



# Affecting Factors of Midwives' Perception of Challenges in Midwifery Services During COVID-19 Pandemic

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**Abstract.** The emergence of coronavirus disease 2019 (COVID-19) has an impact on access and utilization of health services, including obstetric health services. The impacts perceived as challenges by midwives are midwifery services arrangements with the lack of availability of personal protective equipment, increasing COVID-19 confirmation cases, and constraints in maternal and neonatal referral systems. However, the implementation of obstetric health services has been regulated in the government's guidelines. Low knowledge and understanding of midwives due to the lack of socialization about the guidelines can also be a challenge. The study aims to identify affecting factors of midwives' perceptions about challenges in obstetric health services. The sample was 110 midwives in Pekalongan Regency obtained using cluster random sampling technique. This study used questionnaires of the characteristics and midwives' perceptions. Data were analyzed by chi-square and multiple logistic regression. The study results revealed that midwives' average age was 36 years with an average working period of 12 years. Challenges are perceived by midwives, namely internal and external challenges. Affecting factors of midwives perception of internal challenges are midwives' age ( $p = 0.002$  OR: 4.085 CI95%) and working period ( $p = 0.010$  OR: 3,533 CI95%). There are no affecting factors of midwives' perception of external challenges (age  $p = 0.330$ , working period  $p = 0.614$ , health care facilities  $p = 0.702$ ). Both midwives' age and working period are unmodified factors to change the midwives' perception of challenges. Therefore, efforts to increase midwives' awareness about accepting and changing challenges as opportunities are important because they can be the quality of midwifery services indicator. Increasing awareness can be done by knowledge and skills improvement programs through training or workshop.

**Keywords:** Midwifery Services · Midwives Challenges in the COVID-19 Pandemic · Midwives' Perception

## 1 Introduction

The Coronavirus outbreak has had numerous impacts on various sectors in all countries across the world since December 2019. In the health sector worldwide, challenges in the form of increased demand for health services by patients with COVID19 are growing.

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Conditions are further worsened by anxiety, stigma, misinformation, and restrictions on movement that interfere with the provision of health services for all diseases. The mortality as a result of the coronavirus outbreak continues to increase due to the full capacity health care system so that people cannot access the required health services [2].

During the epidemic, the decline in access to and utilization of essential maternal and newborn health services has significantly increased the number of mothers and newborns who suffer complications or pass away during pregnancy, childbirth, and the postnatal period [3]. The provision of maternal services during a pandemic should be emphasized to avoid increasing maternal morbidity and mortality, especially there are still restrictions on maternal health services currently. For example, pregnant women are reluctant to go to the public health center or other health service facilities for fear of being infected, there are recommendations for postponing pregnancy check-ups and classes for pregnant women, and the unpreparedness in personnel and infrastructure services, including personal protective equipment.

During the COVID19 pandemic, the ideal condition of pregnant women must continue to be pursued, and this will be a challenge. Visits to monitor the condition of pregnant women through Antenatal Care (ANC) during COVID-19 must be reduced so that they are replaced with teleconsultation. However, designing teleconsultation to be used by all parties and effective implementation also becomes a challenge. Indeed, all visits during the examination of maternal health services are crucial, including K1, K2, K3, K4, but during this pandemic, pregnant women must visit K1 because it is an initial screening for pregnant women to discover high-risk pregnancies, vital signs, laboratory, or triple elimination [4].

Various challenges to maternal and child services during the pandemic, such as the low level of knowledge of mothers and families, socialization of guidelines for maternal and child health services in the pandemic era for midwives that has not been evenly distributed, the lack of PPE fulfillment, changes in access to midwifery services, and the high number of COVID-19 patient cases also affect the handling of maternal and neonatal referral services. Despite the various service challenges during the COVID-19 pandemic, health services must continue to function optimally, safe for patients and midwives with various adjustments based on the COVID-19 handling guidelines or health protocols [5].

Based on this background, the researchers would like to examine the midwifery services for pregnant women in the COVID-19 pandemic.

