



Psychological Exploitation of Pregnant Women During the Covid-19 Pandemic

Miskiyah¹, Nia Clarasari Mahalia Putri²

^{1,2}Ministry of Health, Poltekkes Kemenkes Palembang, Indonesia

Email: miskiyah@poltekkespalembang.ac.id

Article Info

Article history:

Accepted February, 2022

Revised February, 2022

Received 24 Feb 2022

Keywords:

Psychological pregnancy

Covid-19

Anxiety

Antenatal Care

Stress

ABSTRACT

The spread of COVID-19 globally impacts individuals' fear, stress, and anxiety. This trend is increasing, especially in pregnant women because it belongs to the group at risk to the safety of themselves and their fetuses. This study explores pregnant women's concerns, problems, and attitudes regarding the condition of the outbreak of Covid-19 during the pandemic through detailed and directed discussions based on their respective experiences to be a benchmark for antenatal services by midwives. Method: Data in analysis with qualitative studies. The interview was conducted on 14 pregnant women in Muara Enim Regency of South Sumatra via mobile phone due to social isolation regulations during the Covid-19 pandemic. The result of the analysis of interview content is processed with ten themes, namely: (1) negative emotional states, (2) living with uncertainty (3) changes in routine and social life. (4) concerns about infection, (5) the use of complementary therapies, (6) social support, (7) financial and occupational issues, (8) concerns about birth, (9) antenatal and postnatal services (10) Unclear information. This study shows that the Covid-19 pandemic caused various difficulties, anxiety, and fear, giving rise to various psychological changes in pregnancy. Midwives as antenatal service providers can make the results of this study to modify the special antenatal services of pandemic Covid-19. The service not only focuses on the physical but also prepares the mental health of pregnant women. Collaboration with other health teams becomes necessary to maintain the condition of maternal pregnancy during the Covid-19 Pandemic.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Miskiyah,

Health Polytechnic Palembang Ministry of Health, Indonesia,

Jenderal Sudirman Road, KM. 3.5, Number 1365, Next to Ash-Shofa Mosque, Complex Moh.Hoesin Hospital,

Sekip Jaya, Kemuning, Palembang City, South Sumatra,30114.

Email: miskiyah@poltekkespalembang.ac.id

1. INTRODUCTION

Anxiety and stress during pregnancy are generally associated with side effects such as preeclampsia, depression, nausea and vomiting during pregnancy, premature birth, low birth weight[1]–[3]. Although psychological distress in pregnant women is a common condition, the presence of the Covid-19 pandemic increases their psychological problems. Psychological improvement beyond the threshold may result in risky pregnancy and abnormal fetal development[4]. COVID-19 cases were first detected in Indonesia on March 2, 2020 [5], [6].

The Indonesian government set policies to prevent the outbreak of Covid-19, such as school closures, public facilities such as malls, entertainment venues, and restrictions on direct visits to health services, one of which is antenatal services[7]. The increase in the number of patients in the hospital suspect individuals everywhere, and social changes in life to the lack of information causes stress and anxiety in individuals [8], [9], including at-risk groups such as pregnant women. Changes in antenatal services and fear due to the Covid-19 pandemic are problems that cause psychological disorders for pregnant women.

The adverse effects of psychological stress during pregnancy can result in changes in fetal brain development and maternal emotions as well as risky childbirth[3], [4], [10]. Increased anxiety and fear in pregnant women related to their health during pregnancy and the fetus conceived due to physiological changes that occur

during pregnancy can aggravate the condition of pregnant women if exposed to covid-19 [11]. There are difficulties accessing antenatal and maternity services, mothers giving birth at once discharged after delivery, and prenatal services suspended to limit the spread [12].

Research shows that service procedures restricted to pregnancy and childbirth cause trauma and raise pregnancy and childbirth concerns during the Covid-19 pandemic[13]. Policies in some pregnant countries only get prenatal face-to-face services; even some countries set rules for pregnant women to give birth alone [14].

That adds stressors to pregnant women and dramatically affects their psychological condition. Several studies related to pregnant women during the COVID-19 pandemic focused on coronavirus infections, such as the presence of severe acute respiratory syndrome during pregnancy[6]. But research on the impact of the COVID-19 pandemic on mental health in pregnant women has not been done much. Medical associations worldwide have created clinical guidelines on the clinical management of pregnant women and newborns during pandemics [15]. Still, no policies on the mental health of pregnant women have been proven with empirical data. Meanwhile, pregnant women and families need the support and antenatal services that should be even in the conditions of a pandemic crisis. The form of antenatal services modified by health workers becomes essential.

