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# Childbirth Counseling by WhatsApp Group to Reduce the Anxiety of Primigravida

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**Abstract---***Background: anxiety is an unclear situation having by someone. Someone who has this condition will have unpredictable feelings and feel helpless. Moreover, someone with anxiety disorder tends to be easy to get emotional due to her mood. This condition occurs due to physical tension as well as worries about the future they will face. Aims: to review childbirth counseling by WhatsApp group media to reduce the anxiety of primigravida. Method: the method used is scoping review. Scoping review is used to map the literature and to obtain the information about the research activity related to the topic researched and identify the problems in the research area that will be researched, make a framework by identifying the research question through PEOs, and identify the relevant study through Google Scholar, Pubmed and Science Direct, select the study article by Prisma Flow Chart, map the data charting and draw the article search flow, arrange, summary and report the result and discussion by using a qualitative method which consists of four (4) articles, use qualitative method consisting five (5) articles, three (3) articles from Indonesia, one (1) article from Brazil, one (1) article from Tabriz Iran, one (1) article from Oared, one (1) article from England, one (1) article from Turkey, one (1) article from France. Conclusion: Based on the result of the report obtained from scoping review, women's knowledge is one of the factors that caused women's anxiety, and childbirth counseling by using WhatsApp group media is one of the applications that could be used to improve the knowledge through discussion and communication, therefore, the anxiety could be decreased.*

**Keywords---***anxiety, education knowledge, pregnant mother, WhatsApp group, woman, worried*

#### Introduction

The anxiety in pregnant women was recorded in several countries, such as 18.2 percent in Uganda, 12.5 percent in Nigeria, 19 percent in Zimbabwe, and 41 percent in South Africa. In France, there is 7.9 percent of primigravida have anxiety during pregnancy, 11.8 percent have depression during pregnancy and 13.2 percent have anxiety and depression. In Indonesia, there is 42.2 percent of pregnant women had anxiety in 2021. Pregnant women with primigravida have a higher level of anxiety than pregnant women with second pregnancy (Herawati et al., 2021). The anxiety felt by mother causes the muscle tension and increases pain during the labor process, besides, excessive anxiety causes the mother feels tired quickly, so it hinders the labor process and causes prolonged labor (Garcia Gonzalez et al., 2018). Anxiety is caused by several factors, one of the factors is the lack of knowledge about childbirth, especially in primigravida, so that, health workers have an important role to provide counseling or counseling services for pregnant women to increase their knowledge. Social media is the main choice for delivering knowledge nowadays. It needs appropriate media to be used, one of them is WhatsApp. WhatsApp media has various features required that can be used for some activities such as giving counseling and health knowledge to pregnant women (Nyoman et al., 2021).

### Method of Scoping Review

The method used is scoping review. The scoping review has the aim to map the literature to obtain information about research activities related to the topic researched and identify the problems in the research area. Therefore, scoping review can give basic information about the research need that could be possibly done (Gourounti et al., 2012; Mulyani et al., 2017; Mulyani, 2018). The first framework methodology to do the scoping review by aims to explain when and how the action can be done and they propose the stages process to conduct it, it include: 1) identifying the research question, 2) identifying the relevant study, 3) selection study, 4) mapping the data, 5) arranging, summering and report the result as well as discussion. The effective searching strategy is by formalizing the question that will be used in the literature findings. In this process, the framework used PEOs to make a question and find the literature.

Table 1.  
Framework

P (Population)	E (Exposure)	O (Outcomes)	S (study Design)
Primigravida	Anxiety	WhatsApp Group Media to help pregnant women to reduce their Anxiety in primigravida	Quantitative

Based on the framework, the question of scoping review is as follows: what is the effect of childbirth counseling by using WhatsApp Group Media to reduce the anxiety in Primigravida?