## 2 Method

This type of research was quantitative non-experimental. The design in this study was analytical observational. The independent variables in this study were the midwives' age, working period, health care facilities, while the dependent variables were the perceptions of external challenges from pregnant women, families/communities, and internal challenges from midwives' implementation and internal facilities in antenatal care services during Covid-19 pandemic. Researchers examined the independent and dependent variables, then analyzed the collected data to reveal relationships between variables. The population in this study were all midwives in Pekalongan Regency in January 2020. This study implemented cluster random sampling as sampling technique by taking 15–20%

of all public health care in Pekalongan Regency. Calculation of the sample size in this study utilized the formula for sampling multivariate analysis research with the formula: 15–20 times the number of independent variables. In this study, there were five independent variables. Thus, the sample size in this study was 110 midwives taken from five public health centers in Pekalongan Regency. From each public health care, 22 midwives were randomly selected as respondents. After asking for the respondent's name, the researchers created a WhatsApp group to explain the purpose of the study and asked the respondent to fill out an informed consent form. The data collection technique used in this study was a google form questionnaire. The questionnaire was used to obtain data on age, working period, service facilities, internal challenges, and external challenges. Data collection was done through the WhatsApp group.

The data analysis used was univariate analysis to determine the distribution of variables of age, health care facilities, midwives' working period, midwives' perceptions of internal challenges, and midwives' perceptions of external challenges; bivariate analysis with chi-square to examine the relationship of each independent variable with the midwives' perception of internal and external challenges; multivariate analysis with multiple logistic regression to determine the relationship of the four independent variables with the midwives' perception of internal and external challenges. This research instrument employed a questionnaire that has been confirmed for its validity and reliability.

### 3 Results

This research was conducted on 110 midwives in Pekalongan Regency from March to May 2020 with the results and discussion as follows:

### 4 Discussion

Based on Table 1, the results showed that more than half (64.5%) of respondents were < 35 years old. The age of the midwives in providing health services affects the quality of midwifery services. Midwives aged 30–40 years tend to have better performance in delivering antenatal services [7].

The results showed that the age range of the midwives was 23–50 years, with an average age of 36 years. Age shows a person's physical maturity level and is prepared to accept her position in society with other adults [8]. A person aged 20–40 years is classified as an early adult stage where they have increasingly significant roles and responsibilities [8]. A midwife who is at the age of 20–40 years should be an individual stage that is ready to play a role, be responsible, and accept a position in society to work and be involved in community social relations, especially in facing all challenges of midwifery services during the COVID-19 pandemic (Tables 2, 3, 4, and 5).

During the COVID-19 pandemic, midwives and nurses in Indonesia should perform several innovative actions and provide education in breaking the chain of COVID-19 transmission by delivering information on prevention.

Based on the midwives' working period, it was revealed that more than half of the respondents have worked for more than ten years. According to Foster, quoted in Suwarno & Apriyanto R (2019), the working period measures the duration taken by

**Table 1.** Frequency distribution of age, working period, health care facilities, midwives' perceptions of challenges and externals in midwifery services.

Variable	Frequency	Percentage
<b>Age</b>		
<35 years old	71	64,5
≥35 years old	39	35,5
<b>Working period</b>		
<10 years	46	41,8
≥10 years	64	58,2
<b>Health care facilities</b>		
Primary level	64	58,2
Secondary Level	46	41,8
<b>Perception of external challenges</b>		
Mild	44	40
Severe	66	60
<b>Perception of internal challenges</b>		
Mild	59	53,6
Severe	51	46,6
Total	110	100

Source: primary data

**Table 2.** Age, Working Period, Health Service Facilities with Midwives' Perceptions About External Challenges

Variable	External challenges				p	OR
	Mild		Severe			
	n	%	n	%		
<b>Age</b>						
<35 cm	18	25,4	53	74,6	0,00	0,17
≥35 cm	26	66,7	13	33,3		
<b>Working period</b>						
<10 years	9	19,6	37	80,4	0,00	0,20
≥10 years	35	54,7	29	45,3		
<b>Service Facilities</b>						
Primary level	24	37,5	40	62,5	0,528	0,78
Secondary Level	20	43,5	26	56,5		
Total	44	40	60	100		

