Influence the Performance of Midwives in Conducting Early Detection Low Birth Weight Infants (LBWI)

Pengaruh Kinerja Bidan dalam Melakukan Diteksi Dini Bayi Berat Lahir Rendah (BBLR)

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ABSTRACT

Obstetrics services are an intensive part of health activities focused on maternal, newborn, and child health to realize meaningful family health. Maternal and child health is a national agenda that deserves top priority because it determines the quality of human resources for the next generation. This research method is analytical with a cross-sectional study design. The study sample consisted of 88 midwives. Data analysis was performed using regression analysis and the Results of bivariate analysis. The results of the bivariate test found a relationship between knowledge (p=0.003), motivation (p=0.033), and leadership (p=0.000) with obstetric performance. Furthermore, there is no relationship between attitudes (p=182) and obstetric performance, the variables of supervision, reward, and training show satisfactory results. The results of the multivariate analysis show that leadership is the most dominant factor in determining obstetric performance, with a p-value of 0.000 and OR. 180. Request the Aceh Besar Health Office to increase supervision not only from the supervising coordinating midwife but also from the abscess and the health office.

Keywords : Midwife Performance, LBWI Early Detection, Obstetrics Performance

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ABSTRAK

Pelayanan kebidanan merupakan bagian intensif dari kegiatan kesehatan yang difokuskan pada kesehatan ibu, bayi baru lahir dan anak untuk mewujudkan kesehatan keluarga yang bermakna. Kesehatan ibu dan anak merupakan agenda nasional yang patut mendapat prioritas utama karena menentukan kualitas sumber daya manusia generasi penerus. Metode penelitian ini adalah analitik dengan desain studi cross sectional. Sampel penelitian terdiri dari 88 bidan. Analisis data dilakukan dengan menggunakan analisis regresi dan Uji bivariat. Hasil uji bivariat ditemukan hubungan antara pengetahuan (p=0,003), motivasi (p=0,033), dan kepemimpinan (p=0,000) dengan kinerja kebidanan. Selanjutnya walaupun tidak ada hubungan antara sikap (p=182) dengan kinerja kebidanan, variabel supervisi, reward, dan pelatihan menunjukkan hasil yang memuaskan. Hasil analisis multivariat menunjukkan kepemimpinan menjadi faktor yang paling dominan dalam menentukan kinerja kebidanan, dengan p-value 0,000 dan OR. 180. Meminta Dinas Kesehatan Aceh Besar untuk meningkatkan pengawasan tidak hanya dari bidan koordinator yang mengawasi, tetapi juga dari abses dan dinas kesehatan.

Kata Kunci : Kinerja Bidan, BBLR, Deteksi Dini
INTRODUCTION

Health is an asset to the future of a person and the country to influence the economic development of a country. Therefore, the health of the nation's successor can be maintained while he is still in the womb because the nutritional status since the womb determines his nutrition in the future. To be able to control child nutrition during pregnancy, good cooperation between pregnant women, families, and the support of health workers, especially midwives, through early detection of nutrition during pregnancy to reduce the number of babies born with low body weight (Vitasari et al., 2018). As many as 7000 newborns in the world die every day. Three-quarters of neonatal deaths occur in the first week and 40% die within the first 24 hours. Neonatal mortality is closely related to the suboptimal quality of delivery services and handling of Newborns (BBL) immediately after birth and the first few days after birth. The main causes of death (in 2016) were premature, low birth weight (LBWI), childbirth-related complications (asphyxia or difficulty breathing at birth), infections, and birth defects (Vitasari et al., 2018).

The highest incidence of Low Birth Weight (LBWI) occurred in Central and South Asia (27.1%) and the lowest in Europe (6.4%). The global prevalence is 15.5%, which means that around 20.6 million babies are born annually and 96.5% are in developing countries including Indonesia. Indonesia is one of the developing countries with the highest maternal mortality rate (MMR). The number of infant deaths in 2015 was 33,278 cases, a decrease compared to 2015, namely 32,007, and in 2017 in the first semester as many as 10,294 cases. One of the causes of infant mortality in Indonesia is the incidence of LBWI of 38.85% (Sahil et al., 2016).

Currently, one in ten toddlers in Indonesia is born with LBWI conditions, so it can be assumed that there are even more babies with a birth weight of less than 3,000 grams who are at greater risk of developing degenerative diseases in adulthood (Johnson et al., 2021). In 2017 Aceh Province had a percentage of prevalence of malnutrition and malnutrition in toddlers in Aceh reaching 26.3%, making it the highest on the island of Sumatra and still far above the national average of only 19.6%. The highest number of toddlers born with low body weight is in Aceh Besar Regency, which is 23% compared to Pidie Regency 18% and Subulussalam Regency 14% (Al Alshaikh et al., 2022).

