

## THE EFFECT OF MARYAM SONG THERAPY ON ANXIETY LEVELS AMONG PREGNANT WOMEN PRIOR TO CHILDBIRTH

Musni<sup>1</sup>, Mutmainnahi<sup>2</sup>, St. Malka<sup>3</sup>, Alfian Mas'ud<sup>4</sup>

<sup>1,2,3</sup>Midwifery Study Program, Batari Toja Bone Institute, Bone, South Sulawesi

<sup>4</sup>Nurse Study Program, Batari Toja Bone Institute, Bone, South Sulawesi

Email correspondence : musni.m2019@gmail.com

### ABSTRAK : TERAPI LAGU MARYAM DAPAT MENURUNKAN KECEMASAN IBU HAMIL MENJELANG PERSALINAN

Latar Belakang: Kecemasan pada ibu hamil trimester III merupakan masalah psikologis yang umum terjadi dan dapat memengaruhi kesiapan mental dalam menghadapi persalinan serta berpotensi meningkatkan risiko maternal. Oleh karena itu, diperlukan intervensi nonfarmakologis yang aman, dapat diterima secara kultural, dan bernuansa spiritual untuk membantu menurunkan kecemasan pada akhir masa kehamilan. Salah satu intervensi tersebut adalah terapi Lagu Maryam yang diadaptasi dari lantunan Surah Maryam

Tujuan: Penelitian ini bertujuan untuk mengetahui pengaruh terapi Lagu Maryam terhadap tingkat kecemasan ibu hamil trimester III menjelang persalinan

Metode: Penelitian ini menggunakan desain kuantitatif pra-eksperimental dengan pendekatan *one-group pretest-posttest*. Penelitian dilaksanakan di Desa Barebbo, Kecamatan Barebbo, Kabupaten Bone pada bulan Desember 2025. Sampel penelitian berjumlah 25 ibu hamil trimester III yang memenuhi kriteria inklusi. Tingkat kecemasan diukur menggunakan kuesioner sebelum dan sesudah intervensi. Analisis data dilakukan secara univariat dan bivariat menggunakan uji Wilcoxon.

Hasil: Sebelum intervensi, sebagian besar responden mengalami kecemasan sedang sebanyak 15 orang (60%) dan kecemasan ringan sebanyak 10 orang (40%). Setelah diberikan terapi Lagu Maryam, proporsi kecemasan sedang menurun menjadi 7 orang (28%), sedangkan kecemasan ringan meningkat menjadi 18 orang (72%). Hasil uji Wilcoxon menunjukkan nilai  $p = 0,000$  ( $p < 0,05$ ), yang menandakan adanya penurunan tingkat kecemasan yang bermakna setelah intervensi.

Kesimpulan: Terapi Lagu Maryam merupakan intervensi nonfarmakologis yang efektif dalam menurunkan tingkat kecemasan pada ibu hamil trimester III. Terapi ini memberikan efek relaksasi psikologis melalui stimulasi auditif bernuansa spiritual, sehingga meningkatkan ketenangan dan kesiapan ibu dalam menghadapi persalinan.

Saran: Terapi Lagu Maryam dapat diintegrasikan ke dalam pelayanan antenatal sebagai pendekatan komplementer untuk mendukung kesehatan mental ibu hamil pada akhir masa kehamilan.

Kata Kunci : Kecemasan; Ibu Hamil; Lagu Maryam; Trimester III; Terapi Nonfarmakologis

### ABSTRACT

Background: Anxiety in third-trimester pregnant women is a common psychological problem that can affect mental readiness for childbirth and potentially increase maternal risks. Non-pharmacological interventions that are safe, culturally acceptable, and spiritually oriented are needed to help reduce anxiety during late pregnancy. One such intervention is Maryam Song therapy, adapted from the recitation of Surah Maryam.

Objective: This study aimed to determine the effect of Maryam Song therapy on anxiety levels among third-trimester pregnant women prior to childbirth.

Methods: This study employed a quantitative pre-experimental design with a one-group pretest-posttest approach. The research was conducted in Barebbo Village, Barebbo District, Bone Regency, in December 2025. A total of 25 third-trimester pregnant women who met the inclusion criteria were recruited as respondents. Anxiety levels were measured using a questionnaire before and after the intervention. Data were analyzed using univariate analysis and the Wilcoxon test.

