevention Program (P4K) 7

The selection of informants uses 5 purposive sampling technique, namely the technique of sampling data sources with certain considerations, for example the person is considered to know the best about what we expect. Because researchers feel

that the sample taken is best known about the problem that will be examined by researchers, then the use of purposive sampling in this study is very suitable for use as a sampling technique.

In data collection in this study, researchers conducted preliminary observations in several Integrated Service Posts in various villages in Somba Opu Health Center to find out where the informants lived in this study. In this case, the researchers wanted to know the homes of pregnant women and their husbands, the house of the head of the neighborhood, the house of the Integrated Service Post cadre, and the village office.

Before collecting data from informants, researchers first set a schedule for each informant so as not to interfere with the activities of each informant. Then, researchers conducted interviews with several informants, as well as taking visual material to add data to this study.

The researcher analyzed based on the questions and statements and observed to obtain information about the role of health workers in the Implementation of the Maternity Planning and Complication Prevention Program (P4K) in the Somba Opu Health Center Working Area in Gowa Regency. Analysis consists of three lines of activities that occur simultaneously, namely data reduction, data presentation, and conclusion. This study has been approved by the Health Research Ethics Commission of the Universitas Muslim Indonesia and the Ibnu Sina Hospital YW-UMI Makassar Number: 428/A.1/KEPK-UMI/V/2019.

Results

Socialization P4K

The role of health workers in the P4K socialization is to provide information to families, especially mothers in the Integrated Service Post in their respective regions. Integrated Service Post cadres in their dissemination activities are admitted to be less than optimal. This is due to limited funds in carrying out these activities. However, this did not make the village midwife not carry out the socialization activities in the entire working area of the public health center, including the Gowa Regency.

The socialization of the P4K program in the working area of the Sumba Opu Community Health

Center in Gowa Regency has been running but is not optimal. The thing that made this P4K socialization was not optimal, namely the lack of coordination from various lines. This is evidenced by the uneven information about the socialization of P4K in several regions. There are several communities, even community leaders such as the head of the environment are not aware of any information about the P4K program.

Contact with pregnant women

The implementation of contact with pregnant women in the working area of the Sumba Opu health center in Gowa Regency has been well implemented. This is evidenced by the discipline of health workers in giving and counseling pregnant women when the Integrated Service Post schedule has arrived in their respective regions. But unfortunately, contact with pregnant women was mostly done in the Integrated Service Post in their respective regions. Very rarely do health workers make contact with pregnant women in their homes.

Sticker installation P4K

The sticker installation at the home of pregnant women in the working area of the Sumba Opu health center in Gowa Regency did not work optimally. This is evidenced by the fact that there are still P4K stickers that are not directly installed by health workers and some are only given to pregnant women to be installed in their homes. This was also caused by the role of Integrated Service Post cadres who were less active in advising families to carry out the installation of P4K stickers in their homes. Because the role of cadres is expected to be able to carry out these activities well considering the access of Integrated Service Post cadres to each family which is also not too far away, it is recommended to install stickers immediately.

Data collection of pregnant women

Health workers in carrying out data collection on the number of pregnant women in the working area of the Sumba Opu health center in Gowa Regency have been well implemented. But in its implementation, there were various obstacles when

one of the data collection was the presence of migrants from outside the Gowa Regency area who settled who did not report their arrival to the village or to the public health center, especially pregnant women. So that in the data collection, pregnant women who did not report their arrival became difficult to detect. This is very problematic in carrying out the data collection activities. Because Gowa district and Makassar City are directly adjacent to each other, it is alleged that a rapid and undetectable population flow can occur. This is what makes health workers and cross sectors overwhelmed in registering residents in their respective areas, especially data collection on pregnant women. This is because there is still a lack of coordination between health workers and Integrated Service Post cadres to maximize the activities of pregnant women in their respective areas. In addition, there are pregnant women who elop are married without getting the blessing of their parents or the local term called the runner. There are also those who are pregnant outside of marriage, so it is very difficult to record.

