



Analysis of the Implementation of Health Protocols in Antenatal Care During the Covid 19 Pandemic in the Denpasar City

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Abstract. In Indonesia, maternal mortality remains a significant problem, particularly in the midst of the pandemic. Compared to other populations, pregnant women are a particularly vulnerable group of people. They have a higher risk of developing a serious illness if they acquire Covid-19 because of changes in their immunity and body. Based on these issues, the Indonesian government creates health protocols to guarantee that maternal health care may be administered in an effort to lower Maternal Mortality Ratio (MMR). The aim of this study to analyze knowledge, attitudes and practices of pregnant women, completeness and feasibility of infrastructure for implementing health protocols. The research methods is quantitative research, using a cross sectional approach. Results: Of the 50 pregnant women, 90% had a good knowledge of health protocols, 100% had a positive attitude, and 72% had fully followed them. Infrastructure that is both complete (70%) and appropriate. The majority of pregnant women thoroughly adhere to health standards, have strong awareness of them, and have a happy outlook on life. The majority of the infrastructure facilities are finished and all usable. Pregnant women should continue to enhance their knowledge, attitudes, and practices when implementing health protocols. Health institutions should also finish building their supporting infrastructure, and more study should be done to determine how certain variables interact.

Keywords: Keyword: Health Protocol, Antenatal Services, Pandemic Covid 19

1 Introduction

In Indonesia, maternal and newborn deaths continue to be a serious problem, particularly when there is a pandemic. According to statistics from the 2015 Inter-Census Population Survey (SUPAS), the maternal mortality ratio (MMR) was 305 per 100,000 live births, which is still over the Sustainable Development Goals (SDGs) target of 70 per 100,000 live births [1]. Based on data from the Bali Provincial Health Office in 2016, the MMR in Bali Province was 78.7 per 100,000 Live Birth. The Denpasar City Health

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Office report in 2016, the MMR was 48 per 100,000 Live Birth [2]. Maternal and newborn health services were one of those services that were impacted in 2020 by the Covid-19 national non-natural disaster, both in terms of access and quality. It is feared that this will have an adverse effect on pregnant women's health, particularly in terms of morbidity and death.

Problems in obstetric services that arise during the Pandemic of Covid-19 include, without realizing it, many people without symptoms are doing their usual activities, at risk of transmitting to pregnant women, and this is supported by the uneven distribution of covid screening with rapid tests in pregnant women. In addition, there is still a lot of information related to Covid-19 through the internet (WhatsApp, other social media), whose news is not necessarily true, so that people's understanding is still diverse.

Based on these issues, the Indonesian government has developed health guidelines to ensure that maternal and newborn health care can be maintained in an effort to lower MMR and IMR during the Covid-19 epidemic. The health protocol was created using references provided by the ministry of health and industry groups, such as recommendations for expecting mothers, new mothers, and infants during the Covid-19 pandemic. This protocol is expected to be used as a reference by the government and implementers of maternal and child health services at the provincial, district/city and community levels. This health protocol was published on 5 April 2020 and has been socialized to local governments in order to ensure the readiness of first-level health facilities (Puskesmas, Midwife Practices) and referral health facilities (Covid-19 referral hospitals, Comprehensive Emergency Neonatal Obstetrics Services hospitals and Mother and Child Hospital), in providing maternal and child health services with or without Covid-19 infected status. In addition, to ensure socialization related to the use of information technology that is easily accessible to mothers in maternal and child health services, as well as education to mothers to use masks and honestly convey their health status if they have been diagnosed as individuals under observation, patients being watched, or confirmed Covid-19 [3].

Denpasar City, as an area with the largest number of first-level health facilities compared to other districts in Bali province, has also received socialization related to health protocols. The number of health centers in the Denpasar City area is 11 Puskesmas and 71 Midwife Practices.

