

The Relationship between Premature Rupture of Membranes and the Level of Anxiety in Maternity Women at the Kumbe Community Health Center in 2023

Eutalia Anitu¹, Anggrawati Wulandari^{2*}, Riza Tsalasatul Mufida, Eri Puji Kumalasari
Institut Ilmu Kesehatan STRADA Indonesia

*Corresponding author: anggrawulandari64@gmail.com

ABSTRACT

Premature rupture of membranes is a condition where the amniotic sac ruptures early before delivery or when the gestational age has not reached 37 weeks. The aim of this study was to determine the relationship between the incidence of premature rupture of membranes and the level of anxiety among mothers giving birth in the Kumbe Community Health Center working area in 2023. The design of this study was correlational analysis with a cross-sectional time approach. The sample in this study was 30 pregnant women approaching delivery in the Kumbe Community Health Center Working Area, Merauke Regency. The sampling method uses accidental sampling technique. Data collection uses questionnaires and observation sheets. It is known that out of 30 respondents, 12 respondents (42.0%) experienced mild anxiety, while respondents (64.0%) experienced premature rupture of membranes. The results of statistical tests with Chi Square show a significance level of $0.000 < \alpha = 0.05$ so that H_0 is rejected and H_1 is accepted, thus there is a relationship between anxiety during pregnancy and the relationship between the incidence of premature rupture of membranes and the level of anxiety in mothers giving birth in the Kumbe Health Center working area in 2023 .

Keywords: Anxiety, Mother Giving Birth, Premature Rupture of Membranes.

INTRODUCTION

Premature rupture of membranes is a condition where the amniotic membranes rupture before delivery. Many factors can cause premature rupture of membranes, including chorioc infection, breech, preeclampsia, anemia, anxiety, nausea and hydramnios. Anxiety is a person's unpleasant emotional condition which is characterized by feelings for which the cause is not directly known, such as worry about oneself. (Indonesian Ministry of Health, 2018).

In the birthing process there are complications that result in maternal death, namely bleeding 60%, infection 25%, Gestosis 10%, and other causes 5%. Most of the infections experienced by mothers are the result of pregnancy complications/complications, such as choriamnionitis, urinary tract infections, and as many as 65% are due to premature rupture of membranes which causes many infections in mothers and babies (Jannah, 2018).

The incidence of premature rupture of membranes ranges from 5-25% in developed countries which contributes 60-80% to neonatal morbidity and mortality throughout the world. The incidence of premature rupture of membranes in Indonesia is around 39.1%. The incidence of premature rupture of membranes is found to be 6-20% in all pregnancies and 94% of them occur in term pregnancies. The incidence premature rupture of membranes that occurs in preterm pregnancy can cause more problems than term pregnancy. 8-10% of term pregnant women will experience premature rupture of membranes and 1% preterm pregnancy (Jannah, 2018).

World Health Organization (WHO) in 2020, the maternal mortality rate (MMR) in the world is still high at 289,000 people. Several developing countries have quite high MMR, such as in Sub-Saharan Africa with 179,000 people, South Asia with 69,000 people, and in Southeast Asia with 16,000 people. MMR in Southeast Asian countries, one of which is Indonesia, is 190 per 100,000 live births (WHO, 2020, in Indryaswari, 2021).

According to the World Health Organization, the incidence of premature rupture of membranes is between 5-10% of births (Assefa, 2018). Meanwhile, Indonesia is in the range of 4.5% -6% of all existing pregnancies (Sudarto, 2019).

In Indonesia, based on the 2021 Indonesian Demographic and Health Survey, the maternal mortality rate in Indonesia is still high, namely 359 per 100,000 live births. Factors that can cause maternal death include bleeding 60-70%, pre-eclampsia and eclampsia 10-20%, and infection 10-20%. 23% of infections in pregnancy can be caused by premature rupture of membranes (Abrar, 2021).