Source: Data processed

**Table 3.** Age, Working Period, Health Service Facilities with Midwives' Perception of Internal Challenges

Variable	Internal Challenge				p	OR
	Mild		Severe			
	N	%	n	%		
<b>Age</b>						
<35 cm	36	50,7	35	49,3	0,405	0,716
≥35 cm	23	59	16	41		
<b>Working period</b>						
<10 years	25	54,3	21	45,7	0,889	1,050
≥10 years	34	53,1	30	46,9		
<b>Service Facilities</b>						
Primary level	35	54,7	29	45,3	0,79 4	1,106
Secondary Level	24	52,2	22	47,8		
Total	59	53,6	51	46,4		

Source: Data processed

**Table 4.** Factors influencing midwives' perceptions of the external challenges of midwifery services during the Covid-19 period

Variable	Exp (B)	CI 95%		p
		Lower	Upper	
Age	4,086	1,656	10,081	0,002
Working period	3,533	1,361	9,173	0,010
Healthcare Facilities	1,417	0,583	3,447	0,442

Source: Data processed

**Table 5.** Factors influencing midwives' perceptions of the internal challenges of midwifery services during the Covid-19 period

Variable	Exp (B)	CI 95%		p
		Lower	Upper	
Age	1,529	0,656	3,952	0,330
Working Period	0,808	0,354	1,848	0,614
Healthcare Facilities	0,806	0,397	1,862	0,702

Source: Data processed

someone to handle the tasks and perform them well. One's working period will determine one's experience.

The midwives' experiences will improve the midwives' skills in providing midwifery services and solving problems. Previous studies have explained midwives' working experience in providing midwifery services, especially satisfaction with delivery assistance ( $p: 0.016$ ) [6]. Midwifery services during the COVID-19 pandemic certainly demand skilled midwives in increasing knowledge to mothers and families about preventing the transmission of COVID-19, improving services in limited access to midwifery services, and increasing maternal and neonatal referral services due to the high number of COVID-19 patient cases in referral hospitals.

Based on the service facilities of the research respondents, more than half were in primary health care, 58.2%. The challenges of midwifery services during the COVID-19 pandemic were experienced by midwives who worked in all lines of health facilities in Indonesia, including the Midwife Independent Practice (PMB) health service facility. Obstacles to the Independent Practice of Midwives (PMB) in providing services during the Covid-19 Pandemic include the rates of midwifery services at the national health insurance (JKN), unable to meet operational cost needs, the conditions for providing IUD and Implant family planning services that must be certified competence, relatively high training costs, not all PMBs having cooperation with the Social Security Administrative Body (BPJS), and online consultation services by midwives that are not included in "telemedicine." Based on a survey from January to April 2020 in 18 provinces in Indonesia, 10.5% (974) of PMB closed due to problems with midwifery services during the Covid-19 pandemic, and 90% (8322) still functioned.

The Indonesian Midwives Association as a professional organization has a high commitment to supporting midwifery services during the COVID-19 pandemic through efforts to consolidate, communicate, coordinate all midwives through virtual meetings, pursue assistance for supporting service infrastructure facilities, advocate for optimizing the role of midwives and increasing access to midwifery services, and disseminate guidelines for midwifery services in the COVID-19 pandemic situation [5].

