Factors Related to the Involvement of Midwives in Childbirth Assistance

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Abstract

The target of the government in the use of health care facilities for the birth process (90% of the delivery process is conducted by health practitioners) has not been reached. The research used a cross-sectional design. The population included all mothers who have given birth process from April to July 2017. The samples were selected using purposive sampling (with a data collection sheet). They were 89 mothers who had previous delivery experience. This study used the chi-square test. The data were presented in the form of frequency distribution and percentages followed by narration. The results are: a knowledge factor ($\rho=0.000$ less than $\alpha=0.05$), habit factor ($\rho=0.004$ less than $\alpha=0.05$), the factor of distance to health care service ($\rho=0.001$ less than $\alpha=0.05$), and midwife availability factor ($\rho=0.003$ less than $\alpha=0.05$). It is concluded that there is a relationship between knowledge, habit, distance to health care service, midwife availability, and requesting midwives to help in the birth process.

Keywords

distance to health care service; habit; knowledge; midwife availability; the use of midwives;

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1 Introduction

Maternal and Child Health (MCH) is one of the goals of the Millennium Development Goals (MDG). Mdg 2015 targets related to KIA include reducing maternal mortality (AKI) to 102/100,000 live births and lowering infant mortality (AKB) to 23/1000 and maternity assistance by health workers by 90%.

According to a World Health Organisation (WHO) report published in 2014, the maternal mortality rate (AKI) in the world reached 289,000. Divided into several countries, the United States reached 9300 people, North Africa 179,000 people, and Southeast Asia 16,000 people. The Maternal Mortality Rate (AKI) in Indonesia reaches 214 per 100,000 live births (WHO, 2014).

The same thing happened in the Sulawesi Selatan province in 2017 which is still quite high, which is 120 people, where the most cases are caused by bleeding and others due to preeclampsia and infection. And among them occurred because of childbirth which was helped by shams (Sul-Sel Provincial Health Office 2012). In Gowa Aki Regency as many as 12 people in 2015 and increased in 2017 to 14 people (Gowa Regency Health Office). This is because there is still a delivery that is helped by shams by 20% to 30%, especially in rural areas (Casey et al., 2001; Rosero-Bixby, 2004). Childbirth assistance is a labor service process that begins at the time of I to the IV period of labor. The achievement of maternity health efforts is measured through the percentage of childbirth indicators assisted by trained health workers (PN coverage). This indicator shows among others the level of the government's ability to provide quality maternity services assisted by trained health workers (Kemenkes, 2017). The use of health facilities for maternity assistance is still not following the target set by the government, namely, 90% of labor is helped by health workers. For this reason, the government made a breakthrough with the Jampersal program, intended for all pregnant, maternity, and nonsfacious women and newborns who do not have health insurance or health insurance (Depkes RI, 2012).

The goal of health development in Indonesia is directed to further improve the degree of health and quality of human resources. This is demonstrated by efforts to increase life expectancy, reduce the mortality rate of babies, children, and mothers giving birth, increase work productivity and increase public awareness to be able to live clean and healthy lives (Citra, 2012).

One of the main factors contributing to the high maternal mortality rate is the limited place of adequate delivery and the lack of health workers directly related to the labor process (Metti & Rosmadewi, 2019). Maternity health efforts are carried out to encourage every delivery to be helped by trained health workers, namely obstetrics and gynecology specialists (SpOG), general practitioners, and midwives and are sought to be carried out in health care facilities (Amalia, 2013).

Various efforts are made to improve public access to quality maternal health services, namely working for adequate amounts of health workers with the best quality, especially midwives, providing the best health care facilities following standards, especially the provision of Basic Neonatal Emergency Obstetric Services (PONED) and Comprehensive Neonatal Emergency Obstetric Services (PONEK) for 24 hours in seven days known as PONED and PONEK, moving all levels of society, especially for the implementation of the Maternity Planning Program with Complication Prevention (Dinkes, 2014).

