

Recording and Reporting System for Monitoring of Pregnant Women at High Risk in Kanor Public Health Center

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Abstract

Monitoring of pregnant women at high risk are important activity undertaken because the condition of pregnant women with risks required prompt and appropriate treatment. The system of recording and reporting for monitoring of pregnant women at high risk is a source of information that can described the condition of pregnant women for decision making and reference action. The purpose of this study is to describe the recording and reporting system of pregnant women at high risk in Kanor Public Health Center on Bojonegoro. The informants are a village midwife in Kanor Public Health Center, a midwife coordinator in Kanor Public Health Center, a head of Kanor Public Health Center, and a program manager in Bojonegoro District Health Office. The result of this research showed that there are some problems in the input, process, and output of the recording and reporting system that couldn't be optimally because the system has not been integrated and manual, so it is difficult for the officer to monitoring the condition of pregnant women at high risk. A database system that integrates all the data related for monitoring of pregnant women at high risk could make recording and reporting more optimally.

Keywords: pregnant women at high risk, recording and reporting system

I. INTRODUCTION

Maternal mortality is one indicator that can be used to measure the health status of the community. WHO (2016) globally by 2015 is estimated to have occurred in about 830 women during pregnancy and childbirth, so every year there are approximately 303,000 women died due to pregnancy complications. This condition is apprehensive in Indonesia because every one hour is estimated to occur maternal deaths during childbirth (UNICEF, 2012). Indonesia's Maternal Mortality Rate is 126 per 100,000 live births by 2015 (SDKI, 2012). Bojonegoro is one of the districts in East Java with a high maternal mortality rate that is ranked fourth in East Java Province. The number of maternal mortality reached 23 per 100,000 in 2016. The results of the preliminary study indicate that the maternal mortality rate in Bojonegoro District originated from the condition of pregnant women with high risk which is mostly due to complications (Dinas Kesehatan Kabupaten Bojonegoro, 2017).

Early detection of risk factors should be undertaken to prevent maternal complications and death by increasing the scope of antenatal care, providing care and screening and improving the quality of care (Kemenkes RI, 2010; Kurniawati, *et al.*, 2014). One of the standards of integrated quality antenatal service is the implementation of good recording activities because it is used as a basic to improve the quality of antenatal care (Kemenkes RI, 2010, 2013). Puskesmas Kanor is one of the best public health centers in Bojonegoro that always wanted to grow. Activity monitoring of pregnant women at high risk in Kanor Public Health Center has also been conducted in accordance with recommendation from Ministry of Health and District Health Office, but based on preliminary study still found problems related to recording and reporting of pregnant women at high risk. Pregnant women at high risk needed quick and proper handling to overcoming the complications. One way to minimize pregnancy complication is with the extra monitoring of physicians and competent health personnel, but the data of pregnant women recording still can not be used optimally to monitor the condition of pregnant women at high risk (American Pregnancy Association, 2017). Research from Sunarwan, *et al* (2013) states that the less accurate data from PWS KIA activities one of them is due to the delivery of reports that are not on time. Based on this, it is necessary to review the recording and reporting system of pregnant women at high risk at Kanor Public Health Center in order to be used more optimally.

II. METHOD

Descriptive observational research was conducted at Kanor Public Health Center in Bojonegoro from May until October 2017. Data collection was done by interview and document study. The analysis is done descriptively on the input, process, and output variables. The informants in this study were 4 people consisting of: 1 (one) village midwife in Kanor Public Health Center, 1 (one) midwife coordinator in Kanor Public Health Center, 1 (one) head of Kanor Public Health Center, 1 (one) program manager in Bojonegoro District Health Office. The measuring tool used is an interview guide which contains questions about input, process, and output indicators. Input

indicators include data types, data sources, facilities, and human resources. Process indicators include collection, processing, data analysis. Output indicators include information dissemination.

III. RESULT

Examination of pregnant women in Bojonegoro District is done at the Hospital, Puskesmas, Pustu, Polindes, BPM (Independent Practice Midwives), DPS (Private Practice Doctors), and Clinics. Recording and reporting activities are performed to facilitate monitoring of pregnant women at high risk is to achieve the program and to prevent from complications. The following is a short of the interview: *"The purpose of recording and reporting system of pregnant women at high risk is to monitoring the program (management function), to saw the scope of the service, to knew what obstacles to evaluate, to determined the progress of the expected patient, to early screening, to projected the target, and to evaluation"* (R1, 40 years old).

"To facilitate in finding the data if needed, to monitor where it is pregnant women, to know progress, to assist in coordination, to remind the village midwife, prevent the risk that could happen at any time" (R3, 55 years). The following is an overview of recording and reporting system of pregnant women at high risk at Kanor Public Health Center in Bojonegoro based on input, process and output components.

A. Input

a. Data type

Some of the data used for the monitoring of high risk pregnant women are as follows:

- 1) Mother's identity data include: mother's name, husband's name, mother's age, address, Occupation, education
- 2) Current pregnancy history data include: HPHT, TTP, GPA, Laboratory test results (Blood type, Hemoglobin, Urine Protein, GDA), HIV test results, scoring results, risk factors / complications, planning the place for give birth, handling / collaboration of doctors, childbirth data (date, place of delivery, type, helper).

b. Data source

The source of monitoring of pregnant women at high risk data came from several sources, namely the mother card, KSPR card, mother cohort, form of predisposing factor of preeclampsia and postpartum hemorrhage, and KIA book which was routinely recorded by the midwife based on the result of the examination that has been done either at Puskesmas, Pustu, and Polindes.

c. Facilities

The tools that support the recording and reporting system at pregnant women at high risk consist of several forms, namely KIA book, mother card, mother cohort, KSPR card (Kartu Skoring Poedji Rochjati), form of predisposing factor of preeclampsia and postpartum hemorrhage, and form of monitoring for pregnant women at high risk. In addition it is also required laptop for data input and the software include form of monitoring for pregnant women at high risk in accordance with the format set by the Health Office then sent via email. In Kanor Public Health Center is already available computer equipment but the officer uses a personal computer. Internet network with WiFi is also available.

d. Human Resources

In Kanor Public Health Center, there are 25 village midwives (14 midwives in Polindes, 7 midwives in Poskesdes, 3 midwives in Pustu, and 1 midwife in Puskesmas Induk). The midwife has the duty to carry out the recording and reporting of pregnant women at high risk. Latest education officers average DIII and DIV Midwifery.