Based on respondents' perceptions of the external challenges of midwifery services for pregnant women, it was uncovered that more than half of respondents (60%) believed that the external challenges of midwifery services were severe. The study results showed that the most significant external challenges coming from pregnant women, families, and communities during the COVID-19 pandemic were severe. It is evidenced by the answers of 91% of respondents concerning the knowledge of pregnant women about the risk of transmission of COVID-19 to pregnant women was still low; 93% of respondents considered that the knowledge of pregnant women that they are susceptible group to have COVID-19 was still low; and 89% of respondents answered that the knowledge of pregnant women that the anxiety of transmitting COVID-19 has a risk of decreasing the body's immunity was still low. Knowledge of pregnant women about COVID-19 affects the level of anxiety of pregnant women was ( $p: 0.0001$ ); the higher the knowledge of pregnant women about COVID-19, the lower the level of anxiety [11]. In addition to the knowledge of pregnant women that becomes a challenge, the response of pregnant women about preventing COVID-19, according to most respondents (87%), was also still inadequate.

Respondents' perception of internal challenges showed that more than half (53.6%) were mild challenges. Respondents' answers about the most prominent external challenge were socializing the prevention of COVID-19 transmission to pregnant women and their environment. Ninety-one percent of respondents answered that it was fairly severe. Limited access to services due to restrictions was also a moderately severe challenge, according to 89% of respondents. In addition, 76% of respondents perceived that the socialization of maternal and child health service guidelines in the era of the COVID-19 pandemic was still inadequate.

The results of this study are in line with the point of view of the professional organization of the Indonesian Midwifery Association that the challenge of midwifery services during the COVID-19 pandemic is the knowledge of mothers and families related to COVID-19, not all midwives have socialized the guidelines for MCH, Family Planning, and Reproduction health services in the COVID-19 pandemic era, primary and referral health facilities should prepare the fulfillment of Personal Protective Equipment (PPE), infrastructure and Human Resources (HR), the safety of midwives and patients need protection, access to midwifery services has changed with service restrictions, and the high number of COVID-19 patient cases being treated in hospitals affects the handling of maternal and neonatal referral services [5].

The factors that influence the midwives' perception of external challenges with the chi-square test showed that there is a relationship between the age of the midwives and the midwives' perception of external challenges ( $p: 0.00$ ,  $OR: 0.17$ ). Midwives aged  $< 35$  years tended to have a perception that external challenges were 0.17 times more severe than midwives with age  $> 35$  years. Age shows a person's level of maturity in thinking, including in responding to a problem. The older a person is, the more person's ability to make decisions, think rationally, control emotions, and be tolerant of the views of others so that it affects the increase in motivation (Siagin, 2002). The results also explained that midwives aged 30 to 40 years had more diverse innovations in problem-solving because they had more practical experience than midwives aged less than 30 years [7].

In preventing the transmission of COVID-19 to mothers and children, it is necessary to have an excellent social awareness character as a foundation in maintaining relationships with the surrounding social environment. Goleman (1997), quoted in Adriansyah (2017), elucidated that midwives' social awareness grows and develops in line with physical and mental development.

Midwives aged 25–45 years tended to have respectable social awareness in midwifery services and experience interacting with the social world.

There is a relationship between the midwives' working period and the perception of the external challenges of midwifery services during the COVID-19 pandemic, and it was statistically significant ( $p: 0.00$ ;  $OR: 0.20$ ). Midwives who have a working period/work experience of fewer than ten years perceived more significant challenges in providing services for pregnant women during the COVID-19 period than midwives who have a working period of more than ten years. Research by Rofi'ah S et al. (2013) explained that the working period of midwives is related to the practice of midwives in performing their role as educators in pregnancy care.

According to Ratulangi (2016), quoted in Suwarno & Apriyanto (2019), it is explained that a person's experience is related to her work: working period, knowledge and skills, and the ability to perform work.

There is no relationship between midwives working in primary and secondary facilities and midwives' perceptions of the external service challenges in providing care for pregnant women during the COVID-19 pandemic ( $p: 0.528$ ). The study results explained that midwives' perceptions of the external challenges of midwifery services tended to be more severe in primary levels service facilities, such as public health care and independent midwifery practice (PMB). It is because the availability of personal protective equipment and infection prevention materials is more likely to be limited than in hospitals. Hence, they have to limit services, including midwifery services to pregnant women.

