

## The Effect of Self Compassion on Fear of Childbirth in Primigravida

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### ARTICLE INFO

#### Article History

Received: September 1<sup>st</sup>, 2025

Revised: February 5<sup>th</sup>, 2026

Accepted: April 6<sup>th</sup>, 2026

**Keywords:** Self-compassion;  
Fear of childbirth; Pregnancy

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### ABSTRACT

Fear of childbirth (FOC) is a widespread concern experienced by many pregnant, it was reported that 54.8% of first-time pregnant low FOC, and 45.2% very high fear. Self-compassion can help prevent or reduce fear during childbirth. This study aimed to determine the effect of a self-compassion intervention on the level of FOC in pregnant. This study used a quasi-experimental pretest–posttest design with a control group, involving a total sample of 60 first-time pregnant divided into an experimental group (n = 30) and a control group (n = 30) using a simple random sampling technique. This study was conducted in the Sukorejo Community Health Center in April until May 2025. T-test showed a significant decrease in the FOC level in the experimental group from m = 56.10 (SD = 20.436) to m = 31.80 (SD = 18.773) with a p value = 0.000. The control group from m = 56.17 (SD = 23.976) to m = 56.90 (SD = 22.715) with a p value = 0.481. Self-compassion is effective in reducing fear of childbirth. Self-compassion interventions can be a complementary therapy to conventional therapy that is easy for pregnant women to do.

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### INTRODUCTION

Fear of childbirth is commonly understood as negative expectations surrounding the childbirth process (X. L. Zhou et al., 2021). The incidence of maternal fear of childbirth is reported globally, ranging from 3.7% to 43.0% based on a meta-analysis (Dai et al., 2023). Other prevalences were found to be 8% in Europe, 24% in Australia, 10-25% in Asia, and 26.9% in the United States (X. Zhou et al., 2021). The prevalence of high fear of childbirth is reported to be 43% among primigravida women and 33.6% among multigravida

women (O’Connell et al., 2019). In Indonesia itself, it was reported that 54.8% of primigravida women experienced low fear of childbirth, and 45.2% experienced very high fear of childbirth (Marcelina et al., 2019).

The primary contributors to fear of childbirth include individual, biological, psychological, and social factors, such as young maternal age, nulliparity, unfavorable obstetric history, compromised mental health, anxiety disorders, previous traumatic birth experiences, limited social



support, and low socioeconomic status (Yörük & Acikgoz, 2023).

Fear of childbirth can have negative impacts on pregnant women, for example, sleep disturbances and depression during pregnancy, and negative birth experiences (Veringa et al., 2016). Complementary therapies may be considered to reduce the fear of childbirth. Cognitive-behavioral therapy and haptonomy can reduce fear (Seong et al., 2020). Many studies have shown that *self-compassion* effectively increases positive emotions and reduces symptoms of stress, anxiety, and fear (Mohebi et al., 2018). *Self-compassion* in pregnant women can help prevent or reduce excessive fear during childbirth by providing positive self-affirmations (Mohamadirizi & Kordi, 2016).

In previous studies, it was given to pregnant women in their third trimester and postpartum (Guo et al., 2020a), and it was effective in reducing fear (Papini et al., 2022a). In this study, the intervention focused on primigravida pregnant women, as they are at higher risk of experiencing fear of childbirth due to their inexperience and lack of knowledge about childbirth (Puteri Ariska et al., 2022).

Self-compassion, practiced more frequently in non-WEIRD (Western, Educated, Industrialized, Rich, Democratic) countries, supports positive mental health outcomes such as motivation, life satisfaction, and well-being, and reduces mental health problems. Practicing self-compassion in daily life can foster autonomous motivation, leading to better mental health (Kotera et al., 2023).

This study aims to analyze the effect of *self-compassion* on fear of childbirth in primigravida mothers.