#### *Identifying the relevant article*

The criteria of the article that will be searched and used as the source of scoping review are the researcher will identify the relevant article using inclusion and exclusion criteria, as follow:

#### Inclusion Criteria

- 1) Published in English and Indonesia
- 2) Has been Published from 2015 to 2021
- 3) The article discusses the use of WhatsApp to reduce the anxiety
- 4) The article that discusses the anxiety of primigravida
- 5) National and International article

#### Exclusive Criteria

- 1) Report document or draft of guide policy from WHO or a certain organization
- 2) Journal that cannot be accessed full text
- 3) Research article about the anxiety of primigravida

In the process of article selection, the researcher used a flowchart prism to describe transparently the process that has been conducted. Flowchart Prism is considered appropriate to be used since its use can increase the quality in filtering the journal according to the criteria and it is considered appropriate since its use can improve the quality of publication reports (Martini et al., 2010; Deklava et al., 2015; Gourounti et al., 2014). Based on article searches from several databases, there were 156 articles in PubMed, 145 articles in science direct, and 28 articles in google scholar. The total number of articles was 329 articles, then they were filtered by using voidance and obtained 238 irrelevant articles, 50 review articles, 25 duplicate articles. Journal results after screening based on titles and abstracts, there were 16 journals. Then re-screened, there were 3 articles issued due to the wrong patient population and 4 articles with the wrong study design so 9 articles were obtained that would be used in the preparation of the scoping review (Apriza et al., 2021; Barimani et al., 2018; Brunton et al., 2020).

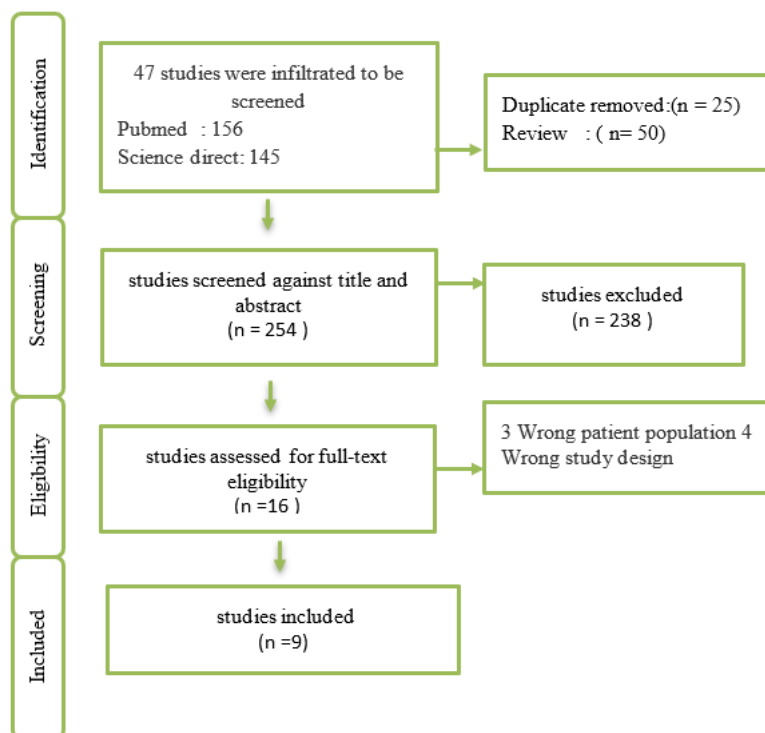


Figure. Prism flowchart

After filtering the article, it obtained 9 articles that will be assessed by critical appraisal in scoping review using hawker. In this stage, critical appraisal obtained 9 articles appropriate to the topic and inclusion criteria that have been set by the researcher to give a methodology impression in overall in study accuracy including 9 items developed (Nangung & Tsang, 2003; Pavlidis & Pentheroudakis, 2005; Cookson et al., 2009).