According to Amilda (2010), factors that have a meaningful relationship with the selection of maternity assistance by baby shamans are the level of knowledge, economic status, and affordability of health facilities (Mulyani et al., 2017). The factors of education level and perception have no meaningful relationship with the selection of childbirth by the baby shaman. Research to Yenita (2011), some of the factors that influence the selection of maternity assistance are maternal education, husband education, knowledge, socio-economic, work, culture, costs, attitudes, the distance of service location, and decisions on the selection of childbirth helpers are husband, family support, and access to health services (Malterud, 2001; Gazmararian et al., 2003). Based on research Khaerudin (2012), shows that the coverage of maternity assistance by health workers at Cijeruk Health Center Bogor Regency who has not met the target illustrates that the level of utilization of labor assistance by health workers in the region is still low. According to the statement, the Palangga Health Center has not met this target related to the still low public awareness about childbirth by health workers. In addition, there is still a high level of confidence to carry out labor by the baby shaman (Mulyani, 2018).
2 Materials and Methods

This research is quantitative. Researchers use the design of the study with a cross-sectional method because in this study independent and dependent variables will be observed at the same time (period). The variables are knowledge, attitudes/habits, distance to health services, and the availability of skilled personnel. The dependent variable is the Involvement of Maternity Assisted Midwives (Notoatmodjo, 2012). The population in this study is all mothers who have given birth in the Puskesmas Pallangga, districts Pallangga, district Gowa this study used primary data obtained from filling out questionnaires and secondary data obtained from the Health Profile of Pallangga–Gowa Health Center.

3 Results and Discussions

The results of this Univariate analysis are presented in the form of tables and explanations as follows:

Knowledge

Table 1
Distribution of the frequency of midwife utilization in aid delivery based on knowledge

<table>
<thead>
<tr>
<th>No</th>
<th>Knowledge</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Enough</td>
<td>35</td>
<td>39.3</td>
</tr>
<tr>
<td>2.</td>
<td>Less</td>
<td>54</td>
<td>60.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>89</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data

Respondents’ habits

Table 2
Distribution of the frequency of midwife utilization in aid delivery based on respondents’ habits

<table>
<thead>
<tr>
<th>No</th>
<th>Habits</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Usual</td>
<td>33</td>
<td>37.1</td>
</tr>
<tr>
<td>2.</td>
<td>Unusual</td>
<td>56</td>
<td>62.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>89</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data

Distance to Health Care

Table 3
Distribution of the frequency of midwife utilization in aid delivery based on distance to health care

<table>
<thead>
<tr>
<th>No</th>
<th>Distance to Health Care</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Far</td>
<td>47</td>
<td>52.8</td>
</tr>
<tr>
<td>2.</td>
<td>Close</td>
<td>42</td>
<td>47.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>89</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data
Midwife Power Availability

Table 4
Distribution of the frequency of midwife utilization in aid delivery based on midwife power availability

<table>
<thead>
<tr>
<th>No</th>
<th>Midwife Power Availability</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Available</td>
<td>37</td>
<td>41,6 %</td>
</tr>
<tr>
<td>2.</td>
<td>Not Available</td>
<td>52</td>
<td>58,4 %</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>89</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Primary Data

Utilization of Midwife Services

Table 5
Distribution of the frequency of midwife utilization in aid delivery

<table>
<thead>
<tr>
<th>No</th>
<th>Midwife Involvement</th>
<th>F</th>
<th>Presentase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Utilize</td>
<td>39</td>
<td>43,8 %</td>
</tr>
<tr>
<td>2.</td>
<td>Not utilizing</td>
<td>50</td>
<td>56,2 %</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>89</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Primary Data

The results of this Bivariate analysis are presented in the form of tables and explanations as follows: Bivariate analysis is used to get an idea of whether there is a relationship between independent variables and dependent variables. To assess whether there is a relationship between knowledge, habits, distance to health services, and the availability of midwives with the involvement of midwives in maternity assistance at Puskesmas Pallangga, the Chi-Square statistical test with a utilization rate of $\alpha = 0.05$ or a mean interval of $\rho < 0.05$ using the help of the SPSS 20.0 program for windows.