## RESEARCH METHODS

This study uses a quantitative approach with a quasi-experimental research design, specifically a pretest–posttest control group design. This study was conducted in the Sukorejo Community Health Center area, Blitar City, East Java. This study was conducted in April and May 2025. Sampling was carried out using a *simple random sampling technique*, with a total of 60 participants divided into 2 intervention groups and a control group. 30 participants each.

Group intervention given self-compassion for 14 days, adapted from (Domínguez-Solís et al., 2021; Guo et



al., 2020b; Halamová et al., 2021; Neff, 2023; Randhawa & Vella-Brodrick, 2025).

Day 1: Discovering mindful self-compassion (Understanding the concept of self-compassion)

Day 2: How would you treat a friend?  
(How do you treat a friend?)

Day 3: Compassionate letter to myself  
(Angus et al., 2024)

Day 4: Practicing mindfulness

Teaching pregnant women to be fully present in the moments of pregnancy without judgment

Day 5: Transforming relationships

Managing pain or tension in relationships with partners, family, or others

Day 6: Managing difficult emotions

Helping pregnant women face difficult emotions such as fear, frustration, or exhaustion with compassion

Day 7: Practicing loving kindness

Day 8: Self-compassionate mirror

Day 9: Compassionate friend

Day 10: Self-compassion break

Day 11: Finding your compassionate voice

Day 12: Embracing your life

Helping pregnant women find moments of joy and gratitude along the journey (pregnancy).

Day 13: Living Deeply (Connecting with Life Values as an Expectant Mother, Living a Meaningful Life)

Day 14: Self-Compassion in Daily Life

For the control group, we provided consultations regarding pregnancy. The data collection instruments used were *the W-DEQ Version A questionnaire*. (Astuti & Kao, 2022; Ortega-Cejas et al., 2021; Varela et al., 2024) And a respondent characteristics sheet. Data analysis was performed using homogeneity, normality, univariate, and bivariate methods. Univariate analysis utilized frequency distribution, homogeneity analysis employed the Levene test,  $p\text{-value} > 0.05$ : Variance between groups is homogeneous, normality analysis employed the Shapiro-Wilk test, if the  $P\text{-value} > 0.05$ , the data can be distributed normally, and bivariate analysis employed the paired t-test and independent t-test  $p\text{-value} < 0.05$ . Using SPSS 25.

Ethical clearance for this study was obtained from the Health Research



Ethics Committee of Patria Husada number: 06/PHB/KEPK/325/09.25.  
Health College, Blitar, with license

## RESULTS AND DISCUSSION

Table 1 Baseline Characteristics

| Characteristics    | (n=30)           |       | (n=30)        |       | <i>p-value</i> |
|--------------------|------------------|-------|---------------|-------|----------------|
|                    | Group Experiment |       | Group Control |       |                |
|                    | F                | %     | F             | %     |                |
| Age                |                  |       |               |       | 0.071          |
| 16-20              | 1                | 3.3%  | 4             | 13.3% |                |
| 21-25              | 19               | 63.3% | 13            | 43.3% |                |
| 26-30              | 10               | 33.3% | 13            | 43.3% |                |
| Age Pregnancy      |                  |       |               |       | 0.770          |
| 1-13               | 3                | 10%   | 4             | 13.3% |                |
| 14-27              | 15               | 50%   | 16            | 53.3% |                |
| 28-40              | 12               | 40%   | 10            | 33.3% |                |
| Education          |                  |       |               |       | 0.118          |
| Elementary School  | 2                | 6.7%  | 0             | 0%    |                |
| Junior High School | 3                | 10%   | 1             | 3.3%  |                |
| Senior High School | 12               | 40%   | 15            | 50%   |                |
| University         | 13               | 43.3% | 14            | 46.7% |                |
| Work               |                  |       |               |       | 0.836          |
| Housewife          | 20               | 66.7% | 17            | 56.7% |                |
| Employee Private   | 6                | 20%   | 10            | 33.3% |                |
| Self-employed      | 4                | 13.3% | 3             | 10%   |                |

