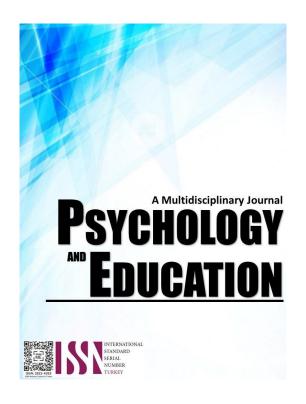
# COVID-19 VACCINE ACCEPTABILITY DURING PREGNANCY AMONG BANGSAMORO PREGNANT WOMEN AND THEIR SPOUSES



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# COVID-19 Vaccine Acceptability during Pregnancy Among Bangsamoro Pregnant Women and their Spouses

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# Abstract

Vaccination is one of the most reliable interventions against coronavirus disease (COVID-19). This study aimed to determine the acceptance rates and associated factors of accepting attitudes toward COVID-19 vaccination during pregnancy among Bangsamoro pregnant women and their spouses. The 30 selected Bangsamoro couples of Brgy. Tambo, Dagurungan, and Macabiso, Sultan Mastura, Maguindanao del Norte were required to answer the modified questionnaire from Pairat and Phaloprakarn (2022). It was recorded that most of the pregnant women and their spouses rated Partially Agree, which has the same overall mean of 2.6 which indicated that they have a good rating of accepting attitude in COVID-19 vaccination. Overall, with a high percentage of Iranun tribe among ethnic groups, with secondary education, employed yet low-income earner, healthy, and with relatives vaccinated, the couple- participants were not worried about the COVID-19 vaccine and infection but confident with the vaccine safety and efficacy. Based on the findings, the study concluded that the COVID-19 vaccine was accepted only by Bangsamoro pregnant women yet the majority of the couples were not worried about the vaccine and infection and they were confident with its safety and efficacy. But the majority of the husbands were not favored with the vaccination of their pregnant wives. The factors associated with disagreement of husbands in COVID-19 vaccination were ethnicity, low education and income, and rate of vaccinated relatives.

Keywords: bangsamoro, acceptability, COVID-19, spouses, pregnancy

### Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-COV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness or can develop serious illness if no treatment is applied (World Health Organization, 2023). Due to the COVID-19 pandemic, World Health Organization advised everyone, especially pregnant women to have access to the COVID-19 vaccine to help their bodies develop immunity to the virus that causes COVID-19 without having to get the illness. Yet, some pregnant women are more likely worried to experience complications that can affect their pregnancy and developing babies if they get vaccinated.

Hence, evidence continues to build showing that COVID-19 vaccination before and during pregnancy is safe, effective, and beneficial to both the pregnant person and the baby. But, COVID-19 during pregnancy increases the risk of delivering a preterm or stillborn infant (Centers for Disease Control and Prevention, 2022). Moreover, SARS-COV-2 infection in pregnancy is associated with a higher risk of morbidity and mortality for both mother and fetus compared with pregnant women without infection. The chance of developing a severe disease that requires respiratory support, admission to an intensive care unit, and invasive ventilation are increased compared with those who are infected and not pregnant. These increased risks in pregnancy have become more marked with successive variants of SARS-CoV-2 and are highest for the delta variant24 (Nana, Hodson, Lucas, Camporota, Knight & Nelson, 2022). In the Philippines, vaccination rates remain low among many populations of pregnant women only 19 % of them have been fully vaccinated against COVID-19 yet 65% of the whole population was vaccinated by COVID-19 which was administered by the Department of Health in 2022 (Cagayan, Mendoza & Viana, 2023). Hence, this study assessed the acceptance of COVID-19 vaccination during pregnancy among Bangsamoro pregnant women and their spouses.

# **Literature Review**

Coronavirus disease 2019 (COVID-19), the highly contagious infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has had a catastrophic effect on the world's demographics resulting in more than 6 million deaths worldwide, emerging as the most consequential global health crisis since the era of the influenza pandemic of 1918 (Cascella, Rajnik, Aleem, Dulebohn & Di Napoli, 2022). Hospital preparedness has been the main strategy used by governments. However, a major characteristic of the COVID-19 pandemic is the rapid viral transmission in populations with no immunity. Thus, vaccination is only could achieve the goal of pandemic mitigation (Konstantinos, Athina, Nikos & Konstantinos, 2021). Vaccines are products that help the immune system combat invading disease-causing pathogens. They are a safe and effective method for preventing certain diseases.