Obstetrics services are an integral part of health services that focus on women, newborns, and child health services in realizing quality family health. Maternal and Child Health (MCH) problems are national problems that need to be given top priority because they largely determine the quality of human resources (HR) in future generations. The high MMR and AKB and the slow decline of these two figures show that MCH services are very urgent to be improved both in terms of reach and services provided by health workers, especially midwives (Larasati & Puspitawati, 2019).

Decree of the Minister of Health of the Republic of Indonesia number 369 / MENKES / SK / III / 2007 concerning The Professional Standards of Midwives of the Republic of Indonesia explains that midwives have knowledge and skills requirements from the social sciences, public health, and ethics that form the basis of high-quality care in accordance with the culture, for women, newborns and their families, providing high-quality care, culturally responsive health education and comprehensive services for the community in order to improve healthy family life, pregnancy planning and readiness to be a parent. Midwives provide antenatal care, clean and safe delivery, handle certain emergency situations, care for postpartum and lactating mothers, and provide high-quality, comprehensive care in healthy newborns for up to 1 month. In healthy infants and toddlers (1
Influence the Performance of Midwives in Conducting Early Detection Low Birth Weight Infants

Midwife performance is a health service carried out by midwives to improve maternal and child health. Midwives as health workers who have independent authority in carrying out care for pregnant women, need to have professional abilities that have been standardized. The success of maternal health efforts, among others, can be seen from the indicators of maternal mortality rate (MMR) and infant mortality rate (MMR) (Hirschman, 2016).

The mother's weight gain during pregnancy directly affects the birth weight and is influenced by various factors, including pre-inspirational nutritional status and sociodemographic factors. Several studies in Indonesia state that low pre-pregnancy weight correlates with weight gain during low pregnancy (Yanti, 2018). Meanwhile, anemia in pregnant women has an effect on energy intake and foods containing low iron. This condition can result in the mother's weight gain during pregnancy that is not optimal and an increased risk of premature birth so mothers are more at risk of giving birth to babies with a non-optimal birth weight (Wyatt-Smith & Adie, 2021).

Obstetrics services focus on prevention efforts, health promotion, normal childbirth assistance, detection of complications in mothers and children, carrying out care actions in accordance with the authority or other assistance if needed, and carrying out emergency measures (Ford et al., 2019). Midwives have an important task in counseling and health education, not only for women but also for families and communities. Midwives as the spearhead of health development that directly affects public health services can be a supporting or driving factor but can also be a hindrance to the success of a program. The performance of a midwife is also influenced by many factors namely individual competence, organizational support, and management support, this individual competence is seen in the ability and skill of doing work. This study aims to determine the factors that affect the performance of midwives on LBWI in Aceh Besar Regency in 2018 (Amperatmoko et al., 2022).

METHOD

This research is analytical using a cross-sectional research design. This research was conducted from August 23 to September 3, 2019, at the Puskesmas of the Aceh Besar work area which has a LBWI case and which does not have a LBWI case. The population in this study was 735 midwives who worked in the work area of Aceh Besar Regency. The study sample was 88 midwives. Data analysis was carried out using logistic regression analysis using questionnaire instruments and scale 4.

Judging from the age of midwives in Aceh Besar, the average age is between 30-40 years (92%) more than half of midwives or respondents have served as midwives for a period of 1-10 years, and one-third (37%) have worked for 11-20 years where most of them have a D3 midwifery education level 687/UM.MKM.M/2019.

RESULTS

Distribution of Respondents’ Answers in Persen

Midwife Performance

More than half of village midwives in Aceh Besar (66%) performed well in efforts to early detect LBWI to reduce the incidence of LBWI in this district. Using the 14 T's as an indicator of their performance by checking whether or not they performed any action of the 14 T's.

Basically, all midwives (100%) weigh weight, measure blood pressure, measure the height of the uterine fundus, conduct referral speech meetings, and check protein and urine...
reduction on indications in all pregnant women in their respective work areas. But on the contrary, they did not give iodine and anti-malarial therapy to their patients at all. While other activities such as giving Fe tablets, TT immunization, HB checks, LILA measurements, breast care, and pregnant women’s gymnastics are only a few midwives who do, more than 60% of these village midwives did not perform these actions for unknown reasons (this study did not ask why).

