

Increasing the role of husbands in supporting the mental health of pregnant women in the third trimester through childbirth preparation education

Yoga Tri Wijayanti^{1*}, Ummul Khair², Gustini³

¹ Department of Midwifery, Poltekkes Kemenkes Tanjungkarang, Lampung, Indonesia.

² Department of Midwifery, Universitas Mega Buana, Sulawesi Selatan, Indonesia

³ Department of Nursing, STIKes Bala Keselamatan Palu, Central Sulawesi, Indonesia

Submitted: 2025-08-29; Revised: 2025-09-29; Accepted: 2025-09-30; Published: 2025-10-01

KEYWORDS:

Childbirth,
Education,
Husband Support,
Mental Health,
Pregnance

ABSTRACT

Pregnancy, particularly in the third trimester, is a critical phase where women often experience increased anxiety, stress, and emotional changes due to physical discomfort and anticipation of childbirth. The role of husbands as primary companions during this stage is essential to provide psychological support and strengthen maternal mental health. This community service program aimed to increase husbands' involvement in supporting their wives through structured childbirth preparation education. The program was conducted using participatory methods, including counselling sessions, interactive discussions, and practical demonstrations that involved both pregnant women and their husbands. Educational materials covered topics such as recognising emotional changes, stress management, effective communication, relaxation techniques, and preparation for public speaking. The results showed that husbands who participated in the program demonstrated improved understanding of maternal needs, enhanced empathy, and greater readiness to provide emotional and physical support. Pregnant women reported feeling more secure, valued, and less anxious when their husbands actively engaged in the preparation process. This initiative highlights the importance of involving partners not only in physical readiness for childbirth but also in strengthening mental resilience. In conclusion, childbirth preparation education for husbands is an effective strategy to foster supportive family environments, reduce maternal stress, and promote healthier maternal mental well-being during the third trimester of pregnancy. This approach is recommended as a sustainable community-based intervention to improve maternal health outcomes.



*Corresponding author:

Yoga Tri Wijayanti

Midwifery Study Program, Poltekkes Kemenkes Tanjungkarang, Lampung, Indonesia

Email: yogatriwijayanti@poltekkes-tjk.ac.id



This work is licensed under a Creative Commons Attribution 4.0 International License.

1. INTRODUCTION

Pregnancy is one of the most significant transitional periods in a woman's life, both biologically and psychologically, as well as socially (Aligoltabar et al., 2025). The third trimester, which represents the final stage of pregnancy, is particularly critical. During this phase, women often experience heightened physical discomfort, anxiety about labor, and emotional fluctuations that can impact their overall well-being (Fitriani & Anita, 2025). Mental health issues such as excessive worry, mood instability, or even depression may arise if proper support systems are not in place (Priharwanti et al., 2025). It is therefore crucial that the health and well-being of

expectant mothers during this period be seen as a collective responsibility, not only for healthcare providers but also for families, especially husbands (Cahya Mulat et al., 2025).

Husbands play an essential role in the pregnancy journey, yet their involvement is often overlooked or considered secondary to the maternal role (Ether et al., 2025). Many cultures traditionally position men as passive supporters, focusing more on economic or logistical contributions while leaving the emotional and psychological aspects entirely to the expectant mother or healthcare professionals (Haim-Dahan et al., 2025). However, modern approaches to maternal and child health emphasize the importance of paternal involvement. Studies indicate that when husbands are actively engaged in pregnancy and childbirth preparation, maternal anxiety decreases, self-confidence increases, and the overall mental health of pregnant women improves significantly (Zhao et al., 2025).

The third trimester is a phase marked by anticipation and apprehension. Pregnant women may begin to fear labor pain, potential complications, or changes in family dynamics after the baby's arrival (Bist et al., 2025). Without proper emotional support, these concerns can escalate into severe psychological distress. Childbirth preparation education programs can serve as a strategic intervention to equip both mothers and fathers with the knowledge, skills, and confidence needed to face labor and the postpartum period (Lindermaier et al., 2025). For husbands, this education fosters awareness of their pivotal role, helping them transition from passive observers to active companions in the childbirth process (Wang et al., 2025).

