

The Analysis of Antenatal Care During Covid-19 Pandemics in The Working Area of Public Health Center of Tangerang City

Triana Indrayani¹, Vivi Silawati¹, Retno Widowati², Sukri Palutturi³, Ridwan Amiruddin⁴

¹Assistant Professor of Health Science, Universitas Nasional, Jakarta, Indonesia, ²Lecturer of Health Science, Universitas Nasional, Jakarta, Indonesia, Biology Master Study Program–Graduate School of Universitas Nasional, Indonesia, ³Professor of Public Health Faculty, Department of Health Policy and Administration, Hasanuddin University, Makassar, Indonesia, ⁴Professor of Public Health, Department of Public Health, Hasanuddin University, Makassar, Indonesia

Abstract

Covid-19 spreads from one person to another person through close contact in the form of droplets to respiration track. The physiological changes that happen to the body system is primarily on respiration and immune system. Such changes give higher possibility on pregnant mothers to be infected by covid-19. In order to decrease the infection risk, national policy suggests to omit hospital visit which is not important and changes it into distance care or virtual visit using phone or video call. Quality Antenatal Care (ANC) service is a service provided to pregnant mothers according to the service standard. Quality service is formed from service quality dimension. This research was carried out using analytical survey through cross sectional approach. The research population was all pregnant mothers in the working area of Public Health Center of Tangerang City chosen through total sampling. The data were collected using questionnaire (google form). Research finding resulted that during Covid-19 pandemics, there was 72.2% of the subjects who obtained suitable Antenatal Care. The research concluded that service quality of ANC during Covid-19 pandemics was in accordance with the service guidelines established by the government.

Keywords: *Service Quality, Antenatal Care Scope, Covid 19, public health care center.*

Introduction

Data regarding the effect of Covid-19 on pregnant mothers is still limited. However, information regarding diseases related to Covid-19 indicates that children are rarely exposed to it (Chavez, Long, Koyfman, & Liang, 2020)³. In 2 reports issued, there were 18 assessments done on Covid-19 disease, in which all of them occurred during the third trimester. Fetal distress and premature birth also seen in several cases, the two assessments were cesarean delivery and there was no proof indicating infection on womb. (Meliala, 2020)¹⁰.

Physiology changes on immunity and respiratory system can cause pregnant mothers to be more susceptible to Covid-19 infection. Up to now, there is no effective vaccine found yet. Thus, it is suggested that pregnant mothers have to refrain from unnecessary travel, avoid crowd, public transportation and contact with sick people as well as always maintain personal and social cleanliness (Liang & Acharya, 2020)⁸.

In order to decrease the risk of infection, pregnant mother who does not have any particular worries regarding her pregnancy does not need to seek for pregnancy care, instead they can find online material to support the pregnancy. As an example, a midwife has started a series of YouTube video to guide pregnant mothers in passing weeks before and after giving births (Furuta, M., & Furuta, M. 2020)⁵. It also includes maintaining social distancing as well as often washing hands using soap and running water for 20 seconds (Poon et al., 2020)¹².

Corresponding Author:

T. Indrayani

Assistant Professor of Health Science, Universitas Nasional, Jakarta, Indonesia
e-mail: trianaindrayani@civitas.unas.ac.id

Social distance is the best protection mechanism thus the visit for the second trimester through tele health is recommended to protect the patients and service provider health (Laupacis, 2020)¹⁰.

Midwife needs to be contacted before visiting the clinic so that they will come without any guide, in this case the health provider needs to be informed to apply the right self-protection procedure (Boelig, Saccone, Bellussi, & Berghella, 2020)^{2,5}. The planning of individual labor and team-based approach through multispecialty consultation is used (Rasmussen, Smulian, Lednický, Wen, & Jamieson, 2020)¹⁵.

The quality of ANC care can be seen based on the factors affecting its effectiveness, compliance and sustainability of the care (Nwaeze, Enabor, Oluwasola, & Aimakhu, 2013)^{11,14}. Quality service is formed from the service quality dimensions including reliability, responsiveness, assurance, empathy and tangible (physical appearance of the service) (Yuwono, Hartati, & Winarko, 2019)¹⁸.