The purpose of this study is to explore the experiences of pregnant women during the COVID-19 pandemic is reviewed from the concerns, problems, and attitudes of pregnant women determined by detailed discussions based on their respective backgrounds. Data on pregnant women's experiences will be validated by the experience of midwives in providing antenatal services during pandemics. This research will be an essential source of antenatal service procedures that midwives and nurses will implement to support the normal pregnancy process. The study also provides data to evaluate the extent to which the COVID-19 pandemic triggered an increase in prenatal psychological distress in pregnant women.

2. RESEARCH METHOD

In this study, the approach used is phenomenological as a qualitative study pattern to identify and explore the experiences of pregnant women during the Covid-19 pandemic. The focus of the research is the depth and quality, and amount of information studied from the research subject (.). The role of researchers as a data-gathering tool to systematically obtain accurate descriptions through interviews about the theme studied (.....). The ability of researchers to explore research subjects is very dependent on mastery of the material of the theme study that wants to be presented.

The study sample included 14 pregnant women who met the inclusion criteria: (1) primipara and multipara parity status (2) Aged 18 years and above (3) have not been diagnosed with COVID-19. Socio-demographic characteristics (age, working status, family type) gestational age in this study are not limited so that the diversity of data obtained can be seen.

Data was obtained by conducting interviews online using webform video call, zoom, and google meet. That is related to social restrictions during the Covid-19 pandemic. Questions are asked following the interview guidelines that have been compiled. Pregnant women recorded at clinics, midwives, and health centers that include phone numbers are contacted by the midwife who handles to be informed about the research, then asked to participate in the study online. Saturation was obtained by interviewing three midwives from childbirth clinics, independent practices, and health center midwives. Information that is often repeated and expressed the same is the limit of the theme to be taken. The data collection and analysis stage is carried out for one month after the ethics committee's approval.

Data is collected through interviews and observations using structured guidance consisting of preliminary questions and core questions. The introduction contains socio-demographic questions to initiate communication with pregnant women and facilitate the main topic. The core questions explore the knowledge, attitudes of pregnant women, antenatal services, and effects for individuals, families, and social lives as well as measures to protect themselves during the Covid-19 pandemic: (When did you first hear about the Covid-19 pandemic) (What was it felt when the first case appeared in Indonesia?), (Did the coronavirus affect pregnant women?), (Where did information about the effect of pregnancy on Covid-19 in a can), (Does she regularly go to antenatal services during pandemics?), (Is there a change in the antenatal service process during a pandemic?), (How do midwives provide maternity services?), (Do any family members work outside the home?), (How is family members supported?) Before starting the study, the guide validated it by testing it on two participants who had the same characteristics as the study subject.

Once the guide is validated, data collection can begin. All pregnant women who are interviewed get information in advance from the midwife who has handled it about the purpose and process of the interview and are asked their willingness to affix a signature on a flatform made online that serves as a Confidential Inform sheet. The researchers' subsequent procedure asked for respondents' desire to record interviews. The interview is conducted by asking participants to be in a comfortable condition to have a quiet conversation. Interviews are conducted by



telephone teleconference that allows informants and all researchers to participate so that the interview process and observations can be run simultaneously by researchers 1 and 2. This method allowed researchers to conduct obesity, how participants responded during conversations, tone of voice, and other important events. Each participant is required to show a maximum of three interviews with a duration of 60 minutes per teleconference.

The data obtained in video recordings of interview results are then transcripts to get keywords. Analysis of each interview is conducted within one week from the date of the teleconference of each informant using Graneheim and Lundman techniques to extract themes from qualitative data. Steps of analysis: (1) the entire interview results are read by the researchers several times to get an idea of the overall content of the text; (2) The text in each content is divided into units of meaning. Each semantic unit consists of many words, sentences, or paragraphs, containing factors related to each other with the content and its context; (3) the units of meaning that are often abstracted and labeled with code, all encodings are examined by the researchers a second time against the original transcript; (4) the code is interpreted and compared with its differences and similarities; (5) the main themes are determined; (6) For descriptive analysis, definitive statements from interviewees are cited based on research questions and themes made within the context of a conceptual framework.