Childbirth preparation Education not only provides practical knowledge about the stages of labour, pain management, and postpartum recovery but also emphasizes communication, empathy, and emotional resilience (Liu et al., 2025). For many men, these topics are unfamiliar and sometimes uncomfortable. Educational sessions enable them to openly discuss their expectations, fears, and responsibilities, thereby reducing stigma and strengthening their readiness to provide meaningful support (Segura-Pérez et al., 2025). Moreover, when husbands feel prepared and empowered, their involvement becomes a protective factor against maternal mental health problems such as prenatal anxiety and postpartum depression (Suprpto et al., 2025).

The role of husbands in supporting the mental health of their pregnant wives extends beyond physical presence during medical check-ups or childbirth (Herlianty et al., 2024). Emotional validation, shared decision-making, and active listening are fundamental components of this support system. In societies where gender norms discourage men from expressing vulnerability or engaging in caregiving, structured education becomes even more vital. It creates safe spaces for men to learn, practice, and normalise supportive behaviours that benefit both their partners and their family dynamics in the long term (Malik et al., 2024).

Community service initiatives focusing on childbirth preparation education provide an excellent avenue for increasing husband involvement. Unlike clinical interventions that may feel formal or intimidating, community-based programs are often more approachable and tailored to local cultural contexts. They bridge the gap between medical knowledge and everyday family practices, ensuring that husbands not only understand the medical aspects of childbirth but also the psychosocial dimensions that influence maternal mental health. By empowering husbands through education, communities foster healthier family environments where mothers feel supported, valued, and emotionally secure during their most vulnerable moments.

The involvement of husbands in childbirth preparation supports broader public health goals. The World Health Organization (WHO) emphasizes family-centered maternal care as a crucial strategy to enhance maternal and neonatal outcomes. When husbands participate, pregnant women feel supported rather than isolated, and couples share both the challenges and joys of childbirth. This involvement also promotes gender equality in parenting, laying the foundation for shared caregiving responsibilities after birth. Community-based initiatives that engage husbands in maternal mental health serve both preventive and promotive purposes. They help reduce psychological distress during and after pregnancy by fostering supportive environments, while also strengthening family resilience, communication, and problem-solving skills. Importantly, such interventions often inspire other men in the community to become more active in family health. This article, therefore, emphasizes the importance of increasing husband involvement in supporting the mental health of pregnant women in the third trimester through structured childbirth preparation education. By providing evidence-based perspectives, it seeks to transform traditional paternal roles and demonstrate the positive impact of informed, empathetic, and proactive husbands on maternal and family well-being.

2. METHOD

Design of the Program

This community service program applied a participatory educational approach through health education, group discussions, and simulations. The activity was focused on increasing husbands' knowledge and involvement in supporting the mental health of third-trimester pregnant women through childbirth preparation education.

Setting and Duration

The program was conducted at the Public Health Centre on March 15, 2025. Each session lasted approximately 120 minutes.

Respondents

The respondents consisted of 50 couples (husbands and wives), with the following inclusion criteria: The wife was in the third trimester of pregnancy. The husband lived in the same household and was willing to participate. Both participants had no communication barriers or conditions that would hinder participation. Respondents were selected using a purposive sampling technique based on these inclusion criteria.

Procedure

Preparation

Coordination with local health workers. Development of educational modules on the husband's role in supporting the mental health of pregnant women and childbirth preparation.

Implementation

Pre-test: Assessing husbands' initial knowledge and attitudes toward supporting their wives' mental health. Educational Session: Delivery of materials covering Mental health in the third trimester of pregnancy. Supportive communication techniques between husband and wife.

The Husband's Role in Childbirth Preparation.