During the covid-19 pandemics in Indonesia, the Antenatal Care provision in either hospital, public health center, or independent midwife practice must follow the guidelines established by the Ministry of Health of the Republic of Indonesia. The guideline explains that the pregnant mothers need to participate in pregnant mothers online class, pregnancy examination in the second trimester need to be done through tele communication or postponed expect there is dangerous symptoms, pregnancy examination is done through appointment so that they do not need to wait for long, health worker needs to wear protective equipment level 1 which are head cover, medical mask, face shield, handsoon, working clothes and shoes (Enfagrow & Care)⁴.

Method

The current research was done through analytical survey of cross sectional approach. The population involved in this research was all pregnant mothers in the working area of Public Health Center of Tangerang City. The total of the samples was 115 pregnant mothers chosen through total sampling. The inclusion criteria proposed were pregnant mothers who were involved in the WhatsApp group during the data collection. This research was carried out in March 2020.

Result

Table 1. The Scope of Antenatal Care Provision

The Scope of ANC Provision	Frequency	Percentage %
Inappropriate	32	27.8
Appropriate	83	72/2
Total	115	100

Based on Table 1, it is indicated that among the 115 respondents, those who obtained inappropriate antenatal care was 32 respondents (27.8%), while the remaining 83 respondents (72.2%) obtained appropriate antenatal care.

Table 2. Quality of Antenatal Care Service

Quality of ANC Service	Frequency	Percentage %
Good	113	98.3
Poor	2	1.7
Total	115	100

Table 2 informs that among 115 respondents, those who considered the antenatal care service as good were 113 respondents (98.3%), while the other 2 respondents (1.7%) stated that the antenatal care service provided was poor.

Table 3. Service Quality on the Scope of Antenatal Care Provision

Service Quality	Scope of ANC Provision						p-value	OR
	Inappropriate		Appropriate		Total			
	f	%	f	%	f	%		
Tangible								
Inappropriate	3	9.4	7	8.4	10	100	0.872	1.123
Appropriate	29	90.6	76	91.6	105	100		

Service Quality	Scope of ANC Provision						p-value	OR
	Inappropriate		Appropriate		Total			
	f	%	f	%	f	%		
Reliability								
Inappropriate	1	3.1	6	7.2	7	100	0.409	0.414
Appropriate	31	96.9	77	92.8	108	100		
Responsiveness								
Inappropriate	8	25.0	2	2.4	10	100	0.000	13.500
Appropriate	24	75.0	81	97.6	105	100		
Assurance								
Inappropriate	4	12.5	1	1.2	5	100	0.008	11.713
Appropriate	28	87.5	82	98.8	110	100		
Empathy								
Inappropriate	3	9.4	1	1.2	4	100	0.32	8.483
Appropriate	29	94.6	82	98.8	111	100		

Table 4. The Provision of Antenatal Care (ANC) on Service Quality

The Scope of ANC Provision	Service Quality				Total		P
	Good		Poor		F	%	
	F	%	F	%			
Inappropriate	30	93.8	2	6.3	60	100	0.022
Appropriate	83	0.0	0	100	4	100	
Total	113	98.3	2	1.7	115	100	

Discussion

Based on the research result presented in Table 3, it indicates that among 115 respondents, those who obtained inappropriate antenatal care service were 32 respondents (27.8%).

Antenatal care is health service performed by professional worker for pregnant mothers during their pregnancy period, according to the minimum standard of antenatal service (Singh et al., 2019)¹⁷.

According to the researchers’ analysis, there were more respondents who considered the Antenatal Care service as appropriate, compared to those who considered as inappropriate. This is because the midwives have performed the service according to the standard established by the government during Covid-19 pandemics in which standard examination is still done (examination of body weight and blood pressure, measurement of upper arm circumference, high fundal examination of the uterus, examination of fetal heart rate

and provision of vitamin of blood booster). However, there were also midwives who did not perform the examination in accordance with the scope of Antenatal Care service.

