

Research Article

Analysis of Antenatal Care Quality in Cases of Referred Pregnant Women in Emergency Rooms Based on MCH Book Records

Analisis Kualitas Asuhan Antenatal Berbasis Telaah Buku KIA pada Kasus Rujukan Ibu Hamil di Unit Gawat Darurat

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Abstract

Objective: To determine the quality of antenatal care received by pregnant women, and perceptions of pregnant women and antenatal care providers regarding antenatal care.

Methods: A quantitative and qualitative study of cases of referred pregnant women in the Emergency Room (ER) of Dr. Cipto Mangunkusumo Hospital (RSCM) from 2017–2018 was conducted. Quantitative data was obtained by assessing the overall completeness of filling in the Maternal Child Health (MCH) book used to report the antenatal care received by the subjects. The completeness of antenatal care in the health facility was obtained using a checklist. Qualitative data was obtained by interviewing pregnant women and antenatal care providers in health facilities.

Result: There were 1.442 cases of referred pregnant women in RSCM's ER for the year 2017–2018, of whom 820 possessed and could show their MCH Book. Pregnancy in adolescence below 20 years (9.1%) and pregnancy after age 35 (19.5%) were reported. Most pregnant women were well educated (74.3%), referred from hospital or clinic (57.6%), received antenatal care in a public health center (38.7%), were in labor (32%), and were in the third trimester of pregnancy (92%). All subjects presented an incomplete MCH book. Almost half had inadequate antenatal frequency (46%). The completeness of antenatal care components in health care was 90–100%. Qualitatively, the perceptions of mothers and antenatal care providers regarding quality of antenatal care, was inadequate.

Conclusions: The quality of antenatal care in the case of referred pregnant women at the RSCM's ER based on MCH Book records did not meet the required standard.

Keywords: antenatal care quality, MCH book.

Abstrak

Tujuan: Menentukan kualitas asuhan antenatal pada kasus rujukan ibu hamil di IGD RSCM yang memiliki buku KIA, dan persepsi ibu hamil yang memiliki buku KIA dan tenaga kesehatan pemberi layanan kesehatan tentang asuhan antenatal.

Metode: Dilakukan studi kuantitatif dan kualitatif pada kasus rujukan ibu hamil di IGD RSCM yang memiliki buku KIA tahun 2017-2018. Pengambilan data kuantitatif dilakukan dengan telaah kelengkapan pengisian buku KIA secara umum, Kelengkapan komponen asuhan antenatal di fasilitas layanan kesehatan (fasyankes) asal asuhan antenatal didapatkan dari survei menggunakan daftar tilik. Pengambilan data kualitatif dilakukan dengan wawancara mengenai persepsi ibu hamil dan tenaga kesehatan pemberi pelayanan asuhan antenatal di fasyankes asal asuhan antenatal.

Hasil: Terdapat 1.442 kasus rujukan ibu hamil di IGD RSCM selama tahun 2017- 2018, 820 di antaranya memiliki dan dapat menunjukkan buku KIA. Terdapat subjek dengan usia kehamilan remaja di bawah 20 tahun (9,1%) dan usia diatas 35 tahun (19,5%). Sebagian besar ibu hamil yang dirujuk cukup berpendidikan (74,3%), dirujuk oleh RS atau klinik (57,6%) dan mendapat asuhan antenatal di puskesmas (38,7%), dalam status persalinan inpartu (32%), dengan usia kehamilan trimester III (92%). Semua subjek (100%) dinyatakan tidak lengkap dalam pengisian halaman di buku KIA. Hampir setengah subjek mempunyai jumlah kunjungan antenatal yang tidak ideal (46%). Kelengkapan komponen asuhan antenatal di fasyankes asal asuhan antenatal berkisar 90-100%. Secara kualitatif, didapatkan persepsi ibu hamil dan tenaga kesehatan pemberi asuhan antenatal, terhadap kualitas asuhan antenatal masih kurang tepat.

Kesimpulan: Kualitas asuhan antenatal pada kasus rujukan ibu hamil di IGD RSCM berdasar rekam Buku KIA belum memenuhi standar.

Kata kunci: buku KIA , kualitas asuhan antenatal.

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INTRODUCTION

Each year, approximately 303,000 women die from complicated pregnancy and delivery worldwide.¹ The World Health Organization (WHO) launched the Safe Motherhood Initiative to reduce maternal mortality, with high quality antenatal care as a critical element of the movement.² High quality antenatal care allows early detection and proper management of obstetric complications.^{3,4} In Indonesia, the antenatal care service is facilitated through use of the MCH Handbook (*Buku Kesehatan Ibu dan Anak*). This book provides focused antenatal assessment written down as a guide for healthcare providers to assess pregnancy. It also provides a space specifically for writing down the results of assessments performed. Therefore, the maternal and child book not only reports the mother's health history throughout the pregnancy, but also provides an insight into what kind of antenatal service the mother has received.