3. RESULTS AND ANALYSIS

3.1 Results

Table 1. Characteristics of Respondents

Respondents	Age	Education	Work	Gestationa l Age	Parit y
Rp 1,000	34	SD	LABORER	21 WEEKS	MULTIPARA
Rp 2,000	21	SMA	PNS	20 WEEKS	PRIMIPARA
Rp 300.0	26	S1	PNS	30 WEEKS	PRIMIPARA
Rp 1,500	22	SMA	PRIVATE	16 WEEKS	PRIMIPARA
Rp 1,500	26	SMA	ENTREPRENEURIA L	19 WEEKS	MULTIPARA
Rp 1,000	41	S2	IRT	31 WEEKS	GRANDEMULTIPAR A
Rp 1,000	34	SMA	FARMER	24 WEEKS	MULTIPARA
Rp 1,000	31	SMA	FARMER	28 WEEKS	PRIMIPARA
Rp 1,000	31	S1	PRIVATE	33 WEEKS	PRIMIPARA
Rp 10,000	25	SMA	IRT	28 WEEKS	PRIMIPARA
Rp 11,000	26	S1	IRT	17 WEEKS	MULTIPARA
Rp 12,000	24	S1	PNS	21 WEEKS	MULTIPARA
Rp 13,000	28	JUNIOR	IRT	23 WEEKS	PRIMIPARA
Rp 14,000	20	JUNIOR	IRT	29 WEEKS	PRIMIPARA

Based on the results of the study, obtained ten main themes, among others : (1) negative emotional states, (2) living with uncertainty, (3) changes in routine and social life, (4) concerns about infection, (5) the use of complementary therapies (6) social support (7) financial and occupational issues (8) concerns about birth (9) antenatal services (10) unclear information.

Table 2. Main Theme Formation

Interview quotes	Group	Main Theme
"Often angry I'm pregnant this time, maybe because of a lot of bullying due to covid-19"	Angry	Negative emotional state
"Sometimes you get angry with yourself, why get pregnant when you're in a situation like this?"		
"Being pregnant should be happy, but I feel very sad... "	Sad	
"It's so sad mom, can't meet people who are both pregnant to do activities and share experiences directly...".		
"Conditions like this cause a deep sense of disappointment, why should there be a pandemic, especially during pregnancy like this..."	Disappointed	
"When the emigrant ends, what will the child I give birth to like with this condition..."	Confused	Living with uncertainty
"I am confused by this situation ma'am, when we can be like before again, how will the condition of the child I am born with, healthy or not..."		
"I'm trying to figure out what exactly we were pregnant with during the pandemic..."	Unclear information	
"I have not met with a source that was clearly issued by the government, the pregnancy protocol during a pandemic or outbreak, would like something like that.		
"Want nothing to doubt, really what not..... Wanting to do something according to habit is also doubtful of fear of being wrong, while pregnancy makes us experience a lot of difficulties plus because of the change in this plague.	Nervous	
"We can't go anywhere, everything is closed... It feels like a prisoner."	Isolation	Changes in routine and life
"At home alone during this pregnancy from the beginning of tau pregnant until now, it has been 8 months just out of the house for the very important only, it's bosen anyway, kayak ornga isolated that....		
"Messed up all the schedules made because of the pandemic, I had intended if pregnant want to visit the parents... So they can see my pregnancy... But it can't be because of a pandemic..."	Changes in life plans	
" When I was pregnant, I entered the community, and wanted to be with the community to make pregnancy happy and visit non- pregnant mothers. But not all, even many plans to do during pregnancy is not implemented..."		
"It's important... Recreation in my opinion is important so that positive psychological conditions and happy pregnancy... It can't be because of the pandemic..."	Closure of recreation areas	
"Many places are closed like malls, gymnastics places, recreation areas and others this makes us dizzy. And stress..."	Closure of public services	
"I was very afraid that the baby in my womb was born disabled if I was exposed to covid-19 while pregnant."	The fetus is not healthy	Concerns about infection
"If it is positive covid-19, does it affect the health of the baby in the womb?"		
"I eat a lot of soups such as honey and also chemical supplements, immunity is increased and not severe if it is exposed to the corona virus..."	Supplement consumption	