Simulation and Group Discussion: Practical exercises in supportive communication, simple relaxation techniques, and role-playing for the husband's role during labor support. Post-test: Measuring improvements in knowledge and attitudes.

Evaluation

Evaluation was conducted by comparing pre-test and post-test results, as well as collecting direct feedback from participants on the usefulness of the program.

Data Analysis

Quantitative data (pre-test and post-test scores) were analyzed descriptively to calculate percentage improvement. Qualitative data from group discussions and participant feedback were thematically analyzed to capture experiences and changes in husbands' perceptions after the educational sessions.

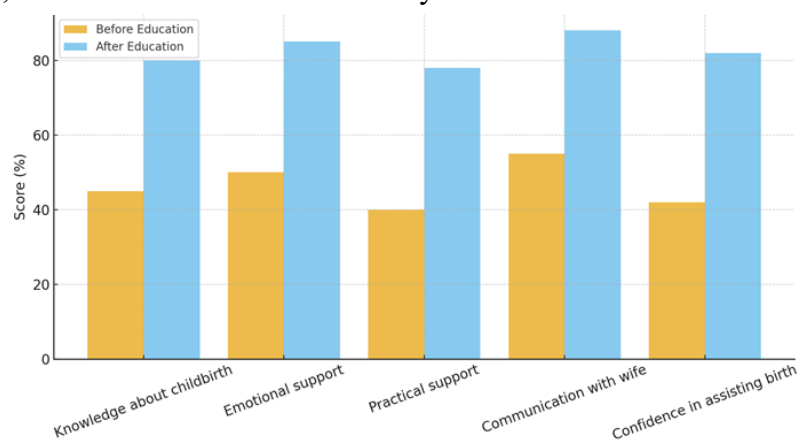
Table 1. Implementation Scheme of the Program

Stage	Activities	Output
Preparation	Coordination with local health workers- Development of educational modules on husbands' roles in supporting mental health and childbirth preparation	Educational materials and an activity plan are ready.
Pre-test	Assessment of husbands' initial knowledge and attitudes toward supporting the mental health of pregnant women	Baseline data obtained
Education	Delivery of materials on mental health in the third trimester- Supportive communication techniques- Husband's role in childbirth preparation	Increased knowledge and awareness
Simulation & Group Discussion	Practice supportive communication- Relaxation techniques- Role-playing husband's role in labor support	Improved practical skills and involvement
Post-test	Evaluation of knowledge and attitudes after intervention	Comparative data (pre-test vs post-test)
Evaluation	Analysis of results- Collection of participant feedback	Program effectiveness report

3. RESULT AND DISCUSSION

RESULT

The graph illustrates the level of achievement of five leading indicators in implementing the Health Study Program curriculum review based on the OBE principle, both before and after the activity is carried out.



Bar chart 1. Husbands' Role in Supporting Pregnant Women's Mental Health (Third Trimester - Childbirth Preparation Education)

Knowledge about Childbirth. Before the education program, husbands' knowledge level was relatively low (45%). After receiving childbirth preparation education, knowledge increased significantly to 80%. This indicates that the program was highly effective in improving understanding of pregnancy, labor, and delivery. Emotional Support. Emotional support scores improved from 50% before the program to 85% afterward. This shows that education strengthened husbands' awareness of the importance of providing empathy, patience, and encouragement to their wives in the third trimester. Practical Support. Initially, only 40% of husbands provided practical assistance (such as preparing necessities, accompanying check-ups, or helping at home). After education, this number rose sharply to 78%, highlighting that structured guidance empowered husbands to take a more active role. Communication with Wife. Communication improved from 55% to 88%. The program helped husbands learn how to listen better, share information, and build trust, which plays a crucial role in reducing maternal anxiety during late pregnancy. Confidence in Assisting Birth. Confidence increased from 42% to 82%. Husbands felt more prepared and capable of being present during childbirth, both emotionally and physically.