Dr. Cipto Mangunkusumo Hospital is a tertiary referral hospital that receives referrals at a national level including cases of complicated pregnancy and delivery. According to the hospital's record, from a total number of 1204 obstetric cases referred to the Emergency Room (ER) in 2016, most were of severe morbidity, including 112 antepartum/postpartum hemorrhages, 401 premature rupture of membranes, 207 preterm labours, 31 infection in pregnancy, and 121 miscarriages. Most referred patients are reported to already have their pregnancies routinely checked by a doctor or midwife. This situation raises a question to the quality of antenatal care services, as complications are supposed to be detected and managed earlier during antenatal visits.² This study aims to assess the quality of antenatal care services received by pregnant women to provide a basis for the future establishment of improvement strategies.

METHODS

This is a descriptive study. Subjects were all pregnant women who had been referred to Dr. Cipto Mangunkusumo Hospital ER from 2017 to 2018. Quantitative data was obtained by assessing the overall completeness of filling in the MCH book (*buku KIA*) that reports the antenatal care received by the subjects. The completeness of antenatal care in the health facility was obtained using a checklist. Qualitative data was obtained

by interviewing pregnant women referred to Dr. Cipto Mangunkusumo Hospital's ER for the year 2017–2018 and antenatal care providers in the health facility as a sub sample. The number of subjects interviewed was adjusted to allow for the amount of information obtained. In other words, the number was considered sufficient when data saturation from the interviews was reached, or when there was no new information obtained.

Assessment of the MCH books obtained information on the completeness of components in the book, as follows: family identity (page viii), mother's preparation for delivery (page 19), mother's pregnancy health status (page 20–23), mother's age, education, the referral health facility, name of health facility where the mother received antenatal care, and the diagnosis. For descriptive purposes, if any information was absent from the MCH book, the medical records at the health facilities were assessed.

RESULTS

There were 1442 pregnant women referred to Cipto Mangunkusumo Hospital's ER from 2017 to 2018. Those who could show their MCH books were eligible for inclusion in the study, which resulted in 820 women (57%) being included. There was 9.1% pregnancy among teenage women and 19.5% pregnancy for those over 35 years. The Indonesian Department of Health state that pregnancy for women below 20 years or above 35 years has greater risks of obstetric complications.⁵ Age also significantly affects the mother's readiness to undergo antenatal assessments and to play her role as a mother.⁶ Most subjects were senior high school graduates (74.3%). The higher a mother's education level, the more easily she can obtain and accept new information.^{7,8} All subjects had their pregnancies checked by healthcare providers at least once. Most subjects were referred from hospital or clinic (58%). Almost all subjects were in the third trimester of pregnancy (92%), and 32% were in labour. This aligns with the theory that risks of peripartum complications increase during the 40th week of pregnancy and above.⁹ Preeclampsia with severe features together with hypertension in pregnancy were the most common diagnoses made at the referring health facilities and Dr. Cipto Mangunkusumo Hospital (32% and 30%, respectively).

Nine healthcare facilities were visited, and antenatal care performed in these facilities was

assessed. Degree of completeness for antenatal care performed were 90–100%. Most antenatal care providers perform antenatal assessments according to the standard set by the Ministry of Health. All except one facility gave assurance that pregnant women were checked by a doctor and dentist at least once. In the one facility that does not, a visit to a doctor or dentist is only recommended if the pregnant woman has any complaints. In one Public Health Center (PHC), every pregnant woman was consulted by a psychiatrist for mental health screening and at the other PHC, pregnant women were provided with a swimming program and hypnobirthing. Every healthcare facility has three antenatal care report systems: MCH books, a Regional Health Information System Application (SIKDA), and a medical record or mother's form card from the PHC. Despite the adequate reporting system, the number of cases referred to higher level health facilities is high. All subjects (100%) presented incomplete MCH books. The extent of completeness for the MCH books is described in Table 1.

Table 1. Assessment of How Complete Items Regarding Mother's Preparation for Delivery are Filled (page 19 of MCH book) (n = 820)

Items	n	%
Mother's name		
Filled	730	(89)
Not filled	90	(11)
Address		
Filled	716	(87.3)
Not filled	104	(12.7)
Month and year of reporting		
Filled	589	(71.8)
Not filled	231	(28.2)
Delivery helper		
Filled	368	(44.9)
Not filled	452	(55.1)
Delivery budget		
Filled	198	(24.1)
Not filled	622	(75.9)
Transportation to healthcare facility		
Filled	194	(23.7)
Not filled	626	(76.3)
Post-delivery birth control		
Filled	340	(41.5)
Not filled	480	(58.5)
Blood donor (Blood type)		
Filled	205	(25)
Not filled	615	(75)
Documentation of immunization status		
Filled	514	(62.7)
Not filled	306	(37.3)
Husband/relative's signature		
Filled	258	(31.5)
Not filled	562	(68.5)
Midwife/doctor's signature		
Filled	278	(33.9)
Not filled	542	(66.1)
Patient's (mother's) signature		
Filled	257	(31.3)
Not filled	563	(68.7)