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They are products that help prevent disease which safely expose the body to pathogens so that the immune system can make antibodies capable of binding to their antigens. This allows the immune system to fight off a specific disease-causing pathogen should it encounter that pathogen in the future (Coelho, 2020).

In the Philippines, a developing country in Southeast Asia with a population of more than 110 million, at least 141 million doses of COVID vaccines have been administered as of March 2022, covering ~65.7% of the population (Department of Health, 2022). Although these were also approved for pregnant women, only healthcare workers were initially eligible for vaccination due to their higher risk of contracting the virus (Department of Health, 2021). With the incursion of the Delta variant in June 2021, higher numbers of symptomatic pregnant women have succumbed to COVID-19. Despite the evidence, pregnant and lactating Filipino mothers remain vaccine-hesitant. In Dr. Cagayan's communication with DOH personnel, roughly 19% or 85,000 out of the target 452,600 pregnant women have been fully vaccinated as of March 24, 2022 (Cagayan et al., 2022). Getting a COVID-19 vaccine can protect you and others around you including your partner from getting very sick from COVID-19, and keeping you as healthy as possible during pregnancy is important for the health of your baby. CDC recommends COVID-19 vaccines for everyone aged 6 months and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or those who might become pregnant in the future. This recommendation includes getting boosters when it is time to get one (Centers for Disease Control and Prevention, 2022).

# Methodology

A prospective survey-based research design was utilized in this study to determine the perception of pregnant women and their spouses toward the implementation of the COVID-19 vaccine. Through the purposive sampling method, the 30 Bangsamoro couples (pregnant women with their spouses) were the respondents of the study who were residing in the Sultan Mastura community in 3 different Barangays such as Brgy. Tambo, Brgy. Dagurungan, and Brgy. Macabiso. The study was conducted at Sultan Mastura, Maguindanao del Norte, Bangsamoro Autonomous in Muslim Mindanao (BARMM) Region, Philippines. Sultan Mastura, officially the Municipality of Sultan Mastura is a 5th-class municipality in the province of Maguindanao del Norte, Philippines. The modified survey questionnaire from Pairat and Phaloprakarn (2022) was utilized in this study. It contains the baseline characteristics of respondents and their responses on the acceptability of the COVID-19 vaccine using a Likert-scale. The data especially their profile was confidentially recorded and analyzed through descriptive statistical analysis.

# **Results and Discussion**

Table 1. Level of worry, confidence, and acceptance about COVID-19 vaccine

Questions	Pregnant Women		Spouses	
	Mean	Description	Mean	Description
Are you not worried that your unborn child would experience serious side effects if the mother got the COVID-19 vaccine and COVID infection?	2.6	Partially Agree	2.8	Partially agree
What is the level of your confidence in the safety of vaccination during pregnancy?	2.6	Partially Agree	2.4	Partially Disagree
What is the level of your confidence in the efficacy of vaccination during pregnancy?	2.8	Partially Agree	2.7	Partially Agree
4. Do you accept COVID-19 vaccine?	2.6	Partially Agree	2.6	Partially Agree
Overall mean	2.6	Partially Agree	2.6	Partially Agree

Table 1 shows the mean level of worry, confidence, and acceptance of the COVID-19 vaccine of the 30 selected Bangsamoro pregnant women and their spouses. As it is can see from the table, most of the pregnant women and their spouses rated Partially Agree, which means has the same overall mean of 2.6. This indicates that most couples (n=30) are approximately not worried, and quite confident in the safety of vaccination. Similarly, with the vaccine efficacy, and with a good accepting attitude toward COVID-19 vaccination during pregnancy. On the contrary, women are refusing to accept the vaccine during pregnancy because the most common concern was the fear that the vaccine might cause harm to the fetus and followed by the fear of vaccine-related reaction. Also, women feared that the vaccine might cause them to abort the ongoing pregnancy. However, women stated their intent to receive the vaccine after they were informed regarding its safety and requirement (Kalra, Kaur, Gupta & Sood, 2023). There are 33.8% of them worried about COVID-19 infection (Egloff, Couffignal, Cordier, Deruelle, Sibiude, Anselem, Benachi, Luton, Mandelbrot, Vauloup-Fellous, Vivanti, & Picone,

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2022). Similarly, most of the reasons why husbands refused to accept the COVID-19 vaccine due to its potential side effects. One woman shared that her husband had his first stroke after receiving a COVID-19 vaccination, despite having no previous health issues and receiving a vaccine not associated with strokes (Stanford University, 2023). Furthermore, nearly one-third of pregnant women in the population would be willing to be vaccinated (Egloff et al., 2022). Overall, the couple-participants are confident and with good rate of accepting attitude toward COVID-19 vaccination.