Table 1 shows the characteristics of the participants, which were largely homogeneous. The age of participants in the experimental group was predominantly 21–25 years (63.3%), while the control group was evenly divided between 21–25 and 26–30 years (43.3% each), with a homogeneity test of  $p=0.071$ . The gestational age was mostly 14–27 weeks in both groups (50% in the experimental and 53.3% in the control,  $p = 0.770$ ). The majority of

education was college (43.3% in the experimental, 45.7% in the control,  $p=0.118$ ). The most common occupation was housewife (66.7% in the experimental, 56.7% in the control,  $p=0.836$ ).



Table 2 The effect of self-compassion on fear of childbirth in the intervention group (pretest-posttest)

| FOC level | Intervention Group |          | <i>p-value</i> |
|-----------|--------------------|----------|----------------|
|           | Pretest            | Posttest |                |
| Low       | 5                  | 21       | 0.000          |
| Currently | 15                 | 8        |                |
| Tall      | 7                  | 1        |                |
| Very high | 2                  | 0        |                |
| Extreme   | 1                  | 0        |                |

Based on Table 2 shows that the experimental group, before being given the intervention, mostly experienced moderate FOC, and after being given the intervention, most were in the low category. After conducting the Paired t-test, the experimental group experienced a significant decrease with  $p = 0.000$  (significant).

Table 3 The effect of self-compassion on fear of childbirth in the Control group (pretest-posttest)

| FOC level | Control Group |          | <i>p-value</i> |
|-----------|---------------|----------|----------------|
|           | Pretest       | Posttest |                |
| Low       | 7             | 6        | 0.481          |
| Currently | 14            | 13       |                |
| High      | 4             | 6        |                |
| Very high | 3             | 4        |                |
| Extreme   | 2             | 1        |                |

Based on table 3 shows that the control group that was not given an intervention remained stable and even worsened. After conducting a Paired T-Test, the control group did not experience significant changes with  $p = 0.481$  (not significant).

Table 4 The effect of self-compassion on fear of childbirth in the intervention and control group (posttest)

| FOC level | Intervention Group (n=30) |        | Control Group (n=30) |        | <i>p-value</i> |
|-----------|---------------------------|--------|----------------------|--------|----------------|
|           | Mean                      | SD     | Mean                 | SD     |                |
| Pretest   | 56.10                     | 20,436 | 56.17                | 23,976 | 0.991          |
| Posttest  | 31.80                     | 18,773 | 56.90                | 22,715 | 0.000          |

Based on Table 4, the intervention group data show a decrease in the average FOC score from 56.10 (SD = 20.436) before the intervention to 31.80 (SD = 18.773) after the intervention. Meanwhile, in the control group, there was no significant change. The average FOC score increased

slightly from 56.17 (SD = 23.976) to 56.90. (SD = 22.715). The Independent Sample Test on the *posttest* of the experimental group and the control group showed that there was a significant difference in the posttest FOC value between the experimental and control groups, with  $p = 0.000$ .



*Self-compassion* has a significant impact because it helps primigravida mothers accept fear more gently, reduce self-criticism, and improve emotional well-being. Fear of childbirth in primigravida often arises from excessive worry, lack of knowledge, and lack of self-confidence (Papini et al., 2022a) In line with research (Shakarami et al., 2021) Focusing on differences in levels of fear of childbirth between primigravida and multiparous pregnant women, the study found that primigravida pregnant women tend to have higher fear of childbirth than multiparous pregnant women.