"If exposed I'm afraid my pregnancy doesn't survive, even though I'm waiting for this pregnancy for 10 years..."	Miscarriage due to infection	
"I prefer drugs that have no chemistry, afraid of my child why if most drugs are consumed with chemical supplements, while I also have to maintain health and immunity..." ".. If those chemicals in my opinion are a danger of pregnancy, so I prefer the herbs that are "	Avoiding chemistry	Use of complement arytherapies
"now if ma uke midwife or doctor obgin can not be just any time... <u>They don't want to accept that they're not in an urgent situation...</u> "Usually via online consulsnya. It's not as effective as if we're direct consuls..."	Treatment without visitation	
"I don't think my husband is always supportive, I don't think I can get pregnant in this pandemic.	Partner support	Social support
"My husband is far away... Even though the support from her that I really expected while pregnant was difficult like this. " "Communities in pandemic situations are very helpful. although not face to face, through wa group or sparkle..."	Community	
"Pregnant women who are members of the WA group are very helpful in providing information in the process of my pregnancy during the pandemic.		
"Since I became pregnant no longer work, the foundation of the company where I work, fearing my health and the fetus I was born with if I had to work in a pandemic situation.	Job cuts	Financial and work issues
"Many people are laid off, or temporarily housed because of crowd protests and this affects the family economy, even though being pregnant is like a lot of needs that must be inserted..."		
"Must buy supplement medicines, must buy personal protective equipment..."	Additional costs	
"Where I work, make a half-month work rule for each employee and a 50% pay cut.	Pay cut	
'Can't check routinely, clinics don't want to accept visits like biasanya...' .. Afraid ah,, inwell healthy, eh come home from checking pregnant so exposed to covid-19, I did not check the pregnancy so....	Closure of maternity services	Concerns about birth
'.. I had planned the same husband wants to be born in the hospital, but if like this it seems unable, afraid of being exposed to covid.	Delivery helper	
"I've been in contact with midwives to come to the ground if I'm born, but I'm afraid because I have a history of high blood pressure.		
'Maternity services are now more geared towards using apps..... <u>To limit meetings...</u> "online services via phone or video call... It is recommended that health workers..."	Service model changes	Antenatal service
"ANC visits cannot be carried out as usual, many maternity services are not operational. "Pregnancy visits are restricted to reduce the recovery of the coronavirus..."	Restrictions on health visits	

"... I would like to consult directly with an obgin doctor or experienced midwife... but fear, and many doctors and midwives <u>don't accept visits...</u> "	Restrictions on consultation on experts	Unclear information
"Doctors do not explain what kind of activities can make pregnant women happy in a pregnant condition during a pandemic..."		
"The information is constantly changing. We are becoming <u>more and more frightened...</u> "	Rapid change of information	
"The government does not clarify information clearly, so we people are hesitant to make decisions about health..."		

3.2 Analysis

a. Negative emotional state

Pregnant women in this study reported a lot of discomfort during emailing, leading to feelings of anger and disappointment. There are deep feelings of sadness in pregnant women caused by the fear of contracting the covid-19 infection and a sense of isolation due to restrictions and changes that are so many and fast. The increase in negative emotions in pregnant women is subject to various change conditions during pandemics. Deep disappointment due to the pandemic situation cause severe sleep disturbances.

Other factors that contribute to the emergence of negative emotions are caused by feelings of sadness due to impaired body image and may be due to wearing masks and protective clothing. (Outbreak). Negative emotions in pregnancy can cause problems in the mother's safety and fetal development and determine the psychological mother to cause the worst impact, including baby blues syndrome or even mental disorders.

b. Living with uncertainty

The interview results informed the despair of life and uncertainty during the Covid-19 pandemic. They feel doubt and confusion about the risks to health during pregnancy and the baby they are about to give birth to. Adaptation to various conditions, restrictions, and government policies confuse pregnant women about what is most important to do with their pregnancy conditions. Some pregnant women say they don't get precise information about pregnancy during a pandemic. Data presented in various media is sometimes different and changes rapidly. Some of them claimed not to get information from health workers they met so that a fundamental understanding of the influence of the Coronavirus and the things that can and should not be done by pregnant women is still very little. Uncertainty causes a mental burden because they don't understand what to do.

c. Changes in routine and social life

Pregnant women have noticed changes to their daily routines since the pandemic so that social life and recreational activities are disrupted. The restrictions made by the government create a sense of isolation and confinement. Sealing also feels fear of transmission of infection so forced to limit visiting various public places, especially recreation. Changes in routine pregnancy examinations that should be done routinely to antenatal services become impossible to do. Everyone should be at home alone with their family and not be able to connect with other friends and family who are not at home; even if any family member infected with the Coronavirus should be in isolation, should not meet family members for a specific time. Social life dramatically affects a person's psychological condition. Meeting friends is sometimes a solution.

