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THE ASSOCIATION BETWEEN WOMEN'S EMPOWERMENT AND ANTENATAL CARE COVERAGE IN INDONESIA IN 2017

Hubungan Pemberdayaan Wanita dengan Cakupan Pemeriksaan Antenatal Care di Indonesia Tahun 2017

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ABSTRACT

Background: Antenatal care coverage (ANC) in Indonesia has been constantly increasing over the years according to the country's national survey data; however, there is a huge gap in coverage between women with different background characteristics. **Purpose:** The objective of this study is to determine the association between women's empowerment and ANC coverage in Indonesia in 2017. **Methods:** This study used data sourced from the Indonesian Demographic Health Survey (IDHS) 2017 with a cross-sectional study design. The population study was married women aged 15–49 years who had delivered children in the two years before the survey was conducted. About 6,397 samples were obtained by a total sampling method that met inclusion and exclusion criteria. Variables analysed in this study were women's empowerment and antenatal care coverage. The data analysis used were chi square and multiple logistic regression analysis. This study was conducted in February–April 2019 in all provinces in Indonesia which were the location of the IDHS 2017. **Results:** The result of multivariate analysis claimed an association that was statistically significant (p value = 0.01) between women's empowerment and ANC coverage, with adjusted prevalence ratio = 1.05 (95% CI: 1.02–1.08). **Conclusion:** The conclusion of this study is that less empowered women were 1.05 times more likely to not receive complete and standardised antenatal care compared to women who were more empowered.

ABSTRAK

Latar Belakang: *Berdasarkan data survey nasional, cakupan pemeriksaan Antenatal Care (ANC) di Indonesia secara umum mengalami peningkatan pada tiap tahunnya tetapi terdapat perbedaan cakupan yang cukup tinggi antara wanita dengan karakteristik latar belakang yang berbeda.* ***Tujuan:*** *Penelitian ini bertujuan untuk mengetahui hubungan pemberdayaan wanita dengan cakupan pemeriksaan kehamilan ANC di Indonesia tahun 2017.*

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Metode: *Penelitian ini menggunakan data yang bersumber dari data Survei Demografi dan Kesehatan Indonesia (SDKI) tahun 2017 dengan desain studi cross sectional. Populasi penelitian yaitu wanita usia 15-49 tahun yang melahirkan anak dalam periode 2 tahun sebelum survei. Sampel penelitian didapatkan sebanyak 6397 responden melalui metode total sampling yang memenuhi kriteria inklusi dan eksklusi. Variabel yang dianalisis dalam penelitian yaitu pemberdayaan wanita dan cakupan ANC, sedangkan analisis yang digunakan ialah uji chi square serta uji regresi logistik ganda. Penelitian ini dilakukan pada bulan Februari - April 2019 pada seluruh provinsi di Indonesia yang menjadi lokasi penelitian SDKI tahun 2017.* ***Hasil:*** *Analisis multivariat menunjukkan adanya hubungan yang bermakna secara statistik (p-value = 0,01) antara pemberdayaan wanita dengan cakupan pemeriksaan ANC, dengan nilai PR adjusted = 1,05 (95% CI: 1,02 – 1,08).* ***Kesimpulan:*** *Wanita yang kurang berdaya berpeluang 1,05 kali untuk tidak mendapatkan pemeriksaan ANC yang lengkap dan sesuai dengan standar dibandingkan dengan wanita yang lebih berdaya.*

INTRODUCTION

A global public health problem is maternal mortality. An estimated 303,000 women die every year from complications during pregnancy or labour (Alkema et al., 2016). In Indonesia, the ratio of maternal mortality is 305 per 100,000 livebirths (Budiastuti & Ronoatmodjo, 2016). The Maternal Mortality Ratio (MMR) in Indonesia ranked next to the Lao Republic for the country with the highest MMR among ASEAN member states, and the number was quite far from Sustainable Development Goals (SDGs) targeted for reduction of the MMR to under 70 per 100,000 livebirths by 2030 (Jayanti, Basuki, & Wibowo, 2016).

Health services obtained during pregnancy play a role in decreasing child and maternal mortality, as well as promoting women's reproductive health (Ghose et al., 2017). Antenatal care is a service given to women during their pregnancy and its purpose is to prepare them for a safe delivery; it is important for preventing, detecting, and treating women in relation to pregnancy complications (Rahman et al., 2017).

