

The role of self-compassion and adaptive behavior in the well-being of pregnant mothers

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Abstract. Women tend to experience mental health problems that affect their well-being due to changes in physical and psychological conditions during pregnancy. The purpose of this study was to determine the role of self-compassion and adaptive behavior on well-being in pregnant women. This research method is a quantitative correlational design to know the role of self-compassion and adaptive behavior on well-being in pregnant women, and the data were analyzed using multiple linear regression. The subjects of the study were pregnant women who were recruited using a cross-sectional survey design based on sample opportunity, with pregnant women subjects who were asked to fill out the measuring instrument via Google Form. The instruments used were the Self-compassion Scale (SCS), Adaptive Behavior Scale, and Well-being Scale. The results showed that Self-compassion affected well-being, adaptive behavior had an effect on the well-being variable, and the combination of self-compassion and adaptive behavior had a significant effect on well-being. The implications of this study are to enrich the understanding of factors that influence the well-being of pregnant women and the need for self-compassion and adaptive behavior training to improve the well-being of pregnant women.

1 Introduction

Women tend to experience intense mood swings, anxiety, or more severe stress, worry, loneliness, and depression due to exposure to less stable environmental risks and changes in themselves physically and psychologically [1]. Pregnant women who have a history of difficulties and health problems are potentially at greater risk to their mental health and more disturbances to their prenatal stress physiology. These psychological issues negatively impact not only the mother but also the fetus, potentially leading to long-term issues for the child. Well-being is not just about the mother's happiness,

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but it's also a preventative measure to mitigate these negative health outcomes for both the mother and the baby. Well-being in this context is a crucial state that needs to be supported and maintained throughout pregnancy to ensure a healthier transition to motherhood and better outcomes for the child.

The causes of psychological distress in pregnant women are related to the health of the fetus or baby and concerns related to the birth process, family conditions and parenting patterns, uncertainty of housing, financial conditions, availability of care and breastfeeding facilities, and concerns related to death and loss [2]. The condition of maternal mental health is influenced by environmental conditions that do not support mothers and babies in meeting essential needs safely and comfortably, the need for space to share experiences and practices with other mothers, and the central role of partners and family support.

The psychological condition of pregnant women affects the condition of the fetus or baby in the long term. Exposure to environmental risks and changes in self before giving birth are associated with increased anxiety, depression, and somatization in offspring [3]. High levels of prenatal stress in women are associated with longer gestational age, higher body mass index and obesity levels, and poorer cognitive, motor, socio-emotional, and behavioral outcomes [4]. Women need their ability to adapt to changes that occur in themselves physically and psychologically. Pregnant women respondents feel the need to have adaptive abilities to encourage them to be resilient and more easily adapt to conditions. Adaptive behavior can increase preparedness for change and reduce the impacts caused by change, as well as increase the ability to manage impacts. Adaptive behavior is influenced by internal awareness of risk, communication mechanisms, and the external environment. Individuals with high awareness of risk tend to have positive adaptive behavior [5].

Self-compassion is associated with adaptive behavior and adaptive psychology in people living with health problems. Adaptive behaviors include identifying the need for lifestyle changes, increased physical activity, self-management, use of health services, managing diet or exercise, and prioritizing health [6]. Self-compassion is associated with health behaviors and adaptive emotional reactions to chronic health conditions. Other studies have shown that cumulative life stress experiences and the severity of depressive symptoms can be reduced among individuals who have self-compassion [7].

Individuals with high self-compassion scores are associated with increased self-management behaviors as a form of adaptation as new mothers, and subsequently have an impact on psychological well-being [8]. Individuals with health problems and self-compassion tend to seek medical help as soon as possible when experiencing pain symptoms. In addition, self-compassion can reduce parenting stress when adapting as a mother, so that the mother-infant bond is established. Therefore, this researcher aims to determine the role of self-compassion and adaptive behavior on well-being in pregnant women. This study hypothesizes that self-compassion and adaptive behavior together (interaction) or moderately (one influences the strength of the other relationship) predict well-being in pregnant women. The results of this study are expected to contribute to scientific knowledge and intervention practices to prevent and address psychological problems in pregnant women in disaster-risk areas.