The report schedule changes due to pandemics and must draw up new plans that align with conditions and still support expectations and ideals, but this requires new adaptations and adjustments. Changes in activities and planned schedules give pregnant women their stores. They follow a maternity community to stay happy while pregnant by jointly adapting to changes during pregnancy, with a pandemic of community activity being replaced online through both WA groups and virtual meetings such as zoom. Changes in social life occur to adjust pandemic situations and conditions to maintain pregnancy. The closure of public recreation places causes boredom in the life lived so that it affects the psychological pregnant women undergoing their pregnancy. In addition to recreation places, consultation places and pregnancy services are closed so that programs such as pregnant gymnastics together can not be done, which causes disappointment and sadness that changes their social life. An isolated person will develop an apathetic and selfish attitude. Pregnant women who are supposed to share their stories in the community and share with health teams become limited due to the Covid-19 pandemic.

d. Concerns about infection



Pregnant women complained about concerns about Covid-19 infection to the health and fetuses they contained. They are worried about having a miscarriage or premature delivery if infected with Covid-19. This information and concerns become a perception increasingly when pregnant women do not get accurate information. Prenatal vitamin consumption, diet, and exercise become routine to maintain immunity to avoid transmission of infection, and this is a good lifestyle that can reduce concerns about infection transmission.

e. Use of complementary therapies

Some pregnant women apply complementary therapies to maintain their physical and psychological health during pregnancy and childbirth. Lawncare results also get information on complementary therapies as an alternative, especially for those afraid of the prognosis of chemical drugs consumed during pregnancy. The possibility of high alertness in pregnant women related to contracting the infection to get information from various sources about treatment and supplements increases immunity. Complementary therapies to lower negative psychology include Yoga, hypnotherapy, distraction, deep breath, music therapy, and aromatherapy. Access to pregnancy and childbirth services, which are restricted during pandemics, is mainly why pregnant women use complementary therapy alternatives.

f. Social support

Pregnant women say social support can reduce the negative psychological symptoms they experience. Family support, especially husbands during pregnancy, makes them happy and feel safe. Some pregnant women read literature about the dangers of pregnancy depression through WA groups or communities that conduct webinars online.

g. Financial and work issues

Pregnant women reported a financial decline caused by pandemic conditions, job cuts, salary cuts due to the non-scheduling of little work, and a policy of extending the leave period for pregnant women set by the company. There is an increase in the need for costs, such as transportation costs, because public transportation is declared unsafe, they have to use private vehicles. Financial problems are also complained about due to the increased need for personal protective equipment such as masks, hand sanitizers, hand washing soaps, and disinfectants for homes that are supporters of health protocols to reduce the risk of infection. The cost of treatment and the purchase of supplements also improve immunity and therapy when the body is sick.

In addition, some pregnant women have to stop working or take a sabbatical to reduce the risk of lowering income for the family, while pregnancy costs more. Some reported career-enhancing problems and reduced income due to an inability to attend meetings or travel during pandemics. Some of the regulations that affect the payment of pregnant women are also working from home policies that have to cut transportation money so that the salaries they receive are not intact. Changes due to pandemic conditions affect the condition of pregnant women from the financial side, which affects the mother's psychological state, so they must find steps and alternatives to survive a healthy pregnancy under conditions of limitation.

h. Concerns about birth

Worrying about giving birth to Naman became the complaint of all hami mothers who became respondents. They are afraid to give birth in a public place such as a hospital, but they are also scared to bring officers home when they have a high risk. This anxiety about birth arises early in pregnancy and becomes worse when approaching labor if you do not get therapy.

i. Antenatal and prenatal services

Change to health services in general with the policy of limiting public services to antenatal and prenatal services. Hospitals, birth clinics, independent shelving midwives, and health centers stipulate minimal face-to-face services for pregnant women to reduce the spread of the virus. Antenatal services are more focused on support that is done online using various platforms, but this cannot reach low-income hami mothers who are still stuttering and constrained by signals and even pulses for application operations. These conditions that be risky cause many pregnancy complications.