Table 6
Statistical analysis of knowledge relationship with midwife's involvement in maternity assistance

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Midwife's Involvement in Maternity Aid</th>
<th>Total</th>
<th>$P$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Enoght</td>
<td>28,1</td>
<td>11,2</td>
<td>35</td>
</tr>
<tr>
<td>Less</td>
<td>15,7</td>
<td>45,0</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>43,8</td>
<td>56,2</td>
<td>89</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table 7
Statistical Analysis of Habit Relations With Midwife's Involvement in Maternity Assistance

<table>
<thead>
<tr>
<th>Habits</th>
<th>Midwife's Involvement in Maternity Aid</th>
<th>Total</th>
<th>$P$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Usual</td>
<td>23,6</td>
<td>13,5</td>
<td>33</td>
</tr>
<tr>
<td>Unusual</td>
<td>20,2</td>
<td>42,7</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>43,8</td>
<td>56,2</td>
<td>89</td>
</tr>
</tbody>
</table>

Source: Primary Data
Table 8
Statistical analysis of distance relationship to health services with midwife involvement in maternity assistance

<table>
<thead>
<tr>
<th>Distance to Health Care</th>
<th>Midwife’s Involvement in Maternity Aid</th>
<th>Total</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Far</td>
<td>13</td>
<td>14.6</td>
<td>34</td>
</tr>
<tr>
<td>Close</td>
<td>26</td>
<td>29.2</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>43.8</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table 9
Statistical analysis of the relationship of midwife availability with midwife involvement in maternity assistance at Pallangga Health Center

<table>
<thead>
<tr>
<th>Midwife Power Availability</th>
<th>Midwife’s Involvement in Maternity Aid</th>
<th>Total</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Available</td>
<td>23</td>
<td>25.8</td>
<td>14</td>
</tr>
<tr>
<td>Not Available</td>
<td>16</td>
<td>18.0</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>43.8</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Primary Data

Knowledge relationship with midwife involvement in maternity assistance

One of the obstacles to midwives in providing maternity services is due to the lack of knowledge and ability of mothers who cause late decisions in seeking help so that the community comes to the midwife if it is an emergency.

Based on the results of statistical analysis there is an expected value of 0.000 so that the value of $p = 0.000$ is less than $\alpha = 0.05$, thus $H_a$ is accepted and $H_0$ is rejected. So it can be said that there is a relationship between the mother’s level of knowledge and the involvement of midwives in maternity assistance at puskesmas Pallangga, districts Pallangga, district Gowa. Furi & Megatsari (2014), showed that the majority of respondents who gave birth to baby shamans had low knowledge. This research is in line with the results of Latifah’s research (2010) which showed that there is indeed a relationship between knowledge and the selection of childbirth assistance by baby shamans. The lower the mother’s knowledge, the less she wants to take advantage of health services.

Habitual Relationship with Midwife Involvement in maternity assistance

Based on the results of statistical analysis there is an expected value (expected value) of 0.004 so that the value of $p = 0.004$ is less than $\alpha = 0.05$, thus $H_a$ is accepted and $H_0$ is rejected. So it can be said that there is a relationship between mother’s habits and the involvement of midwives in maternity assistance at Puskesmas Pallangga, districts Pallangga, district Gowa.

Pregnancy and birth are natural phenomena in life, but various groups of people and cultures in the world have a variety of perceptions, interpretations and behavioral responses in dealing with it with various implications for health Cultural culture of our people, especially in the countryside, still believe more in shaman lambing than midwives let alone doctors (Carden & Wood, 2018; Verplanken et al., 2008). With a cultural attitude and most people in the countryside still choose shaman lambing as a helper in childbirth even with a very high risk.