For a clearer picture, please see the graph from the table above in the appendix section.

**Knowledge**

Overall, village midwives in Aceh Besar have a good knowledge of LBWI early detection efforts. More than 70% of them know well about malnutrition, LBWI, asafetida, antenatal care, palpation, preeclampsia, TT immunization, and Fe tablet consumption. Here is a table of the percentage of midwives who have knowledge of LBWI early detection efforts.

**Table 1. Knowledge In LBWI Early Detection Efforts**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Know</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor nutrition</td>
<td>87.5</td>
<td>12.5</td>
</tr>
<tr>
<td>LBWI</td>
<td>95.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Asphyxia</td>
<td>73.9</td>
<td>26.1</td>
</tr>
<tr>
<td>Causes of LBWI</td>
<td>81.8</td>
<td>18.2</td>
</tr>
<tr>
<td>Antenatal care</td>
<td>89.8</td>
<td>10.2</td>
</tr>
<tr>
<td>Purpose of antenatal care</td>
<td>65.9</td>
<td>34.1</td>
</tr>
<tr>
<td>Minimal antenatal care</td>
<td>85.2</td>
<td>14.8</td>
</tr>
<tr>
<td>How to detect LBWI</td>
<td>88.6</td>
<td>11.4</td>
</tr>
<tr>
<td>Measure blood pressure to prevent preeclampsia</td>
<td>78.4</td>
<td>21.6</td>
</tr>
<tr>
<td>Abdominal palpation</td>
<td>81.8</td>
<td>18.2</td>
</tr>
<tr>
<td>2x TT Immunization</td>
<td>95.5</td>
<td>4.5</td>
</tr>
<tr>
<td>90 tablets Fe/3 months</td>
<td>79.6</td>
<td>20.4</td>
</tr>
</tbody>
</table>

Based on the results of the table above, it is known that more than 50% of the answers are on the answer choices knowing about low birth weight babies. This illustrates that the field has a good knowledge of its duties (Park, 2021).

**Motivation**

Overall, almost all (90%) of village midwives in this district consider themselves to have good work motivation. Of the 15 statements submitted to the respondents of this study, here are their responses in a 5-scale Likert, Agree, Strongly Agree, Doubt, Disagree and Strongly Disagree summarized in the following table.
### Table 2. Midwife Motivations in LBWI Early Detection Efforts

<table>
<thead>
<tr>
<th>Motivation</th>
<th>SS</th>
<th>S</th>
<th>R</th>
<th>TS</th>
<th>STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living obstetric duties</td>
<td>20.5</td>
<td>20.5</td>
<td>42</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Work happily</td>
<td>13.6</td>
<td>11.4</td>
<td>33</td>
<td>37.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Providing service is worship</td>
<td>15.9</td>
<td>18.2</td>
<td>36.4</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>Passion for serving the community</td>
<td>26.1</td>
<td>9.1</td>
<td>38.6</td>
<td>15.9</td>
<td>10.2</td>
</tr>
<tr>
<td>Obstetric duties according to interests</td>
<td>0</td>
<td>10.2</td>
<td>53.4</td>
<td>19.3</td>
<td>17</td>
</tr>
<tr>
<td>Enjoying work because of interacting with diverse people</td>
<td>3.4</td>
<td>12.5</td>
<td>33</td>
<td>39.8</td>
<td>11.4</td>
</tr>
<tr>
<td>Heavy workload decreases work motivation</td>
<td>5.7</td>
<td>4.5</td>
<td>51.1</td>
<td>21.6</td>
<td>17</td>
</tr>
<tr>
<td>If you feel that the staff appreciation is unfair then morale drops</td>
<td>0</td>
<td>11.4</td>
<td>39.8</td>
<td>33</td>
<td>15.9</td>
</tr>
<tr>
<td>Little chance of developing yourself lower work motivation</td>
<td>3.4</td>
<td>10.2</td>
<td>35.2</td>
<td>43.2</td>
<td>8</td>
</tr>
<tr>
<td>Lack of career opportunities makes not work hard</td>
<td>4.5</td>
<td>4.5</td>
<td>40.9</td>
<td>38.6</td>
<td>11.4</td>
</tr>
<tr>
<td>Proud to be a village midwife</td>
<td>8</td>
<td>5.7</td>
<td>37.5</td>
<td>29.5</td>
<td>19.3</td>
</tr>
<tr>
<td>Job description informs the midwife of her responsibilities</td>
<td>8</td>
<td>9.1</td>
<td>35.2</td>
<td>31.8</td>
<td>15.9</td>
</tr>
<tr>
<td>Good workers need to get rewarded</td>
<td>0</td>
<td>5.7</td>
<td>31.8</td>
<td>37.5</td>
<td>25</td>
</tr>
<tr>
<td>Recognition of the individual achievements of his duties means great</td>
<td>8</td>
<td>5.7</td>
<td>37.5</td>
<td>29.5</td>
<td>19.3</td>
</tr>
<tr>
<td>The reward as a village midwife is enough to improve performance</td>
<td>3.4</td>
<td>12.5</td>
<td>33</td>
<td>39.8</td>
<td>11.4</td>
</tr>
</tbody>
</table>
If strongly agree plus agree we agree, and disagree strongly disagree we categorize as disagreeing to facilitate analysis, then out of the 15 statements for motivation as shown in the table above (see the graph in the appendix section) then the respondents who agree more that they live their obstetric duties (41% = 20.5% SS + 20.5% S), the spirit of serving the community (35.2%), and providing services is worship (34.1%) this is in accordance with the theory stated that in terms of midwife services, they are very concerned about the condition of the community (Fitri et al., 2022).