Results: Before the intervention, most respondents experienced moderate anxiety (15 participants; 60%) and mild anxiety (10 participants; 40%). After the implementation of Maryam Song therapy, the proportion of moderate anxiety decreased to 7 participants (28%), while mild anxiety increased to 18 participants (72%). The Wilcoxon test revealed a p-value of 0.000 ( $p < 0.05$ ), indicating a statistically significant reduction in anxiety levels following the intervention.

Conclusion: Maryam Song therapy is an effective non-pharmacological intervention for reducing anxiety in third-trimester pregnant women. This therapy promotes psychological relaxation through spiritually based auditory stimulation, thereby enhancing maternal calmness and readiness for childbirth.

Recommendation: Maryam Song therapy may be incorporated into antenatal care services as a complementary approach to support maternal mental health during late pregnancy. tolong translate ke bahasa Indonesia

Keywords: Pregnancy; Anxiety; Maryam Song; Third Trimester; Non-Pharmacological Therapy

## INTRODUCTION

Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) remain important indicators for evaluating the quality of maternal and neonatal health services. Childbirth is a physiological process; however, it may develop into a complex and high-risk condition when influenced by various medical and psychological factors. Among non-medical factors, anxiety experienced by pregnant women, particularly prior to labor, has been identified as a significant contributor that may affect labor outcomes and maternal readiness for childbirth (Growth et al. 2022)

The prevalence of anxiety during pregnancy varies across countries, influenced by differences in population characteristics and research methodologies. Global meta-analyses report that approximately 27%–37% of pregnant women experience anxiety symptoms across all trimesters. These findings indicate that antenatal anxiety is a common psychological condition worldwide and represents an important concern in maternal health that requires appropriate preventive and management strategies. (Meng et al. 2025)

In Indonesia, studies have consistently reported a high prevalence of anxiety among pregnant women, particularly during the third trimester. National and regional studies indicate that approximately 28%–48% of pregnant women experience anxiety when approaching childbirth. This high prevalence suggests that a substantial proportion of pregnant women face psychological challenges that may interfere with emotional stability and preparedness for labor (FADILA 2024).

The persistence of antenatal anxiety highlights the need for comprehensive approaches in maternal health services. Anxiety during pregnancy has been associated with sleep disturbances, increased perception of pain, prolonged labor, and reduced maternal well-being. Therefore, strengthening psychosocial support and integrating mental health interventions into routine antenatal care remain essential components of quality midwifery services. (Rosdianah 2024)

Efforts to manage anxiety in pregnant women have traditionally emphasized medical and pharmacological approaches, while non-pharmacological interventions have not been optimally utilized. In practice, anxiety management in antenatal care is still dominated by breathing techniques, pregnancy exercise programs, and general counseling. Although non-pharmacological interventions are recognized as safe, cost-effective, and easy to implement, their application in clinical midwifery settings remains limited and inconsistent, reflecting an existing practice gap (Ayu Rahmadhani, Tutik Agustini, and Yusrah Taqiyah 2021).

Several studies have demonstrated that auditory-based relaxation therapy can effectively reduce anxiety levels. Interventions such as music therapy and *murottal* (Qur'anic recitation) have been shown to produce calming effects through auditory stimulation that promotes relaxation and emotional comfort. Religious or spiritually oriented auditory interventions, in particular, have been associated with reduced anxiety and improved psychological well-being among pregnant women (Yuni Astuti, Fitri Wahyuni, and Shella Nur Jayanti 2024) (Lilik Farihatul Mufarrohah and Tut Rahyani A. W 2025).

Despite this growing body of evidence, most existing studies focus on general *murottal* recitation or religious music without exploring structured adaptations designed specifically for maternal psychological needs. Research that examines the adaptation of Surah Maryam into a therapeutic song format as a targeted relaxation intervention remains limited. This indicates a theoretical gap, as the specific contribution of spiritually meaningful and contextually adapted auditory therapy to anxiety reduction has not been sufficiently explored.

*Murottal* of Surah Maryam is an audio medium with religious nuances characterized by a gentle melody, stable tempo, and profound spiritual meaning. This song has the potential to be used as a relaxation therapy to help pregnant and laboring women manage anxiety, enhance inner calmness, and improve mental readiness for childbirth (Susanti and Djannah 2023). Psychologically, listening to religious-themed music can divert attention away

from pain and fear, create a positive emotional atmosphere, and support a smoother labor process (Ibu et al. 2025).