Interviews were performed with ten pregnant women and eleven antenatal care providers from nine healthcare facilities, from which obstetric cases in Dr. Cipto Mangunkusumo Hospital ER were referred. Only two out of ten subjects reported disappointment regarding the antenatal service they received. The rest had no complaints, although they were only told to read their MCH book and were never taught by healthcare providers how to use the book. Subjects were often not given the chance to ask questions about their pregnancy. Despite the high number of failures to detect complications earlier in antenatal visits, almost every subject reported their antenatal visits to be satisfactory. Subjects were satisfied after undergoing ultrasonography examination or being attended by midwives in a friendly manner. None of the subjects reported having their arm circumference measured, in contrast to antenatal care provider's statement about their antenatal care performance meeting the standard set by the Ministry of Health. Interview results suggest that pregnant women's poor perception of high quality antenatal care accounts for the low quality of antenatal service they received.

Interviews with antenatal care providers reported that they regularly performed antenatal assessment according to the standard set by the Ministry of Health (the "10T" rule). Subjects reported spending approximately 20 minutes assessing a new patient and 10 minutes with a regular patient. There is some doubt over the credibility of this statement, considering if there are 30 patients in a day it is impossible to perform antenatal care consistent to the 10T rule within 10 minutes. It was found from both the referral letter from the referring healthcare facilities and the medical records in Cipto Mangunkusumo Hospital that preeclampsia is still the predominant diagnosis. Only two interviewees reported routinely checking whether the MCH book had been completely filled in. These findings suggest that antenatal care providers' perceptions about high quality antenatal care and consequently the quality of practiced antenatal care is lacking.

DISCUSSION

None of the women had their MCH books filled completely. In the page reporting mother's preparation for delivery (page 19), the most frequently completed item was mother's name (89%), whereas the least frequently completed

item was transportation to the healthcare facility (24%). In the page reporting mother's pregnancy health status (pages 20–22), the most frequently recorded item was date of assessment (99.4%), followed by mother's weight (98.7%) and blood pressure (98.7%), whereas the least frequently recorded item was blood type (25%). According to the Indonesian Basic Health Research (Riset Kesehatan Dasar) 2018, mother's weight measurement is the most frequently performed assessment, whereas height measurement is the least frequent.¹⁰ In this study, mother's height measurement was the third least frequently reported physical assessment (23.3%) after blood type (73.6%) and arm circumference (24.4%). Some 54.75% of subjects did not have their MCH books filled by either general practitioner or obstetrician, suggesting that doctors' participation in completing MCH book is lacking. Every health care worker needs to participate optimally in reporting mothers' health assessments to support continuous evaluation of the risks of obstetric complications. The Indonesian Department of Health recommend that pregnant women receive an antenatal visit at least once in the first trimester, once in the second trimester, and twice in the third trimester. According to this standard, 373 subjects (46%) did not receive a sufficient number of antenatal checkups. It is important for pregnant women to have their pregnancy checked no less frequently than the minimum standard to assure the safety of the mother as well as the fetus during the pregnancy and later during delivery.¹¹

Preeclampsia with severe features together with hypertension in pregnancy were the most common diagnoses made at both referring health facilities. The American College of Obstetricians and Gynecologists (2013) recommend screening for preeclampsia to be performed routinely during antenatal visits. This consists of cautious history taking to search for risk factors such as weight gain, administration of low dose aspirin (60–80 mg) and calcium supplements for patients at high risk.¹² Screening can also be supported by ultrasonography examination.¹³

Despite the adequate reporting system, the number of cases referred to a higher level of health facility was high. This suggests that without evaluating the practice of antenatal care, good reporting systems of assessment results will not improve the early detection of risks and medical complications. Without improvement in the quality of antenatal care, the number of

patients referred to tertiary health care facilities such as Dr. Cipto Mangunkusumo Hospital will still be high.

CONCLUSION

All of the MCH books from the subjects in this study were incomplete. In addition, the frequency of antenatal visits of these pregnant women did not meet the WHO's recommendation. The results from assessment of the subject's MCH books suggest that the quality of antenatal care received by the subjects was relatively poor. All of the healthcare facilities reported that they were performing the antenatal care service according to the standard set by the Indonesian Ministry of Health, and they were scored 90%–100% when being assessed by the checklist, even though in reality it relevance to real practice is still questionable. The results of the interviews suggest that pregnant women and the antenatal care providers have poor perceptions about the quality of antenatal care.

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