The World Health Organization (WHO) has recommended that women attend antenatal care for a minimum of four visits, once during the first trimester, once during the second trimester, and twice during the third trimester (Haider, Qureshi, & Khan, 2017). Eighty-six per cent of gestating women worldwide have access to ANC services with competent health personnel at least once; however, only 3 of 5 pregnant women (62%) receive the minimum four visits of antenatal care during their gestational period. Global estimation data indicates that only 50 per cent of pregnant women worldwide attend antenatal care for the minimum amount of recommended visits or four antenatal care visits (UNICEF, 2018).

Indonesian Health and Demography Survey 2017 showed that almost all Indonesian women attend antenatal care with competent health personnel at least once (K1) (98%), but only 77% of women receive at least four ANC visits (K4). Furthermore, the survey showed that antenatal care coverage exhibited tangible increases along with improvements in women's economic and educational levels (National Population and Family Planning Coordinating Agency, 2018). In recent years, women's empowerment has become one of the most important factors in the maternal and child health agenda (Adjiwanou & LeGrand, 2013).

Women's empowerment is defined as women's freedom from economic, social, and political injustices (Manuere & Phiri, 2018) and also as a form of control of their own lives and resources that allows them to make decisions that affect their lives and the lives of their families (Tandon, 2016). Women's empowerment is considered as one of the essential factors for understanding the behaviour of women in relation to their reproductive health as well as use of maternal health services in developing countries (Adjiwanou & LeGrand, 2013). To define and

measure women's empowerment requires complex indicators, however. These indicators that denote the correlation between women's empowerment with health and demography indicators are participation in decision-making and attitudes of women in the household towards intimate partner violence (National Population and Family Planning Coordinating Agency, 2018).

The positive association between women's empowerment and ANC has already been shown in many previous studies; however, there is not much information regarding women's empowerment associated with ANC in Indonesia (Fawole & Adeoye, 2015; Haider et al., 2017; Kawaguchi et al., 2014; Pratley, 2016; Sebayang, Efendi, & Astutik, 2017; Tiruneh, Chuang, & Chuang, 2017). Thus, this study aims to determine the association between women's empowerment and antenatal care coverage in Indonesia in 2017.

METHODS

A quantitative study through cross-sectional design was conducted in February–April 2019 in all provinces in Indonesia, which became the study location of Indonesian Demographic Health Survey (IDHS) 2017. We did a further analysis of IDHS 2017 data. IDHS 2017 used multistage stratified sampling as well as weighting, so that the samples were representative of actual Indonesian society (National Population and Family Planning Coordinating Agency, 2018).

The study population was women aged 15 to 49 years who had delivered children in the two-year period before the survey was conducted and were one of the Indonesian Demographic Health Survey (IDHS) respondents. Total population obtained in this study were 7,177 respondents, while about 6,397 respondents were obtained as the sample. Criteria for sample inclusion were women aged 15 to 49 years who had delivered children in the period two years before the study was conducted, were married, and had complete data for every variable observed in this study; criteria for sample exclusion were pregnant women and those with missing or incomplete data (Figure 1).

The dependent variable in this study was antenatal care (ANC) coverage. ANC coverage was categorised as 'high coverage' if it met the complete (minimum four visits) and standard (check-listed the 10 assessment components) criteria, and 'low coverage' if it didn't meet the complete and standard criteria. The main independent variable was women's empowerment. The variable was a composite of women's participation in household decision-making along with women's attitude toward intimate partner violence variables, which were the variables available from Indonesian Demographic Health Survey (IDHS) 2017 data. Women's empowerment was categorized as 'empowered' if women had a score = 5 and 'less empowered' if women had a score < 5. The scoring was based on the constituent variables of the main independent variable, which were women's participation in decision-making in household variable with score = 3 for ideal participation, score = 2 for sufficient participation, and score = 1 for low participation; and women's attitude towards intimate partner violence variable with score = 3 for opposing, score = 2 for neutral, score = 1 for favourable.