Based on the research result presented in Table 4

- 1. Relationship between Tangible and Service Quality on the Scope of Antenatal Care Provision:** This research was in line with the research conducted by Firdausi in the working area of Kabila Public Health Center of Bone Balango District obtaining p value of $0.00 < 0.05$ (Ramadhani, 2014)¹⁴. Consumers’ satisfaction regarding a product depends on the direct proof obtained from the availability of equipment completeness, capacity of product quality and comfortable facility (Razak, 2019)¹⁶.

The researchers assumed that pregnant mothers’ good satisfaction on tangible dimension is related to the service provided by midwives that has been in

accordance with the standard of Antenatal Care service and Operational Standard of Service during Covid-19 pandemics. Midwives have provided service by giving distance in the waiting room and providing hand sanitizer to wash hands before entering the waiting room.

2. The Relationship of Reliability and Service Quality on the Scope of Antenatal Care Provision:

Reliability is one of the dimensions which consist of uncomplicated procedure in accepting patients quickly, accurately and on time starting from the service to the treatment (Berliana & Amelia, 2018)¹.

The researchers analyzed that pregnant mothers considered the service given by the midwives as fast and accurate in responding to the pregnant mothers' need and complaint. Compliance and reliability of the midwives in meeting the service standard is one of the factors affecting the pregnant mothers' satisfaction on antenatal care service such as using the examination equipment as usual (weighting the body weight, measuring the blood pressure, examining the fetal heart rate and providing counselling). However, there were still many midwives who did not wear complete Personal Protective Equipment (PPE) during the pandemics due to the equipment which was difficult and expensive to obtain in the market.

3. Relationship between Responsiveness and Service Quality on the Scope of Antenatal Care Provision:

Nurmawati (2010) stated that the pregnant mothers who considered the responsiveness dimension as in accordance with the scope of service were 69 (86%) people, stating that good relationship between human will create good relationship (Indrayani & Sari, 2020)⁶. Fast service can be distinguished between the patients' service who were provided by special room in order to obtain fast service (Berliana & Amelia, 2018)¹.

According to the researchers' analysis, the high appropriateness of this dimension was affected by the fast response given, especially on the complaint experienced by the pregnant mothers and provision of information regarding Covid-19 prevention that must be done by pregnant mothers.

4. Relationship between Assurance and Service Quality on the Scope of Antenatal Care Provision:

The current research result is in accordance with the result of research done by Firdausi (2014) in which as many as 71 respondents (89%) felt the availability

of assurance, friendly environment, in this case is friendly service as the stage to improve the quality of public health facilities (Nair & Panda, 2011)^{10,17}

The research also assumed that assurance is factor determining the service quality, because through the assurance, patients can feel safe during the examination and satisfied by the information provided as well as assured regarding the privacy by the polite service given, so that worries on Covid-19 infection can be overcome.

Relationship between Empathy and Service Quality on the Scope of Antenatal Care Provision

Current research is in line with the research performed by Yuniarti (2015) stating that there was relationship between empathy and patients' quality by p value of 0.000. This research also in accordance with research carried out by Nurani (2012) saying that by giving health counselling, screening and follow-up to pregnant mothers adjusts the visit time which is one of the actions to prevent Covid-19 (Qiao, 2020)¹³.

Empathy given by the midwives during Covid-19 pandemics was analysed as good in which the midwives have given easiness for the patients in examining their pregnancy. Although the control schedule was made based on appointment, all of the examination can be implemented well.

Conclusion

Based on the research that has been done, it can be concluded that:

1. Based on the exposure of Antenatal Care, it indicated that 115 respondents have obtained appropriate Antenatal Care during Covid-19 pandemics by 72.2% of respondents.
2. Based on the service quality, among 115 respondents, it was stated that the five indicators have relationship with the service quality.
3. There was relationship between tangible, responsiveness, assurance and empathy on ANC service provision which is according to Covid-19 guidelines for pregnant mothers in Public Health Center of Tangerang City.

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