Table 2  
Data charting

No	Country	Goal	Data Collection	Population and Sample	Result
1	Brazil (Trude et al., 2021)	To promote health by using WhatsApp groups to reduce the level of depression.	Using text mining scripts developed by using the Python programming language to evaluate the interaction of participants in each WhatsApp group and the Python script generates Stata datasets.	the sample used was 30 pregnant women	After being given health promotion through WhatsApp group there are results of a decrease in depressive symptoms
2	Indonesia (Ningsih et al., 2021)	The purpose of this study is health education acquiring is	The purpose of this study is health education acquiring is	The sample used was 80 third-trimester pregnant women	This study found that there were differences in the knowledge level of women after given childbirth

		expected to reduce the anxiety in pregnant women	expected to reduce the anxiety in pregnant women	who were then divided into two groups, such as the experimental group and the control group	counseling through social media.
3	Indonesia (Mulyati, 2020)	The purpose of this study is to find out if there was an effect of pre-labor classes on anxiety levels.	a HARS scale questionnaire	The sample used was 30 pregnant women in the third trimester	It was found that the level of anxiety before the intervention is 60 percent moderate anxiety level and 43.3 percent after intervention did not experience anxiety, from the results of the Wilcoxon test with a p-value of 0.000 showed an influence, it can be concluded that the use of WhatsApp Group in the implementation of the class of pregnant women had a positive impact on pregnant women in facing childbirth.
4	Tabriz, Iran (Hassanzadeh et al., 2020)	This study was conducted to compare the level of fear that mothers feel during childbirth, as well as assess anxiety and depression during pregnancy in three groups of primiparous pregnant women	In this study data collection was carried out by providing a questionnaire of childbirth fear, pregnancy anxiety and depression in primiparous pregnant who came to the health center in Tabriz, Iran, then conducted an interview.	The samples in this study were 204 primipara pregnant women who came to the health center in Tabriz, Iran, selected by cluster sampling and grouped into three groups.	In this study, the average score of fear of childbirth was significantly lower in the group that regularly attended labor preparation classes compared to the group that was not present.
5	Indonesia (Saputra, 2020)	study aims to determine the effectiveness of using WhatsApp media to increase knowledge.	Data obtained through interviews with respondents	Sample used were 40 people	This study obtained the result that WhatsApp group media is effective in conveying information
6	Qatar, (Naja et al., 2020)	This study aims to measure the prevalence and common anxiety determinants and related anxiety in pregnant women	structured interviews and questionnaires	The sample in the study was 800 pregnant women	Of the eight hundred participants, 26.5% reported high pregnancy-related anxiety, while 16.4% had generalized anxiety disorder. High levels of support and perceived social resilience have been shown to reduce anxiety.
7	England	The purpose of	Using Structured	454 of pregnant	The results of the study

	(Nath et al., 2019)	this study is to investigate the disorders in prenatal anxiety.	Clinical Interviews for the DSM-IV and followed up mid-pregnancy	women	found that mothers with anxiety disorders consider themselves have more problems compared to mothers without anxiety disorders.
8	Turkey (Pinar et al., 2018)	This study aims to examine the impact of childbirth education in Turkey on the adaptation of the pregnancy process, concerns about childbirth, prevaginal birth rates, and adaptation to childbirth	In the calculation of power analysis, the average score of the subscale "pregnancy acceptance" in the Prenatal Self-Evaluation Questionnaire (PSEQ) was used as the main variable.	The sample was 132 of primiparous pregnant women	In this study the members of the experimental and control group were high school or higher education graduates (experiment: 66.7 percent; control: 59.1 percent), not working (experiment: 77.3 percent; control: 75.8 percent), were in their first year of marriage (trial: 54.5 percent; control: 62.1 percent), and had planned their pregnancy (trial: 77.3 percent; control: 75.8 percent; $P > .05$ )
9	France (Patel et al., 2018)	assess the feasibility of a light-touch group-based support intervention by using the WhatsApp text messaging platform	Using questionnaires	57 eligible expectant mothers approached to participate were enrolled in the study	The results of this study found that WhatsApp media can help to provide information and education to pregnant women and increase maternal knowledge about the labor process.

## Result and Discussion

This review is used to discuss the anxiety that mothers feel when they face childbirth.