Data obtained from the profile of the South Papua Provincial Health Service in 2021, the number of maternal deaths reported was 149 people or 99.38 per 100,000 live births, consisting of 19 maternal deaths (12.75%), 44 maternal deaths (29.53%), postpartum maternal deaths were 86 people (57.71%). (Central Papua Province Health Office, 2021)

The maternal mortality rate in Merauke Regency showed a decline from 20.33/100,000 KH in 2021 to 19.85/100,000 KH in 2021, where there were 5 maternal deaths out of a total of 25,181 live births in the city of Merauke. (Merauke City Health Profile, 2022)

According to the Ministry of Health (2018), a high risk of pregnancy will occur if a woman experiences pregnancy and gives birth under the age of 20 years and more than 35 years. National Institute of Mental Health 2020 in the United States, there are 40 million people aged < 20 years who experience anxiety disorders before giving birth. Mothers who are giving birth for the first time often feel anxious and afraid because they often hear scary stories from friends about birth experiences such as the mother or baby died. A mother's lack of knowledge about childbirth can influence pregnant women's anxiety before giving birth, because mothers who have less knowledge will view the birthing process as something terrible or scary.

Knowledge can influence the level of anxiety because knowledge about childbirth plays a very important role for mothers in facing the birth process later, so that mothers will not feel anxious and can enjoy the birth process. Pregnant women, especially in the 3rd trimester, will experience very complex changes compared to the previous trimester. If a pregnant woman has not been prepared to give birth, she will experience a higher level of anxiety and show fear through silent behavior and even crying. Excessive anxiety can result in contractions before the labor process begins and can result in premature rupture of the membranes due to the contractions (Janiwary & Pieter, 2019).

The event of premature rupture of membranes can cause several problems for the mother and fetus, for example in the mother it can cause puerperalis infection / inspiratory period, prolonged labor, post-partum bleeding, increased morbidity, maternal mortality and can cause death. The risk of fetal disability and death is also high in the event of premature rupture of membranes (Mudayanti & Maemunah, 2018).

Based on a preliminary survey of medical records at the Kumbe Community Health Center, it is known that in the last 2 months from August to September 2023 there were 10 patients with premature rupture of membranes. From the results of interviews with researchers in the MCH room, 3 patients had premature rupture of membranes, 2 patients experienced mild anxiety and 1 patient experienced severe anxiety. Based on interviews with mothers with premature rupture of membranes, physical conditions such as weakness, pain, paleness, frequent urination can be seen, in addition to the physical conditions experienced by the mother, namely the mother experiences anxiety during childbirth, anxiety, and the mother feels sleep uncomfortable. If premature rupture of membranes is not treated immediately it will have

an impact on the mother and baby, usually the mother will get an infection and the baby will be forced to be born prematurely or the baby will be born prematurely, besides this it can cause death of the fetus.

Efforts that can be made to prevent premature rupture of membranes include increasing education through counseling classes for pregnant women on how to reduce anxiety before giving birth and increasing the age of marriage so as to reduce the risk of problems in pregnancy and childbirth.

From the description above, researchers are interested in taking the title "The relationship between anxiety in pregnancy and the incidence of premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency".

METHOD

This research design uses correlational analytics with a cross-sectional time approach. The sample in this study was 50 pregnant women approaching delivery in the Kumbe Health Center Working Area, Merauke Regency. The sampling method used accidental sampling technique. Data collection uses questionnaires and observation sheets. Data analysis used univariate and bivariate using the chi square statistical test.

RESULTS

a. Anxiety In Pregnancy

Table 4.3 Frequency distribution of respondents based on anxiety during pregnancy in the Kumbe Community Health Center Working Area, Merauke Regency

No	Emergency	Frequency	Percentage (%)
1	Don't worry	21	42,0
2	Mild Anxiety	14	28,0
3	Moderately anxious	12	24,0
4	Heavy Anxiety	3	6,0
5	Panic	0	0
Amount		50	100

Based on table 4.3, it was found that of the 50 respondents, almost half of the respondents were not worried, namely 21 respondents (42.0%).

b. Premature Rupture of Before Membranes Childbirth

Table 4.4 Frequency distribution of respondents based on premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency

No	premature rupture of membranes	Frequency	Percentage (%)
1	Yes/ premature rupture of membranes occurs	27	54,0
2	No/Doesn't Happen premature rupture of membranes	23	46,0
Amount		50	100

Based on table 4.4, it was found that of the 50 respondents, the majority of respondents experienced Premature Rupture of Membranes before giving birth, namely 27 respondents (54.0%).

c. The relationship between anxiety in pregnancy and the incidence of premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency

Table 4.7 Cross tabulation of the relationship between anxiety in pregnancy and the incidence of premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency

Anxiety	Premature Rupture of Membranes				Total	
	Of		No		N	%
	N	%	N	%		
Don't worry	0	0,0	21	42,0	21	42,0
Mild Anxiety	12	24,0	2	4,0	14	28,0
Moderately anxious	12	24,0	0	0,0	12	24,0
Heavy Anxiety	3	6,0	0	0,0	3	6,0
Panic	0	0,0	0	0,0	0	0,0
Amount	27	54,0	23	46,0	50	100

Based on table 4.7, it was found that of the 50 respondents, almost half of the respondents were not worried and there was no Premature Rupture of Membranes as many as 21 respondents (42.0%).