In addition, labor assistance by shamans often causes cases of childbirth including the baby’s head has been born but the body has not come out, or the partus is stuck because the skills of the baby shaman are less professional and only based on experience. This research is following research conducted by Anggorodi (2009), who states that the role of baby shamans in the process of pregnancy and childbirth is very closely related to local culture and customs. Mothers who already have a culture of childbirth in baby shamans will certainly take a long time in changing the culture to give birth to health workers.

**Distance link to health services with midwife involvement in maternity assistance**

Based on the results of statistical analysis there is an expected value (expected value) of 0.001 so that the value of \( \rho = 0.001 \) is less than \( \alpha = 0.05 \), thus \( H_a \) is accepted and \( H_0 \) is rejected. So it can be said that there is a distance relationship to health services with the involvement of midwives in maternity assistance at Puskesmas Pallangga, districts Pallangga, district Gowa. Community affordability including the distance of health facilities will affect the selection of health services. Distance is the second component that allows a person to utilize treatment services (Dahlberg et al., 2016; McCourt et al., 2012). Some villages still have difficulty getting access to health services, not all villages have health centers and medical personnel such as: doctors, midwives, and nurses. Geographically there are still many people who live far from health facilities.

Access to health care facilities is related to several things including the distance of residence and travel time to health facilities, as well as social - economic and cultural status, the location of the place of service that is not strategic/difficult to achieve causes a lack of access to pregnant women who will give birth. Travel time and ease to health facilities are not always related to the utilization of the Mother and Child Health program, but there are marked differences in access to health services according to the area of residence (Hall et al., 2012; Dalton et al., 2014).

**Relationship of the availability of midwife energy with the Involvement of midwives in maternity assistance**

With the availability of skilled personnel in the village makes it easier for mothers to get KIA services, especially in childbirth assistance. The results of statistical analysis there is an expected value (expected value) of 0.003 so that the value of \( \rho = 0.003 \) is less than \( \alpha = 0.05 \), thus \( H_a \) is accepted and \( H_0 \) is rejected. So it can be said that there is a relationship between the availability of midwives and the involvement of midwives in maternity assistance at Puskesmas Pallangga, districts Pallangga, district Gowa. The existence of skilled midwives in the village continuously and sedentary and the distance of residence with puskesmas determines the effectiveness of its services. With the existence of Poskesdes / Puskesmas and midwives in the community, it is expected that there will be an interaction between midwives and the community in carrying out and providing convenience for KIA services, including improving the ability of baby shamans as partners in providing health counseling for pregnant women and childbirth assistance both in terms of distance and in terms of financing. The existence of midwives in the village will contribute to the use of health workers because childbirth can occur at any time of the day and night so the presence of midwives in the place makes it easier to ask for help quickly and affordably.

### 4 Conclusion

After the author conducts the study, it can be concluded that there is a relationship between maternal knowledge, maternal habits, distance to health services, and the availability of midwives with midwife involvement in maternity assistance at Puskesmas Pallangga, districts Pallangga, district Gowa.

**Acknowledgments**

We are grateful to two anonymous reviewers for their valuable comments on the earlier version of this paper.
Hubungan Kemitraan Bidan dan Dukun 
analysis from the Birthplace organisational case 
an dengan pemilihan pertolongan persalinan oleh dukun 
saga Kesehatan Di Puskesmas Cijeruk Kab. 
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Khaeruddin. 2012.


### Biography of Authors

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She first entered the D3 College of Midwifery at the Faculty of Health in 2009-2012 at UINAM Makassar University. Then after graduating, she continued to STIKES Abdi Nusantara, Jakarta, majoring in D4 teaching midwife. And then she continued her studies at Hasanuddin University, Makassar, majoring in midwifery, a postgraduate program and after completing her studies she then worked at a health campus in Makassar as a permanent lecturer at Stikes Graha Edukasi as a lecturer in midwifery.

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