From a cultural perspective, this study is conducted in a community with strong religious values, where spiritual practices are widely accepted and deeply embedded in daily life. Although spiritually based interventions may have high cultural acceptance, empirical evidence supporting their effectiveness as evidence-based anxiety-reduction strategies in maternal care remains limited. This lack of context-specific data represents a contextual (cultural) gap in the existing literature

However, the utilization of *Murottal* Surah Maryam as a relaxation therapy in midwifery services and community health education activities has not yet been implemented in a structured manner. Limited knowledge among pregnant women and their families regarding non-pharmacological relaxation techniques remains a major barrier to the prevention of maternal and neonatal emergencies. Therefore, systematic and culturally based health education is needed to enhance pregnant women's understanding and skills in managing anxiety throughout pregnancy and childbirth (Hadi and Stefanus Lukas 2024).

Based on these considerations, the adaptation of *Murottal* Surah Maryam into Maryam Song therapy is proposed as a culturally relevant and spiritually meaningful non-pharmacological intervention to reduce anxiety among third-trimester pregnant women prior to childbirth. This study aims to address the identified theoretical, practical, and contextual gaps by evaluating the effectiveness of Maryam Song therapy in supporting maternal psychological readiness for labor and contributing to the development of holistic midwifery care.

## RESEARCH METHODOLOGY

This study employed a quantitative approach using a pre-experimental one-group pretest–posttest design. This design was selected as a preliminary investigation to evaluate the effectiveness of Maryam Song therapy in a real-world community setting where the establishment of a control group was not feasible due to ethical and logistical considerations. Although this design has limitations in controlling for confounding variables, it allows for initial evaluation of intervention effects within a natural clinical context and is appropriate for exploratory studies of culturally adapted therapies.

The study was conducted in Barebbo Village, Barebbo Subdistrict, Bone Regency, in December

2025. The population consisted of all third-trimester pregnant women residing in the study area. Sample size estimation was calculated using a paired mean difference formula for pretest–posttest studies with an assumed medium effect size ( $d = 0.5$ ), 95% confidence level, and 80% statistical power, resulting in a minimum required sample of 22 participants. To anticipate potential dropouts, 25 eligible pregnant women who met the inclusion criteria and provided informed consent were recruited as the final sample using total sampling.

The independent variable was Maryam Song therapy, and the dependent variable was anxiety level among third-trimester pregnant women. Anxiety was measured using the **Hamilton Anxiety Rating Scale (HARS)**, a widely used instrument consisting of 14 items assessing psychological and somatic anxiety symptoms. The Indonesian version of HARS has demonstrated good validity and reliability, with a reported Cronbach's alpha of 0.85. In the present study, reliability testing yielded a Cronbach's alpha coefficient of 0.87, indicating good internal consistency.

The intervention protocol was standardized to ensure replicability. Maryam Song therapy consisted of an adapted audio recording derived from the recitation of Surah Maryam, arranged with a slow tempo and soft instrumental background. The therapy was administered once daily for three consecutive days. Each session lasted approximately 15–20 minutes. Participants listened to the audio through a headset in a comfortable seated or semi-recumbent position in a quiet room at the community health post. The intervention was supervised by the researcher to ensure adherence to the protocol.

Data collection began with a pretest assessment of anxiety levels using HARS prior to the intervention. Following completion of the three-day therapy sessions, a posttest assessment was conducted using the same instrument. Univariate analysis was used to describe respondent characteristics (age, gravidity, and anxiety levels). Because the anxiety scores were not normally distributed (Shapiro–Wilk test  $p < 0.05$ ) and the data were ordinal in nature, bivariate analysis was performed using the Wilcoxon signed-rank test to compare pretest and posttest scores.

To strengthen statistical interpretation, effect size ( $r$ ) was calculated using the formula  $r = Z / \sqrt{N}$ . The analysis yielded an effect size of  $r = 0.62$ , indicating a large practical effect of the intervention according to Cohen's criteria. This suggests that Maryam Song therapy not only produced statistically significant results but also demonstrated

substantial clinical relevance. All participants were provided with detailed information regarding the study objectives, procedures, potential benefits, and their rights as respondents. Written informed consent was obtained prior to participation, and confidentiality of personal data was strictly maintained throughout the research process.