Home visits

The implementation of home visits and making maternity planning in the working area of Sumba Opu Public Health Center in Gowa Regency have been carried out well but not maximally. This is evidenced by the making of planning by health workers who are still carried out at the Integrated Service Post in each region. This is caused by the lack of optimal role of health workers in making visits to the homes of pregnant women because of the ignorance of health workers on field conditions when going down to make home visits. But with the role of Integrated Service Post cadres, these activities were felt to be facilitated. Because Integrated Service Post cadres are the ones who know the area where they are.

Blood donors

The implementation of blood donor management for mothers has been implemented but is not optimal. This is evidenced by the majority of mothers who have not yet prepared their respective blood donors even though they have been

previously appealed by health workers. The role of the officers assisted by Integrated Service Post cadres is also expected to provide more confidence in the family in informing them that the importance of preparing prospective blood donors for pregnant women. Because according to some interviews with related informants, the role of officers and Integrated Service Post cadres in notifying them about preparing prospective blood donors is only to be notified but there are no further interventions on this matter such as notifying and finding families of potential blood donors for them.

Village ambulance

The procurement of special means of transportation for pregnant women in the working area of the Somba Opu health center in Gowa Regency by community leaders did not materialize. This is evidenced by the lack of socialization related to the procurement of these special vehicles in various working areas of the Somba Opu Health Center in Gowa Regency. The procurement of village ambulances is specifically not available, because there is already an ambulance at the public health center, besides that many people have cars that can be borrowed if needed, and so far there is no experience having difficulty finding a car if they will refer.

Maternity savings

Health workers in the preparation of maternity savings for mothers are only limited to telling mothers about the importance of maternity savings for the need for labor funds outside of the health insurance that guarantees their delivery. Although it has been recommended by the village midwife, most mothers have not implemented what has been said by their village midwife. This is because the majority of mothers are still connected with their respective financial conditions and are still complacent in using their respective delivery guarantee services.

Maternity social fund

Health workers in carrying out maternity social fund activities have not been running properly. This

is because the village midwife never delivered the maternity social fund to the family during the socialization or other meetings. Village midwives only emphasize the family to have health insurance, whether it is childbirth assurance or other health insurance, to alleviate a small amount of the burden that must be borne when giving birth.

Plans for using contraception

The implementation of contraceptive use plans in the working area of the Somba Opu health center in Gowa Regency by community leaders has been well implemented. This was evidenced by the village midwife assisted by an active Integrated Service Post cadre in providing socialization about the importance of using postpartum contraception.

Antenatal care services according to standards

The implementation of the mother in obtaining antenatal care according to the standards in Somba Opu health center in Gowa Regency by community leaders has gone well. This is evidenced by health workers giving ANC according to the 10T standard when mothers visit the Integrated Service Post or to the public health center.

Labor according to standards

The delivery of labor by health workers according to the standards in the working area of the Somba Opu health center in Gowa Regency by community leaders has been well implemented. This is evidenced by health workers providing services in accordance with the standards by paying attention to the MSS that have been determined in each delivery activity.

Use of a contraceptive device

Implementation of the type of family planning program in the working area of the Somba Opu health center in Gowa Regency by community leaders has been well implemented. This was proven by midwives assisted by active Integrated Service Post cadres in providing socialization related to the type of family planning along with their side effects.

Preparedness

Implementation of preparedness in the face of childbirth in the working area of the Somba Opu health center in Gowa Regency by community leaders has been well implemented. This is evidenced by the readiness of health workers to monitor the condition of pregnant women and make delivery plans for each mother at the Integrated Service Post and at the public health center.

Early initiation of breastfeeding (IMD)

The implementation of Early Breastfeeding Initiation (IMD) in Somba Opu Community Health Center by community leaders has been well implemented. This was evidenced by the active and disciplined health staff and Integrated Service Post cadres in providing knowledge about the importance of conducting IMD.

Post natal care (PNC)

Implementation of postpartum visits in Somba Opu health center in Gowa Regency by community leaders has been well implemented. This is evidenced by the active participation of health workers assisted by Posyandu cadres in inviting mothers to take postpartum visits to health services four times.

Community empowerment

The implementation of community empowerment in Gowa Regency by community leaders has been well implemented. This is evidenced by the involvement of community elements such as Integrated Service Post cadres and officials in activities held by the public health center. The role of the cadre is very helpful for officers in carrying out their duties in the field. One form of empowerment by cadres is to show the location of the house to be visited when officers want to visit the homes of pregnant women.