The chart clearly demonstrates that childbirth preparation education significantly increased husbands' roles in supporting the mental health of pregnant women in the third trimester. Improvements were seen in all measured aspects, particularly in emotional support and communication. This suggests that involving husbands in antenatal education can foster stronger family readiness, reduce maternal stress, and promote healthier childbirth outcomes.

DISCUSSION

The third trimester of pregnancy is a period marked by significant physical, emotional, and psychological changes for women. During this stage, many mothers experience heightened levels of anxiety, fear of childbirth, and concern about their own health and the well-being of the baby. These emotional burdens can increase the risk of stress, depression, and other mental health difficulties if not addressed appropriately. One crucial factor that can help mitigate these risks is the active role of husbands in providing psychological and emotional support through childbirth preparation education. This discussion examines the significance of husband involvement, the advantages of childbirth preparation education, and the broader implications for maternal mental health outcomes.

The Importance of Husband Involvement. Traditionally, pregnancy and childbirth have often been viewed as the exclusive domain of women, while husbands were relegated to a supporting role, limited to providing financial security (Chen et al., 2024). However, modern perspectives on maternal health emphasise that the well-being of a pregnant woman is influenced by the quality of her interpersonal relationships, particularly with her partner (Abihiro et al., 2024). Emotional support from husbands can reduce feelings of loneliness, foster a sense of security, and help women develop more positive attitudes toward childbirth (Xue et al., 2024).

During the third trimester, physical discomfort increases, sleep becomes more difficult, and anticipation of labor may lead to psychological distress. In such circumstances, the presence of a caring and informed partner can be highly reassuring. When husbands are actively engaged, women are more likely to feel validated and supported, which can significantly reduce anxiety and prevent the onset of perinatal depression (Schwarze et al., 2024).

Role of Childbirth Preparation Education. Childbirth preparation education is a structured program designed to equip both mothers and fathers with the knowledge and skills necessary for a healthy pregnancy, labour, and postpartum adjustment. For husbands, these educational interventions provide insights into the physiological and psychological experiences of their partners, enabling them to better empathise and offer appropriate assistance (Hekmat et al., 2023). Through education, husbands can learn techniques for supporting their partners during labour, such as relaxation methods, massage, breathing techniques, and communication strategies. Beyond the delivery room, education also emphasizes the emotional changes that occur during late pregnancy, preparing husbands to recognize early signs of distress and provide reassurance or seek professional help when necessary. This informed involvement not only empowers husbands but also builds stronger marital cooperation and shared responsibility (Chawla et al., 2024).

Impact on Maternal Mental Health. Evidence suggests that women whose partners participate in childbirth education programs report lower levels of stress and anxiety compared to those whose partners are not involved. Active husband participation fosters open communication, enabling women to express their fears and receive immediate emotional validation (Ben-Rafael et al., 2023). This, in turn, enhances their psychological resilience during the vulnerable third trimester. Moreover, when husbands are engaged, women are less likely to feel isolated, which is a known risk factor for depression. The anticipation of shared responsibility also strengthens maternal confidence, as mothers recognize that they are not facing the challenges of childbirth and parenting alone. Consequently, the incidence of maternal mental health issues such as antenatal depression and postpartum depression may be reduced through the sustained involvement of husbands (Hao et al., 2024).

Shifting Cultural Perceptions. In many societies, cultural norms discourage men from participating actively in pregnancy and childbirth, viewing these roles as exclusively feminine. However, increasing evidence highlights the importance of changing these perceptions. Promoting husband involvement through childbirth preparation education not only benefits maternal mental health but also nurtures stronger family bonds (Cheung et al., 2023). By normalizing men's active participation, communities can help dismantle gender-based stereotypes and foster a more holistic approach to family health. In turn, this cultural shift supports the idea that pregnancy and childbirth are shared journeys, requiring collaboration between both partners (Mamoh et al., 2023).