### *Anxiety*

Anxiety is an unclear situation having by someone. Someone who has this condition will have unpredictable feelings and feel helpless. Moreover, someone with anxiety disorder tends to be easy to get emotional due to her mood. This condition occurs due to physical tension as well as worries about the future they will face (Ningsih et al., 2021). The anxiety could interfere mother's daily activities (Nath et al., 2019). Anxiety and fear felt by the mother, if it is not handled, it will affect the stress feeling for pregnant women (Mulyati, 2020). The anxiety in pregnant women could cause premature birth (Naja et al., 2020).

### *Factors that cause the anxiety*

#### *Education*

Education is a basic human need. The level of education can influence a person's perception of accepting new ideas. The higher a person's education, the more open their thinking to receiving information about health both for herself and her family (Naja et al., 2020). Lack of knowledge and fear of the unknown during pregnancy and childbirth make mothers worried and anxious (Hassanzadeh et al., 2020). The level of education can influence a person's perception of accepting new ideas. The higher a person's education, the more open their thinking to receiving health information both for himself and his family (Hassanzadeh et al., 2020).

*Social support*

Social support is a much-needed thing for pregnant women (Patel et al., 2018). Social support for pregnant women has a very important role (Naja et al., 2020).

*Age*

Age is the main cause of anxiety in pregnant women, a person's age can affect a person's psychological state. A person who experiences pregnancy at too young and too old age will affect an emotional state and anxiety, in pregnant women under 20 years old, will feel that they are too young to experience pregnancy so various fears arise about the labor process (Naja et al., 2020).

*Environment*

The situation of the surrounding environment also affects the mother's situation indirectly, if the surrounding community can accept and support the mother's situation, it will help the mother to socialize with the surrounding life and then it influences the mother's condition, especially in the mother's feelings (Naja et al., 2020).

*The effect of WhatsApp media to reduce the anxiety*

The development of technology is increasing the potential for improving high-quality services, therefore technological developments in the use of social media, one of which is Whatsapp application which has been widely used to share information. Whatsapp can be peddled as one way of providing health information so that it can increase women's knowledge and reduce the level of anxiety in pregnant women, the use of WhatsApp has been used both personally and in groups (Saputra, 2020). Whatsapp groups can be used to convey information, education, and communication about health (Patel et al., 2018). WhatsApp is increasingly being integrated into public health spaces to help healthcare workers (Patel et al., 2018).

Group discussions through the WhatsApp group, where participants in the group can listen wherever they are, and they are freer to ask questions in the chat group forum and are not limited by time (Patel et al., 2018; Pham et al., 2014; Puertas-Gonzalez et al., 2021). Whatsapp group-based services are really good to be used to provide social support during pregnancy, in the WhatsApp group pregnant women are calmer after getting assistance and discussing through the WhatsApp group (Trude et al., 2021). Health education can be used as an appropriate method to improve the welfare of the community (Ningsih et al., 2021).

The use of WhatsApp group is effective to increase mothers' knowledge, WhatsApp group is used to discuss childbirth so by joining WhatsApp group, pregnant women can increase the knowledge they have about the labor process. If they know about pregnancy, they will be more accepting of their pregnancy and think positively about the process of childbirth. Moreover, it can reduce the level of anxiety felt by pregnant women, especially primigravida who have no previous experience of giving birth (Mulyati, 2020).

**Conclusion**

The result of the scoping review is one of the efforts that can be made by health workers to reduce the level of anxiety in pregnant women, i.e., by providing counseling about childbirth, the purpose of this way is to increase the knowledge of pregnant women about childbirth. The use of WhatsApp group is one of the social media that can be used in providing education to pregnant women, communication through WhatsApp groups will help a mother in increasing her understanding of childbirth so the use of WhatsApp groups can increase their knowledge of pregnant women so that the level of anxiety felt by pregnant women will decrease. Based on the results of the finding, the researcher expects that this research can be used as input for health workers, especially in the midwife profession, to be able to further improve obstetric care services and anxiety management for pregnant women who face childbirth. The author hopes that this research can be used as an additional reference for subsequent researchers and can also be used as material to increase efforts in health promotion, especially in providing education to reduce the anxiety felt by pregnant women.