Use of maternal and child health books

The implementation of community Maternal and Child Health Books in the working area of the

1 Somba Opu Community Health Center in Gowa Regency by community leaders has been well implemented. This is evidenced by the active participation of midwives and cadres in reminding and encouraging mothers to bring their respective Maternal and Child Health Books and teach how to read every sign in the Maternal and Child Health Books. Although the activity was carried out by midwives assisted by Integrated Service Post cadres, most of the families were still ignoring this.

Maternal and child health forum

1 The formation of the Maternal and Child Health Forum in the working area of the Somba Opu Public Health Center in Gowa Regency by community leaders has not run optimally. This is evidenced by the absence of socialization and programs to form a special forum for pregnant women. The inactivity of the Maternal and Child Health Forum is recognized as being no longer in 2018 so the following year the public health center will reactivate and hold the the Maternal and Child Health Forum together with the innovations of Stop Maternal and Child Mortality Rate (SAKINA) which are being intensified by them, also expressed in the Kamidah study conducted in 2018 that programs such as P4K are not foreign because there have been programs that resembling P4K like the Dear Mother Movement.

Monthly meeting

The establishment of the Maternal and Child Health Forum in Gowa Regency by the village midwife has not yet been realized. The meeting was limited to routine meetings held each month in each Integrated Service Post. This was admittedly not optimal due to a lack of coordination from various lines, especially across sectors that realize these activities.

Discussion

1 The socialization of the P4K program in the working area of the Somba Opu Community Health Center in Gowa Regency has been running but is not optimal. As P4K socialization progressed in the field, the Public health center did not stop

innovating in overcoming this high maternal mortality rate. In addition to socializing the P4K program at the Public health center, the public health center also actively promoted SAKINA innovations.

SAKINA stands for Stop Maternal and Child Mortality. This SAKINA innovation empowers Integrated Service Post cadres in addition to forming its own special SAKINA cadre. This SAKINA cadre will be given special training related to efforts to prevent maternal and child mortality. The innovation is expected to have a significant impact on reducing maternal and child mortality in the work area of Somba Opu Health Center in Gowa Regency.

This research seems to be in line with the research design using descriptive data involving 6 informants, namely in the implementation of P4K activities although it is good enough, there are still some that need to be improved, both from the implementation of health workers and support from the parties involved in implementing P4K activities⁵.

Contact with pregnant women by village midwives assisted by Integrated Service Post cadres is mostly carried out in the building either at the public health center or at the Integrated Service Post when there are activities such as health checks. Contact with pregnant women if referring to the P4K manual should village midwives or health workers assisted by cadres as an effort to empower the community should visit the homes of pregnant women to make contact with mothers. Certainly this is not in line with the P4K guidebook because the majority of activities in contact with pregnant women are only carried out in the health service centers⁶.

1 The installation of P4K stickers on the work area of the Somba Opu Community Health Center in Gowa Regency, it also did not work in accordance with the P4K guidebook with the stickers that were supposed to carry out the sticker installation activities as health workers. But in reality in the field, the stickers were not affixed by health workers. Only limited to each pregnant mother during a consultation at the Integrated Service Post and then it is recommended to be posted immediately in their homes.

Related to this, there are studies that are not in line with this activity such as the sticker attachment was carried out by the village midwife assisted by cadres because if it is done by pregnant women themselves, it is not certain that the community can be informed of the existence of pregnant women in the house, if the sticker attachment is done by midwives, midwives can directly educate families and surrounding communities exactly what the family and community are doing⁷.

Health workers in carrying out data collection on the number of pregnant women in the working area of the Sumba Opu health center in Gowa Regency have been well implemented. This is very different from previous research, namely the activity of data collection of pregnant women in the public health center area can run well by involving cadres throughout the village area. Here, we can see that there is a very good collaboration between midwives and the community^{7,8}.

The village midwives have been able to grow and develop the ability of the community to contribute to health development. In the community P4K program or cadre this contributed greatly to the success of the activities of data collection for pregnant women, so that midwives were able to carry out data collection on pregnant women well⁹.