B. Process

a. Data collection

The data collection process starts from the recording of mother card, KSPR card, KIA book, and form of predisposing factor of preeclampsia and postpartum hemorrhage. The village midwife then re-registered the mother's cohort form. Every month regular meetings are held for data synchronization at the Public Health Center. All Public Health midwives should report the condition of pregnant women maximal on the 25th. The synchronization result on 25th is recaptured in monitoring form of pregnant women at high risk to be reported to the Head of Public Health Center then maximum on the 5th of next month reported to the Bojonegoro District Health Office. Problems that occur in the data collection of KIA data in internal Puskesmas always experience delays because the village midwife takes more days to perform a report recapitulation.

b. Data processing

The results of data collection included in the Microsoft Excell software in the form of pregnant women at high risk as data by name by address in accordance with the format set by the Health Office. Manual data processing in accordance with the data by name by address. The results of data monitoring recall by name by address are then sent to the Health Officer for calculations such as the number of high risk pregnant women's monitoring results by village, age, gestational distance, height. This calculation is done manually so that there was an different result of calculation in Public Health Center and Health Office

c. Analysis and Interpretation of data

At the Public Health level, officers only recording and reporting by name by address for later analysis by Health Office in the form of aggregate calculation. However, based on the results of the study found that errors in recording by officers such as the calculation of scores with Scoring Poedji Rochjati card so that it can affect the information that is less accurate.

C. Output

Some information generated from the recording and reporting of high risk pregnant women is in the form of data by name by address high risk pregnant women examination results. The output of this record is used as an evaluation material for the internal Puskesmas and disseminated to Dinas Kesehatan within the reporting period every month.

IV. DISCUSSION

A. Input

The recording and reporting system of pregnant women at high risk in Kanor Public Health Center was conducted by the village midwife with manual and computerized recording. This is in accordance with Sunarwan et al. (2013) village midwives have an important role and a strategic position in monitoring the health of mothers and children as it is the main source of data collection. Handling of emergency conditions in pregnant women at high risk requires rapid and immediate special treatment, but high risk pregnant risk monitoring data sources come from many unintegrated sources. The data displayed in high risk maternal monitoring reports in the form of data by name by address is also limited and does not include all the results of the examination, making it difficult to require complete inspection results as they have to look back at the mother card, cohort, KSPR scoring card and form of predisposing factor of preeclampsia and postpartum hemorrhage. Health problems can be solved with the data fast, accurate, and informative. The manual recording system takes a long time to search the data (Zainal, 2013, Meriana, et al., 2014). Alternatives that can be done to overcome the completeness and integration of data is with the existence of a good and appropriate database system (Wibowo, et al., 2013).

B. Process

The components of the process of recording and reporting pregnant women at high risk consists of data collection, data processing, analysis and interpretation of data. In the data collection activities of the existing system is still quite difficult because the officer must sort one by one data from multiple data sources and there is repetition of data writing because the reporting in the form of data by name by address every month. Some data repetition such as HPHT (first day of last menstruation) and TTP (Estimated Date of Birth). According to Rasyid (2016) the activity of recording the data recording the risk of inconsistent records. The next problem is the delay in data collection by the village midwife in the internal Public Health Center. This delay is made possible by several factors in terms of a manual recording system consisting of many unintegrated data sources or from poorly regulated officers. If the recording and reporting system runs in a neat, orderly, and coordinated manner, it will produce accurate, fast, and qualified information (Kazwaini and Nugraheni, 2013; Zainal, 2013). The Poedji Rochjati Scoring Card (KSPR) is an instrument that can be used to detect early presence of risk factors in pregnant women and to determine referrals in pregnant women at risk (Widarta, 2015). In the analysis and data interpretation activities found an error in the calculation of scores KSPR by officers. This is possible because the calculation is still manual and the lack of accuracy of the officer so that potential errors in the calculation. Lack of accuracy officers in the manual system potentially errors in recording, slow data processing and calculation process and potentially miscalculation. It also requires concentration and time required relatively longer (Meriana, et al., 2014; Rasyid, 2016).

C. Output

The output of monitoring data of pregnant women at high risk is data displayed by name by address. The problem that occurs is with the output officers still have difficulty when searching data because the data by name by address mixed with the results of examination of other mothers and appearance in the form per month. In addition, the examination results from the reporting form that are currently used are still limited to some data that can be

displayed so that officers should look for other documents if they require a complete examination result. According to Meriana, et al. (2014) manual system takes a long time in the data search.

V. CONCLUSION

Based on the analysis of several problems related to recording and reporting system of pregnant women at high risk in terms of input, process and output due to manual system and lack of data integration, it is quite difficult for officers in monitoring pregnant women at high risk.

A. Recommendation

An integrated database system can be developed which includes several data sources that are needed in the pregnant women at high risk.

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