**References**

Apriza, A., Erlinawati, E., Anita, R., & Fira, H. (2021). Penurunan Kecemasan Pada Ibu Hamil Risiko Tinggi

- melalui Citronella Oil Therapy. *Aulad: Journal on Early Childhood*, 4(2), 122-127.
- Barimani, M., Frykedal, K. F., Rosander, M., & Berlin, A. (2018). Childbirth and parenting preparation in antenatal classes. *Midwifery*, 57, 1-7. <https://doi.org/10.1016/j.midw.2017.10.021>
- Brunton, R., Simpson, N., & Dryer, R. (2020). Pregnancy-related anxiety, perceived parental self-efficacy and the influence of parity and age. *International Journal of environmental research and public health*, 17(18), 6709.
- Cookson, H., Granell, R., Joinson, C., Ben-Shlomo, Y., & Henderson, A. J. (2009). Mothers' anxiety during pregnancy is associated with asthma in their children. *Journal of Allergy and Clinical Immunology*, 123(4), 847-853. <https://doi.org/10.1016/j.jaci.2009.01.042>
- Deklava, L., Lubina, K., Circenis, K., Sudraba, V., & Millere, I. (2015). Causes of anxiety during pregnancy. *Procedia-Social and Behavioral Sciences*, 205, 623-626. <https://doi.org/10.1016/j.sbspro.2015.09.097>
- Garcia-Gonzalez, J., Ventura-Miranda, M. I., Requena-Mullor, M., Parron-Carreño, T., & Alarcon-Rodriguez, R. (2018). State-trait anxiety levels during pregnancy and foetal parameters following intervention with music therapy. *Journal of Affective Disorders*, 232, 17-22.
- Gourounti, K., Anagnostopoulos, F., & Sandall, J. (2014). Poor marital support associate with anxiety and worries during pregnancy in Greek pregnant women. *Midwifery*, 30(6), 628-635. <https://doi.org/10.1016/j.midw.2013.10.008>
- Gourounti, K., Lykeridou, K., Taskou, C., Kafetsios, K., & Sandall, J. (2012). A survey of worries of pregnant women: Reliability and validity of the Greek version of the Cambridge Worry Scale. *Midwifery*, 28(6), 746-753. <https://doi.org/10.1016/j.midw.2011.09.004>
- Hassanzadeh, R., Abbas-Alizadeh, F., Meedya, S., Mohammad-Alizadeh-Charandabi, S., & Mirghafourvand, M. (2021). Primiparous women's knowledge and satisfaction based on their attendance at childbirth preparation classes. *Nursing Open*, 8(5), 2558-2566. <https://doi.org/10.1002/nop2.787>
- Herawati, Y., Fitri, D. M., & Paulina, R. (2021). Aspek Kecemasan Ibu Hamil Trimester Iii Di Puskesmas Pasir Mulya Kecamatan Bogor Barat. *Jurnal Kesehatan Dan Kebidanan (Journal Of Health And Midwifery)*, 10(2), 1-8.
- Martini, J., Knappe, S., Beesdo-Baum, K., Lieb, R., & Wittchen, H. U. (2010). Anxiety disorders before birth and self-perceived distress during pregnancy: associations with maternal depression and obstetric, neonatal and early childhood outcomes. *Early human development*, 86(5), 305-310. <https://doi.org/10.1016/j.earlhumdev.2010.04.004>
- Mulyani, S. (2018). Work and knowledge of mother readiness in exclusive breastfeeding. *International Research Journal of Management, IT and Social Sciences*, 5(4), 91-97. <https://doi.org/10.21744/irjmis.v5n4.274>
- Mulyani, S., Subiyanto, A., Anantanyu, S., Respati, S. H., & Wiboworini, B. (2017). Path analysis: knowledge, motivation factor, and their relationship with readiness to provide exclusive breastfeeding among pregnant women. *International Research Journal of Management, IT and Social Sciences*, 4(1), 8-14. Retrieved from <https://sloap.org/journals/index.php/irjmis/article/view/430>
- Mulyati, I. (2020). *in Trimester Iii Pregnant Women Towards Anxiety in Dealing With Labor*. 8(2), 220-230.
- Naja, S., Al Kubaisi, N., Singh, R., & Bougmiza, I. (2020). Generalized and pregnancy-related anxiety prevalence and predictors among pregnant women attending primary health care in Qatar, 2018-2019. *Heliyon*, 6(10), e05264. <https://doi.org/10.1016/j.heliyon.2020.e05264>
- Namgung, R., & Tsang, R. C. (2003). Bone in the pregnant mother and newborn at birth. *Clinica chimica acta*, 333(1), 1-11. [https://doi.org/10.1016/S0009-8981\(02\)00025-6](https://doi.org/10.1016/S0009-8981(02)00025-6)
- Nath, S., Pearson, R. M., Moran, P., Pawlby, S., Molyneaux, E., Challacombe, F. L., & Howard, L. M. (2019). The association between prenatal maternal anxiety disorders and postpartum perceived and observed mother-infant relationship quality. *Journal of anxiety disorders*, 68, 102148. <https://doi.org/10.1016/j.janxdis.2019.102148>
- Ningsih, D. A., & Fahriani, M. (2021). Perbandingan Pendidikan Kesehatan Dengan Metode Tatap Muka Dan Metode Sosial Media Tentang Persalinan Terhadap Kecemasan Ibu Hamil Trimester III. *An-Nadaa: Jurnal Kesehatan Masyarakat (e-Journal)*, 8(1), 1-7.
- Nyoman, N., Yanti, L., Made, N., Mahayati, D., Armini, N. W., Nyoman, N., Yanti, L., Made, N., Mahayati, D., Armini, N. W., Denpasar, K., & Kebidanan, J. (2021). Penyuluhan Dengan Media Video Melalui Whatsapp Group Tentang Abstract Education With Video Media Through Whatsapp Group About Hepatitis B Can. *Jurnal Kebidanan Malahayati*, 7, 824-829.
- Patel, S. J., Subbiah, S., Jones, R., Muigai, F., Rothschild, C. W., Omwodo, L., ... & Nour, N. M. (2018). Providing support to pregnant women and new mothers through moderated WhatsApp groups: a feasibility study. *Mhealth*, 4.
- Pavlidis, N., & Pentheroudakis, G. (2005). The pregnant mother with breast cancer: diagnostic and therapeutic