*Self-compassion* comprises three core components: self-kindness, which involves treating oneself with gentleness; common humanity, which entails recognizing that suffering is a shared human experience; and mindfulness, defined as a balanced awareness of the present moment (Prescott, 2023). These three components enable pregnant women to avoid excessive fear and instead face it as an acceptable part of the pregnancy process (Neff, 2023). Previous studies have demonstrated that a woman's capacity to treat herself with kindness,

remain generous and nonjudgmental toward herself, perceive her worries as part of a shared human experience among women worldwide, and maintain a balanced perspective on her emotions and circumstances enables her to experience lower levels of anxiety, even in highly threatening situations (Taubman – Ben-Ari et al., 2021)

In contrast, the control group that did not receive the intervention showed insignificant or stable changes in FOC. This indicates that without structured psychological support, fear of childbirth tends to persist, especially among primigravida mothers who have no previous birth experience.

The findings of this study are consistent with several previous studies that have demonstrated a negative association between self-compassion and fear of childbirth (Mohamadirizi & Kordi, 2016) A previous study, a three-week *self-compassion meditation intervention*, was conducted among pregnant and postpartum women. (Sareh, 2025a) The study found that this intervention successfully increased *self-compassion* and reduced feelings of shame and body dissatisfaction, indirectly contributing to reduced anxiety and fear of childbirth. This



supports the current study's finding that increasing *self-compassion* can reduce fear of childbirth (Papini et al., 2022b)

Self-compassion-based interventions, such as Mindful Self-Compassion (MSC), have been tested in the general population and shown significant results in reducing stress, anxiety, and depression.(Sareh, 2025b) In the perinatal context, an adaptation of the Mindfulness-Based Childbirth and Parenting (MBCP) program that integrates elements of self-compassion has been shown to reduce psychological distress during pregnancy.(Van der Meulen et al., 2023) In fact, a recent randomized trial, still in pre-publication, showed that eight sessions of MSC in primigravida significantly reduced FOC scores compared to a control group (Sacristan-Martin et al., 2019). Psychophysiologically, self-compassion has been shown to reduce stress responses, increase heart rate variability (HRV), an indicator of good emotional regulation, and accelerate cortisol recovery after stress. Simple exercises like self-soothing touch have also been shown to lower cortisol levels in stressful situations (Dreisoerner et al., 2021). In the context of primigravida mothers, self-compassion plays a

crucial role because the experience of first pregnancy is often fraught with fear due to lack of experience, negative stories from others, and anxiety about pain, personal safety, and the baby's safety (Seong et al., 2020) Self-compassion interventions help mothers view fear as a human experience, not a personal weakness, thereby reducing social isolation and increasing adaptive coping (Hulsbosch et al., 2023)

A negative correlation was found between *self-compassion* and *fear of childbirth* in pregnant women with gestational diabetes. They found that aspects of *self-compassion*, such as *self-kindness* and *mindfulness*, played a significant role in reducing fear of childbirth, which strongly aligns with the findings of this study (Shadab et al., 2025) Based on this evidence, self-compassion has relevant biological and psychological mechanisms for reducing FOC in primigravidas. By suppressing the activation of the threat system and improving emotion regulation, self-compassion has the potential to reduce fear (Harris, 2017)

The main strengths of this study include its focus on primigravida women, the use of a structured self-compassion intervention, and the

application of a validated measurement tool. Limitations of this study include its reliance on self-report measures, the short duration of the intervention, the lack of long-term follow-up, and the limited monitoring of participant adherence in an online format.

The results of this study imply that self-compassion is a relatively new, innovative approach applied in the perinatal context, potentially reducing the need for unnecessary medical interventions due to excessive fear. Therefore, this study has high clinical relevance, supports non-pharmacological interventions.

## CONCLUSIONS

This study shows that self-compassion effectively reduces fear of childbirth. Self-compassion helps primigravida pregnant women manage fear through acceptance, gentleness, reduced self-criticism, mindfulness, and self-kindness, thereby improving emotional well-being and reducing fear.

Self-compassion interventions are non-pharmacological interventions that pregnant women can easily self-administer early in pregnancy as a complementary therapy to conventional

therapies. They can improve mental health during pregnancy.

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