The implementation of home visits and making maternity planning in the working area of Sumba Opu Public Health Center in Gowa Regency have been carried out well but not maximally. Community empowerment such as Integrated Service Post cadres and other communities can maximize this home visit activity. As stated in the results of the research that the role of cadres in carrying out such activities is very helpful so that the implementation of home visits can be carried out optimally. Home contact activities like this if referred to in the P4K guidebook can be very helpful for families in order to help mothers and husbands in planning childbirth and preventing complications^{7,10}.

The implementation of blood donor management for mothers in Gowa Regency has been implemented but is not optimal. This is in line with the research that blood donors, almost all of which have been prepared either from the family or the community, only blood donors have not known

whether blood groups are the same or not in pregnant women¹¹.

The procurement of special means of transportation for pregnant women in the working area of the Sumba Opu health center in Gowa Regency by community leaders did not materialize. Other research that is in line with this research is that the research conducted by Dwijayanti is formally, no one is certain that what is used as a village ambulance is the A's car, but so far there has never been a problem in transportation problems because many people have a vehicle used if there are pregnant women in need. In addition, at the Public health center Plupuh II there is also a standby ambulance. The distance between villages in the public health center area is not far away and there is no difficult terrain¹².

The implementation of contraceptive use plans in the working area of the Sumba Opu health center in Gowa Regency by community leaders has been well implemented. The activity of village cadres and midwives in providing socialization of contraceptive use planning is only done at the time of the Integrated Service Post schedule at their respective places and at the public health center.

This is in line with the research conducted namely that counseling services for mothers/families during pregnancy were carried out by most midwives with a percentage of 84.2%. Some midwives (46 respondents) help pregnant women who go through labor according to the standard. Continued with the service in the postpartum period according to the standard as many as 55 respondents with a satisfying percentage (96.5%)^{5,13}.

One of the duties of the facilitator midwife in implementing P4K is to conduct counseling/services to pregnant women. Midwives must explain/counsel the family about the importance of delivery planning and how to prepare pregnant women and families if complications of pregnancy, childbirth and childbirth occur. Midwives are required to provide MCH services according to standards in antenatal care, childbirth, childbirth and family planning. Based on the results of the public health center midwife's research, the percentage in counseling services for pregnant women shows that the midwife has performed well.

This can be seen from the results of the study which stated that as many as 48 midwives had conducted counseling not only for pregnant women, but also involving the husband and family of the patient.

The implementation of the mother in obtaining antenatal care according to the standards in the working area of the Somba Opu health center in Gowa Regency by community leaders has gone well. This is in line with the research that maternal health services carried out through antenatal care activities (ANC, classes of pregnant women, high risk screening, delivery assistance and postpartum visits. ANC with 10T standard and frequency of at least 4 times during pregnancy, delivery assistance by health personnel in accordance with Normal Delivery Care (APN), and postpartum visits performed 3 times by village midwives^{14,15}.

ANC that is routinely conducted is one of the efforts to conduct screening for risky pregnant women, so that they get the right treatment immediately. Mass ANC is carried out every month by village midwives and midwives in each village. Antenatal examination is an important risk factor for maternal mortality. According to research that frequent and timely antenatal visits can provide an opportunity to detect risk factors for eclampsia, and other underlying diseases¹⁶. Labor done by health workers has been carried out according to standards. This was stated by one of the informants, namely the delivery must be in accordance with the standard because it refers to the SPM of each activity.

Different things were conveyed in a study conducted which was obtained by the midwife in pregnant women in the work area of Bakauheni Community Health Center in South Lampung District in 2014 with 8 observation items obtained 30.8% were planning births according to P4k. 30.8% (4 people) did labor planning according to internal P4k and 69.2% (9 people) did not carry out birth planning according to P4K¹⁷⁻¹⁹.

Midwives are required to provide MCH services according to standards in antenatal care, childbirth, childbirth and family planning. Based on the results of the public health center midwife's research, the percentage in counseling services for pregnant women shows that the midwife has performed well. This can be seen from the results of the study which stated that as many as 48 midwives

had conducted counseling not only for pregnant women, but also involving the husband and family of the patient²⁰.