The results of this study elucidated that the internal challenges that were perceived as severe by the midwife are the knowledge of pregnant women and their families about the risk of Covid-19 transmission was still low; the knowledge of pregnant women and their families that pregnant women are a vulnerable group was also still low; the knowledge of pregnant women and their families about the risk of anxiety in pregnant women can reduce the decrease in body immunity was also low. The age of the midwife significantly determines how decisions are made to overcome the low knowledge of pregnant women and their families about COVID-19. The midwives' experience also determines an effective way to increase the knowledge of pregnant women and their families about COVID-19.

The internal challenges of midwives in this study were the barriers that existed between midwives and internal factors for antenatal care midwifery services, in socializing MCH service guidelines in the COVID-19 pandemic era, screening implementation, PPE facilities, COVID-19 patient referral facilities, efforts in midwives' prevention and anxiety about the provision of antenatal care services. The results of the study explained that the age of the midwife was not related to the perception of the challenges of antenatal care services ( $p: 0.405$  OR: 0.716 95% CI). Age is a characteristic of physical maturity and personality maturity, which is closely related to decision making; starting at the age of 21 years is legally said to be an adult and at 30 years old has been able to solve problems quite well, become stable, and also emotionally calm (Purba, 2009). The results showed that midwives aged > 35 years had more perceptions of mild internal challenges to midwifery services, but midwives aged < 35 years also had fewer severe internal challenges. Therefore, it was explained that there is no statistically significant relationship. Factors that can affect the study results are other factors, which promote more in the midwives' way of thinking, including education level, experience in overcoming social problems in the provision of previous midwifery services, and information obtained through training and others.

The midwives' working period is not related to the midwives' perception of the internal challenges to midwifery services during the COVID-19 pandemic ( $p: 0.889$  OR: 0.050 CI 95%). Midwives with a working period of > 10 years still perceived severe internal challenges in midwifery services during the COVID-19 pandemic. The midwives' working period is related to the midwives' work experience in providing midwifery services. The results of this study are inconsistent with the theory of Edy S



(2016: 158), which mentioned that work experience is a guide for employees to be able to place themselves in the right conditions, dare to take risks, can face challenges with full responsibility and be able to communicate well with various parties to while maintaining productivity, performance and producing competent individuals in their fields.

The challenges of midwifery services during the pandemic occurred suddenly and required midwives to adapt quickly in dealing with problems in midwifery services. This adaptation process is not only felt by midwives in all circles. Additionally, the working period does not always give one's work experience because it will depend on the type of work, problems, and challenges that are frequently faced. Midwives who work less than ten years with more workloads in providing the ability to solve more complex problems in delivering midwifery services will have more work experience than midwives who work more than ten years but have a minor workload.

The study results explained that there is no relationship between midwifery workplace service facilities and midwives' perceptions of the internal challenges of midwives in providing midwifery services, and it was not statistically significant ( $p: 0.794$  OR: 1.106 CI95%). Midwives who work in primary and secondary health facilities perceived more mild challenges in providing midwifery services. It could be due to the acceleration of the adaptation of midwifery services in improving midwifery services during the COVID-19 pandemic through the fulfillment of Personal Protective Equipment (PPE), infrastructure, and the addition of human resources, especially in health facilities such as hospitals that are referral health facilities for high cases of COVID-19.

The results of this study indicated that the government's commitment to coordinating with the professional organization of the Indonesian Midwifery Association was relatively good in supporting midwifery service facilities during the COVID-19 pandemic.

The multiple logistic regression test results explained that the factor that most influenced the midwives' perception of the external challenges of midwifery services during the COVID-19 pandemic is the age of the midwife ( $p: 0.002$  OR: 4.086 CI: 1.656–10.081). Midwives aged < 35 years were 4,086 times more likely to perceive severe external challenges in midwifery services than midwives aged > 35 years. The second factor that influences the perception of the external challenges of midwives in midwifery services is the midwives' working period ( $p: 0.010$  OR: 3.533 CI: 1.361–9.173). Midwives with a working period of < 10 years are at risk of perceiving severe external challenges 3.5 times greater than midwives who have a working period of > 10 years. The multiple logistic regression test results explained that the three-factor variables: age, working period, and midwifery service facilities did not affect the midwives' perception of the internal challenges of midwifery services.