Based on data analysis using statistical tests *Chi Square* value is obtained P value $< \alpha$ 0.05 (0.000 $<$ 0.05) marks H_0 rejected and H_1 accepted, which means there is a relationship between anxiety in pregnancy and the incidence of premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency.

DISCUSSION

A. Anxiety In Pregnancy

Based on Table 4.3 above, it is known that of the 50 respondents, almost half of the respondents did not experience anxiety, namely 21 respondents (42.0%), almost half experienced mild anxiety, namely 14 respondents (28.0%), a small number experienced moderate anxiety, namely 12 respondents (24.0%), a small portion experienced severe anxiety, namely 3 respondents (6.0%), and no respondents experienced panic (0.0%).

Anxiety or anxiety is tension, insecurity, and worry that arises because it is felt that something will happen something unpleasant, but the source is Partial size is unknown (Maramis, 2019). Anxiety is also defined as the response experienced by pregnant women to pregnancy situations that they feel are threatening, followed by physiological, emotional or psychological and cognitive symptoms. Anxiety is an emotion without a specific object, the cause is unknown and is preceded by a new experience. Anxiety is different from fear. Fear has a clear source and a definable object. Fear is an assessment of threatening stimulation and anxiety is an emotional response to this assessment (Stuart and Sundeen, 2018). Anxiety is an emotion and subjective experience of a person and is a condition that makes a person uncomfortable which is divided into several levels (Kusuma & Hartono, 2017).

According to researchers' assumptions, most of the respondents who experienced mild and moderate anxiety, even severe anxiety, were due to several factors, including the parity of pregnant women, almost half of whom were primigravidas. Mothers who are pregnant and giving birth for the first time still lack experience in undergoing the process of pregnancy and childbirth. Excessive anxiety in primigravida mothers can arise because of stories or information about pregnancy and the birth process that they get from relatives, neighbors or friends. Anxiety increases when pregnant women hear bad stories during pregnancy and childbirth. Apart from that, it is also due to the fact that most pregnant women's education is elementary school, resulting in a lack of knowledge about the importance of minimizing stressful events during pregnancy and before delivery. Low education will affect the mother's

ability to grasp new information and material presented by health workers regarding information during pregnancy and before delivery. Some respondents with low education found it difficult to understand the material presented by health workers so they did not have sufficient knowledge about preparations for childbirth, which ultimately influenced the behavior of pregnant women which had an impact on anxiety during pregnancy and before delivery. This is in line with the opinion of Notoadmodjo (2017) that the higher a person's education, the broader their insight and information so that their knowledge also increases, including respondents' knowledge about how to reduce anxiety during pregnancy and before childbirth.

Researchers also assume that respondents who do not experience anxiety are due to their high level of education, namely from high school and college. Higher education will help respondents quickly find information about pregnancy and childbirth. Sufficiently good information or knowledge will help respondents prepare for the process leading up to delivery. So it can reduce anxiety during childbirth.

B. Premature rupture of membranes before delivery

Based on Table 4.4 above, it is known that of the 50 respondents, the majority of respondents experienced Premature Rupture of Membranes before delivery, namely 27 respondents (54.0%) and almost half of the respondents did not experience Premature Rupture of Membranes before delivery, namely 23 respondents (46.0%)