2 Methods

2.1 Participants

This study used a cross-sectional survey design based on sample opportunity. Participants in this study were pregnant women who were asked to fill out a questionnaire consisting of measuring instruments for Adaptive Behavior, Self-compassion, and Well-being, and demographic data, namely gestational age, pregnancy, last level of education, and employment status. This survey was conducted online using the Google Forms platform, where each respondent could fill out the questionnaire independently.

In this study, participants were carefully selected based on specific criteria to ensure the relevance and validity of the research findings. The inclusion and exclusion criteria were established to define the characteristics of the individuals who were eligible to participate. Demographic information, such as age, gender, and other relevant factors, was collected to provide a comprehensive overview of the study sample.

2.2 Research Instrument

The Self-compassion measuring instrument is used to determine Self-compassion in pregnant women. The Self-compassion scale (SCS) was developed by Kristin D. Neff [9], which consists of 26 items formed based on 6 self-compassion factors, namely self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification, and is a valid measurement tool psychometrically and theoretically [9]. This measuring instrument was then translated and tested for reliability and validity in Indonesian with five response options ranging from never to often. The SCS or Self-Compassion Scale (SWD) has good validity and reliability, and has the same theoretical model as the SCS after being tested psychometrically using confirmatory factor analysis (CFA), construct validity test, and Cronbach's Alpha coefficient [10].

The Adaptive Behavior Measuring Tool is used to measure adaptive behavior in pregnant women. Aspects or dimensions of adaptive behavior consist of conceptual, social, and practical skills [11] which were then developed into 21 statement items. Respondents were asked to provide an answer to each statement that best suited their condition, with the answer choices being strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5).

The Well-being measurement tool is used to determine Well-being in pregnant women. This measurement tool consists of 23 question items. Each statement can be answered by choosing one of 11 alternative answers, ranging from 0 (never) to 10 (always). Respondents are asked to answer independently according to the representative conditions faced during pregnancy [12]. Furthermore, demographic data consists of gestational age, pregnancy, last level of education, and employment status. Gestational age is grouped into trimesters 1, 2, and 3, and based on the first, second, and third pregnancies. Education level consists of three categories, namely junior high school/high school, undergraduate, and postgraduate, as well as categories of working and non-working mothers.

2.3 Data Analysis Techniques

This study uses a quantitative correlational method to test the influence of variables in answering the problem formulation and testing the hypothesis that has been set

by the researcher. Data were analyzed using multiple linear regression and presented in the form of tables and descriptions.

3 Result

The total respondents in this study was 54 pregnant women. Gestational age was grouped into trimester 1 (12 respondents), 2 (25 respondents), and 3 (17 respondents), and based on the first pregnancy (37 respondents), second (13 respondents), and third (4 respondents). Education level consisted of three categories, namely junior high school/high school (13 respondents), undergraduate (33 respondents), and postgraduate (8 respondents), as well as the categories of working mothers (32 respondents) and non-working (22 respondents) (Table 1).

Table 1. Total (N), mean, and standard deviations ($\pm SD$) scores on Self-compassion, Adaptive Behavior, and Well-being, and tests of significance (ρ -values) of variables by demographic groupings.