## RESEARCH RESULTS

### Univariate analysis

Based on Table 1, Based on the age characteristics of the respondents, the majority of pregnant women were in the 21–30 year age group, totaling 15 individuals (60%). Respondents aged under 21 years and over 30 years each accounted for 5 individuals (20%). This distribution indicates that most respondents were within the optimal reproductive age range. In terms of gravidity, the largest proportion of respondents were experiencing their first pregnancy (gravida 1), with 8 individuals (32%). This was followed by women in their second pregnancy (gravida 2), totaling 6 individuals (24%), and those in their third pregnancy (gravida 3), with 5 individuals (20%). Meanwhile, respondents with fourth and fifth pregnancies (gravida 4 and gravida 5) each comprised 3 individuals (12%). This distribution reflects variability in pregnancy experience among respondents, with the highest proportion observed among first-time pregnant women.

**Table 1**  
**Respondent Characteristic**

Characteristic	N	%
Age		
< 21	5	20
21 – 30	15	60
> 30	5	20
Gravidity		
1	8	32
2	6	24
3	5	20
4	3	12
5	3	12

### Bivariate analysis

Based on Table 2, the analysis results, prior to the administration of Maryam Song therapy (*pre-test*), the majority of respondents experienced a moderate level of anxiety, totaling 15 individuals (60%), while 10 respondents (40%) were categorized as having mild anxiety. Following the implementation of Maryam Song therapy (*post-test*), a shift in the distribution of anxiety levels was observed, with the number of respondents experiencing moderate anxiety decreasing to 7 individuals (28%), and those with mild anxiety increasing to 18 individuals (72%).

**Table 2**  
**Frequency Distribution of anxiety level Before and After Maryam Song Therapy**

Pain Scale	Effects of Song Maryam				P
	Pre	%	Post	%	
Moderate	15	60	7	28	0,000
Mild	10	40	18	72	

The statistical test results revealed a *p*-value of 0.000, indicating a statistically significant difference in anxiety levels before and after the intervention. These findings demonstrate that Maryam Song therapy administered prior to childbirth has a significant effect in reducing anxiety levels among the respondents.

## DISCUSSION

Anxiety is an emotional condition characterized by feelings of worry, tension, or uneasiness about uncertain outcomes and may accompany, influence, or contribute to the development of depression (Dennis, Falah-Hassani, and Shiri 2017). In pregnant women, anxiety commonly arises from fear, with one of the most

frequently experienced concerns being anxiety related to childbirth. Psychological changes during pregnancy are influenced by various factors, including increased progesterone hormone production. Progesterone affects the psychological state of pregnant women; however, psychological changes are not solely determined by hormonal factors but are also influenced by individual psychological vulnerability, commonly referred to as personality traits (Mikołajków and Małyszczak 2022) (Zhang et al. 2023)

Based on Table 2, the percentage of anxiety levels among pregnant women before receiving Maryam Song therapy showed that the majority of respondents experienced **moderate anxiety**, with 15 individuals (60%), while 10 individuals (40%)

experienced **mild anxiety**. These findings suggest that most third-trimester pregnant women experienced a moderate level of anxiety in facing childbirth. Anxiety during late pregnancy is often characterized by a range of psychological and physical symptoms, including excessive worry, restlessness, fear, sleep disturbances, and somatic complaints such as dizziness and headaches. Research has shown that emotional disturbances such as anxiety are common in late pregnancy and can significantly affect maternal well-being, including sleep quality and psychological comfort as women approach childbirth. (Pascal et al. 2023).

The results of the bivariate analysis using the Wilcoxon test revealed a  $p$ -value of 0.000, which is lower than the significance level of 0.05. This finding indicates that Maryam Song therapy has a significant effect on reducing anxiety levels among pregnant women prior to childbirth. Physiologically, Maryam Song therapy provides auditory stimulation that is processed by the brain, triggering the release of chemical substances known as neuropeptides. These molecules transmit signals to receptors throughout the body and generate feedback responses in the form of relaxation and comfort. The slow tempo, gentle melody, and deep emotional expression of the Maryam Song are capable of eliciting a relaxation response, thereby contributing to a reduction in maternal anxiety levels.