Premature rupture of membranes is characterized by the rupture of the membranes before the time for delivery. This can occur at the end of pregnancy or long before it is time to give birth. Preterm Premature Rupture of Membranes is before 37 weeks of gestation. Prolonged Premature Rupture of Membranes is Premature Rupture of Membranes that occurs more than 12 hours before the time of delivery. (Yeyeh, 2018). The incidence of Premature Rupture of Membranes approaches 10% of all births. At a gestational age of less than 34 weeks, the incidence is around 4%. Premature Rupture of Membranes is the rupture/rupture of the amniotic membrane before the actual start of labor or the rupture of the amniotic membrane before the gestational age reaches 37 weeks with or without contractions (Mitayani, 2018). Premature rupture of membranes or spontaneous / early / premature rupture of the membrane is the rupture of the membranes before birth: that is, if the opening in primi is less than 3 cm and in multipara is less than 5 cm. If the latent period is too long and the membranes have ruptured, infection can occur which can increase maternal and child mortality. Fortunately, because of the existence of broad spectrum antibiotics, this can be suppressed. (Mochtar, Rustam, 2018).

According to researchers' assumptions, most of the respondents who experienced premature rupture of membranes were due to several factors, including anxiety. The higher the respondent's level of anxiety in facing childbirth, the higher the risk of problems occurring before childbirth, one of which is premature rupture of the membranes. In this study, it was found that the anxiety levels of respondents who experienced Premature Rupture of Membranes were in the categories of mild, moderate and severe anxiety. And most respondents experienced moderate anxiety. Apart from that, the pregnant woman's age is < 20 years and > 35 years. The safe maternal age for pregnancy and childbirth is 20-35 years. Pregnant women who give birth at the age of 35 years are likely to be at risk, one of which is premature rupture of the membranes. This can be explained by the fact that almost all births experience premature rupture of membranes occurring at a gestational age of more than 35 weeks. Premature rupture of membranes can occur because at a gestational age of more than 37 weeks there is uterine enlargement, uterine contractions and fetal movement, causing the membranes to rupture easily. Meanwhile, pregnancy and childbirth at less than 20 years of age are also risky because the woman's reproductive system is still immature, so it can influence the incidence of premature rupture of membranes. Apart from that, it was also found that mothers who gave

birth experienced premature rupture of membranes aged 26-30 years. Where this age is still within safe limits for pregnancy and childbirth. Apart from the age factor, it is also caused by parity. In this study, it was found that the majority of those experiencing premature rupture of membranes were multiparous. Multiparas are more likely to occur because the process of opening the cervix is faster than nulliparas, so premature rupture of the membranes can occur. The consistency of the cervix during labor greatly influences the occurrence of premature rupture of membranes. In multiparas with a thin cervical consistency, the possibility of premature rupture of membranes is greater due to intrauterine pressure during delivery. The thin consistency of the cervix with the process of opening the cervix in multiparas (flattening while opening almost at once) can speed up the opening of the cervix so that there is a risk of the membranes breaking before complete opening.

This research is in line with Manuaba's 2016 opinion, namely that the incidence of premature rupture of membranes can be caused by multiparity. Multiparas are more likely to occur because the process of opening the cervix is faster than nulliparas, so premature rupture of the membranes can occur. In cases of infection, it can cause biomechanical processes in the amniotic membranes in the form of proteolysis, making it easier for the membranes to rupture. In multiparas, due to a history of previous births, the connective tissue is looser than in nulliparas. In multiparas, the connective tissue that supports the amniotic membrane decreases, so multiparas are more at risk of premature rupture of membranes than nulliparas.

C. The Relationship between Anxiety in Pregnancy and Premature Rupture of Membranes Before Childbirth

Based on Table 4.7 above, it is known that of the 50 respondents, almost half of the respondents did not experience anxiety and did not experience PROM, namely 21 respondents (42.0%), a small number of respondents with mild levels of anxiety and Premature Rupture of Membranes occurred, 12 respondents (24.0%), a small number of respondents with a mild level of anxiety and no premature rupture of membranes were 2 respondents (4.0%), a small number of respondents with a moderate level of anxiety and premature rupture of membranes were 12 respondents (24.0%) and a small number of respondents with severe levels of anxiety and experiencing Premature Rupture of Membranes were 3 respondents (6.0%).

Based on data analysis using statistical tests *Chi Square* value is obtained P value $< \alpha$ 0.05 ($0.000 < 0.05$) marks H_0 rejected and H_1 accepted, which means there is a relationship between anxiety in pregnancy and the incidence of premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency. Anxiety is a person's unpleasant emotional condition which is characterized by feelings for which the cause is not directly known, such as worry about oneself.