Characteristics	N=54	Mean ($\pm SD$)			ρ -Value		
		Self-Compassion	Adaptive Behavior	Well-Being	Self-Comparison	Adaptive Behavior	Well-Being
Gestational Age					0.589	0.104	0.739
1st trimester	12	79.41 (14.01)	90.91 (9.85)	168.91 (20.40)			
2st trimester	25	76.84 (14.48)	84.68 (10.06)	165.28 (20.51)			
3st trimester	17	74.17 (11.60)	84.05 (6.98)	162.76 (21.79)			
Pregnancy Number					0.194	0.170	0.569
First	37	77.16 (13.60)	84.27 (9.23)	165.62 (20.04)			
Second	13	78.46 (7.98)	89.84 (9.50)	167.53 (22.12)			
Third	4	65.00 (22.55)	87.75 (8.34)	155.00 (23.94)			
Education					0.117	0.023	0.011
Junior/ Senior high school	13	69.92 (17.56)	86.60 (9.69)	168.97 (17.61)			
Bachelor's Degree	33	78.97 (11.70)	91.50 (8.14)	173.37 (16.42)			
Master's Degree	8	77.50 (9.95)	80.53 (6.87)	151.00 (24.33)			
Employment					0.264	0.003	0.003
Yes	32	78.28 (10.46)	88.93 (9.47)	172.03 (15.22)			
No	22	74.09 (16.80)	81.40 (7.41)	155.50 (23.70)			

The mean shows the average value of each variable for each demographic group, while the Standard Deviation (SD) shows how spread out the data is from the av-

erage value. The smaller the Standard Deviation (SD), the closer the data is to the average value. Based on the demographic data of pregnancy age, the first trimester has the highest mean score on all main variables, namely Self-compassion (79.41 (14.01)), Adaptive Behavior (90.91 (9.85)), and Well-being (168.91 (20.40)). The second pregnancy category has the highest mean value on all main variables, namely Self-compassion (78.46 (7.98)), Adaptive Behavior (89.84 (9.50)), and Well-being (167.53 (22.12)). The group of respondents with the last education of S1 has the highest mean value on all main variables, namely Self-compassion (78.97 (11.70)), Adaptive Behavior (91.50 (8.14)), and Well-being (173.37 (16.42)). Furthermore, the group of mothers with working status had the highest mean values for all main variables, namely Self-compassion (78.28 (10.46)), Adaptive Behavior (88.93 (9.47)), and Well-being (172.03 (15.22)) (Table 1).

The p-value is used to test whether there is a significant difference between demographic groups in terms of self-compassion, adaptive behavior, and well-being scores. If the p-value is less than or equal to 0.05, then the difference between the groups is considered statistically significant. This means that the difference did not occur by chance, but rather, there are other factors (in this case, demographic variables) that influence the difference. Table 1 shows that the p-values for the Adaptive Behavior (0.023) and Well-being (0.011) variables are less than or equal to 0.05 in the respondent group based on education level. Furthermore, the p-values for the Adaptive Behavior (0.003) and Well-being (0.003) variables are less than or equal to 0.05 in the respondent group based on employment status (Table 1). This means that there is a significant difference in the Adaptive Behavior and Well-being scores in pregnant women based on education level and employment status.

Table 2. Linear Regression Test: The Influence of Self-compassion and Adaptive Behaviour on Well-being

Predictors	Outcome	ρ -Value	R	R^2
Self-compassion and Adaptive Behaviour	Well-being	0.001	0.621	0.385
Self-compassion	Well-being	0.009	0.362	0.131
Adaptive Behaviour	Well-being	0.001	0.543	0.295

Table 2 presents the results of linear regression analysis aimed at seeing how strong the influence of Self-compassion and Adaptive Behavior variables is on the Well-being variable at a significance level of 0.05. This means that if the p-value is smaller or less than 0.05, then the difference between the variables is considered statistically significant. It is known that the p-value is <0.001, indicating that overall, the combination of Self-compassion and Adaptive Behavior has a significant influence on Well-being. This means that the higher the level of Self-compassion and Adaptive Behavior of pregnant women, the higher the level of Well-being. The Self-compassion variable affects the Well-being variable with a p-value of 0.009. This means that the higher the level of Self-compassion of pregnant women, the higher the level of Well-being. Furthermore, the Adaptive Behavior variable affects the Well-being variable with a p-value of <0.001. This means that the higher the level of Adaptive Behavior of pregnant women, the higher the level of Well-being.