The effectiveness of *murottal* therapy using Surah Maryam is further supported by a study conducted at Bhayangkara Hospital, Banjarmasin, which demonstrated that listening to *murottal* recitation of Surah Maryam significantly reduced anxiety levels among third-trimester pregnant women. The study reported a decrease in the mean anxiety score from 39.00 prior to the intervention to 30.54 after the intervention, with statistical analysis showing a  $p$ -value of less than 0.05 and a mean difference of 8.46 between pretest and posttest scores. These findings reinforce existing evidence that exposure to *murottal* recitation of Surah Maryam produces a significant relaxation effect, contributing to a reduction in maternal anxiety as childbirth approaches (Ibu et al. 2025).

The findings of this study are consistent with the research conducted by Fikriya, which reported that listening to *murottal* recitation was able to produce a significant effect in reducing anxiety among women in late pregnancy. The study indicated that the average reduction in anxiety scores in the intervention group was 9.27 points, compared to only 1.17 points in the control group (Fikriya, Widiawati, and Fatimah 2024).

Overall, the findings of this study further confirm that Maryam Song therapy is an effective, safe, and culturally appropriate intervention for reducing anxiety among third-trimester pregnant women. This therapy has the potential to be integrated into primary healthcare services, such as community health posts (*posyandu*), particularly in rural areas, as part of a holistic approach that combines medical and spiritual aspects of antenatal care.

## CONCLUSION

This study demonstrates that Maryam Song therapy is an effective non-pharmacological intervention for reducing anxiety among third-trimester pregnant women approaching childbirth. The intervention addresses the research objective by confirming that auditory-based relaxation with spiritual nuances can positively influence maternal psychological readiness for labor. The reduction in anxiety levels reflects the therapeutic mechanism of auditory stimulation that promotes relaxation responses and emotional comfort, which are essential in managing antenatal anxiety. Beyond its clinical effectiveness, this therapy offers a culturally relevant and safe approach that aligns with the spiritual values of the community, thereby enhancing its acceptability and feasibility in maternal health services. The findings contribute to the development of holistic midwifery care by integrating psychological and spiritual dimensions into antenatal interventions, particularly within primary healthcare and community-based settings. This approach supports efforts to improve maternal well-being and may play a role in preventing complications associated with heightened anxiety during late pregnancy and childbirth.

## SUGGESTION

This study has several limitations that should be considered when interpreting the findings. The use of a one-group pretest–posttest design without a control group limits internal validity and does not fully control for potential confounding variables. In addition, the relatively small sample size and the single-community setting may restrict the generalizability of the results to broader populations of pregnant women.

Considering these limitations, the findings of this study suggest that Maryam Song therapy may be explored as a complementary, non-pharmacological approach for managing anxiety among third-trimester pregnant women in similar community settings. Healthcare providers, particularly midwives, may consider introducing this

intervention on a trial basis as part of supportive antenatal care, while carefully monitoring maternal responses and outcomes. However, routine implementation in clinical practice should be approached cautiously until stronger evidence is available.

Furthermore, future research is strongly recommended to employ controlled or randomized study designs with larger and more diverse samples to improve internal validity and generalizability. Subsequent studies should also examine the optimal duration, frequency, and delivery method of Maryam Song therapy, as well as assess safety, acceptability, and cultural relevance using validated measures. Such research will be essential to establish more robust evidence regarding the effectiveness and applicability of Maryam Song therapy in reducing maternal anxiety.