The fear of pregnant women is also one of the causes of the failure of antenatal care that must be run by pregnant women. Fear of infection affects the intensity of visits even found many pregnant women who do not check their pregnancy to medical personnel during the pandemic. One of the highlights in the interview was that pregnant woman who had to attend control in the process preferred hospitals where they felt safe.

j. Unclear information.

The most important sources of information from pregnant women during this process are the internet and television. Pregnant women who are unable to attend controls for pregnancy monitoring receive data over the internet and television when they cannot contact doctors, midwives, and nurses. Pregnant women hope to get information through reliable education about what activities are safe to do. They can make them happy in a state of pregnancy during a pandemic. The rapid change in information and lack of validation by the authorities raised fears for the public for pregnant women as well. They need accurate information to make them comfortable carrying out pregnancy and adapting to pandemic situations.

4. CONCLUSION

The results showed that the coronavirus pandemic could create anxiety, distress, and fear, negatively affecting pregnant women. Conditions that negatively affect pregnant women include worried about their health and the baby's health, worsening expectations of prenatal care, inability to access reliable information, changes in daily routines, and reduced social interactions. This study determined that pregnant women experienced fear, mainly due to the risk of viral infections and delayed prenatal or safer center examinations. One solution is to create a particular service for pregnant women with special health workers and ensure a minimum of control with exposure to Covid-19. It is also important that health workers provide information and support to pregnant women because they need safe information and help in this process.

It will also provide a reference for midwives and nurses about the physical health of pregnant women and their mental health and work closely with mental health experts in providing psychological therapy for pregnant women. Pregnant women may become at high risk of postpartum depression, and it is not known if they will be able to access health services after their pregnancy. It will take a lot of other research to follow up on the results of this study, especially if the pandemic continues, one of which is how childbirth experiences and prenatal care during a pandemic. The study also found that a lack of social support in pregnant women increases anxiety. Promoting antenatal care and maternal pregnancy and psychological health consultation over the phone or the Internet during physical isolation and support from others with similar experiences can be particularly useful for relieving stress during pregnancy.

ACKNOWLEDGEMENTS (10 PT)

Our thanks to all parties involved who have supported the implementation of this research.

REFERENCES

- [1] J. E. Khoury, L. Atkinson, T. Bennett, S.M. Jack, and A. Gonzalez, "COVID-19 and mental health during pregnancy: The importance of cognitive assessment and social support," *J. Affect. Disord.*, vol. 282, No. January, p. 1161–1169, 2021, doi: 10.1016/j.jad.2021.01.027.
- [2] H. K. Sut, "Anxiety, depression, and related factors in pregnant women during the COVID-19 pandemic in Turkey: Web-based cross-sectional studies," no. September 2020, pp. 860–868, 2021, doi: 10.1111/ppc.12627.
- [3] O. T. Ben-ari, M. Chasson, S. A. Sharkia, and E. Weiss, "Distress and anxiety associated with COVID-19 among Jewish and Arab pregnant women in Israel Distress and anxiety associated with COVID-19 among Jews," *J. Reprod. Infant Psychol.*, vol. 38, no. 3, p. 340–348, 2020, doi: 10.1080/02646838.2020.1786037.
- [4] C. Lebel, A. Mackinnon, M. Bagshawe, L. Tomfohr-madsen, and G. Giesbrecht, "Increased depressive and anxiety symptoms among pregnant individuals during the COVID-19 pandemic," *J. Affect. Disord.* Vol. 277, No. July, pp. 5–13, 2020, doi: 10.1016/j.jad.2020.07.126.
- [5] R. F. Nursofwa, M. H. Sukur, B. K. Kurniadi, and . H., "Handling Health Services In The Covid-19 Pandemic In The Perspective of Health Law," *Inicio Legis*, vol. 1, no. 1, pp. 1–17, 2020, doi: 10.21107/il.v1i1.8822.
- [6] B. Baranowska, D. Sys, A. Pokropek, P. Pawlicka, and M. Ka, "Risk factors for anxiety and depression among pregnant women during the COVID-19 pandemic," vol. 30, no. June, 2020.
- [7] C.C. Anikwe, C. O. Ogah, I. H. Anikwe, B.C. Okorochukwu, and C.C. Ikeoha, "Coronavirus disease 2019: Knowledge, attitudes, and practices of pregnant women in tertiary hospitals in Abakaliki, southeastern Nigeria," *Int. J. Gynecol. Obstet.*, vol. 151, no. 2, p. 197–202, 2020, doi: 10.1002/ijgo.13293.
- [8] S. Fan et al., "Psychological effects caused by the COVID-19 pandemic in pregnant women: A systematic review with meta-analysis," *Asian J. Psychiatr.*, vol. 56, No. December 2020, p. 102533 2021, doi: 10.1016/j.ajp.2020.102533.
- [9] H. Dong et al., "Investigation of the mental health status of pregnant women in China during the COVID-19 Pandemic," *Arch. Gynecol.*, vol. 303, no. 2, p. 463–469, 2021, doi: 10.1007/s00404-020-05805-x.