### Conclusion

Based on the findings, the study concludes that the COVID-19 vaccine is accepted only by Bangsamoro pregnant women yet the majority of the couples are not worried about the vaccine and infection and they are confident with its safety and efficacy. But a majority of the husbands are not favored with the vaccination of their pregnant wives. The factors associated with disagreement of husbands in COVID-19 vaccination are ethnicity, low education and income, and rate of vaccinated relatives.

# References

AMERICAN COLEGE OF OBSTETRICIANS AND GYNECOLOGISTS. 2023. COVID-19 Vaccines and Pregnancy: Conversation Guide. From https://www.acog.org/covid-19/covid-19-vaccines-and-pregnancy-conversation-guide-for-clinicians.

CAGAYAN, M., MENDOZA, L., VIANA, J. 2023. BAKUNANAYS guidelines for communicating COVID-19 vaccination information to pregnant women in the Philippines and other developing countries. Retrieved on August 23, 2022 from https://www.frontiersin.org/articles/10.3389/fcomm.2022.916468/full.

CENTERS FOR DISEASE CONTROL AND PREVENTION. 2023. Benefits of Getting COVID-19 Vaccine. Retrieved on May 11, 2023 from https://www.cdc.gov/coronavirus/2019-ncov/vaccines/vaccine-benefits.html.

CENTERS FOR DISEASE CONTROL AND PREVENTION. 2022. COVID-19 Vaccine While Pregnant or Breastfeeding. Retrieved on October 20, 2022 from https://www.cdc.gov/coronavirus/2019ncov/vaccines/recommendations/pregnancy.html

CASCELLA, M., RAJNIK, M., ALEEM, A., DULEBOHN, S., DI NAPOLI, R. 2022. Features, Evaluation, and Treatment of Coronavirus (COVID-19). Retrieved on October 13, 2022 from https://www.ncbi.nlm.nih.gov/books/NBK554776/.

COELHO, S. 2020. What is a vaccine? Types, stages for approval. Retrieved on July 21, 2020 from https://www.medicalnewstoday.com/articles/what-is-a-vaccine.

EGLOFF ,C., C. COUFFIGNAL, A.G. CORDIER, P. DERUELLE, J. SIBIUDE, O. ANSELEM, A. BENACHI, D. LUTON, L. MANDELBROT, C. VAULOUP-FELLOUS, A.J. VIVANTI, and O. PICONE. 2022. Pregnant women's perceptions of the COVID-19 vaccine: A French survey. PLoS One. 2022 Feb 7;17(2):e0263512. doi: 10.1371/journal.pone.0263512. PMID: 35130318; PMCID: PMC8820613. Retrieved on July 1, 2023 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8820613/#:~:text=Results,fetus% 20than% 20of% 20COVID% 2D19.

GALANG, R. 2022. Are the COVID-19 Vaccines Safe During Pregnancy? The Science Says Yes. Retrieved on March 2022 from https://www.acog.org/womens-health/experts-and-stories/the-latest/are-the-covid-19-vaccines-safe-during-pregnancy-the-science-says-yes.

KALRA, K., KAUR, R., GUPTA, P., SOOD, A. 2023. COVID-19 Vaccine Acceptance During Pregnancy, Women's Views, and Influencing Factors. Retrieved on January 21, 2023 from https://www.cureus.com/articles/133670-covid-19-vaccine-acceptance-during-pregnancy-womensviews-and-influencing-factors#!/.

KONSTANTINOS, F., ATHINA, A., NIKOS, A., KONSTANTINOS, P. 2020. COVID-19 and the nicotinic cholinergic system. Retrieved on July 16, 2020 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7248130/.

MakatiMed. 2021. COVID-19 Vaccines and Pregnancy. Retrieved on July 1, 2023 from https://asm2021.makatimed.net.ph/blogs/covid-19-vaccines-pregnancy-heres-what-we-know-so-far/.

MAYO CLINIC HEALTH SYSTEM. 2021. Debunking COVID-19 myths. Retrieved on September 2, 2021 from

Amir et al. 953/955



https://www.mayoclinichealthsystem.org/hometown-health/featured-topic/covid-19-vaccine-myths-debunked.