- management. *Cancer treatment reviews*, 31(6), 439-447. <https://doi.org/10.1016/j.ctrv.2005.04.010>
- Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & McEwen, S. A. (2014). A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Research synthesis methods*, 5(4), 371-385.
- Pinar, G., Avsar, F., & Aslantekin, F. (2018). Evaluation of the impact of childbirth education classes in Turkey on adaptation to pregnancy process, concerns about birth, rate of vaginal birth, and adaptation to maternity: a case-control study. *Clinical nursing research*, 27(3), 315-342.
- Puertas-Gonzalez, J. A., Mariño-Narvaez, C., Peralta-Ramirez, M. I., & Romero-Gonzalez, B. (2021). The psychological impact of the COVID-19 pandemic on pregnant women. *Psychiatry Research*, 301, 113978. <https://doi.org/10.1016/j.psychres.2021.113978>
- Saputra, S. (2020). Efektivitas Komunikasi Interpersonal Dalam Kegiatan Pembelajaran Melalui Media Whatsapp Group. *Professional: Jurnal Komunikasi dan Administrasi Publik*, 7(1), 11-21.
- Trude, A. C., Martins, R. C., Martins-Silva, T., Blumenberg, C., Carpena, M. X., Del-Ponte, B., & Loret de Mola, C. (2021). A WhatsApp-Based Intervention to Improve Maternal Social Support and Maternal–Child Health in Southern Brazil: The Text-Message Intervention to Enhance Social Support (TIES) Feasibility Study. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 58, 00469580211048701.