Change the midwives' perception of challenges. Therefore, efforts to increase midwifery awareness about the importance of accepting and changing challenges as opportunities in providing midwifery health services to pregnant women have become a benchmark for the quality of midwifery services during the COVID-19 pandemic. Raising awareness can be done through knowledge and skill improvement programs through training or workshops using the focus group discussion method.

## References

1. Adriansyah AA. 2017. Pengaruh Usia dan Lama Kerja Bidan Terhadap Kesadaran Sosial Bidan Dalam Pemberian
2. World Health Organization, 2020, Novel Coronavirus (2019nCoV) Situation Report, <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-12-ncov-v3.pdf>
3. Robertson T et al. 2020. Early estimates of the indirect effect of the COVID-19 Pandemic on Maternal And Child Mortality in Low-income and middle-income countries: a modelling study. *Lancet Glob Health*, Vol 8 July 2020 e901–2907. [www.thelancet.com/lancetgh](http://www.thelancet.com/lancetgh)
4. Yulianti A. 2020. *Layanan Maternal Di Masa Pandemi COVID-19 (Pengalaman RSUP Sarjito DIY)*. Divisi Manajemen Mutu PKMK FK KMK UGM diposted di mutupelayanankesehatan.net pada 08 July 2020.
5. Nurjasmie E. 2020. *Situasi Pelayanan Kebidanan Pada Masa Pandemi COVID-19 Dan Memasuki Era New Normal*. PP IBI
6. Nurasih, Nurrochmi E, Ukayah A. 2014. Faktor-Faktor Yang Mempengaruhi Tingkat Kepuasan Ibu Bersalin Terhadap Pertolongan Persalinan Oleh Bidan di Puskesmas PONES Ujung Jaya Tahun 2013. *Jurnal Care* Vo. 2, No. 3 Tahun 2014, hal 25–30
7. Nisa K, Serudji J, Sulastrid D. 2019. Analisis Faktor yang Berhubungan dengan Kinerja Bidan dalam Memberikan Pelayanan Antenatal Berkualitas di Wilayah Kerja Puskesmas Kota Bukit tinggi Tahun 2018. *Jurnal Ilmiah Universitas Batanghari Jambi*. Volume 19, Nomor 1 Februari 2019 Hal 53–60. <https://doi.org/10.33087/jiubji.v19i.545>.
8. Putri AF. 2019. Pentingnya Orang Dewasa Menyelesaikan Tugas Perkembangannya. *SCHOULID: Indonesian Journal of School Counseling* (2019), 3(2), 35–4
9. Rofi'ah S, Istiarti T, Priyadi NP. 2013. Faktor- Faktor yang Berhubungan dengan Praktik Bidan dalam Melaksanakan Peran sebagai Pendidik Pada Perawatan Kehamilan di Kabupaten Magelang Tahun 2010. *Jurnal Promosi Kesehatan Indonesia Vol. 8/No. 1/Januari 2013*. Hal 30–38
10. Suwarno, Aprianto R. 2019. Pengaruh Pengalaman Kerja dan Pengembangan Karir Terhadap Kinerja Karyawan Pada PT Sinar Niaga Sejahtera Kota Lubuklinggau. *Jurnal Ilmiah Ekonomi Bisnis* Volume 24 No.1 April 2019 hal. 58–76.
11. Iftanisyah, Efwana. 2021. Hubungan Tingkat Pengetahuan Ibu Hamil Tentang Covid19 Dengan Tingkat Kecemasan Selama Kehamilan Pada Masa Pandemi Covid19 Di Kota Ternate. Skripsi Thesis. Universitas Hasanuddin.

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