Table 2 shows that both Self-compassion and Adaptive Behavior have a statistically significant effect on Well-being. Individually, Adaptive Behavior has a stronger relationship (R=0.543, R^2 =0.295) and explains a larger variance in Well-being compared to Self-compassion (R=0.362, R^2 =0.131). When both predictors are combined,

their ability to explain variance in Well-being increases substantially ($R^2=0.385$), indicating that both variables are important predictors of Well-being.

4 Discussion

In the context of pregnancy, negative experiences may arise due to several factors, such as hormonal changes, physical discomfort, altered sleep patterns, and increased fatigue [1,3]. Additionally, from a psychological perspective, pregnant women tend to experience anxiety as they undergo the transition to motherhood. This can lead to stress and anxiety when facing childbirth and beginning a new life as a mother. Such experiences may result in stress, anxiety, and even depression. These psychological conditions can negatively impact the unborn baby, potentially leading to premature birth, low birth weight, low Apgar scores, and smaller head circumference [13]. To minimize these effects, several factors can help pregnant women achieve a sense of well-being during the transitional period, including self-compassion and adaptive behavior, which have been shown to significantly support maternal well-being.

This study shows that self-compassion significantly influences well-being in pregnant women. Self-compassion can help people have more positive aspects of life, including greater happiness and well-being, and lower symptoms of depression and anxiety. This finding strengthens the results of research conducted by Huynh et al. [14], parents who have higher self-compassion scores during pregnancy have higher quality intimate relationships. These intimate relationships include emotional closeness in the relationship, adaptive conflict management and resolution, high-quality support in response to stress, and high levels of respect and acceptance for each other [14]. Furthermore, self-compassion plays a role in developing attachment security and relationship quality, which is one aspect of well-being. Specifically, pregnant women who have higher attachment anxiety report lower levels of self-compassion and, in the long term, can damage various dimensions of the relationship [14]. When pregnant women are faced with factors that cause anxiety due to preparations for giving birth and starting to enter the transition period of becoming a new mother, when a pregnant woman has high self-compassion, then the pregnant woman is able to more easily recognize the forms of negative emotions that are felt [14]. Compared to having a negative perception, being self-critical, when faced with stress, individuals who have high self-compassion will show self-kindness behavior and think optimistically.

Self-compassion is a form that helps individuals achieve well-being. The results of this study explain that the level of self-compassion has a significant influence on the level of well-being in pregnant women. The results of this study support the previous findings [8], which stated that higher levels of self-compassion are also associated with better medical outcomes and well-being. When individuals engage in self-kindness during a stressful event, it facilitates a more positive appraisal of the situation. Further explanation is known that self-compassion is significantly and often associated with mental and physical health outcomes for adults. This is related to overall self-management and self-management behaviors, such as physical activity, use of health services, and glucose management [8]. This also explains that self-management behaviors, which are part of the practical skills of adaptive behavior, are related to well-being in adults. The results of this study indicate that there is a significant influence of self-compassion on well-being in pregnant women, so researchers recommend self-compassion training to improve well-being in pregnant women. These research findings prove that self-compassion can provide mental health benefits (improving

well-being) in groups of adults with chronic conditions. The results show a statistically significant difference in adaptive behavior and well-being scores among pregnant women based on their education level. The group with a bachelor's degree had the highest mean scores for both adaptive behavior and well-being. This suggests that higher education may be associated with better adaptive skills and a greater sense of well-being during pregnancy. Working mothers had higher mean scores for both adaptive behavior and well-being compared to non-working mothers. This could be because working provides a sense of purpose, financial security, and social connections that contribute to better mental health and well-being. It may also indicate that women who are able to maintain employment during pregnancy have stronger adaptive skills to begin with.

