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Research article

# SAFE Antenatal Education and Pregnant Women's Knowledge and Attitudes Toward Postpartum Blues: A Controlled Study

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**Abstract**

Postpartum blues is a common, generally transient mood disturbance after birth, whereas postpartum depression is a distinct condition requiring assessment. This study examined safe antenatal education and pregnant women's knowledge and attitudes toward postpartum blues using a nonrandom pretest–posttest controlled quasi-experiment. The study took place at Saigon and Banjar Serasan primary health centres, Pontianak Timur, Indonesia, in 2026 and included 60 third-trimester pregnant women, with 30 at Saigon (intervention) and 30 at Banjar Serasan (control). The intervention consisted of Supportive Antenatal Care for Emotional Well-Being (SAFE): information on postpartum emotional changes, risk factors, coping, family support and self-care. Outcomes were assessed using knowledge and attitude questionnaires relating to postpartum blues. In the SAFE group, knowledge increased by 8.5 points, from 70.5 to 79.0, while the control mean decreased from 67.5 to 64.5. Attitude increased from 67.0 to 81.4 in the intervention group and changed little (62.9 to 62.3) in controls. The analysis reports between-group p values below 0.001 for knowledge and attitude after education. In interpretation, antenatal education can help expectant mothers label common emotional experiences and identify support routes before delivery. Greater knowledge and more constructive attitudes are feasible proximal targets; neither is direct evidence that postpartum blues or depression has been prevented. The design and measurement constraints mean that associations should not be represented as definitive causal effects.

## INTRODUCTION

Postpartum blues is a common, generally transient mood disturbance after birth, whereas postpartum depression is a distinct condition requiring assessment. Psychological preparation during antenatal care can address unrealistic expectations, awareness of early warning signs and help-seeking. Programmes that combine information with supportive discussion warrant evaluation, although questionnaire outcomes do not directly measure postnatal mental health.[1,2,3]

The distinction between knowledge, attitudes, immediate physiological response and enduring patient outcomes is essential

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when interpreting educational or behavioural interventions. Measures may change because of repeated testing, increased attention, changes in care environments or clinical recovery. Consequently, a comparison group and a clearly reported measurement timetable are especially important for evaluating findings of practical nursing interest.[4,5,6,7]

We assessed whether the prespecified outcomes differed during the documented observation period in the populations and services studied. We deliberately distinguish changes over time from adjusted intergroup intervention effects, and statistical significance from clinical importance. This distinction is especially relevant when a study is conducted under routine service conditions rather than using individual randomisation.

## METHODS

### Study design and setting

The investigation used a nonrandom pretest–posttest controlled quasi-experiment. It was conducted in Saigon and Banjar Serasan primary health centres, Pontianak Timur, Indonesia, in 2026. The manuscript retains the allocation scheme described in the source and does not infer randomisation where none was reported. The study was analysed as a pragmatic evaluation of a context-specific nursing intervention, with outcomes measured over the schedule indicated in the thesis.

### Participants and allocation

The study enrolled 60 third-trimester pregnant women, with 30 at Saigon (intervention) and 30 at Banjar Serasan (control). Participants were enrolled from the stated healthcare services rather than a population-based sampling frame. Because assignment was not random and some study arms were formed at separate facilities or wards, observed arm differences may include differences in case mix, care delivery or baseline exposure. Participants' denominators are reported explicitly where the source provides coherent values.

### Intervention and comparison care

The intervention was Supportive Antenatal Care for Emotional Well-Being (SAFE): information on postpartum emotional changes, risk factors, coping, family support and self-care. The comparison condition was routine antenatal care without the SAFE module. As an implementation package, the intervention may combine content, provider contact and changes in delivery format; its separate components cannot be attributed independent effects unless the original design included a factorial or component comparison, which it did not.

### Outcome measurement

The prespecified or described measurements were knowledge and attitude questionnaires relating to postpartum blues. Outcome direction, categories and units are retained in the Results, and no additional outcome is inferred from the intervention's intended clinical benefit. In particular, a questionnaire result is not treated as proof of a later clinical endpoint; similarly, a single-session physiological response is not equated with long-term disease control.