Increased anxiety in pregnant women is also caused by feelings of worry about something that will happen to her and her child. Some pregnant mothers become anxious because they are afraid of the condition of the child they will give birth to (Pradana, 2020). Anxiety and fear can cause severe pain and can also result in decreased uterine contractions, which can cause premature rupture of membranes.

Based on research results (Kundre, 2018), knowledge can influence anxiety levels because knowledge about childbirth plays a very important role for mothers in facing the birth process later, so that mothers will not feel anxious and can enjoy the birth process. Pregnant women, especially in the 3rd trimester, will experience very complex changes compared to the previous trimester. If pregnant women do not have preparations for giving birth, they will experience higher levels of anxiety and show fear in silent behavior to the point of crying (Janiwary & Pieter, 2019).

According to researchers' assumptions, the majority of respondents who experienced premature rupture of membranes were due to anxiety. The anxiety factors experienced by respondents varied, namely mild, moderate and severe levels of anxiety. The more afraid and

worried you are about giving birth, the more anxiety you will experience before giving birth. In this study, there was no level of anxiety that reached the panic stage. Anxiety can cause premature rupture of membranes. Anxiety can cause premature rupture of membranes to occur before 37 weeks or before delivery. Anxiety is an unpleasant emotional condition of a person which is characterized by fear and worry in the individual. Anxiety can cause narrow perception and focus on important things and ignoring others, but can do something more focused and have difficulty concentrating. The experiential view of the present is related to the past and may ignore events in a particular situation; difficulties and requires more effort in adapting and analyzing. Vital signs normal or slightly elevated, tremors, shaking.

This research is in line with research by Afifatul Azizah (2019) which found a p value of 0.00 and r 0.650, which means there is a very strong relationship between anxiety and the incidence of premature rupture of membranes before delivery.

Meanwhile, according to researchers' assumptions, respondents who did not experience premature rupture of membranes were because they did not feel anxious before the birth process. The absence of anxiety in pregnant women will help the pregnant woman's health condition both physically and psychologically. With good psychological conditions, the process leading up to labor will be easier and problems such as premature rupture of membranes will not occur. Pregnant women before giving birth need a good psychological condition. Especially support from family (husband, parents and relatives). The better the physical condition of a pregnant woman before giving birth, the greater the amount of anxiety she will feel before giving birth.

CONCLUSION

1. From the 50 respondents in the Kumbe Community Health Center Working Area, Merauke Regency, almost half experienced mild anxiety before giving birth, namely 21 respondents (42.0%).
2. From the 50 respondents in the Kumbe Community Health Center Working Area, Merauke Regency, most experienced Premature Rupture of Membranes before giving birth, namely 32 respondents (64.0%).
3. There is a relationship between anxiety during pregnancy and the incidence of premature rupture of membranes before delivery in the Kumbe Community Health Center Working Area, Merauke Regency with a P value $< \alpha 0.05$ ($0.000 < 0.05$).

BIBLIOGRAPHY

- Ainsyah & Oktariana . (2018) *Perbedaan Kejadian Ketuban Pecah Dini (KPD) Antara Primipara dan Multipara* edisi. 1 . Lamongan : Program Studi Diploma III Kebidanan Universitas Islam Lamongan.
- Andriyani & Yulianti . (2018) *Kehamilan resiko tinggi dengan ketuban pecah dini (KPD) di RSUD Sukoharjo*. Solo : Indonesia Journal on Medical Scienc (vol.3.no.1)
- Budi, R & Ayu, N . (2019) *Studi Diskripsi Penyebab Kejadian Ketuban Pecah Dini (KpD) Pada Ibu Bersalin*. Yogyakarta : Indonesian Journal Of Nursing And Midwifery.
- Dina, H & Hilda, H. (2018) *Karakteristik Ibu Bersalin Dengan Ketuban Pecah Dini Sebelum Waktunya Di Ruang Bersalin RSUD Kota Mataram*. Mataram : Jurnal Sangkareang Mataram.
- Dwi & Pramono . (2018) *Tingkat Kecemasan Ibu Hamil Sebelum Bedah Sesar di RS Pendidikan dan RS Non Pendidikan (Vol.4 no.4)* Semarang : Fakultas Kedokteran ,Universitas Diponegoro Semarang

Eutalia Anitu et.al (The relationship between the occurrence of premature rupture of the amniotic membrane and the level of anxiety in mothers giving birth in Pkm Kumbe in 2023)

Endang , S & Lia, D, A. (2019) *Gambaran Karakteristik Ibu Bersalin Dengan Ketuban Pecah Dini (KPD) Di Rumah Sakit Panti Wiloso Citarum Semarang.*

Heriani, (2018) *Kecemasan Dalam Menjelang Persalinan Ditinjau Dari Pritas ,Usia dan Tingkat Pendidikan* Jurnal Ilmu Kesehatan Aistyah . (vol.1.no.2). Lampung : Stikes Aisyah PringSewu Lampung.