- [10] H. Yan, Y. Ding, and W. Guo, "Mental Health of Pregnant and Postpartum Women During the Coronavirus Disease Pandemic 2019: A Systematic Review and Meta-Analysis," *Front. Psychol.*, vol. 11, no. November, p. 1–12, 2020, doi: 10.3389/fpsyg.2020.617001.
- [11] F. Effati-Daryani, S. Zarei, A. Mohammadi, E. Hemmati, S. Ghasemi Yngyknd, and M. Mirghafourvand, "Depression, stress, anxiety and their predictors in Iranian pregnant women during the COVID-19 outbreak," *BMC Psychol.*, vol. 8, no. 1, p. 99, 2020, doi: 10.1186/s40359-020-00464-8.
- [12] C. A. Moyer, "Pregnancy-related anxiety during COVID-19: a national survey of 2,740 pregnant women," pp. 757–765, 2020.
- [13] K. Matvienko-sikar, S. Meedya, and C. Ravalidi, "Perinatal mental health during the COVID-19 pandemic," *Women and Birth*, vol. 33, no. 4, p. 309–310, 2020, doi: 10.1016/j.wombi.2020.04.006.
- [14] B. Kotlar, E. Gerson, S. Petrillo, A. Langer, and H. Tiemeier, "Impact of the COVID-19 pandemic on maternal and perinatal health: a review of scoping," vol. 18, no. 1. *BioMed Central*, 2021.
- [15] L.M. Tomfohr-madsen, N. Racine, G. F. Giesbrecht, C. Lebel, and S. Madigan, "Depression and anxiety in pregnancy during COVID-19: Quick review and meta-analysis," *Psychiatry Res.*, vol. 300, No. April, p. 113912 2021, doi: 10.1016/j.psychres.2021.113912.
- [16] A. K. Wisler, "From, by, and for not just prepositions': the teaching and learning of Conflict Resolution for democratic global citizens," *Intercult. Educ.*, vol. 20, no. 2, p. 127–133, 2009, doi: 10.1080/14675980902922143.
- [17] I. Mappa, F. A. Distefano, and G. Rizzo, "Effects of coronavirus pandemic 19 on maternal anxiety during pregnancy: prospective observational study," *J. Perinat. Med.*, vol. 48, no. 6, p. 545–550, 2020, doi: 10.1515/jpm-2020-0182.
- [18] F. Mortazavi, M. Mehrabadi, and R. Kiaetabar, "Pregnant women - well-being and concern during the COVID- 19 pandemic: cross-sectional study," vol. 4, p. 1-11, 2021.
- [19]
- [20] S. K. Brooks, D. Weston, and N. Greenberg, "Psychological impact of infectious disease outbreaks on pregnant women: rapid evidence review," *Public Health*, vol. 189, pp. 26–36, 2020, doi: 10.1016/j.puhe.2020.09.006.
- [21] Wijaya, B. Wu, and Wijaya, "Multivariate Analysis for Spoiled Research," *BMC Med.*, vol. 18, no. 1, pp. 1–10, 2016.
- [22] C. R. Ahlers-Schmidt, A.M. Hervey, T. Neil, S. Kuhlmann, and Z. Kuhlmann, "Women's concerns regarding pregnancy and childbirth during the COVID-19 pandemic," *Educ Patients. Couns.*, vol. 103, no. 12, p. 2578–2582, 2020, doi: 10.1016/j.pec.2020.09.031.
- [23] Y. Wu et al., "Symptoms of depression and perinatal anxiety of pregnant women during the 2019 coronavirus disease outbreak in China," *Am. J. Obstet. Gynecol.*, p. 1–9, 2020, doi: 10.1016/j.ajog.2020.05.009.
- [24] R. Nursanti and I. Kusumawaty, "Repositioning of Fetal Breech Location with Chest Position Setting of Knees and Yoga Exercises for Pregnant Women," 2021, doi: 10.23880/nhij-16000252.
- [25] Dahliana, Rika Hairunisyah, Yunike, and I. Kusumawaty, "Increasing Milk Production: Outstanding Advantages of Marmet Techniques and Acupuncture," *Int. J. Soc. Sci.*, vol. 1, no. 5, p. 839–844, 2022, doi: 10.53625/ijss.v1i5.1258.
- [26] V. H. A. Mascarenhas, A. Caroci-Becker, and M. L. Riesco, "Effectiveness of aromatherapy versus standard treatment on physiological and psychological symptoms in pregnant women: systematic review protocol," *JB I Evid. Synth.*, vol. 20, no. 2, p. 658–665, 2021, doi: 10.11124/JBIES-20-00562.
- [27] M. Magfirah, S. Fatma, and I. Idwar, "Effectiveness of acupressure therapy and lemon aromatherapy on the ability of coping and emesis gravidarum in the first trimester of pregnant women in Langsa City Health Center, Aceh, Indonesia," *Open Access Macedonian Journal of Medical Sciences*, vol. 8, no. E. p. 188–192, 2020, doi: 10.3889/oamjms.2020.4008.
- [28] P. W. Hui, G. Ma, M. T. Y. Seto, and K. W. Cheung, "Effects of covid-19 on the delivery plan and postnatal depression of a number of pregnant women," *Hong Kong Med. A.*, vol. 27, no. 2, p. 113–117, 2021, doi: 10.12809/hkmj208774.
- [29] F. Durankuş and E. Aksu, "Effects of the COVID-19 pandemic on anxiety and depressive symptoms in pregnant women: preliminary study," *J. Matern. Neonatal med.*, vol. 35, no. 2, p. 1–7, 2020, doi: 10.1080/14767058.2020.1763946.
- [30] E. Naurin et al., "Pregnant under pandemic pressure: large-scale longitudinal surveys before and during the COVID-19 outbreak," *Eur. J. Public Health*, vol. 31, no. 1, p. 7–13, 2021, doi: 10.1093/eurpub/ckaa223.
- [31] S. Kusumawaty, Ira; Yunike; Hartati, "Optimization of The Ability of Health Cadres in Carrying Out Five-Finger Hypnosis During Covid-19 Adaptation Period," vol. 4, no. 1, pp. 14–21, 2021.
- [32]