## REFERENCES

- Ayu Rahmadhani, Tutik Agustini, and Yusrah Taqiyah. 2021. "Pengaruh Terapi Murottal Al – Qur'an Terhadap Tingkat Kecemasan Ibu Hamil Trimester III Dalam Menghadapi Proses Persalinan." *Window of Nursing Journal* 4(7): 113–22. doi:10.33096/won.v2i2.831.
- Dennis, Cindy Lee, Kobra Falah-Hassani, and Rahman Shiri. 2017. "Prevalence of Antenatal and Postnatal Anxiety: Systematic Review and Meta-Analysis." *British Journal of Psychiatry* 210(5): 315–23. doi:10.1192/bjp.bp.116.187179.
- FADILA, VIVI APRILIA. 2024. "Hubungan Dukungan Keluarga Dengan Tingkat Kecemasan Dalam Mempersiapkan Persalinan Pada Ibu Hamil Primigravida Trimester Iii Di Rsia Sitti Khadijah 1 Makassar." *Al-Iqra Medical Journal: Jurnal Berkala Ilmiah Kedokteran* 7(1): 09–19. doi:10.26618/aimj.v7i1.10407.
- Fikriya, Ida Widiawati, and Yulia Ulfah Fatimah. 2024. "The Effect of Murottal Al-Qur'an on the Anxiety of Pregnant Women in the Third Trimester in the Independent Practice of Midwives in the Bandung City Region." *Jurnal Kebidanan Kestra (Jkk)* 7(1): 33–40. doi:10.35451/jkk.v7i1.2268.
- Growth, Regarding, Development In, Selected Rural, and Area At. 2022. "Murottal Al Quran Mengurangi Kecemasan Ibu Hamil." *Journal of Health Educational Science And Technology* 10(2277): 16–17.
- Hadi, Wibowo Anton, and Stefanus Lukas. 2024. "Pengaruh Pemberian Terapi Murottal Al-Qur'an Terhadap Penurunan Kecemasan Pada Ibu Hamil Trimester III Di Puskesmas Sanggau Ledo." *Seroja Husada Jurnal Kesehatan Masyarakat* 1(5): 372–83. <https://doi.org/10.572349/verba.v2i1.363>.
- Ibu, Kecemasan, Hamil Trimester, I I I Di, Ruang Penyakit, Dalam Rumah, Sakit Bhayangkara, and T K Iii. 2025. "Sains Medisina." 3(4): 187–95.
- Lilik Farihatul Mufarrohah, and Tut Rahyani A. W. 2025. "Pengaruh Terapi Murottal Terhadap Tingkat Kecemasan Pada Ibu Hamil Trimester III Di Desa Tawang Rejeni Kecamatan Turen." *Jurnal Ilmiah Kedokteran dan Kesehatan* 4(3): 224–32. doi:10.55606/klinik.v4i3.4592.
- Meng, Weicui, Sufeila Shalayiding, Xiaoting Wang, Bahedana Sailike, and Ting Jiang. 2025. "Relationship between Prenatal Anxiety, Depression, Pregnancy Stress and Their Social Determinants." *BMC Psychology* 13(1). doi:10.1186/s40359-025-03237-3.
- Mikołajków, Agata, and Krzysztof Małyszczak. 2022. "Biological Factors and Consequences of Pregnancy-Related Anxiety – What Do We Know so Far?" *Psychiatria Polska* 56(6): 1289–1314. doi:10.12740/PP/144138.
- Pascal, Rosalia, Irene Casas, Marion Genero, Ayako Nakaki, Lina Youssef, Marta Larroya, Leticia Benitez, et al. 2023. "Maternal Stress, Anxiety, Well-Being, and Sleep Quality in Pregnant Women throughout Gestation." *Journal of Clinical Medicine* 12(23): 1–16. doi:10.3390/jcm12237333.
- Rosdianah, S. 2024. "Pengaruh Terapi Murottal Al-Qur'an Terhadap Tingkat Kecemasan, Depresi." dan self-efficacy pada pasien pasca stroke di Stroke Centre RSKD Dadi Provinsi Sulawesi Selatan (Doctoral dissertation 8(1): 38–46.
- Susanti, Dewi, and Roichatul Djannah. 2023. "Efektivitas Therapy Musik Relaksasi Terhadap Tingkat Kecemasan Ibu Hamil." *Jurnal Ilmu Kesehatan Karya Bunda Husada* 9(2): 18–23. doi:10.56861/jikkbh.v9i2.122.
- Yuni Astuti, Fitri Wahyuni, and Shella Nur Jayanti. 2024. "Efektivitas Terapi Murottal Al-Qur'an Terhadap Tingkat Kecemasan Ibu Hamil Trimester III Di Wilayah Binaan Puskesmas Karangdoro Semarang." *Protein : Jurnal Ilmu Keperawatan dan Kebidanan*. 2(3): 284–93. doi:10.61132/protein.v2i3.713.
- Zhang, Teng, Meilin Liu, Fanli Min, Wei Wei, Yuan Liu, Jiao Tong, Qian Meng, Lizhou Sun, and

Xu Chen. 2023. "Fear of Childbirth and Its Determinants in Pregnant Women in the Third Trimester: A Cross-Sectional Study."

*BMC Psychiatry* 23(1): 1–12.  
doi:10.1186/s12888-023-05070-7.