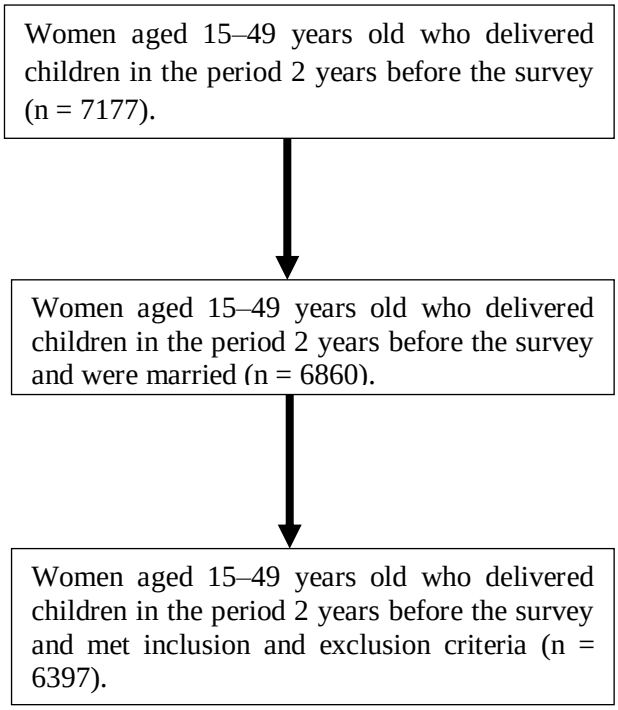

Figure 1. Sample Study Selection from Indonesian Demographic Health Survey (IDHS) 2017 data

Participation of women in household decision-making was defined as women alone or along with husband making household decisions that were measured through three aspects: women's health services, large expenses in the household, and visits to family or relatives (National Population and Family Planning Coordinating Agency, 2018). Participation of decision-making was categorised as 'ideal participation', 'sufficient participation', and 'low participation'.

Women's attitude towards intimate partner violence was measured through women's acceptance of wife beating in five situations: arguing with husband, burning food, abandoning children, going out without husband's consent, and refusing sex (National Population and Family Planning Coordinating Agency, 2018). Women's attitude was categorised as 'opposing attitude', 'neutral attitude', and 'favourable attitude'.

The association of main independent and dependent variables was controlled by covariate variables that were alleged to be able to change the power of association between them. The covariate variables in this study were women's educational level, wealth index, place of residency, and occupational status.

Data analysis was performed in univariate, bivariate, and multivariate. The bivariate analysis used were chi square and simple logistic regression test, while the measure of association used was prevalence ratio (PR). The multivariate analysis used was multiple logistic regression test.

RESULTS

Antenatal care coverage in women aged 15–49 years old who had delivered children in the period two years before in Indonesia was only 24.20%. Our respondents also had sufficient participation in household decision-making (61.10%), opposing attitude towards intimate partner violence (64.20%), and were already empowered enough (62.60%).

Most respondents had secondary educational level or had completed high school (57.30%) and had not worked in the past 12 months (53.80%). Distribution of respondents' wealth index was almost the same among all groups, with highest percentage of the lowest wealth index group 24%. There was also not much difference between the distribution of respondents' place of residency (Table 1).

Bivariate analysis showed that empowerment of women was statistically significantly associated with antenatal care coverage (p value = 0.01), as well as women's attitude towards intimate partner violence (p value = 0.01). In this study, participation in decision-making wasn't statistically associated with antenatal care coverage (p value > 0.05).

Multivariate analysis showed a statistically significant association with empowerment and antenatal care coverage after being controlled by covariate variables such as women's educational level, wealth index, place of residency, and occupational status (p value = 0.01). We also did confounder identification analysis, in which we didn't find any covariates that played a confounding role within the association of empowerment and ANC. The final model showed that less empowered women were 1.05 times (95% CI: 1.02–1.08) more likely to not receive antenatal care compared to women who were more empowered.

DISCUSSION

In this study, women's empowerment was assumed to show gender equality in the household, in which gender equality could be achieved if both women and men had equal access to health services (Asaolu et al., 2018). Less empowered women had more chance to be discriminated against and often had little access to health services and health resources, including access to antenatal care services (Ki-moon, 2015).

In this study, we found that empowerment of women had significant association with antenatal care coverage, where less empowered women were 1.05 times more likely to not receive complete and standardised antenatal care compared to women who were more empowered. Women's empowerment was a multidimensional variable and there were way too many definitions and indicators that could define and measure the variable. Thus, it was often hard to compare our findings with other similar studies. Generally, our findings were similar with the results of 67 articles reviewed, which found that women's empowerment was positively associated with use of maternal health services, including antenatal care services (Pratley, 2016).