In contrast, the percentage of midwives who disagreed more than agreed was in 12 of the 15 statements submitted by researchers. They disagree that good officers need to get the reward they deserve (62.5%), few opportunities for self-development reduce work motivation (51.2%), rewards as village midwives are enough to improve performance (51.1%), enjoy work because they interact with diverse humans (51.1%), lack of career development opportunities make them not work hard (50%), unfair staff rewards reduce morale (48.8%), recognition of individual achievements of their duties means a lot (48.8%), work happily (42%), heavy workload decreases work motivation (38.6%), and obstetrics duties according to their interests (36.4%) work motivation can increase community service activities (Dayanti, 2022).

Attitude

Overall, 70.45% of village midwives in this district consider themselves to have a good attitude. Of the 5 statements submitted to the respondents of this study, here are their responses in the 5-scale Likert, Agree, Strongly Agree, Doubt, Disagree and Strongly Disagree scale summarized in the following table. If agreeing plus doubts we consider agreeing, and disagreeing strongly we categorize as disagreeing to facilitate analysis, then of the 5 statements for motivation as shown in the table above (see the graph in the appendix section) then the respondents agreed more that the village midwife program is a government program (79.5%), which is a mandatory program for a midwife (73.9%), where this task is in accordance with her wishes as a midwife (64.8%), and providing services is worship (34.1%). The midwife said that weathering is a task for the midwife (100%) and has the obligation to make visits for pregnant women (50%), basically visits by pregnant women, things that must always be considered (Novikov, 2020).

Supervision

Overall, 94.32% of village midwives in this district consider that they have received good supervision. Of the 5 statements submitted to the respondents of this study, here are their responses in 2 answer choices in the form of ever and never which are summarized in the following table. It can be seen that supervision has been carried out even though the technical guidance obtained is very little (more to reporting) and does not get feedback, where 94.3% of midwives said they had received supervision in 2018 at least 1 time carried out by the Coordinating midwife. 96.6% received MCH technical guidance where all received feedback from supervision carried out and said they always had regular meetings, technical guidance matters should always be considered (Grewal, 2020).

Leadership

Overall, 56.8% of village midwives in this district consider themselves to have a leader (coordinating midwife) who is not good. All midwives said that the coordinating midwife assisted them in solving problems, had directly monitored MCH services, always discussed MCH issues at formal meetings and directed midwives to service improvement. Meanwhile, 95.5% of midwives said they agreed that BIKOR was responsive to the MCH report, 62.5% supported the self-development of midwives through training and 95.4% said that BIKOR was rarely willing to be given criticism and advice in carrying out its leadership.
DISCUSSION

Frequency Distribution of Factors Affecting Midwife Performance

According to the assessment of the midwives themselves they already have good performance (66%), from the facts that researchers get with the data provided 2/3 of the midwives claim to have good knowledge and most of them feel that they have good motivation. 2/3 of the study sample had a good attitude and most said that the supervision carried out was good. All respondents said that they were compensated even though they were divided by level of education and had participated in training activities. More than 1/2 of the respondents said that the leadership of the coordinating midwife was felt to be lacking, the lack of services in the coordinator's field was caused by various things that had real problems (Nyland et al., 2021).