MONTEMAYOR, M.T. 2022. 51% of BARMM target population vaxxed against COVID-19. Retrieved on July 4, 2023 from https://www.pna.gov.ph/articles/1179554.

NALUBEGA, P., R. NAMUGUMYA, F. ZALWANGO, A. SSALI, L. MBOIZI, L. HOOKHAM, J. SEELEY & K. DOARE. 2023. COVID-19 disease and vaccination in pregnancy: understanding knowledge, perceptions and experiences among pregnant women and community leaders in Uganda, Transactions of The Royal Society of Tropical Medicine and Hygiene, trad02. Retrieved on July 1, 2023 from https://doi.org/10.1093/trstmh/trad028.

NANA, M., HODSON, K., LUCAS, N., CAMPORATA, L., KNIGHT, M., and NELSON-PIERCY, C. 2022. Diagnosis and management of covid-19 in pregnancy. Retrieved on April 26, 2022 from https://www.bmj.com/content/377/bmj-2021-069739.

NHS. 2023. Week 20. Retrieved on July 1, 2023 from https://www.nhs.uk/start-for-life/pregnancy/week-by-week-guide-to-pregnancy/2nd-trimester/week-20/#:~:text=whooping%20cough%20vaccination-,2nd%20trimester%20pregnancy%20symptoms%20(at%2020%20weeks),marks%20on%20week%2017's%20page).

PAGKATOTOHAN, J. 2022. Sample Family Budget in the Philippines: Managing Household Finances. Retrieved on September 20, 2022 from https://www.moneymax.ph/personal-finance/articles/familybudgeting-tips.

Philippine Statistics Authority. 2022. Employement Rate in May 2022. Retrieved on July 1, 2023 from https://psa.gov.ph/statistics/survey/labor-and-employment/labor-force-survey/title/Employment%20Rate%20in%20May%202022%20is%20Estimated%20at%2094.0%20Percent.

Philippine Statistics Authority. 2023. Maguindanao: Population to Reach One in Million in 2006. Retrieved on July 1, 2023 from https://psa.gov.ph/content/maguindanao-population-reach-one-million-2006-results-2000-census-population-and-housing-nso.

POTTS, S. 2022. Why pregnant people should get vaccinated for COVID-19 – a maternal care expert explains. Retrieved on March 22, 2022 from https://www.umassmed.edu/news/news-archives/2022/03/why-pregnant-people-should-get-vaccinated-for-covid-19-a-maternal-care-expert-explains/.

REID HEALTH. 2023. The Importance of a Flu Vaccine in 2020. Retrieved on July 1, 2023 from https://www.reidhealth.org/blog/theimportance-of-a-flu-vaccine-in-2020.

RIKARD-BELL, M., J. ELHINDI, J. LAM, S. SEEHO, K. BLACK, S. MELOV, G. JENKINS, J. McNAB, K. WILEY, and D. PASUPATHY. 2022. COVID-19 vaccine acceptance among pregnant women and the reasons for hesitancy: A multi-centre cross-sectional survey. Retrieved on October 19, 2022 from https://obgyn.onlinelibrary.wiley.com/doi/10.1111/ajo.13622.

STANFORD UNIVERSITY. 2023. I Worried the COVID Vaccine Gave My Husband a Stroke. It Took a Year to Find the Truth. Retrieved on May 22, 2023 from https://healthpolicy.fsi.stanford.edu/news/i-worried-covid-vaccine-gave-my-husband-stroke-it-took-year-find-truth

SARAO, Z. 2023. Some provinces have only 52% PhilHealth coverage – study. Retrieved on January 31, 2023 from https://newsinfoinquirer-net.cdn.ampproject.org/v/s/newsinfo.inquirer.net/1723186/someprovinces-have-only-52-philhealth-coveragestudy/.

THE BUMP EDITORS. 2022. Baby and You at 19 Weeks Pregnant. Retrieved on June 8, 2022 from https://www.thebump.com/pregnancy-week-by-week/19-weeks-pregnant.

TORMEN, M., TALIENTO, C., SALVIOLI, S., PICCOLOTTI, I., SCUTIERO, G., CAPPADONA, R., GRECO, P. 2022. Effectiveness and safety of COVID-19 vaccine in pregnant women: A systematic review with meta-analysis. Retrieved on December 12, 2022 from https://pubmed.ncbi.nlm.nih.gov/36444098/.

WORLD HEALTH ORGANIZATION. 2023. Coronavirus disease (COVID-19). From https://www.who.int/health-topics/coronavirus#tab=tab\_1.

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