### Statistical analysis

The documented analysis used Wilcoxon and Mann–Whitney U for knowledge; paired and independent t-tests for attitude. Two-sided statistical significance is interpreted against the study's stated 0.05 threshold. A reported $p = 0.000$ is expressed as $p < 0.001$ rather than an impossible exact probability of zero. Raw records were not supplied separately; therefore no independent confidence intervals, adjusted estimates or participant-level reanalyses were invented.

## RESULTS

In the SAFE group, knowledge increased by 8.5 points, from 70.5 to 79.0, while the control mean decreased from 67.5 to 64.5. Attitude increased from 67.0 to 81.4 in the intervention group and changed little (62.9 to 62.3) in controls. The analysis reports between-group p values below 0.001 for knowledge and attitude after education.

Table 1. Main study outcomes and changes.

| Outcome | Pre-intervention | Post-intervention / change | Additional detail |
|---|---|---|---|
| Knowledge, SAFE group | 70.5 ± 11.4 | 79.0 ± 10.1 | p < 0.001 |
| Knowledge, control group | 67.5 ± 15.5 | 64.5 ± 14.2 | p = 0.130 |
| Attitude, SAFE group | 67.0 ± 9.86 | 81.4 ± 7.35 | p < 0.001 |
| Attitude, control group | 62.9 ± 7.96 | 62.3 ± 6.36 | p = 0.452 |

A dash indicates that the specific figure was not reported or is not comparable. P values reflect the statistical results reported for this cohort.

These results are descriptive and inferential findings for the prespecified study context. The table separates pretest measurements from posttest or change measures, avoiding a reinterpretation of category denominators where the source's tabulations conflict. The direction and magnitude of each listed measure should be assessed together with its instrument and the interval between assessments.

## DISCUSSION

The most informative finding was that in the safe group, knowledge increased by 8.5 points, from 70.5 to 79.0, while the control mean decreased from 67.5 to 64.5. Although this pattern is consistent with the proposed role of the intervention, the statistical result must be interpreted in terms of the design, exposure period and measurement properties. Nonrandomised comparisons and pretest–posttest observations are useful for studying feasibility and initial signals, but they remain vulnerable to confounding and concurrent changes.[8,9,10,11]

Antenatal education can help expectant mothers label common emotional experiences and identify support routes before delivery. Greater knowledge and more constructive attitudes are feasible proximal targets; neither is direct evidence that postpartum blues or depression has been prevented. This explanation is biologically or behaviourally plausible, yet the source data do not test the mechanism directly. It is therefore more appropriate to frame the explanation as a potential pathway than as a demonstrated mediator. Future work should distinguish the core educational or behavioural content from the attention, supervision and accessibility changes that accompany the intervention.

The clinical relevance of the measured outcomes deserves separate scrutiny. A difference in test performance, confidence, adherence score, expressed emotion, pain rating or blood pressure may be worthwhile, but significance alone gives no indication of persistence, implementation cost or downstream patient benefit. Where an endpoint is an intermediate marker rather than the ultimate clinical outcome, research should include longer follow-up and objectively recorded events. Analyses should report effect estimates with uncertainty intervals in addition to p values.[12,13,14,15]

The study also has operational implications for nursing practice. Its context-specific approach can inform local training materials, patient and family communication, and service-level quality improvement. However, applying it in other populations requires adaptation to resources, literacy, staffing and cultural

norms. Implementation should be accompanied by routine monitoring, attention to patient preferences and evaluation of unintended consequences rather than simple replication of the intervention as a fixed package.

## Strengths and limitations

A strength is the investigation of an identifiable intervention in a healthcare setting with explicit outcomes. The two treatment arms were located in different health centres, raising site-level confounding. The study did not measure postpartum mood after childbirth; thus prevention of postpartum blues cannot be inferred from antepartum questionnaire changes. Additional limitations include the absence of independently available raw datasets for reanalysis and potential reporting variation between prose summaries and statistical tables. The present article therefore privileges directly traceable statistics and does not introduce reconstructed precision.

## CONCLUSION

In this study, in the safe group, knowledge increased by 8.5 points, from 70.5 to 79.0, while the control mean decreased from 67.5 to 64.5. The findings support further evaluation of the intervention in comparable clinical or community settings but should not be extended to unmeasured patient outcomes or definitive causation. Future work should standardise outcome scoring, report participant flow and between-group adjusted changes, and assess whether observed changes persist beyond the immediate study period.

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