The Effect of Knowledge on Midwife Performance

Basically with less knowledge each has an equally large ratio (1:1) between good and less performance. Meanwhile, midwives with good knowledge 2/3 of them have good performance (Mathias et al., 2018). The results of the analysis of the relationship between free variables and bound variables using the chi-square test obtained a p-value of 0.003 with an OR of 4.27 which means that there is an influence between the knowledge variable and the performance of the midwife where the midwife with good knowledge is 4.27 times likely to have a good midwife performance, good midwife performance will affect the midwife's performance (Xie et al., 2021).

The Effect of Motivation on Midwife Performance

Various problems can be seen that midwives with less motivation, 2/3 of them have less performance while in midwives with good motivation more than 1/2 have good performance. The results of the analysis of the relationship of free variables and bound variables using the chi-square test obtained a p-value of 0.018 with an OR of 3.04 which means that there is an influence between the motivation variable and midwife performance where midwives with good knowledge are 3.04 times likely to have good midwife performance, motivation is very necessary in the world of work (Hirschman, 2016).

The Influence of Attitudes Towards Midwife Performance

Table 3. The Effect of Knowledge on Midwife Performance in Aceh Besar Regency

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Midwife performance</th>
<th>Total</th>
<th>OR</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less %</td>
<td>Good</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>Less</td>
<td>19</td>
<td>63.3</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>Good</td>
<td>29</td>
<td>48.3</td>
<td>30</td>
<td>51.7</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>53.4</td>
<td>41</td>
<td>46.6</td>
</tr>
</tbody>
</table>

Secondary data processed in 2019

Based on the table above, it shows that midwives who have less than 2/3 of their attitudes have less performance while in midwives with a good attitude, 1/2 of them have good performance (Bekkar et al., 2020). The results of the analysis of the relationship of free variables and bound variables using the chi-square test obtained a p-value of 0.182 with an OR of 1.8 which means that there is no influence between the attitude variable and the midwife's performance where the midwife with a good attitude is 1.8 times likely to have good midwife performance, an influence that is deeply felt in every midwife's behavior (David, 1999).
The Effect of Supervision on Midwife Performance
Supervision of performance that midwives who say that supervision is in the category of approximately 2/3 of them have good performance, while than midwives who say that the supervision carried out is good, all of them have good performance. The results of the statistical test showed a relationship between supervision and midwife performance with a p value of 0.001 and an indeterminate OR (Omitted) (Johnson et al., 2021).

The Effect of Compensation on Midwife Performance
Then that all midwives get compensation where more than 1/2 of them have good performance. In this variable, it cannot be crossed to see the influence between the two variables due to the absence of data variation (all of which get compensation), so that the OR value (omitted) with a p value of 0.001 (Van Wyk et al., 2020). Basically, midwives have received training where more than 1/2 of them have good knowledge (Taneja et al., 2020). In this variable, it cannot be crossed to see the influence between the two variables due to the absence of data variations (all of whom have received training), so that the OR value (omitted) with a p value of 0.001 (Mulyana & Kusumastuti, 2021).

Influence of Leadership with Midwife Performance
Basically, approximately more than 2/3 of them have less performance, while in midwives who say they have good leaders more than 1/2 of them have good performance (Zou et al., 2022). The results of the analysis of the relationship of free variables and bound variables using the chi-square test obtained a p-value of 0.182 with an OR of 51 which means that there is an influence between the leadership variable and midwife performance where a good leadership model has a 1.8 times chance of having good midwife performance (Beckmann & Mahanty, 2016).

This article only discusses related actions taken by midwives in the case of early detection, so as not to expand the discussion of the influence on the midwife's efforts in the development of and the elimination of pregnancy-related issues.

CONCLUSION
The results of a study conducted from August 23 to September 3, 2019 showed that leadership is the factor that most affects the performance of midwives with a p value of 0.000 and OR: 180. A good leader will help his members to increase knowledge (p = 0.003), provide motivation both in gaining knowledge and in dealing with problems in the field (0.018) so that the midwife is able to carry out his duties or has good performance

This lack of midwife attitude can be caused by the high workload which is considered not proportional to the compensation obtained (all midwives get compensation that is different from each person), the strict supervision carried out is considered to still be more emphasized on reporting. However, midwives are still emphasized for the importance of updating their knowledge through training, where all midwives in this study have received mandatory training such as APN, Asphyxia, PPOGDN and Exclusive Breastfeeding. The lack of varied data on the variables of supervision, compensation and training causes statistical results to be omitted (eliminated).

ACKNOWLEDGMENT
Thank you to the supervisors and examiners who have provided the best possible guidance, finally the author can finish this paper.

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