Hidayat, A.A (2019). *Metode penelitian keperawatan dan analisis data.* Jakarta: Salemba Medika.

Ikrawanty Ayu W & Melisa Febrianti (2019). *Faktor yang Berhubungan Terhadap Kejadian Ketuban Pecah Dini (KPD) di RSIA Sitti Khadijah I Makassar.* Jurnal Kesehatan Delima Pelamonia Vol 3, No.1, Hal: 52-61, September 2019.

Kundre, R & Novita , K . (2019). *Hubungan Dukungan Suami Dengan Tingkat Kecemasan Pada Ibu Primigravida Trimester III di Puskesmas Sonder ,* Ejournal Keperawatan (e-kep) (Vol.5.No.1). Manado: Program Studi Ilmu Keperawatan Fakultas Kedokteran Universitas Sam Ratulangi Manado.

Nindya, N .W , Rina , K , Wico , S . (2019). *Pengetahuan Ibu Hamil Primigravida Trimester III Dengan Tingkat Kecemasan Ibu Menghadapi Persalinan.* Manado : Fakultas Kedokteran Universitas Sum Rutulangi Manado.

Notoatmajo, S. (2018). *.Metodelogi Penelitian Kesehatan .* Jakarta: PT Rineka Cipta.

Notoatmojo , S. (2019) . *Promosi Kesehatan dan Prilaku Kesehatan (edisi revisi).* Jakarta : Rineka Cipta.

Notoatmojo, S . (2019) . *Ilmu Prilaku Kesehatan .* Jakarta : Rineka Cipta

Notoatmojo, S. (2018). *Metodelogi penelitian kesehatan .* Jakarta : Rineka Cipta

Nursalam, & Alfriando, W , Tineke, T ,. (2018) *Faktor Yang Mempengaruhi Tingkat Kecemasan Ibu Hamil Dalam Menghadapi Proses Persalinan* RSU Bethesda GMIM Tomohon , E- journal Sariputra (Vol.4 No. 2) . Surabaya : Program Study Fakultas Keperawatan Universitas Erlangga Surabaya.

Nursalam, (2018). *Metodologi Penelitian Ilmu Keperawatan ; Pendekatan Praktis.* Jakarta : Salemba Medika.

Nursalam, (2019). *Konsep dan penerapan metodologi penelitian dan keperawatan .* Jakarta : Salemba Medika.

Renasheva Alifia Nugraha, (2023). *The Anxiety Level and Premature Rupture of Membrane Incidence during COVID-19 Pandemic.* Indonesian Journal of Obstetric and Gynecology, volume 11, Nomor 1, Januari 2023.

Sari & Novriani .(2019) *Dukungan Keluarga Dengan Kecemasan Menjelang Persalinan Trimester III* E- Jurnal IPTEKS Terpapar (vol.11 no.1) .Akademi Perawat Padang Panjang.

Siti Masturatul Laili &Yessy Nur Endah Sari, (2023). *Hubungan kecemasan ibu primigravida dengan lama persalinan.* Jurnal Penelitian Perawat Profesional Volume 5 Nomor 4, Hal:1314-1319, November 2023.

Sugiyono. (2018). *Metode Penelitian Kuantitatif Dan Kualitatif ,* R & D. Bandung : Cv. Alfabeta.

Eutalia Anitu et.al (The relationship between the occurrence of premature rupture of the amniotic membrane and the level of anxiety in mothers giving birth in Pkm Kumbe in 2023)

Yunita , D , Sri , M , & Neni, M . (2019).Tingkatan Kecemasan Ibu Bersalin Yang Menghadapi SC. Volume 2 , Nomer 1 Nursing Nuws . Malang : Ilmu Keperawatan Fakultas Ilmu Kesehatan Universitas Tribhuwana Tungadewi Malang.