Despite the clear benefits, several challenges hinder husband involvement. Work commitments, lack of awareness, and cultural stigma may limit participation in educational programs. Additionally, healthcare systems may not always prioritise the inclusion of husbands, focusing primarily on the mother. To address these barriers, healthcare providers should design flexible and inclusive educational models that accommodate working schedules and emphasize the importance of partner involvement. Community campaigns and healthcare policies should also encourage male participation, highlighting the benefits for maternal and child health. Furthermore, integrating childbirth preparation education into standard antenatal care can ensure that both parents receive the necessary support and guidance (Chiba et al., 2023).

The involvement of husbands in supporting the mental health of pregnant women during the third trimester is a vital component of holistic maternal care. Childbirth preparation Education serves as an effective tool to increase awareness, enhance empathy, and equip husbands with practical strategies for supporting their partners. By fostering emotional security and shared responsibility, husband participation significantly reduces maternal anxiety, strengthens resilience, and contributes to healthier outcomes for both mother and child. Encouraging such involvement represents not only a medical necessity but also a cultural and social advancement toward more supportive and equitable family dynamics.

4. CONCLUSION

Enhancing the role of husbands in supporting the mental health of pregnant women during the third trimester through childbirth preparation education is essential for ensuring maternal well-being and fostering a positive childbirth experience. By actively involving husbands in educational programs, they become better equipped with knowledge, emotional awareness, and practical skills to provide meaningful support to their partners. This shared preparation not only strengthens the emotional bond between partners but also reduces maternal anxiety, promotes confidence, and contributes to healthier outcomes for both mothers and newborns. Ultimately, empowering husbands to play an active role in the family environment creates a supportive environment that is vital for the physical and psychological well-being of mothers as they approach childbirth.

ACKNOWLEDGMENT

Pertama-tama, peneliti ingin menyampaikan rasa syukur yang sebesar-besarnya kepada Tuhan Yang Maha Esa atas berkat, bimbingan, dan kekuatan-Nya sehingga penelitian yang berjudul “Peningkatan Peran Suami dalam Mendukung Kesehatan Mental Ibu Hamil Trimester Ketiga melalui Edukasi Persiapan Persalinan” ini dapat diselesaikan.

CONFLICT OF INTERESTS

All authors declare no conflict of interest in this community service program.