Other than that, our findings supported the findings from Deo & Bhaskar (2014) study where empowered women had higher chances of obtaining antenatal care compared to those who were less empowered. We also supported another similar study from Ugal (2015) which found that the more empowered women were, the more ability they had to search for and use maternal health services, including antenatal care.

Table 1
Frequency and Distribution of Variables from Indonesian Demographic Health Survey (IDHS) 2017 data

Variables	Frequency (n)	Percentage (%)
Antenatal Care Coverage		
High coverage	1547	24.20
Low coverage	4850	75.80
Women's empowerment		
Empowered	4003	62.60
Less empowered	2394	37.40
Women's attitude towards intimate partner violence		
Opposing attitude	4108	64.20
Neutral attitude	177	2.80
Favourable attitude	2112	33.00
Women's participation in household decision-making		
Ideal participation	2219	34.70
Sufficient participation	3911	61.10
Low participation	267	4.20
Educational level		
Completed university (higher)	1273	19.90
Completed high school (secondary)	3668	57.30
Completed elementary and middle school (primary)	1401	21.90
No education	55	0.90
Wealth index		
Highest	1128	17.60
Middle high	1205	18.80
Middle	1214	19.00
Middle low	1316	20.60
Lowest	1534	24.00
Place of residency		
Urban	3208	50.10
Rural	3189	49.90
Occupational status		
Working (past 12 months)	2958	46.20
Not working (past 12 months)	3439	53.80
Total	6397	100.00

Women's educational level, wealth index, place of residency, occupational status, and husband's education were factors that evidently could influence use of antenatal care services (Benova et al., 2018; Hajizadeh, Ramezani Tehrani, Simbar, & Farzadfar, 2016; Saad-Haddad et al., 2016). In this study, those factors were used as covariates that controlled the association between women's empowerment and ANC coverage. Our findings didn't find any confounding factors among those covariates. However, there were still several factors that were not included in this study that might be related to antenatal care coverage based on previous studies, for instance, socio-demography characteristics of husband such as husband's education (Saad-Haddad et al., 2016). In that condition, chances were there would still be a residual confounding factor in the relationship of empowerment and ANC coverage.

Research Limitations

There were limitations in variables available in Indonesian Demographic Health Survey (IDHS) 2017 data. This could potentially reduce the sensitivity of the scoring that was used as a cut-off point for the women's empowerment variable in this study. Therefore, not all of the women's empowerment indicators — for instance, political and cultural indicators — could be explored in this study. Variables selection and data analysis used in this study depended on the quality of the available data source.

Table 2
Bivariate Analysis of the Association between Independent Variables and ANC Coverage from Indonesian Demographic Health Survey (IDHS) 2017 data

Variabel	ANC coverage				*p*	PR (95% CI)
	Low		High			
	n	%	n	%		
Women's empowerment						
Less empowered	1868	78.00	526	22.00	0.01*	1.04
Empowered	2982	74.50	1021	25.50		(1.02 – 1.08)
Women's attitude towards intimate partner violence						
Favourable attitude	1656	78.40	456	21.60	0.01*	1.06 (1.03 – 1.09)
Neutral attitude	144	81.40	33	18.60	0.01*	1.10 (1.02 – 1.18)
Opposing attitude	3050	74.20	1058	25.80		1.00
Women's participation in household decision making						
Low participation	202	75.70	65	24.30	0.82	1.01 (0.94 – 1.08)
Sufficient participation	2983	76.30	928	23.70	0.28	1.02 (0.99 – 1.05)
Ideal participation	1665	75.00	554	25.00		1.00

* statistically significant association

Table 3
Final Model of Multivariate Analysis

Variable	OR *Crude*	(95% CI)	*p*	OR *Adjusted*	(95% CI)	*p*
Women's empowerment	1.04	1.02 – 1.08	0.01	1.05	1.02 – 1.08	0.01

CONCLUSION

This study found that empowerment had statistical significance with ANC coverage as well as women's attitude towards intimate partner violence in Indonesia in 2017. Risk factors for low antenatal care coverage were less empowered women and women with a favourable or neutral attitude towards intimate partner violence. In this study, women's participation in household decision-making wasn't associated with antenatal care coverage in Indonesia in 2017

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