2 Research Methods

The research design used is quantitative research, which explores how the implementation of health protocols, using a cross sectional approach. The research was conducted at 4 (four) health centers in the Denpasar City area, namely Puskesmas I of the East Denpasar District Health Office, Puskesmas I of the West Denpasar District Health Office, Puskesmas I of the South Denpasar District Health Office, and Puskesmas III of the North Denpasar District Health Office from July to October 2021. The target population of this study was all pregnant women at the Puskesmas in Denpasar City. The affordable population is all pregnant women who check their pregnancy at the health center in Denpasar City. The sample in this study was every pregnant woman

who visited the health center in the Denpasar City area. Sampling in this study was conducted using consecutive sampling technique. The samples in this study were pregnant women who met the inclusion criteria. Inclusion criteria for pregnant women:

- a. Pregnant women who come to visit check their pregnancy
- b. Willing to fill out a questionnaire
- c. Can read and write

Based on the results of the calculation, the sample size was 48 people, rounded up to 50 people. The data collection instrument for quantitative research is a questionnaire. Questionnaires on knowledge, attitudes, practices, and supporting infrastructure for implementing health protocols were filled in directly by respondents.

Researchers conducted descriptively the variables of knowledge, attitudes, practices, and supporting infrastructure for implementing health protocols. The ethical approval was issued on 10 August 2021 with number LB.02.03/EA/KEPK/ 0651 /2021

3 Result and Discussion

Characteristics of Respondents. Based on Table 1, it can be seen that the largest percentage of the age characteristics of pregnant women is 20-35 years. Most of the pregnant women are primiparous, most of the education is secondary (high school), and most of the pregnant women work. Data collection was conducted from July to October 2021.

Table 1. Frequency Distribution of Respondents' Characteristics

Characteristic	n	%
Age (years)		
20–35th	41	82
> 35th	9	18
Number of children		
Nulliparous	12	24
Primiparous	20	40
multiparous	18	36
Education		
Primary (elementary, junior high)	10	20
Secondary (SMA)	29	58
Higher Education (PT)	11	22
Occupation		
Employed	21	42
Not working	29	58

Knowledge, Attitudes, Practices, and Infrastructure Facilities related to the implementation of Health Protocols. Based on Table 2, it can be seen that most respondents have good knowledge about health protocols. The attitude of pregnant women

regarding health protocols is entirely positive, and the practice of implementing health protocols when conducting antenatal care visits is mostly fully implemented. The completeness of the health protocol infrastructure is mostly complete and all are suitable for use.

Table 2. Frequency Distribution of Knowledge, Attitudes, Practices and Infrastructure Facilities

Level of Achievement	n	%
Knowledge:		
Good	45	90
Fair	4	8
Lack	1	2
Attitude		
Positive	50	100
Negative	0	0
Practice		
Applied completely	36	72
Applied incompletely	14	28
Not applied	0	0
Completeness of infrastructure		
Complete	35	70
Incomplete	15	30
Feasibility of infrastructure		
Feasible	50	100
Not feasible	0	0

Knowledge, Attitudes, and Practices of Pregnant Women regarding the Implementation of Health Protocols. Based on the results of the study in Table 2, it shows that out of 50 pregnant women, most of them, 90%, have good knowledge about health protocols. The findings of this research are consistent with [4–6] which say that most people have good knowledge related to the Covid-19 pandemic which can be shown from most of the correct answer choices at each question point related to the Covid-19 pandemic, such as more respondents who have a good level of knowledge related to social distancing when making measures to stop the spread of Covid-19 disease. In addition, other researchers also said that things were not much different [7–9]. Pregnant women's knowledge about Covid-19 is important for pregnant women to know, especially during the Covid-19 pandemic. Research conducted [10] on 403 pregnant women at Debre Tabor General Hospital Northwest Ethiopia, found 52.1% of respondents had a good level of knowledge, out of 399 pregnant women had heard about Covid-19. In this study, it was found that most of the pregnant women/respondents were 20–35 years old. Factors that may affect the knowledge of pregnant women related to Covid-19 and health protocols during the Covid-19 pandemic described in the study [10, 11] explained that the age group 15–24 years had increased knowledge about Covid-19 compared to pregnant women over 35 years old. This can occur because younger ages will be more active in using mass media and social media to access data related to the Covid-

19 outbreak. This is also supported by [12] which explains that young people have the capacity to access information well, and are able to access various information about Covid-19 circulating on the internet and others. The knowledge that pregnant women have regarding Covid-19 and the implementation of health protocols is good. Research conducted by [13] explains that the population of pregnant women who have a good level of knowledge will ultimately limit the spread of disease, especially among pregnant women [11, 14, 15].