REFERENCES

- Abihiro, G. A., Abdul-Latif, A.-M., Akaateba, D., Braimah, K. R. L., Alhassan, M., Hadfield, K., & Hadfield, K. (2024). A qualitative examination of factors influencing pregnancy-related anxiety in Northern Ghana. *Midwifery*, 134, 104014. <https://doi.org/10.1016/j.midw.2024.104014>
- Aligoltabar, S., Nasiri-Amiri, F., Khafri, S., Adib-Rad, H., Barat, S., Pahlavan, Z., Taheriotaghsara, S., Rayati, M., & Faramarzi, M. (2025). Efficacy of internet-based emotion-focused cognitive behavior therapy (IECBT) in improving stress and anxiety of women with suspected fetal malformation: A randomized controlled trial. *Journal of Behavior Therapy and Experimental Psychiatry*, 88, 102033. <https://doi.org/10.1016/j.jbtep.2025.102033>
- Ben-Rafael, S., Bloch, M., & Aisenberg-Romano, G. (2023). Dual-Session Tokophobia Intervention, a Novel Ultrashort Cognitive Behavioral Therapy Protocol for Women Suffering From Tokophobia in the Third Term of Pregnancy. *Cognitive and Behavioral Practice*, 30(3), 520–538. <https://doi.org/10.1016/j.cbpra.2022.02.015>
- Bist, L., Viswanath, L., Nautiyal, R., & Agarwal, S. (2025). Childbirth preparedness and childbirth anxiety among primigravida in a lower-middle income country: A phenomenological qualitative study. *Clinical Epidemiology and Global Health*, 32, 101918. <https://doi.org/10.1016/j.cegh.2025.101918>
- Cahya Mulat, T., Kamaruddin, M. I., & Nordiniawati, N. (2025). Education on healthy living culture to increase children's awareness from an early age. *Jurnal Pengabdian Masyarakat Edukasi Indonesia*, 2(1), 25–31. <https://doi.org/10.61099/jpmei.v2i1.66>
- Chawla, N., Gabriel, A. S., Prengler, M., Rogers, K., Rogers, B., Tedder-King, A., & Rosen, C. C. (2024). Allyship in the fifth trimester: A multi-method investigation of Women's postpartum return to work. *Organizational Behavior and Human Decision Processes*, 182, 104330. <https://doi.org/10.1016/j.obhdp.2024.104330>
- Chen, D., Cai, Q., Yang, R., Xu, W., Lu, H., Yu, J., Chen, P., & Xu, X. (2024). Women's experiences with Centering-Based Group Care in Zhejiang China: A pilot study. *Women and Birth*, 37(4), 101618. <https://doi.org/10.1016/j.wombi.2024.101618>
- Cheung, P. S., McCaffrey, T., Tighe, S. M., & Mohamad, M. M. (2023). Music as a health resource in pregnancy: A cross-sectional survey study of women and partners in Ireland. *Midwifery*, 126, 103811. <https://doi.org/10.1016/j.midw.2023.103811>
- Chiba, Y., Hayashi, R., Kita, Y., & Takeshita, M. (2023). Care provided by midwives and the unmet needs of pregnant and postpartum women: A qualitative study of Japanese mothers. *Heliyon*, 9(8), e18747. <https://doi.org/10.1016/j.heliyon.2023.e18747>
- Ether, S. T., Afrin, S., Habib, N. N., Akter, F., Chowdhury, A. T., Sayeed, A., Raza, S., Ahmed, A., & Saif-Ur-Rahman, K. (2025). Managing pre and postpartum mental health issues of refugee women from fragile and conflict-affected countries: A systematic review. *Public Health in Practice*, 9, 100573. <https://doi.org/10.1016/j.puhip.2024.100573>
- Fitriani, F., & Anita, F. (2025). Impact of husband support on maternal psychological well-being during pregnancy: a systematic review. *Jurnal Edukasi Ilmiah Kesehatan*, 3(2), 55–62. <https://doi.org/10.61099/junedik.v3i2.112>
- Haim-Dahan, R., Bachner-Melman, R., & Lev-Ran, H. (2025). Women Friendly: The effectiveness of a woman-centered childbirth intervention in Israel. *Midwifery*, 140, 104212. <https://doi.org/10.1016/j.midw.2024.104212>
- Hao, J., Ye, Y., & Wu, D. (2024). The Relationship between Depression and Negative Cognitive Bias in Late Pregnancy Women and Its Influencing Factors. *International Journal of Mental Health Promotion*, 26(12), 1009–1016. <https://doi.org/10.32604/ijmhp.2024.056235>
- Hekmat, K., Kamali, F., Abedi, P., & Afshari, P. (2023). Explaining mothers' experiences of performing fetal health screening tests in the first trimester of pregnancy: A qualitative study with content analysis approach. *International Journal of Africa Nursing Sciences*, 18, 100565. <https://doi.org/10.1016/j.ijans.2023.100565>
- Herlianty, H., Ketut Sumidawati, N., & Bakue, T. (2024). The Importance of Eating Healthy and Nutritionally Balanced Food for Elementary School Children. *Abdimas Polsaka*, 3(1), 40–46. <https://doi.org/10.35816/abdimaspolsaka.v3i1.66>
- Lindermaier, N., Rzepka, I., Zehetmair, C., Kaufmann, C., Friederich, H.-C., & Nikendei, C. (2025). Experiences and concerns of pregnant refugee women from Nigeria seeking for asylum in Germany - A qualitative analysis. *Midwifery*, 141, 104255. <https://doi.org/10.1016/j.midw.2024.104255>