Self-compassion not only enhances individuals' awareness of stressful events but also interacts significantly with their capacity for adaptive behavior. Previous research has demonstrated that individuals who exhibit adaptive behavior, particularly in the context of high stress more likely to respond positively and constructively to a stressor [5]. When pregnant women perceive stressful conditions as stimuli that activate adaptive responses, they are more inclined to engage in reflective processes and evaluate their experiences in order to formulate appropriate adaptive strategies. In the context of pregnancy, pregnant women undergoing the transition to motherhood must adjust to various physical, emotional, and psychological changes, including preparation for childbirth and the responsibilities of parenting. This transitional period inherently demands adaptive capabilities. When individuals are equipped with adaptive skills, they are more capable of navigating these new circumstances, thereby reducing the impact of the stressor. Reduced stress levels, in turn, contribute to the achievement of psychological well-being. This is further supported by empirical findings indicating that adaptive behavior is associated with improved self-management and prioritization of health behavior.

Moreover, the findings of the current analysis suggest that the interaction between self-compassion and adaptive behavior exerts a stronger influence on well-being than either factor alone. Self-compassion provides a psychological foundation for anticipating and interpreting stressors, thereby facilitating effective coping strategies [5]. Adaptive behaviors represent an inherent human nature. Previous studies have also shown a positive correlation between self-compassion and adaptive behavior [8], suggesting that pregnant women who practice self-compassion are more inclined to approach stressful situations with problem-solving strategies rather than self-criticism. In the context of pregnant women, those who demonstrate self-compassion, through self-kindness, understanding, and acceptance, are more likely to focus on self-regulation strategies. This promotes the development of adaptive responses such as engaging in educational programs, seeking information, or sharing with others. These proactive efforts serve to enhance their preparedness for childbirth and the transition to motherhood. Consequently, by cultivating both self-compassion and adaptive behavior, pregnant women are better equipped to manage stress effectively and attain a state of well-being [15].

5 Conclusion

Pregnant women tend to experience mental health problems that affect their well-being due to changes in physical and psychological conditions during pregnancy. The result of this study shows that self-compassion, adaptive behavior, and the combi-

nation of self-compassion and adaptive behavior significantly affects well-being. The interaction or combination of self-compassion and adaptive behavior has a greater influence on predicting well-being among pregnant women. Pregnant women often face multiple challenges during pregnancy, including preparing for childbirth and transitioning into parenthood, which may increase the risk of psychological disturbances such as stress, anxiety, and depression. These conditions can negatively impact their overall well-being. However, as discussed in this study, both self-compassion and adaptive behavior have been shown to support pregnant women in achieving well-being, even when confronted with stressful events.

6 Implication

The results of this study enrich the understanding of the factors that affect the well-being of pregnant women, especially in the context of physical and psychological changes during pregnancy. Practically, the results of this study can be a basis for developing mental health support programs for pregnant women and determining public health policies. In addition, there is a need for self-compassion skills training and adaptive behavior, with the need to adjust based on demographic conditions such as education level and employment status. However, this study has several limitations. First, the research was conducted with a limited number of participants, highlighting the need for replication studies to confirm the findings. Second, this study did not include internal or external factors that may influence the dynamics between self-compassion and adaptive behavior in relation to well-being. Future research should explore the role of spouse support or family, as well as investigate specific forms of adaptive behavior employed by pregnant women during the transitional period. Third, longitudinal studies are needed to obtain more comprehensive and robust results.

Acknowledgements: The authors would like to thank Maharesigana University of Muhammadiyah Malang and MDMC East Java for their support.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Data Availability Statement: The data supporting the findings are available from the corresponding author upon reasonable request.

Authors' Contributions Statement: SSF was responsible for developing the ideas and providing oversight and mentorship, while NH was responsible for designing study methodology, providing materials and instruments, authoring the first version of the manuscript, and managing project logistics. AIB was verifying the reproducibility of the results and reviewing and editing the manuscript for intellectual content.

Competing Interest: The authors declare that they have no conflict of interest.

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