Implementation of preparedness in the face of childbirth in the working area of the Somba Opu health center in Gowa Regency by community leaders has been well implemented. This is in line with the research conducted in 2018, namely the assistance of pregnant women is intended to be the people closest to pregnant women who are able to provide support both psychologically and materially. This support can be in the form of ability and accuracy in making decisions if an informed consent is needed such as the mother will be referred. This assistance has gone well. Communities and families are aware of the importance of health and safety for pregnant women^{21,22}.

The implementation of Early Breastfeeding Initiation (IMD) in the working area of the Somba Opu Community Health Center in Gowa Regency by community leaders has been well implemented. Good knowledge about P4K, then pregnant women accurately and accurately will be recorded and can be monitored intensively by health workers and cadres in the area, so that every pregnancy until delivery and childbirth is expected to be able to walk safely and safely²³.

Knowledge of the P4K program for pregnant women also encourages pregnant women to have a pregnancy, delivery, postpartum examination and care of newborns by skilled health personnel including screening for complete tetanus immunization status for every pregnant woman. Mothers are also encouraged to initiate early breastfeeding (IMD) followed by exclusive breastfeeding for 6 months^{19,24}.

P4K during childbirth includes taking part in the postpartum visit, conducting counseling and counseling for the mother, family, and community, making referrals if necessary, and recording and reporting. This is in line with the research conducted in 2017 namely the results of research conducted at the Banguntapan I, II, and III Public health center showed that the majority of respondents had the role of midwives in implementing P4K with a positive category. The implementation of community empowerment in Gowa Regency by community

leaders has been well implemented. This is different from the results of the research conducted, namely that there was a difference in information from interviews with informants because P4K training or socialization was only represented by several cadres and midwives holding the area. So that the impact on the implementation of P4K by the community is not optimal because the people who carry out community empowerment (midwives and cadres) do not all get socialization. This will affect the communication carried out by the implementer of empowerment with the community that will not be on target.

A health program will run well if health workers have the education and experience in implementing the program. Health workers must have sufficient education and take part in various health training related to the program being run. Health workers as role models must be able to provide examples to the community in carrying out existing programs²¹⁻²⁴.

The researchers argued that even though the knowledge of pregnant women about the usefulness of the MCH handbook was good and the Maternal and Child Health books given to pregnant women had P4K stickers that had to be posted on their doors and promotions about P4K were often given by the midwives at each Integrated Service Post service were unable to optimize the knowledge of pregnant women about P4K. This is because the respondent's education level is relatively low²⁵⁻²⁸.

The establishment of the Maternal and Child Health forum in Gowa Regency by the village midwife has not yet been realized. This is different from the research conducted, that is, most village midwives had planned childbirth related to the P4K program well. Village midwives have also coordinated and communicated well through socialization and regular meetings held in their respective villages regarding the P4K program. However, there are still obstacles related to the lack of involvement of relevant parties in achieving the success of the P4K program, especially from the community and village officials, because of the assumption that health issues for pregnant women are the responsibility and authority of health workers, especially village midwives.

Conclusion

The role of health workers in implementing the P4K program in Gowa Regency has been carried out but not maximally. There are some indicators that have not been fulfilled such as very little socialization, installation of P4K stickers carried out by pregnant women or Integrated Service Post cadres, there are still pregnant women who are not registered, home visits to discuss labor planning do not work, do not prepare prospective blood donors, no village ambulance, savings of maternity are only limited to socialization, there is no socialization of maternity social funds, Maternal and Child Health forums have not been formed, monthly meetings are limited to the activities of the Integrated Service Post. It is expected to further improve optimal services related to the implementation of p4k (maternity planning and complication prevention program). Home visits are also carried out to provide follow-up on problems faced by pregnant women and families, as well as p4k (maternity planning and complication prevention program) activities that have not been implemented properly so that the objectives of the p4k (maternity planning and complication prevention program) are one of them to help mothers plan their deliveries and prevent complications can be realized. As well as more maximizing its activities in inviting families to participate in each public health center activity such as counseling and socialization.

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Contribution of authors

YY conceptualized, designed, collected data, analyzed, and interpreted the result. YY approved the submission of the manuscript. MKA, TA, and SS were involved in analyses, interpretation of the findings, and critical revision of the final draft of the manuscript. YY approved the submission of the manuscript.

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