- Liu, H., Zhu, X., Xu, Z., Liang, S., Liu, Y., Wang, X., Qian, X., & Gu, C. (2025). Perceptions and recommendations of multiparas and health-related professionals on appropriate birth intervals: A descriptive qualitative study. *International Journal of Nursing Sciences*. <https://doi.org/10.1016/j.ijnss.2025.07.001>
- Malik, A., Waqas, A., Atif, N., Perin, J., Zaidi, A., Sharif, M., Rahman, A., & Surkan, P. J. (2024). Multiple mediation analysis of a task-shared psychosocial intervention for perinatal anxiety: Exploratory findings from a randomized controlled trial in Pakistan. *Journal of Affective Disorders*, 364, 41–47. <https://doi.org/10.1016/j.jad.2024.08.021>
- Mamoh, M. O., Gunarmi, G., & Kristiarini, J. J. (2023). The Effect of Husband Support and Economic Status Level on Exclusive Breastfeeding. *Jurnal Ilmiah Kesehatan Sandi Husada*, 12(2), 420–426. <https://doi.org/10.35816/jiskh.v12i2.1111>
- Priharwanti, A., Isrofah, I., Indriyani, Y., & Budi Prasetyo, E. (2025). Rehat Dulu: Healthy youth mentoring for boarding school girls group at Muhammadiyah 2 senior high school. *Abdimas Polsaka*, 4(2), 99–107. <https://doi.org/10.35816/abdimaspolsaka.v4i2.99>
- Schwarze, C. E., von der Heiden, S., Wallwiener, S., & Pauen, S. (2024). The role of perinatal maternal symptoms of depression, anxiety, and pregnancy-specific anxiety for infants' self-regulation: A prospective longitudinal study. *Journal of Affective Disorders*, 346, 144–153. <https://doi.org/10.1016/j.jad.2023.10.035>
- Segura-Pérez, S., Tristán Urrutia, A., He, A., Hromi-Fiedler, A., Gionteris, K., Duffany, K. O., Rhodes, E. C., & Pérez-Escamilla, R. (2025). Community-Engaged Codesign and Piloting of the FOOD4MOMS Produce Prescription Program for Pregnant Latina Women. *Current Developments in Nutrition*, 9(3), 104572. <https://doi.org/10.1016/j.cdnut.2025.104572>
- Suprpto, S., Arda, D., Kurni Menga, M., Adji Saktiawan, B., & Nggaá Woge, S. (2025). OPTIMALCARE: Community-based homecare policy innovation in accelerating stunting reduction in Makassar City. *Abdimas Polsaka*, 4(2), 148–156. <https://doi.org/10.35816/abdimaspolsaka.v4i2.107>
- Wang, S.-Y., Qiao, J., Wang, R., Chen, H.-J., & Ouyang, Y.-Q. (2025). Development and external validation of an interpretable machine learning model for predicting perinatal depression in Chinese women during mid- and late pregnancy. *International Journal of Medical Informatics*, 203, 106000. <https://doi.org/10.1016/j.ijmedinf.2025.106000>
- Xue, B., Wang, X., Tang, J., Lai, Y.-Q., Ma, D., Luo, L., Guan, Y., Redding, S. R., & Ouyang, Y.-Q. (2024). Relationship between dyadic coping, resilience, and fear of childbirth in expectant couples: An actor-partner interdependence model approach. *Midwifery*, 137, 104117. <https://doi.org/10.1016/j.midw.2024.104117>
- Zhao, Y., Chen, M., Ye, Z., Wang, J., Lu, Q., Xie, Z., Zhang, D., Bai, A., Qu, Y., & Jiang, Y. (2025). Stage-specific association between unintended pregnancy and perinatal depression and the modifying roles of socioeconomic status: A longitudinal cohort study in China. *Journal of Affective Disorders*, 386, 119478. <https://doi.org/10.1016/j.jad.2025.119478>