-
- [33] D. Kurniawati and M. Zulfadhilah, "Impact of Covid-19 Pandemic, Education of Health Protocol as Mobile Economic Strategy And Traditional Market Technology Literacy Subuh Desa Kertak Hanyar 2," *J. Synergy of PkM and CSR*, vol. 5, no. 1, p. 376–381, 2021, doi: 10.19166/jspc.v5i1.2936.
- [34] U. Kemenkes, "Ensuring the Sustainability of Essential Health Services of Children and Mothers in the COVID- 19 Pandemic in Indonesia," *Ministry of Health and Unicef*, vol. 1, p. 1–8, 2020.
- [35] Y. Zhou et al. , "Prevalence of psychiatric symptoms of pregnant and unsanctified women during the COVID-19 outbreak," *Transl. Psychiatry*, 2020, doi: 10.1038/s41398-020-01006-x.
- [36] B. Chmielewska et al. "Article Effects of the COVID-19 pandemic on maternal and perinatal outcomes: a systematic review and meta-analysis," *Lancet Glob. Heal.* , vol. 9, no. 6, p. e759–e772, 2021, doi: 10.1016/S2214-109X(21)00079-6.
- [37] N. Berthelot, R. Lemieux, J. Garon-Bissonnette, C. Drouin-Maziade, É. Martel, and M. Maziade, "Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease pandemic 2019," *Acta Obstet. Gynecol.* , vol. 99, no. 7, p. 848–855, 2020, doi: 10.1111/aogs.13925.