Based on the research results in Table 2, it shows that out of 50 pregnant women, 100% have a positive attitude about health protocols related to preventing Covid-19 transmission. Attitude is an individual response to a particular object. The attitude of pregnant women toward Covid-19 and the application of medical guidelines intended to prevent Covid-19 transmission is the response of pregnant women to Covid-19 and efforts to implement health protocols. The results of this study are in line with research by [6, 16–18], stating that more than half of third trimester pregnant women have a positive attitude towards preventing Covid-19, where of the 33 respondents who had a positive attitude, 32 pregnant women (97%) performed preventive behavior well. Meanwhile, of the 31 respondents who had a negative attitude, only 26 (83.9%) had good prevention. The attitude of pregnant women towards Covid-19 and the implementation of health protocols can be shown by how their attitude towards government policies in preventing Covid-19 transmission [19]. A study in Turkey showed that out of 172 pregnant women respondents involved in the study, 65% had a good attitude and trusted the government and health workers in handling and preventing Covid-19 transmission, 85% of pregnant women were willing to follow quarantine rules at home [20, 21]. This is not in accordance with the results of a systematic review showing low knowledge and attitudes regarding Covid prevention [22].

Research by [23], states that in the implementation of health management, especially the prevention of Covid-19 in pregnant women, almost all respondents have implemented health management properly [24][6]. The same thing also happened in China, where pregnant women are very aware of the worst risks due to Covid-19, they are as obedient as possible and have a positive attitude towards preventing Covid-19 [25].

Based on the research results in Table 2, it shows that out of 50 pregnant women, 72% implemented health protocols related to preventing Covid-19 transmission completely and 28% implemented but not completely. The results of this study are in line with research conducted by [16], showing that of the 64 respondents of third trimester pregnant women in Bandung City had good Covid-19 prevention behavior, namely 56.3%. Research with conflicting results, namely research (Nwafor, Aniwkwu, Anozie, Ikeotuonye, & Okedo-Alex, 2020) in Africa on 284 pregnant women respondents, stated that there were 198 respondents with 69.7% having poor practices against Covid-19 prevention measures. Based on the results of his research, it was found that a possible factor that could occur was due to inadequate knowledge about preventive measures. In addition, other things that can affect the practices of pregnant women related to Covid-19, namely, can be associated with the socio-demographic characteristics of the population such as residence, education, and employment. Preventive

practices of pregnant women related to Covid-19 are important, especially during the Covid-19 pandemic to minimize transmission.

Completeness and Feasibility of Infrastructure Facilities related to the implementation of health protocols in pregnant women. Based on the results of the study in Table 2, it shows that out of 50 pregnant women, 70% thought that the infrastructure to implement health protocols was complete, while 30% thought that the infrastructure was incomplete. All respondents stated that all available infrastructure facilities were in the appropriate category.

Factors that influence behavior according to Lawrence Green's theory which is the enabling factor which includes the availability of facilities and infrastructure, such as clean water, places to wash hands, and others [27–29]. This also includes health service facilities that support the implementation of health protocols, for example waiting room facilities with chairs at least 1 (one) meter apart, where pregnant women sit with health workers separated by table shields [30].

4 Conclusions

Based on the results of the research and discussion, the following conclusions were obtained most respondents have good knowledge about Covid 19 and the implementation of health protocols. All respondents have a positive attitude towards the implementation of health protocols in an effort to prevent transmission of Covid 19. Most respondents implement the practice of implementing health protocols in an effort to prevent Covid 19 transmission completely. Most respondents stated that the infrastructure for implementing health protocols in an effort to prevent Covid 19 transmission is complete and all infrastructure is suitable for use.

Some suggestions that can be enforced based on the conclusions of the results of this study, namely: for pregnant women to continue to improve their knowledge about Covid 19 and the application of health protocols in efforts to prevent Covid 19 transmission. For health care facilities to better equip facilities and infrastructure related to the application of health protocols in an effort to prevent transmission of Covid 19 in antenatal care services. For further researchers, so that the results of this study can be used as material for conducting further research by examining the relationship between variables.

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